

North-Eastern Hill University



Forty Second
Annual
Report



2015-2016



Forty Second

Annual Report

North-Eastern Hill University

Shillong

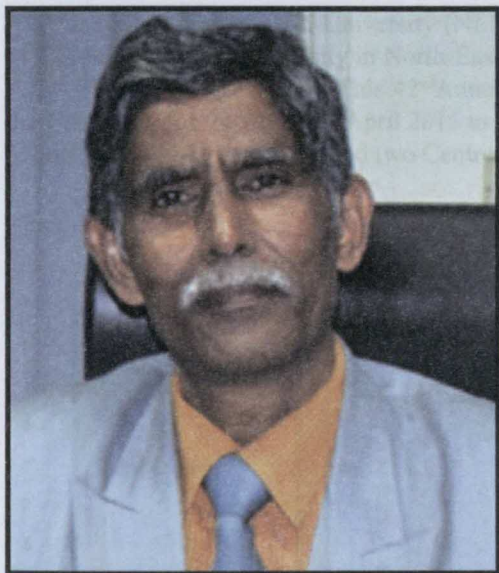
Forty Second

Annual Report



2015 – 2016

From the Vice-Chancellor's Desk



Greetings from North-Eastern Hill University!

The 43rd year of existence of North-Eastern Hill University has seen much that has been accomplished in the year 2015-2016 by way of teaching, research and service to the people. This Annual Report presents an encouraging picture, though the continuing pursuit of excellence means that there is yet more that may be expected of NEHU.

The eight Schools of the University have 44 teaching departments and two centres, located in the Shillong and Tura campuses. The total of 335 teachers and 5,271 students leads to a very favorable teacher-student ratio of 1:15. In addition, the 64 affiliated colleges have 57,139

students enrolled. 1,420 students were awarded degrees/diplomas from NEHU along with 8,164 students from affiliated colleges.

Research has seen an upsurge this year, with 273 papers published in India and 251 abroad. The NEHU faculty held 10 international and 49 national/regional symposia or conferences. 153 research projects are listed as new/completed/ongoing supported by various government funding agencies. This enhancement of research activity is promising indeed.

The prospect for continual growth and development of NEHU calls for augmented resources through filled posts, increased financial support and internal revenue, and above all greater commitment towards excellence on the part of the academic community. The teachers and non-teaching staff of the University are to be thanked for all their endeavours towards this end. I also express my thanks to the Editorial Board led by Prof. R. H. Duncan Lyngdoh for their efforts in bringing out this Annual Report for the perusal and information of all readers.

A handwritten signature in black ink, appearing to read 'S. K. Srivastava'.

S. K. Srivastava

Executive Summary

The North-Eastern Hill University (NEHU), established in 1973 by Act of Parliament, is the oldest Central University in North-East India with headquarters at Shillong and a Campus at Tura in the Garo Hills. This 42nd Annual Report presents the activities and achievements of the University for the period 1st April 2015 to 31st March 2016. The University is comprised of eight Schools with 44 Departments and two Centres as shown in Figure 1 below:

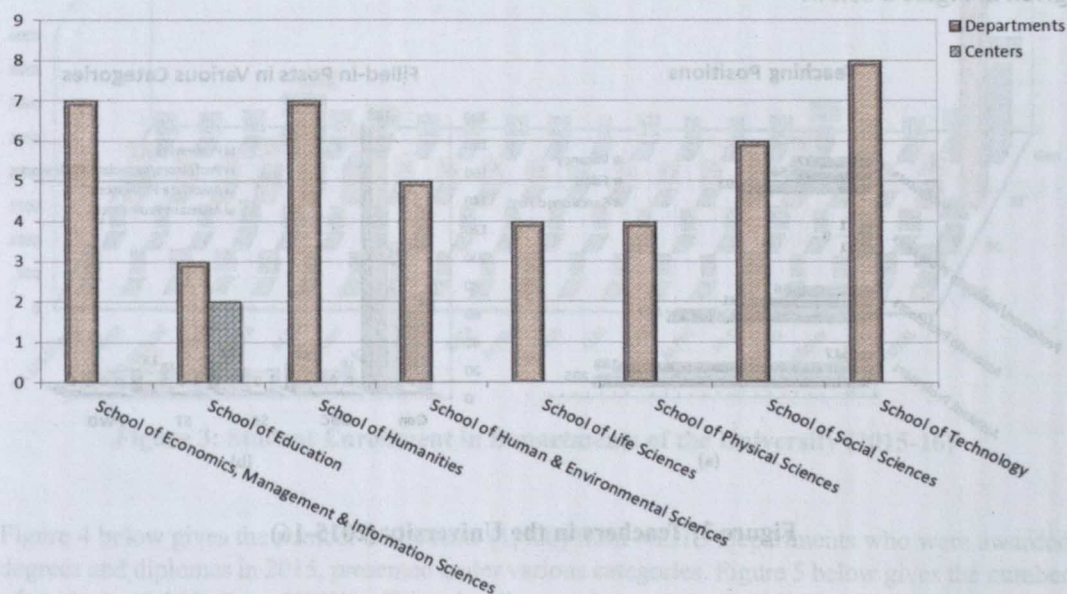


Figure 1: Schools of the University

Out of these 44 departments, nine departments are situated at Tura Campus, Tura. Postgraduate, Research and Undergraduate programmes are conducted in the various departments of NEHU. Many departments are supported by Central Government funding schemes like the Special Assistance Programme of the UGC and the FIST Programme of the Department of Science and Technology. Two departments (Botany and Chemistry) are recognized as Centres for Advanced Studies by the UGC. A large number of departments have collaborative programmes with other reputed institutes within and outside India. The University also has 64 colleges affiliated to it. These include North

Eastern Indira Gandhi Regional Institute of Health & Medical Science (offering MBBS and MD/MS courses) and some minority institutions.

The University also runs a number of Central Services including the Central Libraries, Voice & Data Networks, Health Centres, Placement Cells and Student's Welfare Cells (one each at the Shillong and Tura Campuses), besides the UGC-Human Development Centre, Bioinformatics Centre, Computer Centre, Hindi Cell, Equal Opportunity Cell, IQAC Cell, NSS Cell, Publication Unit, Sophisticated Analytical Instrument Facility, Sports Department, Women's Cell, Campus Development Department and Career and Counseling Cell (all at Shillong) which provide centralized services related to educational & research activities and also to the health, sports and general welfare of the University community.

At present, the University has 335 teachers in position under different categories of appointment as given in Figure 2 below:

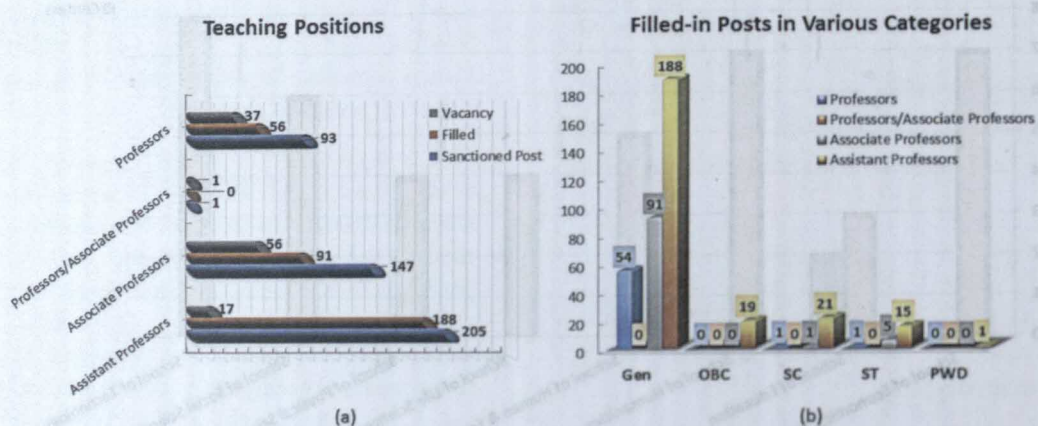


Figure 2: Teachers in the University (2015-16)

During 2015-16, NEHU Faculty organized 59 conferences/ symposia/ seminars/ workshops of which 49 were National or regional and 10 were International. A total of 389 presentations were made in such National and regional events, and 124 in such International events. Publications by faculty included 273 research papers in journals published in India and 251 in journals published abroad. A total of 56 books authored/edited by NEHU faculty were published, and there were 250 book chapters or contributions in Proceedings of Seminars/ Conferences etc.

Besides teaching and extension activities, the faculty was also actively engaged in 153 funded research projects during the period under report. Of these, 46 projects were completed, 14 new projects were sanctioned and 93 projects are ongoing. These projects are/were supported by various funding agencies like UGC, DST, DBT, CSIR, DRDO, ICMR, DAE (BRNS), ICSSR, ICAR, NEC etc.

NEHU is a leading University of North East India which attracts students from North-East India, around the country, as well as many international scholars. Enrollments in NEHU departments for 2015-2016 (Figure 3) include a total of 3899 students for Degrees at the UG/PG level, 913 research scholars at the M.Phil/Ph.D level (including 18 foreign scholars) and 459 students for diploma and certificate courses. This net total of 5,271 university students leads to a teacher-student ratio of 1:15. In addition, a total of 57,139 students are enrolled in Colleges affiliated to NEHU during 2015-16, thus giving a total student population of 62,410.

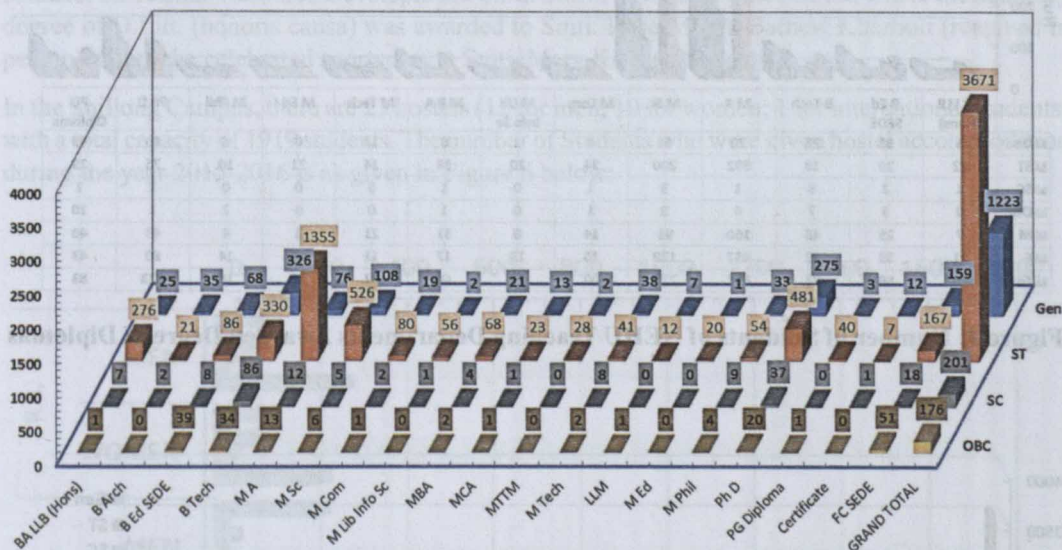


Figure 3: Student Enrollment in Departments of the University (2015-16)

Figure 4 below gives the number of students (1,420) from NEHU Departments who were awarded degrees and diplomas in 2015, presented under various categories. Figure 5 below gives the number of students (8,164) from NEHU-affiliated colleges who were awarded degrees and diplomas in 2015, presented under various categories. Thus, a net total of 9,584 students were awarded degrees/diplomas in the period under report.

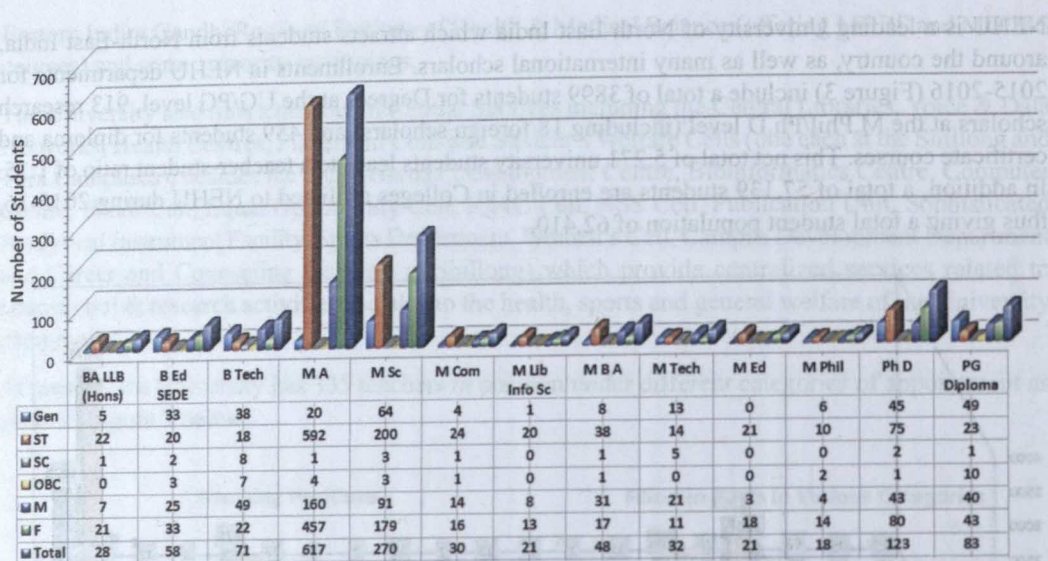


Figure 4: Number of Students of NEHU Teaching Departments Awarded Degrees/ Diplomas

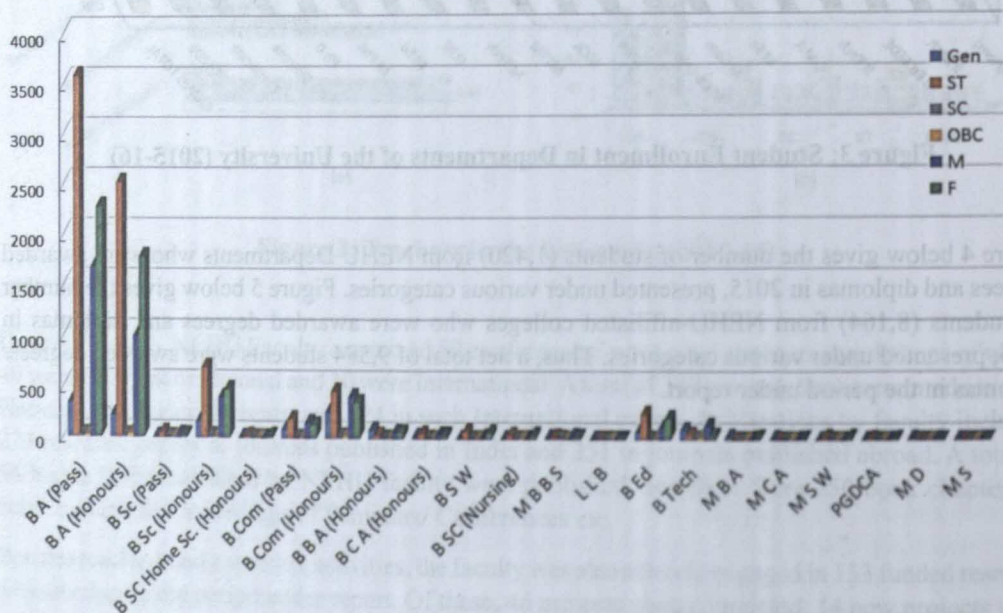


Figure 5: Number of Students of NEHU Affiliated Colleges Awarded Degrees/ Diplomas

A total of 813 research scholars are registered for the Ph.D. programme and 100 for the M.Phil. programme, all receiving one or the other research fellowship. 303 Ph.D. scholars and 72 M.Phil. scholars received the UGC Non-Net Fellowship, though 32 Ph.D. scholars surrendered this. During 2015-2016, many research scholars received the CSIR-UGC-NET Fellowship, besides also getting other fellowships like Rajiv Gandhi Fellowship/ Maulana Azad National Fellowship /ICSSR Fellowship/ UGC Meritorious Fellowship etc.

The Twenty Third Convocation of the University was held on 29th March 2016, with the then Union Minister for Human Resource Development. Smti. Smriti Z. Irani as Chief Guest, where the honorary degree of D.Litt. (honoris causa) was awarded to Smti. Rose Milian Bathew Kharbuli (received in person) and to the celebrated sportsperson Smti. Mary Kom (in absentia).

In the Shillong Campus, there are 23 hostels (12 for men; 10 for women; 1 for international students) with a total capacity of 1919 students. The number of Students who were given hostel accommodation during the year 2015-2016 is as given in Figure 6 below:

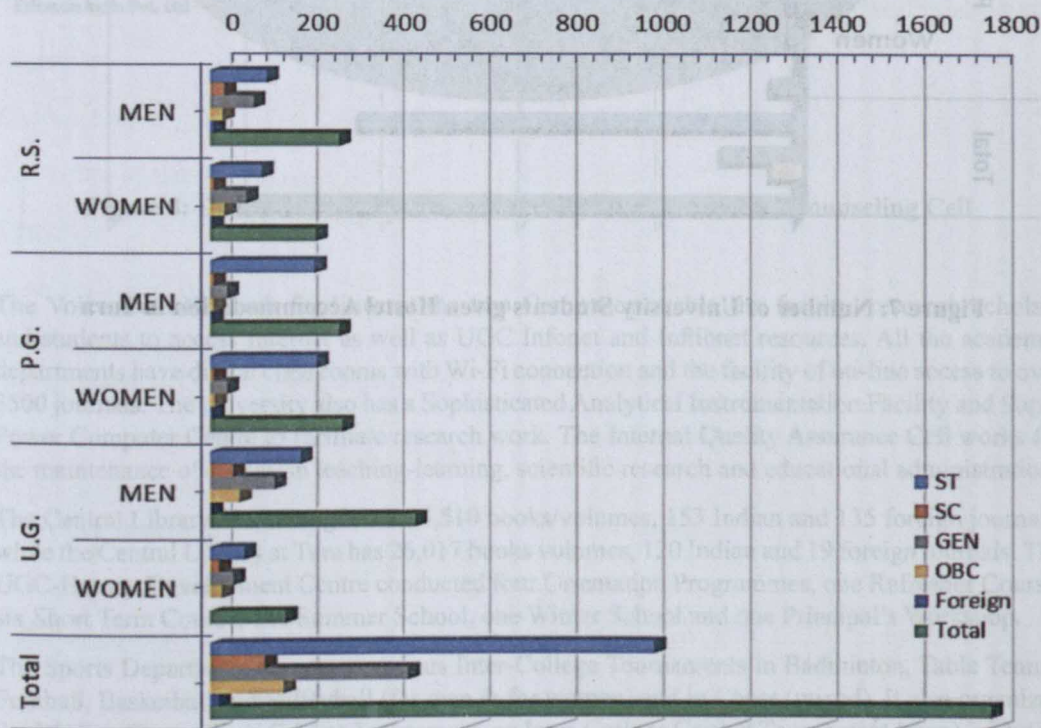


Figure 6: Number of University Students Given Hostel Accommodation in Shillong

In the Tura Campus, the numbers of students residing in the hostels during 2015-2016 are as given in Figure 7 below:

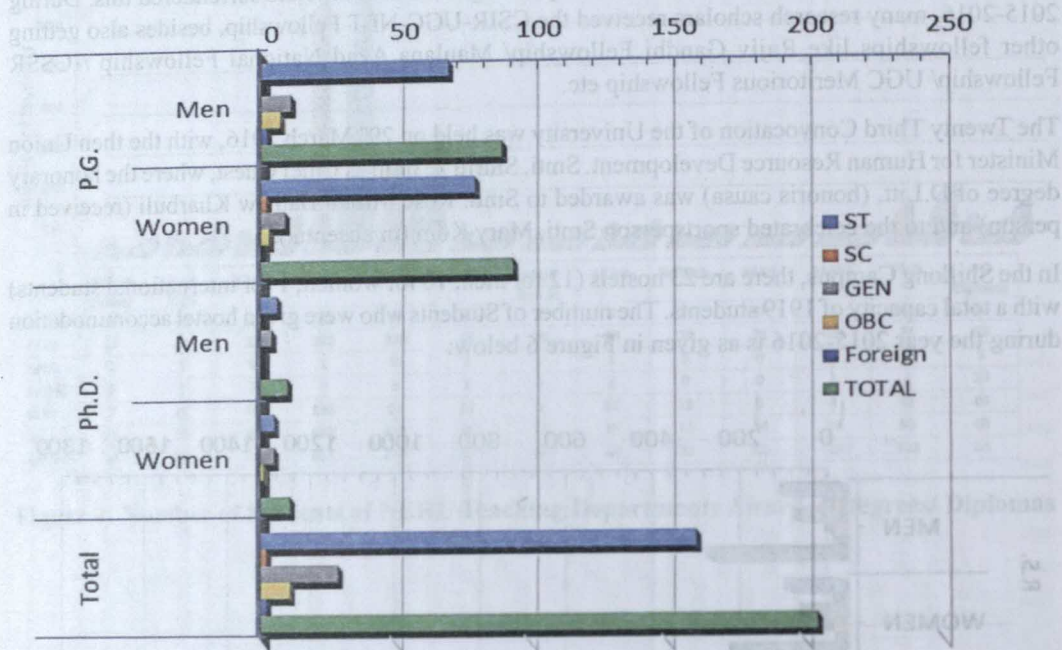


Figure 7: Number of University Students given Hostel Accommodation in Tura

Details of NEHU students placed in various concerns and establishments through the Career and Counseling Cell during 2015-2016 are summarized in Figure 8 below:

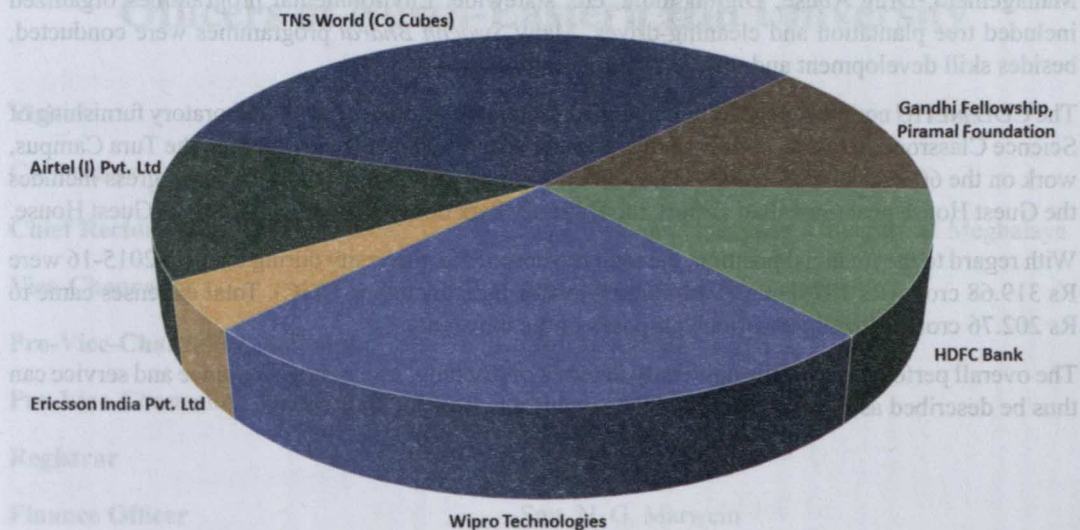


Figure 8: Distribution of Placements through the Career and Counseling Cell

The Voice Data Network facilities at the two Campuses enable the faculty, research scholars and students to access Internet as well as UGC Infonet and Inflibnet resources. All the academic departments have digital class rooms with Wi-Fi connection and the facility of on-line access to over 3500 journals. The university also has a Sophisticated Analytical Instrumentation Facility and Super Power Computer Centre to facilitate research work. The Internal Quality Assurance Cell works for the maintenance of quality in teaching-learning, scientific research and educational administration.

The Central Library at Shillong has 2,84,510 books/volumes, 153 Indian and 135 foreign journals, while the Central Library at Tura has 26,017 books volumes, 120 Indian and 19 foreign journals. The UGC-Human Development Centre conducted four Orientation Programmes, one Refresher Course, six Short Term Course, one Summer School, one Winter School and one Principal's Workshop.

The Sports Department organized various Inter-College Tournaments in Badminton, Table Tennis, Football, Basketball and Volleyball (for men & for women) and in Chess (mixed). It also organized the 3rd Vice-Chancellor's Cricket Tournament, an Inter-College Cricket Tournament (men), an Inter-College Cross-Country Run and a Yoga-cum-fitness Camp. NEHU participated also in East Zone Inter-University Tournaments in Table Tennis, Badminton and Chess Tournaments (men & women) at various places.

The NSS Cell of NEHU conducted various social welfare events like blood donation, training and awareness programmes. 22 Camps on “Healthy Youth for Healthy India” were organized in various places in Meghalaya. The Cell also coordinated workshops and seminars on topics like Disaster Management, Drug Abuse, Digital India, etc. statewide. Environmental programmes organized included tree plantation and cleaning drives. Many *Swachh Bharat* programmes were conducted, besides skill development and village welfare programmes.

The CDD NEHU completed the following infrastructural development work: Laboratory furnishing of Science Classroom Cluster, 1st floor above animal house, and hostel renovation. In the Tura Campus, work on the 60-seater MBA Hostel with warden quarters was completed. Work in progress includes the Guest House near Guwahati airport, the Butterfly Park dome and the Tura Campus Guest House.

With regard to the financial position, the total receipts of the university during the year 2015-16 were Rs 319.68 crore (Rs 187.08 crore from the Govt. of India including UGC). Total expenses came to Rs 202.76 crore utilized for various purposes of the university.

The overall performance of the university in terms of teaching, research, governance and service can thus be described as excellent, thanks to the manifold efforts of all involved.

Officers of North-Eastern Hill University

Visitor	Shri. Pranab Mukherjee, President of India
Chancellor	Prof. André Betèille
Chief Rector	Shri. V. Shanmuganathan, Governor of Meghalaya
Vice-Chancellor	Prof. Sri Krishna Srivastava
Pro-Vice-Chancellor (Shillong)	Prof. H. Lamin
Pro-Vice-Chancellor (Tura)	Prof. G. Singaiah
Registrar	Dr. J. N. Nayak
Finance Officer	Smt. N. G. Marwein
Controller of Examinations	Dr. L. Cajee
Librarian	Shri. F. R. Sumer
Dean Students' Welfare	Prof. H. Kayang
Dean, School of Economics, Management & Information Sciences	Prof. B. Misra
Dean, School of Education	Prof. S. M. Sungoh
Dean, School of Human and Environmental Sciences	Prof. D. K. Nayak
Dean, School of Humanities	Prof. (Mrs) B. War
Dean, School of Life Sciences	Prof. R. Sharma
Dean, School of Physical Sciences	Prof. (Mrs) B. M. Jyrwa
Dean, School of Social Sciences	Prof. F. A. Qadri
Dean, School of Technology	Prof. (Mrs) P. V. Koparkar

Members of the Editorial Board

R. H. D. Lyngdoh	-	Chairman
P. V. Koparkar	-	Member
B. Misra	-	Member
F. A. Qadri	-	Member
R. Khongsdier	-	Member
M. M. Mazumdar	-	Member
S. Dkhar	-	Member
D. Syiem	-	Member
H. Kayang	-	Member
S. M. Sungoh	-	Member
Amena Passah	-	Member
L. J. Singh	-	Member
R. A. Syngkon	-	Member
B. Shylla	-	Member
R. K. Ram	-	Member
Om Prakash	-	Member

CONTENTS

From the Vice-Chancellor's Desk	v
Executive Summary	vii
Officers of North-Eastern Hill University	xv
Members of the Editorial Board	xvi
 I. School of Economics, Management & Information Sciences	 1
Department of Commerce	2
Department of Economics	6
Department of Library & Information Science	18
Department of Management (Tura Campus)	23
Department of Journalism and Mass Communication	36
Department of Tourism and Hotel Management	38
Department of Agribusiness Management & Food Technology (Tura Campus)	42
 II. School of Education	 48
Department of Adult and Continuing Education	49
Department of Education	55
Department of Education (Tura Campus)	72
Centre for Distance Education	77
Centre for Science Education	80
 III. School of Humanities	 83
Department of English	84
Department of English (Tura Campus)	95
Department of Garo (Tura Campus)	100
Department of Hindi	107

	Department of Khasi	113
	Department of Linguistics	122
	Department of Philosophy	129
IV.	School of Human and Environmental Sciences	136
	Department of Anthropology	137
	Department of Environmental Studies	147
	Department of Geography	154
	Department of Rural Development and Agricultural Production (Tura Campus)	165
	Department of Horticulture (Tura Campus)	169
V.	School of Life Sciences	175
	Department of Biochemistry	176
	Department of Biotechnology and Bioinformatics	186
	Department of Botany	197
	Department of Zoology	213
VI.	School of Physical Sciences	227
	Department of Chemistry	228
	Department of Mathematics	240
	Department Physics	244
	Department of Statistics	249
VII.	School of Social Sciences	252
	Department of Cultural and Creative Studies	253
	Department of History	259
	Department of History and Archaeology (Tura Campus)	265
	Department of Law	269

	Department of Political Science	277
	Department of Sociology	286
VIII.	School of Technology	292
	Department of Architecture	293
	Department of Biomedical Engineering	296
	Department of Basic Sciences and Social Sciences	308
	Department of Electronics and Communication Engineering	318
	Department of Energy Engineering	324
	Department of Information Technology	326
	Department of Computer Applications (Tura Campus)	338
	Department of Nanotechnology	342
IX.	Administrative Department	345
	College Development Council (CDC)	345
	Examination Department	349
	Finance Department	351
	Planning Department	353
X	Central Services	355
	Bioinformatics Centre	355
	Campus Development Department	360
	Computer Centre	362
	NEHU Data and Voice Network (NDVN)	366
	NEHU Data and Voice Network (NDVN) (Tura Campus)	369
	Students' Welfare Cell	370
	Students' Welfare Cell (Tura Campus)	372
	Health Centre, Shillong	374
	Health Centre (Tura Campus)	376

Hindi Cell	377
Internal Quality Assurance Cell	378
Central Library, Shillong	379
Central Library (Tura Campus)	387
National Service Scheme Cell	390
Career and Counselling Cell	402
Placement Cell (Tura Campus)	406
Publication Unit	407
Sophisticated Analytical Instrument Facility	409
Sports Department	412
UGC Academic Staff College	414
Women's Cell	417
Equal Opportunity Cell	418
XI	
Appendix	420
Members of the University Court	420
Members of the Executive Council	429
Members of the Academic Council	432
Members of the Board of Research Studies	435

I

SCHOOL OF ECONOMICS, MANAGEMENT & INFORMATION SCIENCES

Dean : Prof. B. Mishra
Tel : (0364) 272 - 3131 (O)
Tel : (0364) 272 - 6178 (R), (0364) 2550391(R), 09436101398(M)
E-mail : deanemis@nehu.ac.in, bmishra_nehu@hotmail.com

The School consists of seven academic departments: Economics, Commerce, Library & Information Sciences, Tourism and Hotel Management, Journalism and Mass Communication, Management (Tura Campus), and Agribusiness Management and Food Technology (Tura Campus).

The Departments offer Master, M.Phil and Ph.D programmes. The major areas of specialization and thrust areas of academic activities are: Economics of North East India with emphasis on Upland Economy, Public Economics, Economics of Agriculture and Rural Development, Small Scale Industry, Human Development, Financial Economics, Quantitative Economics & Econometrics in the discipline of ECONOMICS; Accounting, Finance & Control, and Management of Small

Business in the discipline of COMMERCE; Information Technology, Retrieval & Management and Computer Applications in the discipline of LIBRARY AND INFORMATION SCIENCE; Cross-Cultural Management, Entrepreneurship, Small Business & Tourism Management, Micro-Finance, Business Process Re-engineering, Banking Sector Reforms, Agri-Business and Rural Marketing in the discipline of MANAGEMENT.

As is evident from the annual reports of the departments, the faculty members of the school through their active involvement in teaching, research and extension activities contributed appreciably towards knowledge advancement and social upliftment - the twin goal of Indian higher education.

DEPARTMENT OF COMMERCE

Head : Dr. A. P. Pati
Telephone : 0364-272-3161
E-mail : hodcom@nehu.ac.in

Faculty

Designation	Name and Qualification	Specialization
Professor	N. M. Panda M.Com, PhD.	Management Accounting & Entrepreneurship
Associate Professor	A. P. Pati M.Com, PhD.	Finance
	K. C. Kabra M.Com, PhD.	Accounting & Finance
Assistant Professor	R. A. J. Syngkon M.Com, PhD.	Managerial Economics & Entrepreneurship
	S. Kharmawphlang M.Com.	Entrepreneurship & Marketing
	Santi Gopal Maji M.Com, PhD.	Accounting & Finance

Thrust Areas of Research

The Department aims at imparting education that is needed for creating and management of business enterprises in an emerging economy of North-East India. Keeping in view the importance of Business Research both at National and Regional Level, it also conducts socially relevant research work, Awareness Programmes, etc. The following are the thrust areas of Research in the Department:

- Accounting & Finance
- Entrepreneurship & Small Business

Brief Statement of Academic Activities

There are six regular teachers including one Professor, two Associate Professors, and

three Assistant Professors. Currently the Department has 98 students at the masters level (including two foreign national) and 22 students at doctoral level. Besides regular teaching and research work, the department conducts seminars, workshops, awareness programmes, career counseling sessions and discussions on contemporary topics for the students to enhance their understanding and presentation skills and to share the outcome of their Ph.D/project/field work. Specifically, each of the Ph.D scholars present their progress of research work twice in a year and these presentations are organized each Friday.

Students' Profile

Enrolment Capacity: M.Com - 50; PhD - Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Com	02	41	11	24	30	40	14	54

*Not advertised for the academic year 2015-16

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Com	01	23	8	11	21	21	11	32

Research Fellowships

a. UGC-JRF	NET	- 2
b. UGC-SRF	NET	- 3
c. RGNF-SRF	NET	- 1
d. ICSSR	NET	- 3
e. Non-NET	-	- 3

Open Courses: Financial Risk Management, Management of Small Enterprise, Business Survey and Research.

Semester IV:

International Business, Strategic Management, Security Analysis & Portfolio Management, Project Planning & Control, Human Resource Management.

Courses Conducted

Postgraduate: M.Com.

Semester I:

Business Environment, Organization Behavior, Corporate Accounting, Statistics for Decision Making, Managerial Economics.

Semester II:

Advanced Financial Management, Marketing Management and Policy, Corporate Reporting Practices.

Open Courses: Service Management, NGO Management, Information Technology & Business.

Semester III:

Financial Markets & Instruments, Entrepreneurship, Cost & Management Accounting.

Ph.D. Course Work:

Research Methodology, ii) Accounting and Finance Theory/Management Theory & Entrepreneurship/ Organisational Behaviour Theory, and iii) Literature Review and Presentation.

Seminars/Conferences/Symposia/ Extension Programmes etc.

Attended

A. P. Pati

Presented a paper on "Microfinance Intervention and Millennium Development Goals: Observation from Global Data" in the *National Seminar on Poverty, Inequality and Health in India with Special Reference to North-East India*, organized by Dept. of Economics, NEHU, Shillong (8-10 October, 2015).

Presented a paper titled “Does Microfinance Contribute to Millennium Development Goals? Empirical findings from Country Data” at the *3rd Indonesia International Conference on Finance*, organized by The Indonesian Financial Management Association, Indonesia (19-20 December, 2015).

S. G. Maji

Presented a paper titled “Risk-Based Capital, Human Capital and Risk of Indian Banks: Combining Insight from Panel Data Regression and Quantile Regression” in *RDA's 17th International Conference on Contemporary Issues & Innovations in Global Business, Management, Economics, Tourism and Information & Communication Technology* organized by Research Development Association, Jaipur, in Goa (26-27 November, 2015).

Presented a paper titled “Corporate Sustainability Performance and Financial Performance: Application of Logit Model” (Co-authors N. Laskar and T. K. Chakraborty) in the *5th Annual International Conference on Sustainability – Inspiration, Innovation and Inclusion* organized by IIM Shillong, Shillong (17-19 March, 2016).

Publications

Research Papers/Articles

Shankar, A.N., Panda, N.M. (2015). Attributes of Corporate Bodies and Corporate Social Responsibility (CSR) Scoring: The Indian Evidence. *Indian Journal of Commerce*. 68(2):

Roy, P., Pati, A. P. (2015). Exploring Mission Drift Dimensions in Indian Micro Finance

Institutions. *Pranjan- Journal of Social and Management Science*. XLIV (2): 139-163.

Sharma, P., Pati, A. P. (2015). Subsidized Microfinance and Sustainability of Self-Help Groups (SHGs): Observations from North East India. *Indian Journal of Finance*. 9 (5):7-19.

Ghose, B., Kabra, K. C. (2015). Does group affiliation determine firms' leverage? Evidence from India. *International Journal of Finance Research Review*. 3(9):20-27

Maji, S. G., Goswami, M. (2015). The journey of IC research: reflections from the past two decades. *Asian Journal of Research in Banking and Finance*. 5(6): 85-102.

Maji, S.G., Goswami, M. (2015). Value Relevance of Intellectual Capital in Indian Pharmaceutical Sector: Does Size of Firm Matter?. *Research Bulletin*. 41(2): 85-103.

Ghosh, S.K., Maji, S.G. (2015). Empirical Validity of Value Added Intellectual Coefficient Model in Indian Knowledge Based Sector. *Global Business Review*. 16(6): 947-962

Maji, S. G. (2015). Risk-Based Capital, Human Capital and Risk of Indian Banks: Combining Insight from Panel Data Regression and Quantile Regression. *Journal of Banking, Information Technology and Management*. 12(2): 48-59.

Published Abroad

Pati, A. P. (2015). Are Regulatory Microfinance Institutions of India better off than Non-regulatory Ones? A Comparison of Performance and Sustainability. *Paradigm* (Sage). 19 (1): 1-16.

Maji, S.G., De, U. K. (2015). Regulatory Capital and Risk of Indian Banks: A Simultaneous

Equation Approach. *Journal of Financial Economic Policy*. 7(2): 140-156.

Books/Book Chapters/Proceedings

Ghose, B., Kabra, K. C. (2015). The Zero-leverage Phenomenon: Empirical Evidence from Indian Firms. In *e-proceedings of 4th International Conference on Emerging Trends in Finance & Accounting* organised by SDMIMD, Mysuru. 1-26.

Ezhilarasi, G., Kabra, K. C. (2015). Determinants of Environmental Disclosures Practices by most Polluting Industries in India. In *E-proceedings of 4th International Conference on Emerging Trends in Finance & Accounting* organised by SDMIMD, Mysuru. 1-15.

Honours/Awards/Recognitions

S. G. Maji got Best Paper Award in RDA's 17th *International Conference on Contemporary Issues & Innovations in Global Business, Management, Economics, Tourism and Information & Communication Technology* organized by Research Development Association during November, 26-27, 2015 at Goa.

Other Activities

The department organised a discussion at the school level on Union Budget (2016-17) on 1st March 2016.

N. M. Panda

Participated as a resource person in the *Workshop on Entrepreneurship* organized by National Institute Technology, Itanagar on 5th and 6th March, 2016 and delivered 7 lectures covering the topics: Nature of employment in India and need for Entrepreneurship, Entrepreneurial Decisions, Women Entrepreneurship, Recurring Failure and their Avoidance.

K. C. Kabra

Delivered lecture as Resource Person at UGC sponsored 2 days *National Seminar on Social Conflict and the Problem of Human Trafficking in North-East India*, organised by the Dept of Economics, Abhayapuri College, Abhayapuri, Bongaigaon, Assam on 11th October 2015.

Delivered lecture as Resource Person at UGC-ICSSR (NERC) sponsored 2 days *National Seminar on Foreign trade – A strategy for the Economic Growth of the North Eastern Region of India* organised by the Shillong Commerce College, Shillong (1– 2 April, 2016).

Attended AICTE sponsored “*FDP on Management Research Methodology*” at Centre for Management Studies, JIS College of Engineering (Autonomous), Kalyani, Nadia, West Bengal from 21st April to 04th May, 2015.

DEPARTMENT OF ECONOMICS

Head : Prof. U. K. De
 Telephone : 0364 272-3171/272-3182
 E-mail : utpalkde@gmail.com , <http://nehu-economics.info>

Faculty

Designation	Name and Qualification	Specialization
Professor	N. Srivastav M.A., PhD.	Industrial Economics
	E. D. Thomas M.A., PhD.	Macroeconomics, International Economics & Rural Economics
	P. Nayak M.A., PhD.	Human Development, Women Empowerment
	B. Mishra M.A., PhD.	Public Economics, Political Economy
	U.K. De M.Sc., PhD.	Econometrics, Environment & Resource Economics, Economics of Agriculture, Empowerment of Women
	B. Panda M.A., PhD.	Development Economics, Rural Economics
Associate Professors	P. S. Suresh M.A., PhD.	Financial Economics
	S. Umdor M.A., PhD.	Indian Economy, Local Govt. Finance
Assistant Professors	W. Tariang M.A.	Agriculture Economics, Gender & Poverty
	D. Nongkynrih M.A., PhD.	Labour Economics
	D.W. Thangkhiew M.A., PhD.	Macroeconomics
	D. Das* M.Sc., PhD	Econometrics
	V. Pala M.A., PhD.	Microeconomics, Quantitative Economics

* On lien to Cotton College University from 1/3/2016

Thrust Areas of Research

Environmental and Resource Economics, Agricultural Economic Issues and Empowerment of Women, Poverty analysis, Labour market studies, intergroup disparities, Economics of Development, Public Economics, Macroeconomics, Gender and Poverty, Financial Economics

Brief Statement of Academic Activities

During the year the Department concentrated on its regular Postgraduate Teaching Programme and Research, conducting the M/A/ and Ph/D/ programmes. The Department successfully organized one National Seminar on *Poverty, Inequality and Health in India with Special Reference to North-East India* during 8-10 October, 2015 in collaboration with Indian Statistical Institute, Kolkata and NABARD, Mumbai. More than 150 participants participated and invited speakers presented papers from different parts of India and abroad. A one-day workshop was also organized on *Techniques of Data Analysis for Empirical Research* for the Research Scholars of Economics and Commerce Department of NEHU on 07-10-2015 (Resource Person: Dr Girijasankar Mallick, University of Western Sydney, Australia).

One invited lecture was organized on 12-05-2016 where Prof. Biswanath Bhattacharyay, Former Advisor of Asian Development Bank and presently a Visiting Faculty of McGill University delivered a speech on the topic "Asian, India and China: Great Transformation". A very good interaction was made with the faculty members, research scholars and students of the Department of Economics and Commerce of the University. Also, an Awareness Programme on "The Benefits of commodity future trading and hedging (Risk Management & Price Discovery) and how various Industries can manage Risk and Safe guard themselves from the adverse effect of high price fluctuation" was organized on 27.04.2016, where experts from Multi Commodity Exchange of India Ltd, Kolkata interacted with the Faculty members, Research Scholars and Students of both the Department of Economics and Department of Commerce.

Moreover, the faculty members of the Department participated in a number of regional, national and international Seminars/Conferences. They also published books and research papers in various national and international journals. Also, the course curricula of post-graduate studies have been revised.

Students Profile

Enrolment Capacity: M.A. - 56; Ph.D. - Variable

Degree	SC	ST	GEN	OBC	Male	Female	Meghalaya	Non-Meghalaya	Total
M.A	-	55	1	-	23	33	38	18	56
M. Phil	-	-	-	1	-	1	-	1	1
Ph. D	-	2	1	1	1	3	2	2	4

School of Economics, Management and Information Sciences

Degree Awarded

Degree	SC	ST	GEN	OBC	Male	Female	Meghalaya	Non-Meghalaya	Total
M.A	-	39	-	1	13	27	26	13	40
M.Phil.	-	-	-	-	-	-	-	-	-
Ph.D	-	1	1	-	2	-	-	2	2

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name(s) of Supervisor(s)/ Joint Supervisor
Mr. Kamal Bodosa	"Crop Diversification in Assam and the Role of Technology and Climatic Condition:With Special Reference to Kokrajhar and Dhemaji Districts".	U. K. De
Mr. Md. Iftikhar Hussain	"Ecotourism and Community Livelihood: A Case Study of Kaziranga National Park, Assam".	D. Das

Courses Conducted

Postgraduate (M.A.)

Semester-I:

Microeconomics Analysis-I, Macroeconomics-I, Mathematics for Economists, Economics of Development-I, Public Economics.

Semester-II:

Microeconomics-II, Macroeconomics-II, Techniques of Statistical Analysis, Economics of Development-II.

Open Courses: Budgetary Theory & Practice, Economics of Social Sector.

Semester-III:

Historical Perspective of Modern Economics-I, International Economics, Industrial Economics.

Open Courses: Economics of Agriculture, Economy of North-Eastern Region.

Semester-IV:

Historical Perspective of Modern Economics-II, Indian Economic Problems and Policy, Environmental Economics, Labour Economics, Financial Economics.

M. Phil/Ph.D. Courses

Research Methodology in Economics, Contemporary Economic Issues, Review of Literature

Seminars/ Conferences/ Symposia / Extension Programmes etc

Organized

U. K. De

Organized a *National Seminar on Poverty, Inequality and Health in India with Special Reference to North-East India* in Department of Economics, NEHU, (8-10 October, 2015).

Organized a One-day Workshop on *Techniques of Data Analysis for Empirical Research* for the Research Scholars of Economics and Commerce Department of NEHU on 7-10-2015 (Resource Person: Dr Girijasankar Mallick, University of Western Sydney, Australia).

B. Panda

Organized an invited *Special Lecture* on "India's Neighbourhood Policy" in the Conference Hall of ICSSR-NERC on 23rd June 2015, delivered by Mr. Arun Kumar Sahu, IFS, Joint Secretary, Ministry of External Affairs and Deputy Director General, ICCR, New Delhi.

D. W. Thangkhiew

Organized a *National Seminar on Poverty, Inequality and Health in India with special reference to North-East India* (8th-10th, October, 2015)

Attended

U. K. De

Presented a paper on "Regional dimension of Climate Change in Assam and Its Impact on the Productivity of Food Grain" in the 46th *Regional Science Conference and National Seminar on Underdevelopment of the North East Region and the Indian State*, organized by the Department of Geography, NEHU, Shillong during 6-8 November, 2014.

Presented a invited paper on "Performance of Agriculture, Diversity of Crops and the Role of Technology in North-East India" in the 28th *National Convention of Agricultural Engineers and National Seminar on Rehabilitation and Reclamation of Degraded Land through Cost Effective Bio-Engineering Measures* at Shillong

organised by Institute of Engineers (India) on 30-31 January, 2015.

Presented a paper on "Adaptability of Farmers in Assam towards Extreme Climate Effects: An Empirical Investigation" (Co-author: Kamal Bodosa) in the *National Seminar on Poverty, Inequality and Health in India with Special Reference to North-East India* organized by the Department of Economics, NEHU, Shillong (8-10 October, 2015).

Presented an invited paper on "Self-Help Group as an Alternative for Empowerment of Women" in the *State Level Workshop on Financial Inclusion and Rural Empowerment in Jharkhand: Issues, Progress and Prospects* organized by Indian Statistical Institute, Giridih, in collaboration with NABARD, Jharkhand (21-22 March, 2016).

B. Panda

Presented a paper entitled "Financial Inclusion and Inclusive Development" in the UGC-sponsored National Seminar on *Financial Inclusion in India with Special Reference to its North Eastern Region: Issues and Policies* organised by Tihu College, Tihu, Assam on 6th November 2015.

Presented an invited paper on "The Economy of Bamboo and Sustainable Development in NE: an analysis" in the *National Symposium-cum-Workshop on Significance of Bamboo in Socio-Cultural and Economic Development of North East India* organised jointly by IGNCA, New Delhi and the Department of Creative and Cultural Studies, NEHU, on 12th March 2016.

Presented an invited paper "Economic Transparency and Development: Some Reflections" in the *National Seminar*

on Physical, Economic and Mental Transparency organised by the Assam Rifles, held in the premises of Assam Rifles, Shillong on 15th March 2016.

Presented an invited paper on "Sustainable Development and Establishment Space in North East: Some Reflections" in the UGC-SAP National Seminar on *Interrogating Democracy and Development in North East India* organised by the Department of Political Science, NEHU, on 17th March 2016.

P. S. Suresh

Presented a paper on "A Regional and State-wise Comparative Analysis of Directed Credit Program in India" in the National Seminar on *Poverty, Inequality and Health in India with special reference to North East India* organized by the Department of Economics, NEHU, on 9th October 2015.

S. Umdor

Presented a paper on: "A critique on Demand for ILP in Meghalaya" in a *Symposium on Inner Line Permits as an Instrument of Safeguarding Ethnic Identity* organized by Guwahati University on 12, February 2016..

W. Tariang

Presented a paper on "Gender and Rural Poverty Interlinks in a Matrilineal Society- A Case Study of Meghalaya" (with P.S.Suresh) in a National Seminar on *Poverty, Inequality and Health in India with Special Reference to North-East India* organised by Department of Economics, NEHU, Shillong in collaboration with Indian Statistical Institute, Kolkata and National Bank for Agriculture and Rural Development (8-10 October, 2015).

V. Pala

Presented a paper entitled "Poverty, Food Consumption Pattern and Nutritional Intake in North-East India", in the National Seminar on *Poverty, Inequality and Health in India with Special Reference to North-East India* organized by the Department of Economics, North-Eastern Hill University, Shillong in collaboration with Indian Statistical Institute, Kolkata, Shillong, (8-10 October, 2015).

Presented an invited paper entitled "Unequal Access to Water: Implications for Poverty and Level of Living", in the *International Conference on Water Resource Management in the Eastern Himalayas*, organised by St. Anthony's College, Shillong (4-5 November, 2015).

Presented a paper entitled "Poverty Reduction and Structural Changes in Indian States: The First Dozen Years of the New Millennium", in the *98th Annual Conference of the Indian Economic Association*, hosted by Centre for Economic and Social Studies, Hyderabad, (27-29 December, 2015).

D. Nongkynrih

Presented a paper entitled "Approach to Women's Development: From WID to GAD" at the *National Seminar on Youth & Skill Development in North East India*, organised by OKDISC, Guwahati and Centre for North East Studies, JNU, New Delhi, Guwahati (26-27 July, 2015).

Presented a paper entitled "Dynamics of Scheduled Tribe Education in India: Evidence from Secondary Data" at the *National Seminar Cum 23rd Annual Conference and Silver Jubilee Celebration of NEIES*, Organised by the NEIES and

Dept. of Education, NEHU, Shillong, Shillong (26-27 November, 2015).

Presented a paper entitled "India's Near Abroad Through the Lens of Land Connectivity" at the *National Seminar on India's North Eastern States & Eastern Neighbours: The Way Forward* organised by the Young Scholars Forum, Asian Confluence, Shillong and ICWA, New Delhi, Shillong (5-6 December, 2015).

Publications

Research Papers/ Articles

Srivastav, N., Basumatary, J., Shohe, S.O. (2015). Economic Development of North-Eastern States of India: Post Globalization Challenges. *International Journal of Social and Development Policy* 1(2): 7-16.

Nayak, P. (2015). Methodological Developments in Human Development Literature. *International Journal of Applied Management Research*. 2(2): 1-22.

Mahanta, B. and Nayak, P. (2015). Gender Inequality in North East India. *PCC Journal of Economics and Commerce*. 7: 1-13.

Mishra, B., Hassan, S.U. and Suresh, P.S. (2016). An Analysis of Productivity and Efficiency of Tax System in the State of Jammu and Kashmir. *EPARA International Journal of Economic and Business Review*, 4(1): 208-226.

Lhoungu, V., and Mishra, B. (2016). Government Expenditure and Its Impact on Economic Growth: A Case Study of Nagaland State. *EPARA International Journal of Economic and Business Review*, 4(3): 17-29.

De, U. K. and Ghosh, B. N. (2016). Involvement of Women in Natural Resource Collection

in Rural Jharkhand, India, *Indian Journal of Gender Studies*, 23(2): 1-18.

De, U. K. (2015). Diversity of Crops and the Role of Technology in North-East India, *Journal of Rural and Community Affairs* 1(1): 1-25.

Panda, B. (2015). National Rural Employment Guarantee Scheme: Development Practice at the Crossroads. *Economic & Political Weekly*, 50:126-131.

Deka, T. and B. Panda. (2015). Employment Generation and Social Capital Formation: A Study of the Impact of MGNREGA in Assam. *International Journal of Recent Scientific Research*, 6(11): 7619-7626.

Srinivasa Suresh, P., Saji George. (2015). Asymmetries in the impact of investor sentiment on equity returns: An analysis of Indian Equity market. *Indian Journal of Research in Capital Market*, 2(3): 49-60.

Samir Ul Hassan., Biswambhara Mishra., Srinivasa Suresh, P. (2016). An Analysis of Productivity and Efficiency of Tax System in the State of Jammu and Kashmir. *EPARA International Journal of Economic and Business Review*, 4(1): 208-226.

Umdor, S. (2015): State of Finances of Autonomous Councils of Northeast India, *Review of Development and Change*, 19(2): 77-96.

Thangkhiew, D.W. (2015). Determinants of Inventory Investment Behaviour in Iron and Steel Industry in India: An Econometric Analysis. *International Journal of Advance Research in Computer Science and Management Studies*. 3: 196-208.

Kharshiing, R. B. & Pala, V. (2016). Government Educational Incentives and Enrolment

- in Indian State. *International Journal of Economic and Business Review*, 4(2): 101-113.
- Pala, V. (2015). Poverty Reduction and Structural Changes in Indian States: The First Dozen Years of the New Millennium. *The Indian Economic Journal, Special Issue on Income and Wealth Inequalities and their Relation with Social Class*, 63-78.
- Pala, V. (2015). Rights and Responsibilities of Tribal Women at Home and Work in Rural Meghalaya. *Man and Society: A Journal of North-East Studies*, 12: 160-175.
- De, U. K. and Ghosh, B. N. (2016). Land Acquisition in Singur for Industrialization: SEZ, Politics and Economic Intricacy. *South Asian Journal of Policy and Governance*, 38(1), 77-93.
- De, UK, Pal, M. and Bodosa, K. (2015). Global Warming and the Pattern of Overall Climate Changes in Sub-Himalayan Assam Region of North-East India. *International Journal of Ecological Economics and Statistics*, 36(3): 88-105.
- De, U.K. and Chauhan, K. (2015). Degradation of Forest and Biodiversity in Sariska National Park, India and the Responsible Factors. *International Journal of Environment and Sustainable Development*. 14(2): 398-426.
- Saji George., Srinivasa Suresh, P. (2015). Structural Breaks and Focus Shifts: An Analysis of Growth Predictability of Yield Spread in India. *Empirical Econometrics and Quantitative Economic Letters*, vol. 4, no. 4, 149-161.
- Books/Book Chapters/Proceedings**
- Tariang, W. (2015). India's Look East Policy: An Analysis of the Opportunities and Challenges with Special Reference to the North-East Region. In: *Look East Policy - Perspectives from the South-East Asian Architecture*, Bhattacharjee, A. (Eds.). (2015), Excel India Publishers, New Delhi: Chapter 5, 28-32.
- Panda, B. (2015). Report of National Committee for MGNREGS Administrative Awards 2010-11: Kenojhar District Odisha. In: *Contemporary Practices of MGNREGS: Insights from Districts*. K.B. Saxena (Eds.). Sage Impact, Sage Publications, New Delhi: Chapter 3, 55-56.
- Panda, B., Rao, H., Ranjan, N., Kehra, Reetika. (2015). Report of National Committee for MGNREGS Administrative Awards 2010-11: Alappuzha District (Kerala). In: *Contemporary Practices of MGNREGS: Insights from Districts*. K.B. Saxena (Eds.). Sage Impact, Sage Publications, New Delhi: Chapter 3, 39-42.
- Nayak, P. and Panda, B. (2016). Brahmaputra and the Economic Life of People of Assam. In *The Mahabahu Brahmaputra*, K.K. Dwivedi (Ed.). Flood and River Management Agency of Assam, Guwahati, Assam: pp. 106-115.
- De, U. K. (2016). *India's Look East Policy and North-East India*, Concept Publishing Company, New Delhi (ISSN: 9789351251927).
- De, U. K. (2016). Emerging Trends of India ASEAN Trade and India's Look East Policy. In: *Look East Policy and North-East India: Achievements and Constraints*. UK De (Ed). Concept Publishing Company, New Delhi, Chapter 1, pp. 3-15.
- Panda, B. (2016). Economic Transparency and Development: Some Reflections.

in *Proceedings of the National Seminar on Physical, Economic and Mental Transparency*, Assam Rifles, Shillong March 2016, 18-23.

Pala, V. (2016). Unequal Access to Water: Implications for Poverty and Educational Attainment. in *Proceedings of the International Conference on Water Resource Management in the Eastern Himalayan Region*, St. Anthony's College, Shillong, pp. 141-150.

Published Abroad

Bhattacharjee, P. R. and Nayak, P. (2016). Vicious circle of insurgency and underdevelopment in Northeast India. In: *Identity, Contestation and Development in Northeast India*. Singh and Singh (Eds.). Routledge, Oxon, U.K: 75-85.

Nayak, P. and Singha, K. (2016). Identity deprivation and demand for bifurcation of Meghalaya" In *Identity, Contestation and Development in Northeast India*. Singh and Singh (Eds.). Routledge, Oxon, U.K: 121-129.

Research Projects

Completed during the year

Sl.	Title of Project	PI/Co-PI	Funding Agency	Amount (Rs.)
1	Levels of Living and Poverty among Socio-religious Groups in India: Analysis of the Correlates and Determinants at the Region Level	PI: V. Pala Co-PI: A. M. W. K. Shadap, St. Edmund's College, Shillong	Indian Council of Social Science Research, New Delhi	18,50,000/-
2	Brahmaputra and the Socio-Economic Life of People of Assam	P. Nayak and B. Panda	M/s Tetra Tech ES India Pvt. Limited	5,00,500/-

Academic Collaborations

U. K. De was the Visiting Scientist of Indian Statistical Institute, Kolkata, 3rd January to 2nd February, 2016.

B. Panda collaborated with Prof. K. B. Saxena, of Council for Social Development, New Delhi on the book 'Contemporary Practices of Mahatma Gandhi National Rural Employment Guarantee Scheme: Insights from Districts' published by Sage, New Delhi. Prof. Panda along with others have contributed six district reports on

effective initiatives on MGNREGA which have formed a part of this book.

Other Activities

N. Srivastav

Attended a one day workshop *SYNERGOS 2015: Human Resource Conclave on "Mapping Skills and Competencies for Future Managers"* as a resource person and chaired a technical session (organized by Department of Management, NEHU Tura Campus, on May 09, 2015).

Chaired the first technical session and presented a paper on "Public Health Care Service Deficits in Rural Areas of North-Eastern States of India" in an ICSSR sponsored two day International Seminar on *Deprivation, Marginalization and Social Exclusion in the North-Eastern States of India* at Manipur University, Canchipur, Imphal (27-28 May, 2015).

Delivered two lectures in the 33rd UGC-HRDC sponsored Orientation Program organized by the UGC-Human Resource Development Centre, NEHU, Shillong, June, 08, 2015.

Delivered a lecture on the Orientation Program for the Batch 2015 at the University of Science and Technology Meghalaya, Byrnihat on August 29, 2015.

Was resource person at a two day Silver Jubilee International Conference on *Look (Act) East Policy and North-East India*", at OKD Institute of Social Change and Development, Guwahati and led discussion in the IVth Session (25-26 September, 2015).

Delivered one lecture in the Short Term Course on Environmental Science organized by the UGC-HRDC, NEHU, Shillong, on October 6, 2015.

Delivered one lecture in the Special Winter School organized by the UGC-HRDC, NEHU, Shillong, on November 09, 2015.

Delivered two lectures in the 35th Orientation Program (General) organized by UGC-HRDC, NEHU, Shillong, on February 29, 2016, and on March 03, 2016.

P. Nayak

Was a Resource Person in the HR Conclave on *Mapping Skills and Competencies for Future Managers* on 9th May 2015 at

the Dept. of Management, NEHU, Tura Campus, Tura.

Delivered a Keynote address on "Issues of Gender and Empowerment of Women" in the two- day UGC sponsored National Seminar on *Women Empowerment: Issues and Challenges* organized by Mangaldai College, Assam and also chaired the Second Technical Session (11-12 September, 2015).

Chaired 7th technical session of the National Seminar on *Poverty, Inequality and Health in India with Special Reference to North-East India* at Dept. of Economics, NEHU, Shillong, (8-10 October, 2015).

Delivered a lecture on "Inequality measures: An examination of purpose and techniques" on 24th November 2015 in the Department of Management, NEHU, Tura Campus, Tura.

B. Mishra

Invited as Resource Person to lecture on "Problems and Prospects of Resource Mobilization in North-Eastern Region" in *HR Conclave* at Department of Management, NEHU, Tura Campus, Tura, 9th May, 2015.

Invited as a Resource Person to talk on "Resource potentialities and Economic Prosperity: Challenges of North-Eastern Region" and chaired one technical session in the Regional Seminar on *Resource Potentialities and Economic Prosperity: Challenges of North-Eastern Region* at Department of Economics, Sngap Syiem College, Mawkyrwat, 15th May, 2015

Attended the Meeting of Task Force/Sub-committee constituted for developing curriculum for MBA/PGDM in Tourism and Travel Management at Department of Tourism, Kashmir Central University, Srinagar (3-4 July, 2015).

Delivered 4 lectures as a resource person in the Orientation Programme of the UGC HRDC, Sambalpur University, Sambalpur (27-28 July, 2015).

Chaired a Technical Session in the National Seminar on *Make in India and Rural North-East: The Challenges* at National Institute of Rural Development and Panchayatiraj (26th February, 2016).

U. K. De

Delivered invited talk on “Agricultural Diversity and the Progress of Farmers: An Example from North East India” in the Regional Seminar on *Resource Potentiality and Economic Prosperity: Challenges of North Eastern Region* organized by Sngap Syiem College, Mawkyrwat, Meghalaya (14-15 May, 2015).

Delivered a lecture as Resource Person on “Use of Statistical Methods and Software (SPSS) in Research” in the National Workshop on *Use of Statistical Methods in Bio-chemical & Social Science along with Computer Software* organised by M. C. College, Barpeta, Assam (29-30 July, 2015).

Delivered the Keynote address on “Empowerment of Rural Women through MGNREGA in Assam” in the National Seminar on *Women and Rural Development* organized by Dept of Economics, Bhawanipur Anchalik College, Assam (7-8 August, 2015).

Delivered the Keynote address on “Economic Growth and Environmental Protection in North-East India” at National Workshop on *Environmental Resource Management and Sustainable Development* organized by the BKB College, Nagaon, Assam (7-9 September, 2015).

Delivered an invited talk on “Digital Marketing from an Economist Point of View” in the

Workshop on Digital Marketing organised by NIELIT Shillong in collaboration with Commerce & Industries Department, Govt of Meghalaya, on 14th October, 2015 at NIELIT Shillong Campus.

Delivered (with Prof. N. Rajan) an invited lecture on the “Importance of Energy Audit in the Renewable Energy Scenario” in the *National Conference on Alternative Sources of Energy Addressing Environmental Challenges: Carbon Emission & Global Warming* organized by the Institute of Engineers (India), Shillong (30-31 October, 2015)

Delivered an invited lecture on “Farmer’s Adaptation through Cropping Choice under Changing Climate and Sustainable Progress” in the Sociological Research Unit, Indian Statistical Institute, Kolkata on 21st January, 2016.

Delivered an invited lecture on “Writing Research Paper in APA Style and Research Methodology” in the *Research Methodology Workshop* on 25 January, 2016, at S. L. Mahavidyalaya, Majdia, West Bengal.

B. Panda

Indian School of Business, Hyderabad, a premier business school in management has officially used Prof. B. Panda’s research paper titled ‘National Rural Employment Guarantee Scheme: Development Practice at the Crossroads’ published in EPW as case/study material in their Management Programme in Public Policy.

Participated as an invited expert panellist in a two hour long live panel discussion on “Union Budget 2016-17: An Analysis”, in the *Budget 2016-17 Special Programme* of DD Shillong, organised and telecast live by

Doordarshan Kendra, GOI, Shillong on 29th February 2015.

As an invited speaker (with S. Umdor) made a presentation on "Assessment and repositioning of the North Eastern Council (NEC)" to the Joint Intelligence Committee, Govt. of India on 18th May 2015, New Delhi.

Participated as invited panellist in a live panel discussion on "First Year of Modi Government", in the in the weekly program *The Inside Story* of DD, Shillong telecast live by Doordarshan Kendra, Govt. of India, Shillong on 19th May 2015.

Participated as invited panellist in a panel discussion on "The Initiatives, Challenges and Performance of Modi Government during the last one year" in the *One Year of Modi Government* programme telecast by Doordarshan News, GOI, New Delhi on 23rd May 2015.

Delivered a lecture at the 33rd Orientation Programme for college and university teachers, organised by UGC-HRDC, NEHU on 25th May, 2015.

Participated as an invited panellist in a live panel discussion on 'Smart City, AMRUT and Housing for All', in the weekly program *The Inside Story* of DD, Shillong, telecast live by Doordarshan Kendra, Shillong, on 30th June, 2015.

Participated as a panellist on the topic "Recent Developments in Indo-Bangladesh Relations with special reference to North East India" in the *Live Radio Bridge Programme* of All India Radio, organised and broadcast by AIR News Services Division on 18th September 2015.

Attended and participated as the lead discussant in the *Silver Jubilee Seminar on India's Act*

East Policy and North East India organised by OKD Institute of Social Change and Development, Guwahati (25-26 September, 2015).

Chaired the session on 'Growth and Development' in the National Seminar on *Poverty, Inequality and Health in India with Special Reference to North East* organised by the Department of Economics, NEHU, Shillong (8-10 October, 2015).

Participated as an invited participant in the *Inception Workshop - 'Indigenous Women and Domestic Work: An ILO Country Based Research Initiative'* organised by ILO Country Office, India at the ICSSR Centre, NEHU Campus, Shillong, on 4th November 2015.

Chaired a session "Financial Inclusion and Inclusive Growth" in the *National Seminar on Financial Inclusion in India with Special Reference to its North Eastern Region: Issues and Policies* organised by Tihu College, Tihu, Assam on 6th November 2015.

Participated as invited panellist in a live panel discussion on "Gold Monetization Scheme" in the weekly program *The Inside Story* of DD, Shillong organised and telecast live by Doordarshan Kendra, Govt. of India, Shillong on 10th November 2015.

Delivered an invited lecture "MGNREGS: Genesis, Socio-Economic Impact and Challenges ahead" in the Annual Invited Lecture Series of St. Mary's College, Shillong organised by the Department of Economics, St. Mary's College on 16th November 2015.

Delivered an invited lecture on "Development Theory and Development Practice" at the

Department of Economics, Sambalpur University, Odisha, in their *Invited Faculty Lecture Series Event* on 19th November 2015.

Participated as invited panellist in a panel discussion on 'Goods and Services Tax Bill' in the weekly program *The Inside Story* of DD, Shillong organised and telecast live by Doordarshan Kendra, Govt. of India, Shillong on 15th December 2015.

Participated as an invited panellist on the topic "Expectations from Budget 2016-17" in the *Live Radio Bridge Programme* of All India Radio, organised and broadcast by AIR News Services Division, GOI on 28th December 2015.

Delivered a lecture at the 35th Orientation Programme organised by UGC-HRDC, NEHU on 3rd March 2016.

Made an oral presentation on 'Union Budget 2016-17 and the Rural Economy' in a *Budget Round Table Discussion* organised by the Department of Commerce, NEHU, in the Conference Hall of the Dean, SEMIS, NEHU, on 2.3.2016.

S. Umdor

As an invited speaker (with P. Panda) made a presentation on "Assessment and repositioning of the North Eastern Council (NEC)" to the Joint Intelligence Committee, Govt. of India, on 18th May 2015, New Delhi.

As an invited speaker made a presentation on "Integration through Development" in a Seminar organized by Seng Khasi College, Shillong and Hynniewtre National Youth Front on 24th of March 2016, at Khasi National Durbar Hall, Shillong.

As a resource person gave a presentation in a *Workshop on Customary Practice, KHADC and Constitution of India* organized by CASA and The Grand Council of Chiefs of Meghalaya on 28th of March 2016 at State Central Library, Shillong.

D. Nongkynrih

Delivered a lecture at the Special Summer School for College and University Teachers, (6-26 July, 2015), UGC-HRDC, NEHU, Shillong.

Delivered a lecture at the Refresher Course in Tribal Studies (27 July – 16 August, 2015), UGC-HRDC, NEHU, Shillong.

Delivered a lecture at the UGC-HRDC Short Term Course in Research Methodology (17-22 August, 2015), UGC-HRDC, NEHU, Shillong.

Delivered a lecture at the UGC-HRDC Short Term Course in Research Methodology (12-17 October, 2015), UGC-HRDC, NEHU, Shillong.

Delivered a lecture at the UGC-HRDC 34th Orientation Programme (25th January – 21st February, 2016), UGC-HRDC, NEHU, Shillong.

Delivered a lecture at the UGC-HRDC Short Term Course in "Research Methodology with Special Reference to SPSS" (14-19 March, 2016), UGC-HRDC, NEHU, Shillong.

V. Pala

Resource Person in the *Short Term Course on NSSO Data Handling* organised by the Centre for Development Studies, Department of Economics, Rajiv Gandhi University, Itanagar (15-19 March, 2016).

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

Head: Prof. Moses M. Naga
Telephone: +91-364-272-3148/ 3142 (O)
Email: mosesmnaga@gmail.com

Faculty

Designation	Name and Qualification	Specilization
Professor	Moses. M. Naga M.L.I.Sc., Ph.D.	Application of Management Concepts & Management Principles in Libraries and Information Centres, Fundamentals of Library & Information Science, Information Management with special reference to Centrally sponsored Rural/ Urban Development Schemes, Information Literacy & Reading Habits of Students
Associate Professor	Bikika Laloo MLISc, PhD	User Studies, Collection Development, Library and Information Science Education, Professional Development Activities in Librarianship.
Assistant Professors	Paokholun Hangsing MLISc, PhD.	Media Content Analysis, Digital Libraries, Library Consortia, LIS Education and Professional Competencies
	Jacqueline Jeane Thabah MLISc., PhD.	Knowledge Organisation, Research Methodology, Competency Studies of Library and Information Professionals
	Jiarlimon Khongtim MLISc., PGDCA.	Computer Applications, Research Methodology.
	S. Ravikumar MSc. in LISc., PhD	Scientometrics, Information Retrieval, Library Software

Thrust Areas of Research

The Thrust Areas of Teaching and Research are: Knowledge Organisation, Information Storage and Retrieval, Information/Knowledge Management, Information Literacy, Reading Habits of Students, Tapping, Preservation and Conservation of Indigenous Knowledge of the North East India, Users Needs and their Information Seeking Behaviour, Computer

Applications and Applications of Information Communication Technology in Managing Libraries and Information Centres, Digital Libraries, Information Management with special reference to Centrally sponsored Rural/Urban Development Schemes in North East India.

The Department has been regularly revising and updating the syllabus keeping pace with the rapid advances in Information Communication

Department of Library and Information Science

Technology (ICT) and its impact and its crucial role in the library and information profession on one hand, the ever-changing and the ever-increasing needs and requirements of the users on the other. The last revision of the syllabus was made in July, 2013.

Brief Statement of Academic Activities

The Department conducts the Masters course in Library and Information Science and the Ph.D. programme. Most of its faculty and Ph.D.

scholars are academically productive through attendance and paper presentations at seminars and conferences as well as through publishing in journals of international and national repute, raising the prestige of the Department. Another Festschrift Volume in honour of Prof. J.C. Binwal, former Head of the Department and former Dean, SEMIS, NEHU was published. The faculty contributed at the professional level in various academic activities such as seminars, conferences, refresher courses, summer schools, etc.

Students' Profile

Enrolment Capacity: M.L.I.Sc. : 31; PhD: Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non- Meghalaya	Total
M.L.I.Sc.	1	29	1	16	15	27	4	31
PhD		2	1	1			2	2

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non- Meghalaya	Total
MLISc	1	19	1	8	13	17	4	21
PhD		3		1	2	3		3

Students awarded Ph.D Degree (2015)

Name of Student	Title of Thesis	Names(s) of Supervisor(s)/ Joint Supervisor.
Firstborn Roy Sumer	A Comparative Study of the Standards of Selected Open Source Digital Library Software	P. Hangsing (Supervisor) Prof. A. R. D. Prasad (Jt. Supervisor)
Pansngiat Passah	Participation of Library Professionals in Professional Development Activities from 2000 to 2010. A Comparative Study of the University and IIT Libraries in India	Bikika Laloo

Students awarded Ph. D Degree (2016)

Name of Student	Title of Thesis	Names(s) of Supervisor(s)/ Joint Supervisor.
Mrs. Jacqueline Jeane Thabah	Structuring Competency Model for Library Professionals	Dr. P. Hangsing (Supervisor)

Placement of Students (2015 – 2016)

2015

1. Niengneimawi, Assistant Librarian, ICFAI University, Nagaland Campus
2. Ngailawmkim Paite, Librarian, St. John College, Dimapur, Nagaland
3. Wanteikupar Kshiar, Assistant Librarian, Mawsynram Border Area College
4. Sengdang R. Marak, Deputy Librarian, Williamnagar Government College
5. Rachel Thabah, Library Assistant, Shillong Club Library
5. Hirak Jyoti Hazarika, Assistant Librarian, Arya Vidya Peeth College, Guwahati
6. Amanda Shanpru, Technical Assistant, DLISc., NEHU, Shillong

2016

1. Lallawmawmi, Assistant Librarian, ICFAI University, Nagaland Campus
2. Paramjinang Moita, Semi-Professional Assistant, Tripura Central University
3. Mr. Augustine Zimik, Assistant Professor, Tripura Central University
4. Rupamon Nongneng Daloi, Librarian, Christ School, Nongsder Umiam
5. Marvellisa K. Kharlukhi, Junior Library Assistant, NEHU Central Library

Students Awarded JRF (2016)

- | | |
|-------------------------|-----|
| 1. Ms. Sweety Lyngdoh | JRF |
| 2. Mr. Mebandabha Rabon | JRF |

Educational Tour

Name(s) of Teacher(s) In-charge: Prof. Moses M. Naga assisted by Mr. Zawng Hkawng, Research Scholar, Department of Library and Information Science, NEHU, Shillong guided

the students for the Study Tour to Kathmandu, Nepal.

Libraries Visited (7 Libraries): Tribhuvan University Central Library, Nepal Japan Children's Library, American Library-the Library of Congress (Kathmandu Branch), Kathmandu Valley Public Library, Kathmandu University Library, Dr. Dilli Raman Kalyan Regmi Memorial Library and Museum, Maharajganj Library of the Institute of Medicine and Nursing affiliated to Tribhuvan University.

Duration of the Study Tour: 22nd February to 4th March, 2016 (12 Days)

Purpose of Study Tour: This is part of the regular academic programme as Credit Course - Paper C-205. Students visit various types of libraries for exposure and knowledge and are expected to note the activities performed, services and facilities provided and submit a Study Tour Report for the 2nd Semester Examinations.

Courses Conducted

Post Graduate: M.L.I.Sc.

Semester- I

Foundations of Library and Information Science, Knowledge Organization - I (Theory), Knowledge Organization - I (Practice), Information Sources and Services, Foundation of Computer Application.

Semester-II

System Analysis and Design, Knowledge Organisation –II (Theory), Knowledge Organisation –II (Practice), Library Software Package (Theory and Practice), Library Housekeeping Operations

Semester –III

Information Retrieval, Research Methodology, Collection Development, Database Manage-

ment System, Information Communication Technology

Semester-IV

Management of Library and Information Systems, Digital Libraries, E- Learning and Content management System (Theory and Practice), Information Sources and Services (Practice), Dissertation.

Ph.D. Courses

Research Methodology in Library and Information Science; Advance in Knowledge Management and Organizational Studies; Advance in Library and Information Management; Trends in Libraries and Librarianship; Advances in Information System Studies; Review of Literature

Seminars/Conferences/Symposia/ Extension Programmes etc.

Attended and Participated

P. Hangsing

Presented as co-author a paper on "Selection of a Suitable Open Source Digital Library Software to Establish ETD Repositories" at the 18th International Symposium on Electronic Theses and Dissertations: *Evolving Genre of ETDs for Knowledge Discovery* organized by the Networked Digital Library of Theses and Dissertations (NDLTD - an international consortium), held in JNU, New Delhi (4-6 November, 2015).

Bikika Laloo

Presented a paper on "An Information Gateway to North East India's Hidden Travel Potential" at the 2nd International Conference on Library and Information Science organized by the Athens Institute for Education and Research, July, 2015.

Publications

Research Papers/ Articles

Ravikumar, S. & Sawian, E.N. (2016). Collection Development Policy of the Library and its Relevance to the Syllabus: A Study of St. Anthony's College. *Pearl: A Journal of Library and Information Science* 10.3: 198-203.

Ravikumar, S. & Agrahari, A. (2015). "Flow of information from dailies to Periodicals: A Citation Analysis."

Published abroad

Passah, P. & Laloo, B. (2015). "Growing Needs of Users: Do Library Professionals Really Care?" *International Journal of Humanities and Social Studies*, 3(9): 281-288.

Kharbikhkiew, R. & Laloo, B. (2015). Professional Information Needs of University faculty : Gender Perspective Study of NEHU and GU," *INGLT*, 1(4): 1-9.

Singson, M. & Hangsing, P. (2015). Implication of 80/20 rules in electronic journal of UGC-Infonet consortia. *The Journal of Academic Librarianship*, 31: 207-219.

Ravikumar, S., Agrahari, A. & S. N. Singh. (2015). Mapping the intellectual structure of scientometrics: A co-word analysis of the journal *Scientometrics* (2005-2010). *Scientometrics* 102(1): 929-955.

Books/ Book Chapter/Proceedings

Naga, Moses M. & Uzuegbu, C.P. (2015). Information Literacy and Digital Competencies for Knowledge Management Practices in Organisation. In: *Fundamentals of Knowledge Management for the Knowledge Economy*, K. N. Igwe et al. (eds), Zeh Communications Ltd., Nigeria.

Naga, Moses M., Singh, Ch. I., & Swain, N.K. (2015). Festschrift Volume on *Librarianship Re-defined in the Knowledge Society: Essays in Honour of Prof. J. C. Binwal*. Open Page India, Bhubaneshwar, Odisha.

Naga, Moses M. & Hangsing, P. (2015). *Role of Library and Library Professionals in the Knowledge Society*, AAYU Publications, New Delhi.

Naga, Moses M. & Sten, B. (2015). Information Literacy on Indira Awaas Yojana: A Literature Review. In: *Role of Library and Library Professionals in the Knowledge Society*, P. Hangsing & Moses M. Naga (eds), AAYU Publications, New Delhi.

Naga, Moses M. (2015). Co-editor of *Fundamentals of Knowledge Management for the Knowledge Economy*, Zeh Communications Ltd., Nigeria, 2015.

Other Activities

Moses M. Naga

Member of the UGC Expert Committee for evaluation of proposals from college teachers for undertaking Minor Research Project and conducting of Seminar/Conference/workshop

Consulting Editor and Reviewer of Research Articles for (a) "Epao", an International Journal of Library and Information Science, published bi-annually by the Manipur Library Association (MLA), Imphal, Manipur, India; (b) "Ebonyi", Journal of Library and Information Science, published annually by Nigerian Library Association (NLA), Abakalika, Nigeria; (c) "The NEHU Journal", internationally refereed and bi-annually published by the North-Eastern Hill University Publications, Shillong.

Bikika Laloo

Attended a Workshop on *Management and Preservation of Indigenous Knowledge: a North-East Perspective* jointly organised by Indira Gandhi National Centre for the Arts and The Energy and Resources Institute at the Assam Administrative Staff College, Guwahati (19-21 November, 2015).

Member, Committee of Course and Studies, DLIS, Gauhati University

Member, Departmental Research Committee, DLIS, Guwahati University

Contributing member in the focus group discussion on Quality of Higher Education in India : A Study of External and Internal Quality Assurance at the Institutional Level,"

P. Hangsing

Attended a Workshop on *Management and Preservation of Indigenous Knowledge: a North-East Perspective* jointly organised by Indira Gandhi National Centre for the Arts and The Energy and Resources Institute at the Assam Administrative Staff College, Guwahati (19-21 November, 2015).

S Ravikumar

Delivered a series of lectures on correlation, regression and multiple regression using SPSS during short-term course on SPSS organized by UGC-HRDC, NEHU, 2015.

Jacqueline Jeane Thabab

Appointed as Resource Person for "Capacity Building of Staff on Documentation and Library Management" (28-3 March, 2016) in the Documentation Unit of the State Resource Centre, NEHU, Bijni Complex, Shillong.

DEPARTMENT OF MANAGEMENT (TURA)

Head: Prof. G. Singaiah
Telephone: 03651-224566 (0), Cell: +91-9485190779
E-mail: gsingaiah@yahoo.co.in

Faculty

Designation	Name and Qualifications	Specialisations
Professor	G. Singaiah M.Com., PhD.	Cross Cultural Management, Marketing and Entrepreneurship Development
	J. U. Ahmed M.Com, PhD.	Finance, Banking and Statistical Methods
Associate Professor	A. Bhattacharjee M.Com., PhD.	Human Resource Management and Development, Rural Marketing and Entrepreneurship Development
	K. C. Biswal M.Com., PhD.	Accounting & Finance, Management Information System and E-commerce, Microfinance
Assistant Professor	D. Bhagat MBA, PhD.	Agri-Business Management, Supply Chain Management & Quantitative Technique
	Kh. Devananda Singh M.Com., PhD.	Accounting & Finance, Entrepreneurship and Agricultural Finance
	S. B. A. Mazumder MBA	Marketing & Finance
	S. L. S. Akoijam MBA, PhD.	International Business & Marketing
	Thrinadha Rao Bandaru MBA.	Tourism and Human Resource Management
	Bimal Deb Nath MBA, PhD.	Information System and Information Technology

Thrust Areas of Research

The thrust areas of the department are entrepreneurship development, small business management, cross-cultural management, international business, tourism management, supply chain management, micro-finance &

rural credit management, business process re-engineering, agri-business, e-commerce, corporate finance, bank finance, portfolio management, information technology and social marketing.

Brief Statement of Academic Activities

The department conducts M.B.A. courses (General and Services) and the Ph.D. programme. During the period under report, the department published two issues of its bi-annual international journal. The faculty members published books and research papers

in various national / international journals and edited books. They also participated and presented papers in a number of national and international seminars / conferences. The faculty members also organised seminars/ workshop / symposiums / conferences and participated in MDP, FDP, refresher course and orientation programmes.

Students' Profile

Enrolment Capacity: MBA- General: 33; MBA- Services: 10; Ph D – Variable

	Male	Female	SC	ST	GEN	Meghalaya	Non-Meghalaya	Total
MBA-General	19	15	1	18	15	16	18	34
MBA-Services	4	6		10		9	1	10
PhD	4	5		4	5	6	3	9

Degrees Awarded

	Male	Female	SC	ST	GEN	Meghalaya	Non-Meghalaya	Total
MBA-General	27	14	1	29	12	31	11	42
Ph D	2				2		1	2

Students Awarded Ph.D. Degree

Name of the Student	Title of Thesis	Name of the Supervisor
Mriganka Chakraborty	Financing of Tea Industry: A Study in Barak Valley of Assam	J. U. Ahmed
Hassan Hasan	A Study on Problems and Prospects of E-Commerce in Syria	J. U. Ahmed

Placement of Students

The sincere effort put in by the Placement Cell of NEHU Tura Campus under Dr. Abhigyan Bhattacharjee, Placement Co-ordinator, has resulted in some of the biggest recruiters like Vodafone India Ltd, Airtel, Hi-Design-HR, PRADAN, Dabur, HDFC Bank, Axis Bank, ICICI Bank etc. showing keen interest in our

department. The placement record has been cent per cent with average CTC offered being Rs. 4.00 lakhs.

Industrial Tours of Students

A 15 day industrial visit (1st - 15th February, 2016) with 43 2nd Semester students was carried out for practical industrial exposure to

Kolkata, Mumbai, Ahmedabad and Surat. They visited some reputed industries/institutions like Himardri Chemicals (Singur, West Bengal), KRIBCHO PLANT (Surat), Rama News Printers Private Ltd. (Surat), IIM Ahmedabad, etc. Dr. Abhigyan Bhattacharjee and Mr. Thrinadha Rao Bandaru were the tour co-ordinators.

The Department organised a Short Industrial Tour for its first semester MBA students (2015-16 batch) to Bongaigaon Refinery, Assam on 3rd September, 2015. Dr. A. Bhattacharjee, Dr. D. Bhagat & Dr. S. L. S. Akoijam were the coordinators.

Courses Conducted

The department offers two Master's programmes, viz., MBA (General) & MBA (Service Management) and the Ph.D. programme.

MBA (General)

The department under MBA programme offers 32 courses, out of which 20 are core courses and one project work equivalent to two courses. Besides these, 10 special courses, five each from two specialisation groups are to be pursued. The dual specialisation courses are based on four functional areas of management, viz., Financial Management, Marketing Management, Human Resource Management and Agri-Business Management.

MBA (Service Management)

The department under MBA (Service Management) offers 32 courses, out of which 20 are core courses and one project work equivalent to two courses. Besides these, 10 special courses, five from any one of the functional areas and five from any one of the sartorial areas are to be pursued. The specialisation courses are based on four functional areas of management, viz, Finance, Marketing Management, Human

Resource Management and Agri-Business Management; and three sartorial areas of Management, viz., Banking & Insurance, NGO Management And Tourism Management.

PhD Courses

Business Research Methods; Management Thoughts and Thinkers and Emerging Issues in Business.

Journal IJAMR

The Department published one issue of the *International Journal of Applied Management Research* (IJAMR; ISSN 2347-2839) with Prof. G. Singaiah as Chief Editor and Dr. Deepak Bhagat as Managing Editor. The journal is a bi-annual, peer-reviewed international journal focusing on management and allied areas.

ISM- NERC (India)

To boost supply chain management education in the region, The North Eastern Region Chapter of the Institute for Supply Management (ISM) - India (An affiliate of ISM, USA) which was started in the Department of Management, NEHU, Tura Campus on 5th April 2013 has carried on its activities with increasing its membership and partners. Dr. Deepak Bhagat is president of the NERC-ISM (India).

Seminar/Conferences/Workshop/ Extension Programmes

Organized

The department organized its annual HR Conclave "SYNERGOS' 15" on 9th May, 2015. The theme of the conclave was "Mapping Skills and Competencies for Future Managers". Coordinator Dr. A. Bhattacharjee.

The department organised the ICSSR-NERC, Shillong, sponsored 4 day Workshop on

Developing Case Method of Teaching in Management Education during 10-13 June, 2015. Coordinator: Dr. Sunildro L S Akoijam.

The department organized an International Seminar on *Look East Policy: Perspectives from the South-East Asian Architecture* (26-27 June, 2016), funded by ICSSR, New Delhi; ICSSR- NERC, Shillong; NABARD; SBI. Coordinator: Dr. A. Bhattacharjee.

The department organised its Annual Management Fest "*MOSAIC 2015*" (29-31 October, 2015). Coordinator: Dr. Sunildro L S Akoijam.

The department organised a week long FDP on *Modern Teaching Pedagogies in Management Education* (1-7 December, 2015). Coordinator: Dr. Sunildro L S Akoijam.

A *Workshop on Agribusiness* was organised by the Department on 30 March, 2016. Coordinator: Dr. Deepak Bhagat and Joint-Coordinator: Dr. S.L.S. Akoijam.

Attended and Participated

J. U. Ahmed

Participated and introduced the theme of the *International Seminar on 'Look East Policy: Perspectives from South East Asian Architecture* organised by Department of Management, NEHU, Tura Campus (26-27 June, 2015).

Participated as Resource person and presented a paper on "Problems of Social Conflict and Human Trafficking" in the UGC Sponsored *National Seminar on 'Social Conflict and Human Trafficking in North East India* organised by the Department of Economics, Abhayapuri College, Assam (10-11 October, 2015).

Abhigyan Bhattacharjee

Presented a paper on "Pitfalls of Working Capital Finance by Bank under Turnover Method -Analysis of Constraint Financial Factors" in the two day National Seminar on *Emerging Trends in Commerce and Accounting* organised by the Department of Commerce, Sikkim University, Gangtok, Sikkim (2-3 November, 2015).

Presented a paper on "Transformation of Sustainable Business Activities through Green Entrepreneurship: An Exploratory Study" in the International Conference on *Regional Conflict and Entrepreneurship Development with Special Reference to South-East Asia* organised by the Department of Commerce, Assam University, Diphu Campus (27-28, November, 2015).

Presented a paper entitled "Promotion of Rural Micro Enterprises: Prospects and Challenges" at the *National Seminar* organised by National Institute of Rural Development and Panchayati Raj, North Eastern Regional Centre, Ministry of Rural Development, Govt. of India (7-8 December, 2015).

Presented a paper entitled "Employability Skill and Competency of the Management Graduates for Rural Development in North-East India" presented at the *International Conference* organised by Xavier Institute of Development Action & Studies, Jabalpur, Madhya Pradesh (04-05 February, 2016).

Presented a paper entitled "Make in India and Rural North-East: The Challenges" at the *National Seminar* organised by National Institute of Rural Development and Panchayati Raj, North Eastern Regional Centre, Ministry of Rural Development, Govt. of India (25-26 February, 2016).

Presented a paper on "Human Rights Education Challenges in Serving the Goals of Human Rights Education" at the *National Seminar* organised by D.P.B.S (PG) College, Anoopshahr, Bulandshahr, U.P. (3-4 March, 2016).

Presented a paper entitled "India's Look East Policy: Potentialities for the North Eastern Region of India" at the International Seminar on *Look East Policy: Perspectives from the South-East Asian Architecture* organised by Department of Management, NEHU, Tura Campus, Meghalaya (26-27 June, 2016).

K. C. Biswal

Presented a paper on "Financial inclusion and Sustainability" in the International Seminar on *Emerging Business opportunities for Sustainable Development* held at PG Department of Business Administration, Berhampur University, Berhampur on (6-7 April, 2015).

Presented a paper on "The Indian Banking Sector-Challenges & Opportunities" at the International Seminar on *Sustaining competitive Advantage in Service Sector* at Faculty of Management Sciences, Bhubaneswar, Odisha (15-16 May, 2015).

Presented a paper on "Determinants of Shareholder's Behavioural finance in Select Private companies of power Industry in India" in the *68th All India Commerce Conference 2015* organised by University Department of Commerce & Business Management, Vinoba Bhave University, Hazaribag, Jharkhand (6-8 November, 2015).

Presented a paper entitled "A prospective Study on the Challenges and Problems of

MSME in North-Eastern Region of India" in the two day *Annual conference of All Orissa Commerce Association* organised by Department of Commerce, Belpahar College, Belpahar, Odisha (6-7 February, 2016).

Deepak Bhagat

Presented a paper titled "From "Look East" to "Act East": Anything for North-East India this Time?" at the ICSSR, New Delhi sponsored *International Seminar on Look East Policy: Perspectives from the Southeast Asian Architecture* organized by Department of Management, NEHU, Tura Campus, Tura (26-27 June, 2015).

Presented a paper on "Biotech Industry in India: Emerging Scenario, Issues and Challenges" at the National Seminar on *Advances of Bioinformatics and Computational Biology in Applied Biotechnology* organised by Department of Management, NEHU, Tura Campus in Collaboration with Bioinformatics Centre (BIF), NEHU, Tura on 5th October, 2015.

Kh. Devananda. Singh

Presented a paper on "Act East Policy and MSMEs in NER of India-A Challenging Opportunity" in the International Seminar on *Look East Policy: Perspectives from the South East Asian Architecture* organized by Dept. of Management, North-Eastern Hill University, Tura Campus, Tura, Meghalaya (26-27 June, 2015).

Presented a paper on the topic "Entrepreneurial Credit in Matrilineal Society - An Experience from West Garo Hills District of Meghalaya" in the National Seminar on *Women Entrepreneurship in North East India: Issues and Challenges* organized by

Dept. of Management, Mizoram University, Aizawl (17-18 September, 2015).

Presented a paper on the topic "Entrepreneurial Traits among Nagas-Evidences from Bamboo Based Entrepreneurs in Dimapur District, Nagaland" in the International Conference on *Regional Conflict and Entrepreneurship Development: With Special Reference to South-East Asia* organized by the Dept. of Commerce, Assam University, Diphu Campus, Assam (27-28, November, 2015).

S. B. A. Mazumder

Presented a paper titled "Indo-ASEAN connectivity from north east: An implication on Barak Plain" at the *International Seminar on Look east policy: Perspectives from the South East Asian Architecture* held at the Department of Management, NEHU, Tura campus, Tura (26-27 June, 2015).

Sunildro L. S. Akoijam

Presented a paper on "Opportunities and Challenges of Look East Policies: Perspectives from North-Eastern Region of India" in an *International Conference* organized by Dept. of Management, NEHU, Tura Campus sponsored by ICSSR (26-27 June, 2015).

Presented a paper on "Indian Tourism Industry: A techno economic corridor of Indian economy (Perspectives from Act East Policy)" in an *International Conference* organized jointly by Indian Tourism & Hospitality Congress and Mandalay College, at Mandalay, Myanmar (3-4 July, 2015).

Presented a paper on "Importance of Indian Tourism Industry: A review" in an

International Conference organized by Dept. of Commerce, SRM University, Chennai (8-9 September, 2015).

Presented a paper on "Eco-Tourism for Sustainable Development in Manipur: A case study of rural tourism at Andro" in an *International Conference* organized by Indian Tourism and Hospitality Congress (NE Chapter) and Manipur Mountain & Trekking Association on (27-30 December, 2015).

Thrinadha Rao Bandaru

Presented a paper on 'A Critical Analysis on the Evolution of DMO's' in UGC sponsored *National Seminar on Pro Poor Tourism* organized by Department of Tourism Studies, Pondicherry University, Pondicherry (18-19 March, 2016).

Publications

Research Papers/ Articles

Singh, K. D. (2014). Factors Influencing the Growth of Microenterprises in West Garo Hills District of Meghalaya. *Kangleipak Business Review* 8: 58-69, ISSN: 0975-3656

Singaiah, G. (2015). Understanding of Social Marketing: A Conceptual Perspective. *Global Business Review*, 16(2): 213-235

Ahmed, J. U. (2015). Performance Evaluation of Regional Rural Banks: Evidence From Indian Rural Banks. *Global Business Review*, 16(5):125-139.

Ahmed, J.U., Chakraborty, M. (2015). Institutional Financing of Tea Industry: A Study in Barak Valley Region of Assam. *Indian Journal of Commerce & Management Studies*, 7(2): 64-72.

- Biswal, K.C. (2015). A Study on Profitability Analysis of MeECL, *The International Manager*, ISSN:2348-9405.
- Biswal, K.C. & Sangma, J.T. (2015). Determinants of Share Holders Behavioural Finance in Select Private Companies of Power Industry in India. *International Journal of Social Sciences & Humanities*. 1(2): ISSN:2395-5996.
- Biswal, K.C. (2015). An Analytical Study of consumer Behaviour of Ford Motors in Association with Himatsingka FORD, Guwahati. *The International Manager* 2(8): ISSN: 2348-9413.
- Biswal, K.C. & Sangma, J.T. (2015). A Study of Meghalaya State under the Purview of Potentialities of India's Look East Policy for the North-Eastern Region of India. *IJOAASE* 3(7). ISSN:2320-6136.
- Bhagat, D., Mishra, B. K. & Priyamvada, S. (2015). Study on Changing Livestock Products Scenario in Meghalaya. *Journal of Hill Agriculture*, 6 (1): 123- 127.
- Ahmed, J. U., Hasan, H. (2016). A Study on Identification of Key Barriers to E-Commerce in Syria. *Journal of Supply Chain Management Systems*, 5(1):14-26.
- Bhattacharjee, Abhigyan., Banerjee, Arun, (2016). Entrepreneurship Development Through Micro and Small Enterprises: A Study of Closed Tea Gardens in Jalpaiguri District of North Bengal, *Hind Business Review*, 2(1).
- Biswal, K.C. & Marak, A.J. (2016). Financial Analysis of the Assam Co-operative Apex Bank Limited. *Remarking*, 2(9) ISSN No: 2394-0344.
- Biswal, K.C. (2016). A Study on Liquidity Management of STAR CEMENT Limited, Meghalaya. *JJMSG* 1(3) ISSN:2454-8367.
- Published Abroad**
- Ahmed, J. U., Chakraborty, M. (2015). Factors Affecting Institutional Finance of Tea Industry: An Empirical Detection in Select Tea Gardens. *International Journal of Management Prudence*, 7(1): 59-69.
- Ahmed, J. U., Hasan, H. (2016). Barriers to E Commerce Adoption in Syria: An Empirical Detection. *World Journal of Business & Management*, 2(1): 41-59.
- Singh, K. D. (2016). Stages Involved in Bamboo Based Enterprises in Dimapur District, Nagaland. *The International Journal of Research in Commerce, IT and Management*, ISSN 2231-5756. 6(2): 71-78.
- Books/Book Chapters/ Proceedings**
- Biswal, K.C., Singaiah. G (2015). *Emerging Trends of Financial Services in India* (Eds.) (Himalaya Publishing House, Mumbai). ISBN : 978-93-5202-623-4.
- Ahmed, J. U., Singh, K. D. (2015). *Entrepreneurship Development: Issues and Perspectives*. (New Century Publications, New Delhi). ISBN: 978-81-7708-414-6
- Ahmed, J. U., Chakraborty, M. (2015). Bank Financing of Tea Industry. In: *Emerging Trends in Financial Services in India*, Biswal, K.C & Singaiah, G (Eds.). Himalaya Publishing House Pvt. Ltd, Mumbai. ISBN: 978-93-5202-623-4)
- Ahmed, J. U., Bhattacharjee, A. (2015) *A Compendium on Contemporary Issues in*

- Management Thoughts and Practices*, New Century Book Agency, Kolkata.
- Bhattacharjee, Abhigyan (2015). *Look East Policy: Perspectives from the South-East Asian Architecture*, Excel India Publishers, New Delhi.
- Bhattacharjee, A., Singh, M. (2015). Role of Microfinance in North East India. In: *Emerging Trends of Financial Services in India* (Biswal, K.C., Singaiah. G. Eds.) Himalaya Publishing House, Mumbai. ISBN: 978-93-5202-623-4: pp. 38-47.
- Bhattacharjee, A., Singh, M. (2015). Building Entrepreneurial Mindset among Rural Youths: A Case Study in North Garo Hills of Meghalaya. In: *Entrepreneurship Development in Conflict Regions, Issues and Challenges*, Chanu Ibemcha (Eds), Global Publishing House (India).
- Hazarika, P., Hazarika, J. P., Deka, N. & Bhagat, D. (2015). Marketing Strategies adopted by rice entrepreneurs in Jorhat district of Assam. In: *Entrepreneurship: A Drive Towards Socio- Economic Development*, Singh, K. D. (Ed.). Manash Publishers, Jaipur.
- Singh. K. D. (2015). [Co-edited with Prof. J. U. Ahmed] *Financing of Priority Sector in India: Scenario, Setback and Solutions*. Manas Publishers and Distributors, Jaipur (ISBN 978-93-83231-19-5).
- Mazumder, S. B. (2015). Indo-ASEAN Connectivity from Northeast Perspective - An Implication on Barak Plain. In: *Look East Policy - Perspectives from the South East Asian Architecture*. A. Bhattacharjee, Ed. (Excel Publishing Services, New Delhi).
- Akoijam, L.S.S. & Bhagat, D. (2015). *Agricultural Marketing System in India: A Comparative Exploration with Manufacturing and Service*. Bio Tech Publisher, New Delhi (ISBN: 978-81-7622-361-4).
- Akoijam, L.S.S. (2015). *Indian Tourism Industry: A Techno Economic Corridor of Indian Economy, Cross Border Tourism & India's Act East Policy*. Bharti Publications, New Delhi (ISBN: 978-93-85000-30-0), 19-39
- Akoijam, L.S.S. (2015). Importance of the Indian Tourism Industry: A Review. In: *Business Research-Exploring Innovations in Service Sectors* (ISBN: 978-81-8209-426-0) pp. 23-32.
- Akoijam, L.S.S. (2015). Social Enterprise as an Intervention for Regional Development: Evidences from North-Eastern India. In: *Entrepreneurship: A Drive towards Socio-Economic Development*, Manas Publisher, Jaipur (ISBN: 978-93-83231-23-2), 98-114
- Thrinadha Rao, B. & Venkatarao, Y. (2015). Entrepreneurship, Employment Generation and Tourism. In: *Entrepreneurship Development, Issues and Perspectives*. J.U. Ahmed & K. D. Singh, Eds. New Century Publications, New Delhi (ISBN: 978-81-7708-414-6). pp. 210-219.
- Thrinadha Rao B. (2015). Public debt and financial development: a case study of India. In: *Emerging Trends of Financial Services in India*. Biswal, K.C. & Singaiah. G. (Eds.). Himalaya Publishing House, Mumbai. ISBN NO: 978-93-5202-623-4. pp. 100-107.
- G. Singaiah (2016). Supply Chain Management. In: *Agricultural Marketing System in India: A Comparative Exploration with Manufacturing and Services Sector*. Bhagat,

- D. & Akoijam, S. L. S. (Eds.). Biotech Books: New Delhi (978-81-7622-361-4)
- Ahmed, J. U., Singh, K. D. (2016). *Women Entrepreneurship in India*. New Century Publications, New Delhi (ISBN: 978-81-7708-425-2)
- Bhagat, D. & Dhar, U. R. (2016). *Supply Chain Management in Agribusiness: Exploring the Economic, Social and Information Aspects*. Biotech Books: New Delhi (ISBN: 978-81-7622-358-4)
- Bhagat, D. & Akoijam, S. L. S. (2016). *Agricultural Marketing System in India: A Comparative Exploration with Manufacturing and Services Sector*. Biotech Books: New Delhi (978-81-7622-361-4)
- Bhagat, D. & Barooah, B. K. (2016). Belief, Attitude and Behaviour of Potato Farmers towards Pesticide Selection. In: *Agricultural Marketing System in India: A Comparative Exploration with Manufacturing and Services Sector*. Bhagat, D. & Akoijam, S. L. S. (Eds.). Biotech Books, New Delhi.
- Singh, K.D. (2016). *Entrepreneurship- A Drive Towards Socio-Economic Development of North Eastern Region of India*. Manas Publishers, Jaipur. ISBN 978-93-83231-23-2.
- Mazumder, S. B. A. (2016). Internet Marketing- A New Era of Marketing. In: *Agricultural Marketing System in India- A Comparative Exploration with Manufacturing and Service Sector*. D. Bhagat & L.S. S Akoijam (Eds.). Biotech Books, New Delhi.
- Published Abroad**
- Ahmed, J. U. & Chakraborty, M. (2016). *Institutional Financing of Tea Industry in India*. Lap Lambert Academic Publishing, Germany (ISBN: 978-3-659-98008-9).

Research Projects

Completed Projects

Sl. No.	Title of the Project	PI/Co-PI	Funding Agency	Amount
1	Comparative study for Micro & Small Enterprises in Impal West District of Manipur & West Garo Hills District of Meghalaya – The Entrepreneurial Perspective	K.D. Singh	ICSSR, New Delhi	Rs. 7,00,000/-
2.	Institutional Credit for Income & Employment Generation in Some Select Villages in West Garo Hills District, Meghalaya – The Socio Economics Aspects	K.D. Singh	NABAR, Mumbai	Rs. 5,33,000/-
3.	An Evaluative Study on the Performance and Working of Meghalaya Rural Bank	J.U. Ahmed	ICSSR, New Delhi	Rs. 8,00,000/-

Ongoing Projects

Sl No	Title of the project	PI/Co-PI	Funding Agency	Amount
1.	An Evaluation of Micro Finance Scheme in Garo Hills of Meghalaya (A Study on Self help Groups in Three Districts of Garo Hills)	K. C. Biswal	ICSSR, New Delhi	Rs. 15,00,000.00
2.	A Diagnostic Study On Financial Structure of Tea Estates of Barak Valley of Assam	J. U. Ahmed	ICSSR, New Delhi	Rs.6,00,000/-
3.	A Comparative Study on Income and Employment Pattern in Patrilineal and Matrilineal Societies of Rural North East India: A Socio- Economic Assessment	D. Bhagat	ICSSR, New Delhi	Rs. 8,00,000/-

Other Activities

G. Singaiah

Delivered lectures in a Capacity Building Workshop on *Critical Research and Teaching Learning Process* organized by Centre for Entrepreneurship Development, Manipur University (10-23 April, 2015).

Delivered lecture on "Critical Research Though Process" in Mizoram University, Aizawl, on 4 May, 2015.

Resource person in Workshop on "Developing Case Method of Teaching in Management Education" (10-13 June, 2015).

Observer in UGC Net Examination held June, 2015.

Delivered lecture on "Career Counselling in Management" in Government Degree College in Madugula, Vishakhapatnam in 25th July, 2015.

Delivered lectures on "Cross Cultural Management" and "Emotional intelligence" at IITM, Gwalior (11-12 January, 2016).

Delivered lecture on "Transformational Leadership" in Government Degree College, Subbavaram, Vishakhapatnam on 21st January, 2016.

Delivered Keynote Address on "Intelligent Learning Management Systems" in *National Seminar on Intelligent Systems* organised by Kalyani University, West Bengal (19-20 February, 2016).

Delivered lecture on "Research process across cultures" in *Workshop on Research Methodology in Humanities and Social Sciences* organised by Department of Education, NEHU, Tura Campus on 10th March, 2016.

Resource person in the International Seminar on *Look East Policy: Perspectives from the South-East Asian Architecture* organised by Department of Management, NEHU, Tura Campus, Meghalaya (26-27 June, 2016).

NAAC Peer Team Member during November, 2015 to Nangthen Degree College, Maharashtra and UGC Expert Member

during January, 2016, for Research Project Proposal Evaluation.

J. U. Ahmed

Appointed as President, North Eastern Management Association, Manipur University, Imphal, Manipur.

Member, Advisory Board, *Samavayika*, A Peer Reviewed Journal of Assam University Employees Thrifts and Credit Co-operative Society Ltd., Assam University, Silchar, Assam.

Member, Advisory & Reviewers Board, PCC Journal of Economics & Commerce, Public College of Commerce, Dimapur, Nagaland.

Delivered lecture on "Quality of Doctoral Research in Indian Universities" as Resource person in University of Science and Technology, Meghalaya, on 15th October, 2015.

Delivered a Key Note Address entitled, "Role of Agribusiness in India" in the *Regional Workshop on Role of Agribusiness for Livelihood Opportunities* held on 30th March 2016 in the Department of Management, NEHU, Tura Campus.

Delivered a lecture entitled, "Identifying the Research Variables for Social Sciences" in the ICSSR-NERC sponsored Research Methodology Course held on 24th May to 2nd June, 2016 organised by the Department of Management, NEHU, Tura Campus.

Abhigyan Bhattacharjee

Participated in a *Workshop on Developing Case Method of Teaching in Management Education* organized by Dept. of Management, NEHU, Tura Campus (10-13 June, 2015).

Appointed as the Joint Secretary of the North-East India Commerce and Management Association on July 2015.

Chaired Technical Session on "Regional Conflict and Entrepreneurship Development with Special Reference to South-East Asia" in the *International Seminar* organised by the Department of Commerce, Assam University, Diphu Campus (27-28 November, 2015).

Participated in the "FDP on Modern Teaching Pedagogies in Management Education" organized by Dept. of Management, NEHU, Tura Campus (1-7 December, 2015).

Chaired a Technical Session III, Parallel Session F, on "Re-Thinking New Education Policy: Contextualising the Issues of India's North-Eastern Region" in the *National Seminar* organised by the Department of Education, NEHU, Tura Campus (20-21 February, 2016).

Resource Person in the ICSSR sponsored 10 days Training Course on Research Methodology for Researchers in Social Sciences & Humanities organised by the Department of Education, NEHU, Tura Campus (9-19 March, 2016).

K. C. Biswal

Delivered two lectures on Computer Application in Finance & Management Information System organised by Gokul Institute of Technology and Sciences, Vizianagaram, Andhra Pradesh, on 16th January 2016.

Acted as associate editor in *Common Man Commerce & Management Journal* (ISSN No: 2348-4934) in Hyderabad, A.P.

Associate Member in *Journal of Business Management, Commerce & Research* (ISSN:2278-5280) in Bhubaneswar.

Deepak Bhagat

Participated in "*Case Study Workshop*" sponsored by ICSSR-NERC, Shillong and organised by Dept of Management, NEHU, Tura Campus (30th November to 5th December, 2015).

Completed editorial assignments for (a) *Journal of Business Theory and Practice* (ISSN 2372-9759 (Print) ISSN 2329-2644 (Online)) published from Los Angeles; (b) *International Journal of Business and Management* (ISSN 1833-3850 (Print), ISSN 1833-8119 (Online) published by Canadian Center of Science and Education, Canada; (c) *Journal of Geography and Regional Planning* (ISSN 2070-1845) published from Nigeria.

President of North Eastern Region Chapter of the Institute for Supply Management - India (Affiliate of ISM, USA) started in Dept of Management, NEHU, Tura Campus, on 5th April 2013.

Kh. Devananda Singh

Delivered lectures on Entrepreneurial Finance and Accounting for Entrepreneurs in the Ten Day EDP for B. Sc. Agri. Students at the Centre for Entrepreneurship and Skill Development, Manipur University on 29th January, 2016.

Visiting Lecturer (Accountancy and Financial Management) in Department of Computer Applications, NEHU, Tura Campus, during November-December, 2015.

Visiting Lecturer (Accountancy and Financial Management) in College of Home Sciences, Central Agricultural University, Tura, Meghalaya, on 4th April, 2015.

Participated in "FDP on Modern Teaching Pedagogies in Management Education"

organized by Dept. of Management, NEHU, Tura Campus (1-7 December, 2015).

Participated in *Workshop on Developing Case Method of Teaching in Management Education* organized by Dept. of Management, NEHU, Tura Campus (10-13 June, 2015).

Sultana B. A. Mazumder

Participated in the *HR Conclave on Mapping Skills and Competencies for Future Managers* organized by Department of Management, NEHU, Tura Campus on 9th of May, 2015.

Participated in a *Workshop on Developing Case Method of Teaching in Management Education* organized by Dept of Management, NEHU, Tura Campus (10-13 June, 2015).

Participated in a FDP on 'Modern Teaching Pedagogies in Management Education' organized by the Dept of Management, NEHU, Tura Campus (1-7 December, 2015).

Participated in *International Seminar on 'E-commerce and SMEs in Developing Economies: Growth and Strategies'* organized by Dept of Management, NEHU, Tura Campus (29-30 June, 2016).

Sunildro L. S. Akoijam

Participated in a *Capacity Building Workshop on Critical Research and Teaching Learning Process* organized by Centre for Entrepreneurship Development, Manipur University (10-23 April, 2015).

Participated in a "*Workshop on Communication Skills at the Workplace*" organized by Centre of Entrepreneurship & Skills Development, Manipur University (18-19 December, 2015).

Department of Management (Tura)

Participated in a “*National Seminar on Commodities and Derivative Markets in India*”organised by Department of Business Administration, Gauhati University on 26th March, 2016.

Thrinadha Rao Bandaru

Participated in “*Case Study Workshop*”sponsored by ICSSR-NERC, Shillong and organised by Department of Management, NEHU, Tura Campus (30 November - 5 December, 2015).

Resource person for two sessions on “Data Coding, Entry and Analysis Using SPSS” in a ten day Research Methodology Course in Social Sciences for PhD Students sponsored by ICSSR, NERC, Shillong, organised by Dept of Management, NEHU, Tura Campus (24 May - 2 June, 2016).

Bimal Deb Nath

Attended a Refresher Course on E-Commerce and Management at UGC-HRDC, University of Madras (8-24 August, 2015).

DEPARTMENT OF JOURNALISM AND MASS COMMUNICATION

Head: Kamaljit Chirom
Telephone: 0364-2723403
E-mail: kchirom@nehu.ac.in

Faculty

Designation	Name and Qualification	Specialization
Assistant Professor	Kamaljit Chirom, M.A.	Film Studies, Advertising and Public Relations, Communication Research.
	Barath N., M.A., M.Phil.	History of Print Cultures, Media and Culture Studies, Development Communication
	Karen L. Donoghue, M.A.	Television Studies, New Media, Media and Gender, Print

Thrust Areas of Research

Film Studies, Culture and Media, Television, New Media, Print Culture, Development Communication.

of the students for M.A. (Journalism & Mass Communication) was admitted. Presently, the M.A. programme is running successfully. The intake of students in the Department is 20 (twenty) per year.

Brief Statement of Academic Activities

The Department started its academic programme of two-year M.A. from 2014 and the first batch

Students' Profile

Enrolment Capacity: M.A. : 20

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.A.	1	16	3	13	7	16	4	20

Courses Conducted

M.A. (Journalism & Mass Communication)

Semester-I:

Mass Communication: Theory and Principles, History and Growth of Journalism, Print

Journalism – Reporting practice, Print Journalism – Editing practice, Reporting (Practical), Editing (Practical).

Semester-II:

Media, Radio Production, Film Production (Practical), Radio Production (Practical).

Open Courses: Culture and Society, Film Production, Television Studies

Semester-III:

Public Relations, Advertising, Communication Research, Advertising and Public Relations (Practical), Internship.

Open Course: Basic Photography.

Semester-IV:

Media Law, Ethics and Management, New Media, Film Studies, Communication for Development, Media and Gender.

Seminars/Conferences/Symposia/Extension Programmes etc.

Attended

Kamaljit Chirom

Presented paper titled: "Use of Shumang Leela in promoting peace in the Northeast," at a *Symposium on "Communication for Peace and Nonviolence"* at Mizoram Central University, Aizawl, Mizoram (1-2 March, 2016).

Barath N.

Presented an invited paper on "Writing off English as a language of caste" in an *International Seminar on Comparative Literature: The Question of Language and the Minority* organised by the Centre for Comparative Literature, University of Hyderabad, Hyderabad (14-16 October, 2015).

Karen L. Donoghue

Presented paper on "Mapping the Interface Between Facebook and Adolescents: The Diatribe of K-Poppers on Michelle Varte's

Wall" at *National Seminar on Media and the Marginalised* held by Department of Mass Communication, Mizoram University (25-26 June, 2015).

Publications

Research Papers/Articles

Chirom, Kamaljit (2016). People of Manipur. In: *Manipur Bhasha O Sahitya*. A. K. Seram (Ed.). NAGREE Publishers, Sylhet, Bangladesh: p. 77-84.

Academic Collaborations

A one-day exhibition of comic posters was held at the department in collaboration with the Department of Journalism & Mass Communication, EFLU, Shillong Campus, as part of a three-day workshop on Grassroots Comics under a campaign titled "No Stereotypes Please" on 6th April, 2016.

Other Activities

The Department organised a Cultural Interaction Programme on 4th November 2015 at the Auditorium of the Old Guest House. The programme was attended by students and teachers of the Department of Journalism & Mass Communication, Madras University, the Department of Mass Communication, Mizoram University, and the Department of Journalism & Mass Communication, NEHU. During the programme, the students of the three universities showed cultural items like songs, dance, music, theatre and martial arts.

Conducted a one-day workshop for the students of the Department with the renowned photographer Rohit Suri as the Resource Person on 30th March 2016.

DEPARTMENT OF TOURISM AND HOTEL MANAGEMENT

Head: Dr. Punit Gautam
Telephone: 0364 2723444/ 3441/ 09436565987
E-mail: pg20120301@rediffmail.com

Faculty

Designation	Name and Qualification	Specialization
Associate Professor	Saurabh Kumar Dixit M.T.M., PhD.	Eco & Sustainable Tourism, Tourism Planning vis-à-vis Impacts and Tour Packaging.
	Punit Gautam M.T.A., D.Phil.	Hospitality/ Tourism Management; Guest/ Visitor Satisfaction; Tourism Marketing.
Assistant Professor	Benjamin F. Lyngdoh M.Com., PhD.	Impact evaluation of developmental interventions and tourism-related entrepreneurship
	Sharad Kumar Kulshreshtha M.T.A., PhD.	MICE & Event Management, Sustainable Tourism, Service Marketing, Emerging Concepts of Tourism.

Brief Summary of Academic Activities

The Department conducts the Masters Course in Tourism and Hotel Management (MTTM) and also the Ph.D. programme.

Students' Profile

Enrolment Capacity: MTTM – 30; Ph.D. – Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
MTTM	NIL	28	02	17	13	28	02	30
Ph.D.	01	06	01	05	03	06	02	08

Research Fellowships

CSIR-UGC NET JRF : 02
 CSIR-UGC NET Lecturership : 05
 Rajeev Gandhi National Fellowship : 01

Educational Tour of Students

Teacher-in-Charge: Dr. Punit Gautam
Places/Institutions visited: Indian Himalayan Centre for Adventure and Ecotourism, Chemchey, South Sikkim

Duration of tour: 08 days (21-28 May, 2016)

Purpose of Tour: To provide exposure to the students in these upcoming options

Courses Conducted

Postgraduate: MTTM

Semester-I:

Principles and Practices of Tourism, Principles of Management and Organizational Behavior, Hotel Operations and Management, Tourism Geography, Business Communication, Economics for Tourism, Tourism Products of India, Human Resource Management.

Semester-II:

Travel Agency and Tour Operations Management, Tourism Marketing, Transport Operations and Linkages, Accommodation Management, Accounting and Finance for Tourism and Hotel Business, Research Methodology, Event Management, Legal and Regulatory Framework of Tourism.

Semester-III:

Tour Guiding and Escorting, Food and Beverage Management, Society and Culture of North East India, Information Technology for Tourism and Hotel Business.

Specializations:

Tourism Management: Aviation Management, Tour Packaging Management.

Hotel Management: Rooms Division Management, Revenue and Yield Management. *Tourism Marketing:* Tourist Behavior, Selling and Negotiation Skills.

Tourism Entrepreneurship: Tourism and Hotel Entrepreneurship, Small Business Management

Semester-IV:

Tourism Products of North East India, Destination Planning and Development, Internship.

Seminars/Conferences/Symposia/ Extension Programmes etc.

Organized

The Department organized the International Conference on Advancements in Tourism and Hospitality Marketing (ATHMCON - 2016) on 17th -18th May, 2016.

Attended

S. K. Kulshreshtha

Presented paper on “Promoting Indigenous Sustainable Tourism Practices Through Community of Mawphlang Village in East Khasi Hills District of Meghalaya” at the *3rd International Conference on Sustainable Destination Excellence: Revitalizing Peace through Innovation in Tourism* organized by School of Hospitality and Tourism Management, University of Jammu, Jammu (5-6 February, 2016).

Presented paper on “Make in India: A Catalyst for Accelerating Tourism Prospects in North East India” at the *National Seminar on Make in India and Rural North East India: Challenges* organised by NIRDPR-NERC, Guwahati (Assam) (25-26 February, 2016).

B. F. Lyngdoh

Attended and presented paper titled “An Experimental Comparison of Tourism Entrepreneurship: Impact Learning and Policy Implications from Meghalaya, India” Strategic Development of Domestic Tourism in India, Institute of Tourism Studies, University of Lucknow, Lucknow (1-2 November, 2015).

Publications

Research Papers/ Articles

Lyngdoh, B.F. (2015). Tourism-related entrepreneurship and socio-economic change: A case study of Meghalaya, India. *Tourism Innovations: An International Journal of Indian Tourism and Hospitality Congress*. 4: 38-53.

Lyngdoh, B.F. (2015). Tourist spending and food-related services in Cherrapunji destination of Meghalaya: A tourist needs gap analysis. *Keanean Journal of Arts: An Annual Arts Journal of Lady Keane College*. 2:70-85.

Lyngdoh, B.F. (2015). Tourism of Cultural Festivals of Meghalaya. *North East Scholar Magazine*. 1:65-69.

Kulshreshtha, S.K. (2015). Unit Writing for Post Graduate Diploma in Travel & Tourism *Foundation of Tourism' Unit-3*. Netaji Subhash Open University, Kolkata

Dixit, S. K. (2016). North East India – An Unexplored Paradise for World Tourism. *Yojana* (ISSN 09718400) pp. 47-50 (Ministry of Information and Broadcasting, GOI).

Published abroad

Dixit S.K. (2016). E-WOM Marketing in Hospitality Industry. In: *Managing Public Relations and Brand Image through Social Media*. A. Singh & P. Duhan (Eds.). IGI Global Publishers, U.S.A. (ISBN 9781522503323). pp. 266-280

Books/ Book Chapter/Proceedings

Gautam, P, Chourasia, B. (2015). A Study to Compare Guest Expectation and Perception

in Relation to Professionals Practice in Indian Hotels (A Comparative Study of Ranchi and Durgapur Region). In: *Tourism, Mechanism and Human Happiness*, ISBN No. 978-81-910 666-7-8. pp. 816-828

Gautam, P, Chourasia, B. (2015). Customer Satisfaction with Relation to Attitude and Skill Levels in Hotel Industry: With Reference to Hotels in Ranchi and Dugapur. In: *Human Development in Developing Nations*. A. K. Misra and A. Agarwal (Eds.). ISBN-978-81-910666-6-1. Mumkshu Publication of Humanities, Shahjahanpur. pp. 265-271.

Kulshreshtha, S.K. (2015). Dynamics of One Billion Tourists-A Prospective Opportunity for Incredible India. In: *Tourism A Multifaceted Perspective*. S.P. Bansal, P. Gautam & S. Walia (Eds.). Bharti Publication, New Delhi. ISBN : 978-93-85000-50-8

Kulshreshtha, S. K. (2016). Diversification and Diversion of Tourism & Hospitality Services- A Customer Centric Approach of Service Marketing. In: *Emerging Issues in Management*. A.K.Singh & B. K. Das (Eds.) Mittal Publication. pp. 269-272.

Kulshreshtha, S.K. (2016). Event Management - New Emerging Industry in India. In: *Emerging Issues in Management*. A. K. Singh & B. K. Das (Eds.). Mittal Publication, New Delhi. pp. 343-349.

Shukla, U.N., Kulshreshtha, S.K. (2016). Blissful Bihar: A Landmark of Ancient Culture & Heritage Tourism. In: *Promoting Heritage Tourism-Issue and Challenges*. A.K.Singh and R.A. Sharma (Eds.). Aayu Publication, New Delhi. pp. 196-215

Research Projects

Ongoing

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount (in Rs.)
1	Study of Service Quality, Satisfaction and the Intent to Return among Tourists Visiting the Leading Hotels of Guwahati (Assam) and Shillong (Meghalaya)	Saurabh Kumar Dixit	University Grants Commission, New Delhi	9,69,600/-

Completed during Year

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount (in Rs.)
1	Impact of tourism-related micro and small enterprise on entrepreneur's socio-economic outcomes: a propensity score analysis of Meghalaya	Benjamin F. Lyngdoh	ICSSR, New Delhi	4,00,000/-

Other Activities

Saurabh Kumar Dixit

Participated in the Directors Conclave- 2016 as Resource Person on 16-17 January, 2016, at Institute of Tourism and Travel Management, Govindpuri, Gwalior.

Participated in the National Level Seminar on *Make In India and Rural North-East: The Challenges* at National Institute of Rural Development & Panchayati Raj, North Eastern Regional Centre, Jawahar Nagar, Guwahati (25-26 February, 2016).

Benjamin F Lyngdoh

Attended and participated in the 8th Director's Conclave on *Make in India: Setting the Agenda for Tourism Sustainability*, at Indian Institute of Tourism and Travel Management, Gwalior (16 -17 February, 2016).

Attended and participated in the "Writing Teaching Cases for Tourism Programme", Case Writing Workshop, Indian Institute of Tourism and Travel Management, Noida (1-2 July, 2016).

DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND FOOD TECHNOLOGY (TURA)

Head: Dr. Sheena Haorongbam
Telephone: 03651-223107
E-mail: amftnehutura@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Assistant Professor	Sheena Haorongbam M.Sc., PhD.	Biochemistry, Processing, Nutritional & Analytical Aspects of Plant Based Foods, Health Impacts & Food Habits
	Gino A. Sangma MBA	Marketing Management and Agribusiness Management
	Sasikumar R. M.Sc.	Food Processing & Technology-Food Analysis and Quality Control, Fruits and Vegetables Processing Technology, Beverage Technology, Fermentation Technology

Guest Faculty in the Department:

1. Nirdosh Kr. Srivastava, MBA
2. Sendrick A. Sangma, MBA
3. Vandana Purohit, MBA
8. Rural extension services
9. Food Analysis and Hygiene
10. Underutilized Forest resources
11. Food Chemistry and Analysis

Thrust Areas of Research

1. Marketing Management and Agribusiness Management
2. Fruits and Vegetables Processing Technology
3. Food Packaging and Food flavour Technology
4. Traditional Knowledge and Food Habits
5. Certification and quality assurance of foods
6. Post Harvest and Processing technology and Management of Fruits & vegetables
7. Skill Development

Brief Statement of Academic Activities

The department conducts the MBA Course in Agri-Business and Food Technology.

The department co-organized an HR Conclave, SYNERGOS 2016, in "Mapping Skills and Competencies for Future Managers" in collaboration with Department of Management, NEHU, Tura Campus, on 9th May 2015.

Organized a one-month training programme on Bakery Technology, sponsored by Aaruthal Foundation, as NGO, Chennai, Tamil Nadu, India. (1-30 September, 2015).

Students' Profile

Enrolment Capacity: MBA (Agri-Business and Food Technology) 15

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
MBA (ABFT)	1	14	1	8	8	12	4	16

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
MBA (ABFT)		6		3	3	6	Nil	6

Courses Conducted

Post-graduate (MBA)

There are a total of 30 papers comprising of 21 compulsory and 9 elective papers with each paper evaluated for maximum of 100 marks in four semesters and a project work equivalent to 2 papers with maximum of 200 marks. A student has to opt one out of two areas of specialization, either a) Agribusiness Management or b) Food Technology and Management, from Semester III onwards.

Semester-I:

Management Concepts, Managerial Economics, Computer Applications, Business environment, Quantitative Analysis for Managerial Decision, Accounting for Managers, Financial Management, Management of Food and Agribusiness.

Semester-II:

Business Communication, Agri-Business Marketing, Human Resource, Management in Agri-Business, Operations Management, Supply Chain and Retail Management, Legal Aspects of Business, Fundamentals of Food Processing and Preservation, Tax Laws.

Semester-III:

Compulsory papers: Research Methods, Entrepreneurship and New Venture Development, Agricultural Credit and Co-operative Management

Elective papers for Agri-business Management: Agri and Food Marketing, Farm Business management, Agricultural Project Management, Agricultural Input Management and ICT in Agribusiness.

Elective papers for Food Technology and Management: Food Chemistry and Analysis, Food Microbiology*, Unit Operations in Food Processing, Post Harvest Management and Horticultural Crops*, Food Additives and Regulations.

Semester - IV:

Compulsory papers: Strategic Management, Intellectual Property Rights

Elective papers (A Student will have to undergo all four papers of opted specialization)

Agri-business Management: Commercial Horticulture, Commodity Futures Trading, International Trade in Agriculture and Livestock Production Management

Food Technology and Management: Cereal and Bakery Technology, Food Hygiene and Sanitation, Total Quality Management in Food Industry and Beverages and Fermentation Technology**

Practical classes: IIIrd Semester and IVth Semester for Food Technology and Management Specialization

Students Internship

Specialization: *Agri-business Management* (Industry Project Internship, Two Months)

Student Enrichment Programmes

Students of 1st and 3rd Semester were taken to attend and interact in:

- a) Food Processing Technologies in North Eastern States of India. North East Food Processing & Technology Summit- 19th Sep 2015, FINER- Guwahati.
- b) Application of Food Processing Technologies in North East India. North East Food Processing Conclave, 6th Oct 2015, Shillong.

Educational Tour of Students (Industrial Tour)

Teacher-in-Charge: Gino A. Sangma

Places/Institutions visited: Gangtok, Sikkim and Darjeeling, West Bengal - attended Sikkim Organic Festival organized by Govt. of Sikkim where students witnessed variety of orchids, other flowers and organic vegetables display and interacted with the farmers, entrepreneurs and stakeholders about methods and marketing aspects of organic produces and paid visit to Darjeeling tea estates and Mirik Tea estates.

Duration of tour: 22nd to 30th January, 2016

Purpose of Tour: Industrial Exposure

Local Industry Visits

Cashewnut Processing Factory, Phulbari, West Garo Hills District, Meghalaya

In-charge: Vandana Purohit, Guest Faculty

Students: 1st & 3rd Semester students, 2015

Poultry farm, Rongkhon, West Garo Hills, Meghalaya

In-charge: Sendrick A Sangma, Guest Faculty

Students: 4th Semester students, 2016

Paper: Livestock Production and Management

Swine Farm, Rongkhon, West Garo Hills, Meghalaya

In-charge: Sendrick A Sangma, Guest Faculty

Students: 4th Semester students, 2016

Paper: Livestock Production and Management

ICAR, Umiam, Barapani, Meghalaya

In-charge: Pahara Ryndem, Guest Faculty

Students: 3rd Semester students, 2015

Seminars/Conferences/Symposia/ Extension Programmes etc.

Attended

Sasikumar R.

Gave an oral presentation on "Development and Quality Evaluation of Low Calorie Therapeutic RTS Beverages Blend of Aloe Vera Gel and Jackfruit by Using Artificial Sweeteners" at the *National Seminar cum Workshop on Innovative Prospects in Food Processing Integration of Engineering and Biological Science*. Tezpur University, Tezpur (27-28, March 2015).

Gave an oral presentation on "The Present Status and Future Prospects of Fruit Juice

and Beverages Sector in India- A Critical Analysis” at the *National Conference on Prospects and Challenges in Indigenous Foods and Drinks Sector*, CAU, Imphal. (11-12 April, 2015).

Gave an oral presentation on “Value Chain Analysis: A Case Study on Pineapple Value Addition from North-East India.” at the *International Seminar on Look East Policy: Perspectives from the South East-Asian Architecture*, NEHU Tura Campus, Tura. (26-27 June 2015).

Publications

Research Papers/ Articles

Sasikumar R.

Sasikumar, R. (2015). Preparation of Therapeutic RTS Beverage from Aloe Vera Gel and Aonla Fruit Juice Evaluation of Storage Stability. *Asian J. Dairy and Food Research*. 34 (2): 151-155

Sasikumar, R. (2015). Development, Quality Evaluation and Shelf Life Studies of Probiotic Beverages Using Whey and Aloe Vera Juice. *J. Food Process Tech*. 6: 486.

Sasikumar, R and Vevak. (2015). Process Development Therapeutic RTS Beverages from Blend of Aloe Vera and Pineapple. *J. Agriculture and Tech*. 2 (2):7-14

Sasikumar, R. (2015). Studies on the Process Development and Shelf Life of Low Calorie Therapeutic Aloe Vera RTS Beverage by Using Artificial Sweetener. *Madras Agricultural J*. 102 (7-9): 298-302.

Sasikumar, R., Jha Y.K and Chakaravarthy S. (2015). Studies on Encapsulated Enzymes to Accelerate Proteolyses in Cheddar Cheese. *International J. Food and Nutritional Science*. 4 (5): 1-6.

Sasikumar R & Vevak (2015). Effect on Partial Substitution of Sweet Potato Flour on the Quality of White Wheat Bread: Organic Sweet Potato Grown from West Garo Hill, Meghalaya, North East India. *J. Root crops*. 41(1): 48-55.

Sasikumar R (2015). Storage Stability of Functional Beverages Prepared from Aloe vera, Blended with Bael Fruit. *International J. Food Quality and Safety*. 1: 39-44.

Sasikumar R & Vevak (2016). Optimization of Sugar Substitutes in Therapeutic Beverages Using Response Surface Methodology. *International J. Agricultural and Food Science*. 6 (2): 19-23.

Books/Book Chapters/Proceedings

Sasikumar, R (2015) *Post Harvest Technology of Fruits and Vegetables* (Biotech Publications, New Delhi pp. 1-340 (a National Text Book).

Other Activities

Sheena Haorongbam

Participated in the 105th UGC sponsored Orientation programme, held from 10.2.2015 to 9.3.2015 organized by UGC Academic Staff College, Panjab University, Chandigarh

Co-convenor of the HR–Conclave ‘SYNERGOS’, “Mapping Skills and Competencies for Future Managers” organized by Department of Management, NEHU, Tura Campus held on 9th May 2015.

Member, Organizing Committee of the *Workshop on Introduction to Archaeology*” organized by Dept. Of History & Archaeology, NEHU, Tura Campus, Held on May 28 – June 6, 2015.

Attended the *International Seminar on Look East Policy: Perspectives from the South-East Asian Architecture* organized by Department of Management, North-Eastern Hill University, Tura Campus, Tura (26-27 June, 2015).

Participated in the *National Seminar on Re-thinking New Education Policy: Contextualizing the Issues of India's North-Eastern Region* organized by Department of Education, North-Eastern Hill University, Tura Campus, Tura (20-21 March, 2016).

Organizing Member, One month Training Programme on Bakery Technology, organized by Dept. of Agri Business Management & Food Technology, sponsored by Aaruthal Foundation, as NGO, Chennai, Tamil Nadu, India. (1-30 September, 2015).

Gino A. Sangma

Participated in the *HR – Conclave 'SYNERGOS', "Mapping Skills and Competencies for Future Managers"* organized by Department of Management, NEHU, Tura Campus held on 9th May 2015.

Attended Workshop on 'Developing Case Method of Teaching in Management Education' organized by Department of Management, North-Eastern Hill University, Tura Campus sponsored by ICSSR, NERC, Shillong (10-13 June, 2015).

Participated in the *International Seminar on "Look East Policy: Perspectives from the South-East Asian Architecture"* organized by Department of Management, North-Eastern Hill University, Tura Campus, Tura (26-27 June, 2015).

Co-Convener, One month Training Programme on Bakery Technology, organized by

Dept. of Agri Business Management & Food Technology, sponsored by Aaruthal Foundation, as NGO, Chennai, Tamil Nadu-India. (1-30 September, 2015).

Participated in the *National Seminar on "Advances of Bioinformatics and Computational Biology in Applied Biotechnology"* organized by Bioinformatics Centre and Department of Rural Development and Agricultural Production, North-Eastern Hill University, Tura Campus on 5th October, 2015.

Participated in the *International Symposium on "Next Generation Approaches for Sustainable Development of Hill and Upland Horticulture"* organized by Department of Horticulture, Sikkim University and co-organized by Department of Horticulture, North-Eastern Hill University, Tura Campus and Indian Society of Horticultural Research & Development. (5-7 November, 2015).

Attended FDP on Modern Teaching Pedagogies in Management Education organized by Department of Management, North-Eastern Hill University, Tura Campus, Tura (1-7 December, 2015).

Participated in the *National Seminar on "Re-thinking New Education Policy: Contextualizing the Issues of India's North-Eastern Region"* organized by Department of Education, North-Eastern Hill University, Tura Campus, Tura (20-21 March, 2016).

Sasikumar R.

Attended a Training Programme on Advanced Statistical Techniques in Horticulture Science Research under the Centre of Advanced Faculty Training, ICAR-IASRI, New Delhi. (2-22 January, 2015).

Convener, one month training programme on Bakery Technology, organized by Dept. of Agri Business Management & Food Technology, sponsored by Aaruthal Foundation, as NGO, Chennai, Tamil Nadu-India. (1-30 September, 2015).

Food Processing Technologies in North Eastern States of India. (Invited Speaker): North East Food Processing & Technology Summit-19th Sep 2015, FINER- Guwahati.

Studies on Proteolysis in accelerated ripening in cheddar cheese. (Poster presentation): *National Seminar on Advances of Bioinformatics and Computational Biology in Applied Biotechnology*. 5th Oct 2015, Tura, NEHU Tura Campus.

Application of Food Processing Technologies in North East India. (Invited Speaker): North East Food Processing Conclave, 6th Oct 2015, Shillong.

II

SCHOOL OF EDUCATION

Dean: Prof. S. M. Sungoh
Telephone: 0364-2723590, 03642723591(O)
Email: deaneducation.nehu@gmail.com

The School of Education comprises of four Departments/Centres viz; Department of Education (both at Shillong & Tura Campus), Department of Adult & Continuing Education, Centre for Science Education and Centre for Distance Education. The Department of Education conducts M.A (Education) and Ph.D programmes both at Shillong & Tura Campuses while M.ED programme is also conducted at the Shillong Campus. The Department of Adult & Continuing Education, besides various kinds of training and extension

activities offers M.A and Ph.D programmes in Adult & Continuing Education. The Centre for Distance Education offers various courses through distance mode viz; B.ED (Special Education), PG diploma in Special Education, PG diploma in entrepreneurship, Certificate & General course in Floriculture, and Foundation Course on Education of Children with disabilities. The Centre for Science Education mainly concentrates on Research and Extension activities. It is also works for the popularization of Science in the North east India.

DEPARTMENT OF ADULT AND CONTINUING EDUCATION

Head: Prof. E. Jyrwa
Telephone: 2723328 (O), 9436302933 (M) 2726028 (R)
E-Mail: drejyrwa@rediffmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	E. Jyrwa, M.A. M. Phil Ph.D. (NEHU)	National, Regional and International Perspective of Adult Education; Philosophy of Adult Education; Rural Development; Research Methodology
Associate Professors	B. P. Sahu, MSW, Ph.D. (Kurukshetra)	Human Resource Development; PMIR Group Work in Adult Education
	J. Mawthoh M.A. Ph.D. (NEHU)	Environmental Education; Research Methodology; Entrepreneurship and Skill Development; Management of Non-Governmental Organizations
	W. S. Myllemngap, M.A, M.Phil (NEHU)	Adult and Continuing Education; Policies and Program of Adult Education in India; Material Development in Vernacular Language for Non-Formal Education Intervention
	E. Syngkon, M.A, Ph.D. (NEHU)	Adult Psychology; Women Education; Research Methodology
Assistant Professors	J. I. Rapthap, MSW (Bombay)	Guidance and Counselling; Inclusive Education; Disaster Management; Community Organization and Development
	N. S. Devi, M.Sc (NEHU)	Rural Development; Extension Education Communication methods in Adult Education

Thrust Areas of Research

The thrust areas of the Department are (i) Adult Education (ii) Continuing Education (iii) Literacy Programme (iv) Total Literacy Campaign (v) Post Literacy Programme, (vi) Counselling (vii) Open Schooling (viii) Mass Media (ix) Women Empowerment (x) Aged People (xi) Rural Livelihood and Rural Development (xii)

Workers in organized and unorganized sector (xiii) Skill development and Training(xiv) Self Help Groups (xv) Inclusive Education (xvi) Tribal Health (xvii) Political Socialization (xviii) Environmental Impact Assessment) (xix) Community Health workers (xx) Child Labour and (xxi) Drug Abuse (xxii) Special Education.

Brief Statement of Academic Activities

Lifelong Learning and Skill Development has emerged as the key component in the field of Adult and Continuing Education. Keeping this in mind, the department has widened its scope to cover multidisciplinary subjects. The students admitted to this department are drawn from various academic disciplines. The teachers in the department make effort to utilize new techniques of teaching, supplementing lectures with slides presentation, group discussions and exposure trips. The Department offers Open Courses on

Extension Education, Rural Development and Human Resource Development. The department also introduced a core paper on Disaster Management which is a relevant subject in this contemporary world. Besides this, the students are taught to develop literary materials such as posters and booklets for the neo- literates on various components of Adult Education in the local dialect. These materials can be used for the benefit of the neo- literates at the grass root level. The department is also involved in Field Outreach and Extension programmes besides Teaching and Research.

Student's Profile

Enrollment capacity: M.A. – 45; Ph.D. - Variable

Degree	SC	ST	Gen	Male	Female	Meghalaya	Non- Meghalaya	Total
M.A	1	44	-	14	31	42	3	45
Ph.D	-	5	-	2	3	4	1	5

Degrees Awarded

Degree	SC	ST	Gen	Male	Female	Meghalaya	Non- Meghalaya	Total
M.A	-	32	-	4	28	32	-	32
Ph. D	-	3	-	-	3	3	-	3

Students Awarded Ph.D. Degree

Name of the Student	Title of Thesis	Name(s) of Supervisor(s)/ Joint Supervisor
Ms. Marilyne Kharkongor	"Total Literacy Campaign in Ri- Bhoi District, Meghalaya: Achievements and Constraints".	Prof. E. Jyrwa
Ms. Banlumlang Lyngkhoi	"An Evaluation of the Post Literacy Programmes in West Khasi Hills District in Meghalaya"	Dr. (Mrs.) E. Syngkon
Ms. Evanaki Tariang	"A Study on Health, Education and Psycho-Social Needs of the Aged in Jaintia Hills District, Meghalaya".	Dr. N. P. Goel

Department of Adult and Continuing Education

Ph.D. Students Availing Research Scholarship

Non-Net Fellowship	10
Rajiv Gandhi National Fellowship	3
ICSSR	2
JRF	4
ICCR	1

Courses Conducted

M.A. in Adult and Continuing Education

Semester-I

- ACE (C) 101: Introduction to Adult and Continuing Education
- ACE (C) 102: Adult Psychology
- ACE (C) 103: Methods of Communication in Adult Education
- ACE (C) 104: Environmental Education
- ACE (C) 105: Research Methodology

Semester-II

- ACE (C) 201: National and International Perspective of Adult Education
- ACE (C) 202: Policies and Programmes of Adult Education in India
- ACE (C) 203: Group Work in Adult and Continuing Education
- ACE (C) 204: Inclusive Education
- ACE (O) 205: Extension Education

Semester-III

- ACE (C) 301: Guidance and Counselling
- ACE (C) 302: Women Education and Empowerment
- ACE (C) 303: Management of Non-Governmental Organisations
- ACE (C) 304: Human Resource development
- ACE (C) 305: Rural Development

Semester-IV

- ACE (C) 401: Population and Development
- ACE (C) 402: Community Organization and

Community Development

- ACE (C) 403: Entrepreneurship and Skill Development
- ACE(C) 404: Material Development in Vernacular Language
- ACE (C) 405: Disaster Management

Ph.D. Courses

- ACE (C) 501: Research Methodology
- ACE (C) 502: Adult and Continuing Education Practices
- ACE (C) 503: Literature Review and Seminar Presentation

Educational Tour of Students

Teacher-in-charge: Dr. (Mrs.) E. Syngkon.

Places/ Institutions visited: Bardaw and Pongtung, East Khasi Hills

Duration of tour: One day (31.10.2015)

Teacher in-charge: Dr. (Mrs.) E. Syngkon.

Places/ Institutions visited: Mumbai and Goa

Duration of tour: Fourteen days (10.1.2016 to 24.1.2016)

Seminars/ Conferences/ Symposia/ Extension Programmes

Organised

Dr. B. P. Sahu organized a two day National Seminar on *Public Policy for the Aged in North Eastern States of India* held on the 25th and 26th February 2016 in collaboration with All India Senior Citizens Confederation (AISCCON), Mumbai in the Department of Adult and Continuing Education, NEHU, Shillong.

Attended and Participated

Prof. E. Jyrwa (i) Attended and presented a paper on "Social Responsibility of

the Higher Education Institutions in India" at the National Seminar on "*Social Responsibility of the Higher Education Institutions: Status, Problems and Strategies*" organized by the Department of Adult and Continuing Education, Sri Venkateshwara University, Tirupati, Arunachal Pradesh on the 3rd and 4th July, 2015; (ii) Chaired and gave a presidential remark in the Valedictory function of the National Seminar on "*Social Responsibility of the Higher Education Institutions: Status, Problems and Strategies*" on 4th July 2015; (iii) Chaired the Inaugural function and delivered an Introductory Speech on the profile of the department in the Two-day *National Seminar on Public Policy for the North Eastern States of India* held 25th – 26th February, 2016, organized by the Department of Adult and Continuing Education in collaboration with All India Senior Citizens Confederation, Mumbai.

Dr. B. P. Sahu (i) Delivered the keynote address on the theme "Adult Education and Extension Programme in India: Present Status and Future Direction" on 13th May 2015 at Department of Social Work, Savitribai Phule Pune University of Pune, (ii) Acted as Resource Person for Training cum Workshop Programme and delivered three lectures on Research Methodology, Learning of SPSS and Writing Minor Research Project for College Teachers, organized by IQAC Cell, Nongstoin College, Nongstoin from 16th to 18th June 2015, (iii) Acted as Resource Person for Ph.D. Course Work in Research Methodology Course in the Department of Sociology and Social Work, University of Science and Technology from 6-8th July 2015, (iv) Acted as chairperson for the consultative meeting of all the

stakeholders and prepared the document for "National Education Policy: Promoting Open and Distance Learning (ODL) and Online Courses" on 25th September 2015 at IGNOU Regional Centre, Shillong, (v) Was invited by Department of Social Work, Maharaja Sayajirao University of Baroda from 12th to 16th October 2015 as Resource Person and delivered three lectures, (vi) Acted as Resource Person for the Seminar entitled "NGO Management" organized by Department of Sociology, University of Science and Technology and presented two papers "Problems and Employment in NGO's" and "Empowering Role of NGOs" on 17th and 18th November 2015, (vii) Acted as resource person, chaired a session and delivered a lecture on "Personality Development" at the two-day National Seminar on "Youth of Meghalaya towards Higher Education and Employability/Skill Development under Youth-led Developmental Programme for North Eastern Youth" organized by Nongstoin College on 4th March 2016 and sponsored by Rajiv Gandhi National Institute of Youth Development, Under Ministry of Skill Development, Entrepreneurship and Youth Affairs and Sports, Govt. of India, (viii) Delivered a series of lectures as resource person in Research Methodology Course in the Department of Sociology, University of Science and Technology from 10-11th March 2016, (ix) Acted as Chairperson in one Technical Session of National Seminar on "Governance for Development - Issues concerning North East India" organized by Department of Social Work, University of Science and Technology on 17th March 2016, (x) participated in the Global Conference on *Disaster Risk Reduction – Major Initiatives*

Department of Adult and Continuing Education

in North-Eastern Region (India) towards Disaster Resilience held November 23–25, 2015, at Shillong and organised by North Eastern Council and Federation of Indian Chambers of Commerce and Industry.

Dr. Wanda Myllemngap attended the National Seminar on “State Level Public Policy for Senior Citizens in the North Eastern States” jointly organised by the Department of Adult and Continuing Education, NEHU and All India Senior Citizens Confederation, Navi Mumbai from 25th to 26th June 2016.

Ms. J. I. Rapthap (i) Delivered a lecture as Resource Person during the National Seminar on State level Public Policy for Senior Citizens in North-Eastern States on the theme, “*Disabilities Associated with the Elderly: Suggestive Policy Measures*” on 26th February 2016, organized by the Department of Adult and Continuing Education and the All India Senior Citizens Confederation, Navi Mumbai, (ii) Delivered a lecture as Resource Person for UGC-ASC 32nd Orientation Programme (General) for College and University Teachers on the theme “*Role of Electronic and Print Media in Disaster Management*” on 8th May 2015, organized by the UGC-Human Resource Development Centre, NEHU, Shillong, (iii) Delivered a lecture as Resource Person for UGC-ASC 33rd Orientation Programme (General) for College and University Teachers on the theme “*Trauma Counseling*” on 12th June 2015, organized by the UGC-Human Resource Development Centre, NEHU, Shillong, (iv) Delivered a lecture as Resource Person during the Training of Government Officers and Teachers on the theme “*Gender and Disaster*” on the 19th June 2015, organized by the Additional

Deputy Commissioner, East Khasi Hills District, Government of Meghalaya.

Ms. N. S. Devi (i) Attended Short Term Course in Research Methodology from 17th to 22nd August 2015 organised by UGC Human Resource Development Centre, (ii) Participated and moderated Technical Session - I in the National Seminar on “Public Policy for the North Eastern States of India” held on 25th–26th February, 2016, organized by the Department of Adult and Continuing Education in collaboration with All India Senior Citizens Confederation, Mumbai.

Dr. (Mrs.) Emiliana Syngkon attended and participated as Moderator in the Third Technical Session, in the National Seminar on State Level Public Policy for Senior Citizens in the North- Eastern State jointly organised by Department of Adult & Continuing Education and All India Senior Citizens Confederation, Navi Mumbai, held on 25th and 26th February, 2016 at Cluster Classroom, NEHU, Shillong.

Publications

Research Papers

Sahu B. P. (2015). Natural Disasters and its Economic Impact - A Study. *Journal of Research and Innovations in Social Science*, 2(2): 01-08

Academic Collaborations

The Department of Adult and Continuing Education has collaborated programmes with the Social Welfare Department, Govt. of Meghalaya, Women Cell, NEHU, with Jetwings Institute of Air Hostess Training on Vocational Career Oriented Courses, with Don Bosco Technical School and

Steel Fabrication work, Shillong on Human Resource Management with Nehru Yuva Kendra Sangathan: Shillong, Nehru Yuva Kendra Sangathan:, Nongstoin College, Nongstoin; Eastern Jaintia College, Women's College, Tezpur University, ICSSE (NERC), Revenue Department (Disaster Management) under Government of Meghalaya, Social Welfare Department, Govt. of Meghalaya, RGNIYD, NSS Regional Centre Guwahati, NSS Cell: NEHU, Women Cell: NEHU, NCW, Women's College, Lady Keane College, Shillong, ASC, NEHU, UGC (HRDC), and All India Senior Citizens Confederation (AISCCON), Mumbai. DACE also collaborates with formal agencies like, Bethel Academy, Baghmara, Impulse NGO Network, Bethany Society and Women Organisation on Skills Training programme, World Vision and Seng Kynthei Mawkyrwat, in order to carry out its extension programmes and activities.

Other Activities

Prof. E. Jyrwa was nominated NEHU representative to Governing Body of North East Regional Institute of Education (NERIE), Umiam, for a period of 3 years w.e.f. 26/02/2016.

Dr. (Mrs.) E. Syngkon was appointed Member of the Managing Committee of Glakyn Academic Higher Secondary School, Pohkse, Shillong w.e.f 01.08.2014 to 31.07.2017 by order from District School Education Officer, East Khasi Hills District,

Ms. J. I. Rapthap completed the Minor Research Project on "Stages and Functioning of Women Self Help Groups in Ri-Bhoi District, Meghalaya".

Ms. J. I. Rapthap along with M.A. students contributed to uplift and extension of the School and Centre for the Hearing Handicapped Children (a Unit of Society for Welfare of the Disabled)

Dr. W. Myllemngap is an active Member of the Governing Body, State Resource Centre.

DEPARTMENT OF EDUCATION

Head: Professor C. Nongbri
Telephone: 2723340 (Head), 2723346 (O), 09436102123 (M)
E-mail: hodedu@nehu.ac.in

Faculty

Designation	Name and Qualification	Specialization
Professor	Prof. P. K. Gupta, M.Ed (CIE, Delhi); M.Phil & Ph.D. (Merrut)	Experimental Education, Research Methods and Statistics, Science and Mathematics Teaching, Economics of Education and Philosophy of Education.
	Prof. S. M. Sungoh M.Phil; Ph.D; B.Ed. (NEHU)	Teacher Education, Teaching at Tertiary Level, Measurement & Evaluation, Educational Psychology, Guidance & Counseling, Research Methodology.
	Prof. C. Nongbri M.A (Pol. Sc.); M.Ed; Ph.D. (NEHU)	Educational Management and Change, Curriculum Development and Instruction, System of Teacher Education in India and Educational System in India.
Associate Professor	Dr. Ibadani Syiem MA; B.Ed.; Ph.D. (NEHU)	Psychology of Education, Early Childhood Education, Guidance and Counseling, Environmental Education.
	Dr. B. Bazeley Kharbiryumbai M.A (Edu); Ph.D. (NEHU) Diploma in Management; PGDESD.	Educational Technology, Philosophy of Education, Research Methods, Curriculum Development, Educational Testing & Evaluation, Higher Education, Economics of Education.
Assistant Professor	Dr. Yodida Bhutia M.Ed. (Mangalore); MA (Edu); PGDHE; Ph.D. (NEHU)	Mental Health Education, Environmental Education, Educational Psychology, Educational Testing and Evaluation and Research Methodology in Education.
	Mrs. Rihunlang Rymbai M.Sc.(Chy); M.Ed(NEHU).	Teacher Education, Science Education, Methods of Teaching, Environmental Education, Educational Management & Educational Leadership, Curriculum Development.

School of Education

Assistant Professor	Dr. Ashok Kumar M.Ed; M.Phil (Edu); M.Sc, (Anthro); Ph.D (Andhra); M.A. English (Dr. B.R.A.O.Univ.) M.Sc. Zoology (Acharya Nagarjuna)	Educational Psychology, Sociology of Education, Educational Testing.
	Dr. Vandana M.A. Eng. (Purvanchal); M. Ed; Ph.D. (BHU).	Research Method in Education, Sociology of Education, Teaching Pedagogy : Languages (English, Hindi).
	Dr. Euodia B Myrthong M.A.(Edn); Ph.D (NEHU).	Educational Psychology, Guidance & Counselling, Educational Research.
	Dr. Naraginti Amareswaran M.A. Philosophy; M.Ed; Ph.D. (Sri Venkateswara)	Value Education, Educational Philosophy, Educational Technology, ICT in Education.

Thrust Areas of Research

(i) System of Education in the North East (ii) Mental Health & Counseling (iii) Economics of Education & Planning (iv) Teacher Education (v) Higher Education (vi) Educational Psychology (vii) Environmental Education (viii) Curriculum Development (ix) Educational Technology.

Brief Statement of Academic Activities

The Department of Education has been offering courses for M.A., M.Ed. and Ph.D. Programmes. The Department admitted 48 Students in the M.A. Programme and 20 in the M.Ed Programme. At present, the M.Ed. Programme was enhanced to Two Years Course comprising of four semesters as per the NCTE Regulations, 2014. The current intake capacity for M.A. is 48 and M.Ed. is 50.

Students' Profile

Enrolment Capacity: M.A.: 48; M.Ed.: 20; Ph.D.: Variable

Actual Admissions

Course	OBC	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	Total
MA	-	-	48	-	3	45	40	8	48
M.Ed	-	-	19	1	4	16	18	2	20
PhD	-	-	13	1	6	8	9	5	14

Department of Education

Degrees Awarded

Course	OBC	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	Total
M.A. Batch 2013-15	-	-	42	2	2	42	32	12	44
M.Ed. Batch 2014-15	-	-	21	-	3	18	17	4	21
Ph.D. 2015-16	1	-	6	1	3	5	5	3	08

Ph.D. Degrees Awarded

Name of the student	Topic of Thesis	Name (s) of Supervisor(s)
Ms. Rindharwon A. Khamrang	"Contribution of Pre-School Education towards the Socio-Emotional Development of Children in Ukhrul District of Manipur"	Prof. C. Nongbri
Ms. Sujata Biswa	"Diagnosis of Under-Achievement in Mathematics at the Secondary School Level in Shillong"	Dr. Ibadani Syiem
Ms. Devjani Kar	"Management of College Education and Professional Development of Teachers in Meghalaya"	Prof. C. Nongbri
Ms. Lamtishababha Diengdoh	"A Study of Management and Problems of Secondary Schools in Meghalaya"	Prof. C. Nongbri
Mr. Albert Longley	"A Study of Teaching Practices in Teacher Education Institutions in Meghalaya"	Prof. S.M. Sungoh
Ms. Euodia B. Myrthong	"Academic Pressure and its Impact on Mental Health and Academic Achievement of Secondary School Students in East Khasi Hills District of Meghalaya".	Dr. Y. Bhutia
Mr. Nandalal Sharma	"A Study of Intelligence and Creativity in Relation to Academic Achievement in Different Subjects of Secondary Schools Students of Sikkim"	Dr. Y. Bhutia
Mr. Bashan Desmond M. Diengdoh	"Functioning of Teacher Education Institutions in Meghalaya"	Prof. C. Nongbri
Mr. David M. Nongrum	"A Study of the Relationship between Leadership and School Climate in Higher Secondary Schools of Shillong"	Prof. S.M. Sungoh

Placement of Students

Many students from the Region with various degrees from this Department are employed in various capacities in Universities, Colleges, SCERT/DERT, District Institutes

of Education and Training, District and Sub-Divisional Educational Offices, Schools and in administrative jobs including Civil Services. About 50% students cleared NET (Lectureship) and a good number cleared for JRF.

Research Fellowships

No.	Type of Fellowship/Scholarship	No. of Scholars
1.	CSIR-UGC NET Junior Research Fellowship	3
2.	CSIR-UGC NET Lecturership	6
2.	ICSSR Doctoral Fellowship	2
2.	Maulana Azad National Fellowship	2
3.	National Fellowship for ST Scholars	1
4.	Post-Graduate Merit Scholarship for University First Rank Holders	2
5.	ICSSR Post Doctoral Fellowships	2

Courses Conducted

M.A. Courses

Semester- I :

Philosophy of Education, Psychology of Education, Educational Management and Change, Research Methodology in Education (I&II),

Semester- II :

Curriculum Development and Instruction, Sociology of Education, Educational Testing & Evaluation, Environmental Education and Mental Health Education,

Semester- III :

Educational Technology, Comparative Education, Early Childhood Education, Teacher Education, Special Education

Semester- IV :

Laboratory Practical, Higher Education in India, Guidance and Counseling, Methods of Teaching at Tertiary Level, Economics of Education.

M.Ed. Courses

Semester- I :

Introduction to Educational Studies, Teacher Education I – Teachers and Teaching, Psychology of Learning & Development, Research Method-I, Research Method-II, Skill Development.

Semester- II :

Theory & Practice of Teaching, Educational Testing, Teacher Education II – Professional development of Teachers, Internship in DIET's/ CTE's for Four weeks, Academic Writing & Presentation, Mental Health.

Semester- III :

Education in Philosophical Perspective, Elective – Development of Elementary Education, Development of Secondary & Higher Secondary Education, Optional –ICT in Education, Inclusive Education, Educational Planning, Management & Finance, Early Childhood Education, Dissertation, Historical Development of Education in India, Curriculum Development.

Semester- IV :

Educational in Social Perspective, Elective – Management of Elementary Education, Management of Secondary and Higher Secondary Education, Optional – Experimental Education, Guidance & Counseling, Women Education, Environmental Education, Dissertation.

Ph.D. Course Work

Research Methodology, Data Analysis & Computer Applications and Review of Related Literature.

**Seminars/Conférences/Symposium/
Extension programmes, etc.**

Organized

B. B. Kharbirymbai

- (i) Was Organizing Secretary of the National Seminar cum 23rd Annual Conference and 25th Silver Jubilee Celebration entitled *New Education Policy in the Making: North East Perspective* from 26th -27th of November, 2015, sponsored by NEHU and ICSSR-NERC, Shillong (ii) Organized a Focus Group Discussion with the Faculties of NEHU regarding the New Education Policy, having Dr. Anupam Pachauri from Center of Policy Research in Higher Education, NUEPA, New Delhi, and Department of Education, NEHU, Shillong on 16th November, 2015.

Attended and Participated

P. K. Gupta

- (i) Delivered the Keynote Address on “Quality & Excellence in Teacher Education in India: Issues & Challenges” in a National Seminar-cum-22nd Annual Conference of North East India Education Society (NEIES) organized by Department of Education, Dibrugarh University, Dibrugarh, on 29th April 2015 and also chaired the Valedictory Session on 30th April 2015, (ii) Delivered an Invited Lecture on “Research Process, Proposal and Project Writing” in Lady Keane’s College, Shillong, on 9th May 2015, (iii) As Key Speaker participated in Panel Discussion on “Constructivism and its Relation to School Subjects” during the National Seminar on Constructivism organized by St. Mary’s College of Teacher Education, Shillong in collaboration with DERT, Shillong on 26th June 2015, (iv) Delivered an invited Lecture on the topic ‘Project Writing’ at Synod College, Shillong on 17th Sept 2015, (v) Delivered the Thematic Address on “Introducing CBCS in Higher education in the *National Seminar on Innovative Strategies: A Road Map for Upliftment of Teaching Learning and Evaluation* organized by St. Mary’s College, Shillong, on 23rd September, 2015, (vi) Presented a paper titled “Education and Good Governance in a Globalized Society in a Seminar organized by William Carey University, Shillong, at KJP Assembly Conference Hall, Shillong, on 24th September 2015, (vii) Delivered the Keynote Address on “New Education Policy in the Making: North-East Prospective” in the National Seminar-cum-23rd Annual Conference of North East India Education Society (NEIES) organized by Department

of Education, NEHU, Shillong on 26th November 2015, and also chaired one technical session and valedictory session on 27th November 2015, (viii) Delivered Keynote Address in the *National Seminar on Making New National Educational Policy* titled "Rethinking New Educational Policy: Contextualizing the Issues of India's North Eastern Region" organized by the Department of Education, NEHU, Tura Campus, Tura, on 20th March 2016.

S. M. Sungoh

- (i) Participated in DERT Refresher Course for teachers of DIETs, DERT and CTEs on 28th Jan, 5th Feb and 9th Feb, 2016, (ii) was Chairperson for session on 'Professional Ethics of Teachers' in the National Seminar cum 22nd Annual Conference of North East India Education Society on *Quality and Excellence in Teacher Education in India: Issues and Challenges*, on 29th April, 2015, and also gave a talk on "Quality and Excellence in Teacher Education in India: Issues and Challenges" on 30th April, 2015, (iii) was Coordinator for NAAC inspection to Abhayapuri College, Dist; Bongaigaon, Assam on 5-7 November 2015, (iv) Attended Workshop on *Development of Quality Assessment Tools (QATs) for RMSA* on 26-27 November, 2015, at NCERT, New Delhi, (iv) Took part in Joint Review Mission on Teacher Education to Arunachal Pradesh, 9-21 September, 2015, organised by MHRD, New Delhi, (v) Gave a Lecture on 10th March, 2016, for an Orientation Programme organized by ICSSR, NERC, at NEHU, Shillong, (vi) Gave Keynote Address on Capacity Building on 14th March, 2016 in ICSSR, NEHU Campus, Shillong, (vii) Was Resource person for UGC-HRDC short term course on

'Review of Related Literature' on March 14, 2016, at NEHU, (viii) Gave lecture as Resource Person on 'Introduction to Research Methodology' in the Research Methodology Course for Social Sciences on 15 March 2016, organized by ICSSR-NERC, Shillong, (ix) Was Resource Person at Workshop for Secondary School Teachers Teaching Social Studies on 'Constructivism and Development of Learning Material For Social Studies' on March 18, 2016, organized by College of Teacher Education (PGT), Boyce Road, Shillong, (x) Delivered Keynote address in a State-level Seminar on 'Teacher Education' at Siloam, Shillong, organized by DERT, Govt of Meghalaya, on 24th Feb, 2016.

C. Nongbri

- (i) Presented a paper on "Need of Examination and Evaluation Reforms in Teacher Education at Secondary Level" in the 22nd Annual Conference-Cum-National Seminar of the North East India Education Society (NEIES) organized by NEIES in collaboration with Department of Education, Dibrugarh University, Dibrugarh, Assam, on 29th to 30th April 2015, (ii) Attended an Interaction Meeting on "Inclusive Education" organized by the Department of Education, NEHU, Shillong with faculty of NCERT, New Delhi, on 24th June 2015, (iii) Participated in the Focus Group Discussion for a national project entitled 'Quality of Higher Education in India: A Study of external and internal quality assurance at the institutional level' on the 17th November 2015 at Department of Education, NEHU, Shillong, (iv) Presented a paper on "Implementation of NCTE Regulations, 2014 In Meghalaya: Issues and Challenges" in a State Seminar organized by

DERT, Shillong, at Siloam on 24th February, 2016, (v) Presented paper on “Re-Thinking New Education Policy: Contextualizing the issues of India’s North-Eastern Region” in the event “NCTE Regulations, 2014 - The Framework of Internship: The Challenge of Its Implementation in Meghalaya” organised by the Department of Education, NEHU, Tura, from 20th-21st March 2016. (c) Was Resource Person and chaired one technical session and valedictory session on 27th November 2015 on the theme “New Education Policy in the Making: North East Prospective” in the National Seminar-Cum-23rd Annual Conference of NEIES organized by Department of Education, NEHU, Shillong, on 26th November 2015,

I. Syiem

- (i) Gave a talk on “Emotional Intelligence: Why It matters in Teaching” in the *National Seminar on Innovative Strategies: A Roadmap for Upliftment of Teaching, Learning & Evaluation in Higher Education* organised by IQUAC St Mary’s College, Shillong, (ii) Gave a talk on “Learn while you Earn: Some thoughts” in National Seminar cum 23rd Annual Conference & Silver Jubilee celebration of NEIES, held 26th & 27th Nov, 2015, organised by Dept of Education, NEHU Shillong, (iii) Was Resource person for the Orientation Programme on ‘Teaching as a Unique Call and Mission’ on June 17th, 2015, organised by St. Anthony’s College, Shillong.

B. B. Kharbirymbai

- (i) Presented a paper titled “Impact of Climate Change on the Developing Countries” at the *International Seminar on Climate Change: Impact on Developing Countries* held 15-17th October, 2015, organized by

Union Christian College, Umiam Khwan, Meghalaya, (ii) Participated in two day Workshop at NUEPA-CPRHE, New Delhi, on “Quality of Higher Education” in 7-8 May, 2015, (iii) Presented a paper titled “Choice Based Credit System - A Requirement in Higher Education” at the *National Seminar on Innovative Strategies: A Roadmap for Upliftment of Teaching, Learning and Evaluation in Higher Education* organized by St. Mary’s College, Shillong. on 24th September, 2015, (iv) Presented three papers entitled “Women Empowerment and ICT”, “Problems of Higher Education in North-East India” and “Education - A key for Women Empowerment” at the National Seminar cum 23 Annual Conference and Silver Jubilee Celebration of NEIES held 26th-27th November, 2015, organized by Department of Education, NEHU, Shillong and ICSSR-NERC, (v) Presented a paper titled “Research and Innovation in Teacher Education - Need of the Hour” at the State level Seminar on Quality of Teacher Education at Siloam, UCC, on 24th February, 2016, organized by DERT, (vi) Presented a paper titled “Sustainable Use and Conservation of Forest Resources in Meghalaya” in the *National Seminar on Environment and Society: The Context of North East India* on 14th March, 2016, organized by the Department of Sociology, NEHU Shillong, (vii) Attended a Workshop for Resource persons at NERIE-NCERT Umiam during 15-18 December, 2015, and the program “Development of a package and Orientation Package of Mizoram on NCFTE, 2009 with special reference to reflective journal and record keeping” - a 5 day Workshop for the Development of Orientation Package (14-18 December, 2015),

Invited as an expert to participate with all the stake holders in the “Regional Consultative Meeting on the National Education Policy: Promoting Open and Distance Learning (ODL) and online course on the 25th September, 2015 at IGNOU Regional Center, Shillong.

Yodida Bhutia

- (i) Presented a paper in International Seminar organized by University of the Aegean, Greece, in collaboration with University of Toronto, Canada, on *Multilingual India - Medium of Instruction* with special reference to North East India from 28-31st May 2015, (ii) Presented a paper in *International Seminar on Climate Change: Impact on Developing Countries* on “Attitudes of post graduate students of NEHU towards Climate Change”, organized by Union Christian College, Umiam Khwan, Meghalaya, from 15-17th October 2015; (iii) Presented a paper on “A Comparative study on Education in India and USA” at an event on *NEP/Financing Elementary Education/ Others* held 26-27 Nov 2015, organized by North East India Education Society and the Department of Education, NEHU, Shillong; (iv) Presented a paper on *Environmental Worldview* among the teacher trainees of DIET, Meghalaya, at the event on *Environment and Society: The Context of North East India*, organized by the Department of Sociology, NEHU, during 14-15 March 2016; (v) Presented a paper on “Re-Thinking New Education Policy: Contextualizing the Issues of India’s North-Eastern Region” at the *Teacher Education Programme on Inclusive Education* organized by the Department of Education, NEHU, Tura from 20th-21st March 2016.

Rihunlang Rymbai

- (i) Presented a paper on “Enhancing Quality in Teacher Education: A Need and Call for Value Oriented Programme” in the National Seminar cum 22nd Annual NEIES Conference on *Quality and Excellence in Teacher Education in India: Issues and Challenges* organized by the Department of Education, Dibrugarh University, held 29th - 30th April, 2015; (ii) Presented a paper on “Teacher Quality: The Need of the Hour” in a 2-Day International Conference on *Quality of Higher Education in India and Global Context* organized by Department of Education, North-Eastern Hill University, on 18-19 March 2015; (iii) Presented two papers on “Constructivism: Reflection of DIET Faculties and Student-Teachers” and “Constructivism: An Integration of Experience” in a two-day National Seminar on *Constructivism: Towards Constructing Constructive Minds* organized by St Mary’s College of Teacher Education in collaboration with Directorate of Educational Research and Training on the 25-26 June 2015; (iv) Presented a paper on “Enhancing Quality in Higher Education: Through New Education Policy 2015 in the Making” in a 2 Day National Seminar on *New Education Policy (NEP) in the Making: North East Perspectives Cum 23rd Annual Conference and Silver Jubilee Celebration of NEIES*, organized by NEIES and the Department of Education, North-Eastern Hill University, on 26-27 November 2015; (v) Presented a paper on “Professional Development of Teacher Educators: Opportunities and Challenges” in a One Day State Seminar on *Teacher Education: Towards Quality Education in Meghalaya* organized by DERT, Shillong held 24th February 2016; (vi) Presented a

paper on “Developing the Best Teachers: An Outlook of Professional Development of Teachers in Higher Education” in a Two Day National Seminar on *Re-Thinking New Education Policy: Contextualizing the Issues of India's North-Eastern Region* organized by Department of Education, NEHU, Tura Campus, on 20th - 21st March 2016; (vii) Attended Consultative meetings on the making of New Education Policy at DERT, Shillong, organised by NERIE, Shillong, on 6th July 2015.

Ashok Kumar

- (i) Presented two papers entitled “Equality and Equity in Higher Education in India” and “Privatization of Higher Education in India: Pros and Cons” in National Seminar cum Annual Conference and Silver Jubilee Celebration NEIES, organized by Dept. of Education, North-Eastern Hill University, on 26-27 November, 2015; (ii) Presented a paper entitled “Relevance of Buddhism in Establishing Democracy through the Means of Education” in *International Conference on Buddhism and Establishment of Democratic Society - The Way Forward* organized by Dept. of Anthropology, Andhra University, on 15-16 November, 2015, at Visakhapatnam

Vandana

- (i) Presented a paper in International Seminar on *Role of Higher Education in Women Empowerment* organized by Department of Education NEHU, Shillong on 18-19 March, 2015; (ii) Presented two papers on “Problems of Higher Education in North-East India” and “Skill Development in Sikkim: A Status Study” and a joint paper on “Status of women in Higher Education” in a National Seminar organized by NEIES at

NEHU, Shillong, on 26-27 November 2015; (iii) Presented a paper on “Food security and women: A socio-cultural analysis” in a National Seminar organized by Dept. of Economics, MGKV, Varanasi on 25-26 April, 2015.

Euodia Bahun Myrthong

- (i) Presented a paper in the National Seminar conducted by St. Mary's CTE, Shillong on 25-26th June, 2015, on the topic “Constructivist Approach to Herbartian Lesson Planning”; (ii) Participated in the Group Discussion on National Projection of the Quality of Higher Education in India. A Study of External and Internal Quality Assurance at the Institutional Level organized by NEHU, Shillong on 17 November, 2015; (iii) Presented paper in the *National Seminar on Status of Women in Higher Education* organized by NEHU, Shillong on the 26th & 27th November, 2015; (iv) Presented a paper in the State-level Seminar on Emotional Intelligence and Its Impact on Teaching Competency of Secondary School Teachers in Mawthadraishan organized by DERT, Shillong on 24th February, 2016; (v) Participated in the Three Day Workshop on “Preparing and Sharing Guidelines for Making Pre-Service Teacher Training Degree Programs Inclusive in the Light of Recent Development” organized by SCERT, Guwahati, on 15-17 March, 2016; (vi) Presented a paper in the *National Seminar on Inclusive Education in Teacher Education Programme* organized by NEHU, Tura, on 20-21 March, 2016.

Amareswaran

- (i) Presented a paper on *Moral Values of Secondary School Students of East Khasi*

Hills District of Meghalaya in the National Seminar on *Value Based Education: Issues, Concerns and New Directions* organized by the Dept. of Education, Himachal Pradesh University, Shimla on 13th August 2015; (ii) Presented four papers on “Quality Indicators for Teacher Education”, on “A Comparative Study on Education in India and USA”, on “Technical and Vocational Education in Nagaland – A Key for Development”, on “Technical and Vocational Education in Nagaland – A Key for Development” and on “Education – A Key for Women Empowerment” in the National Seminar cum 23 Annual Conference and Silver Jubilee Celebration of NEIES organized by the Dept. of Education, NEHU, Shillong on 26–27 November 2015; (iii) Presented two papers on “Vocational Education and Training in Nagaland and “Skills for Teacher Education in the 21st Century with special reference to Nagaland” at an event organized by the Dept. of Adult and Continuing Education, SVU, Tirupati on 22–23 December 2015; (iv) Presented two papers on “ICT Based Higher Education at North-Eastern Hill University” and “ICT in Teacher Education with Special Reference to Nagaland” at an event organized by Sri Sarada College of Education, Salem on 29th and 30th January 2016; (v) Presented a paper on *Care and Concern of Senior Citizens in Meghalaya: Role of Education* at an event organized by the Dept. of Adult and Continuing Education, NEHU, Shillong on 25th and 26th February 2016; (vi) Presented a paper on “Entrepreneurship through Educational Institutions” at an event organized by the Dept. of Adult and Continuing Education, SVU, Tirupati on 29th February and 1st March 2016.

Publications

Research Articles

- Gupta P. K. (2015). Continuous & Comprehensive Evaluation: Towards Holistic Development of a Child. *Education: North East- Journal of North East India Society*, 18: 21-24
- Gupta P. K. & Issack A.A. (2016) Education and Earnings: A Study of Kenya. *Journal of Educational Planning and Administrations*, 30: 45-58.
- Nongbri, C. (2015) The Right To Education (RTE) 2009 Act And The School Management Committee In Meghalaya -An Analysis. *Journal of North East India Education Society*, 18: 50-58.
- Syiem, I. (2015) Problem Solving Ability of Higher Secondary School Students of East Khasi Hills district, Meghalaya. *Internal Journal of Humanities & Social Studies* 3: 379-381
- Syiem, I., (2015) Curiosity Level of Elementary Students of Shillong Town. *Education & Welfare: An International Journal of Education and Humanities* 4(1): 167-171
- Syiem, I., (2015) Environmental Awareness of Class VIII Students of Shillong Municipality. *International Journal of English Language, Literature & Humanities* 3: 254-261
- Syiem, I., (2015) Social Intelligence: What it is and Why it Matters. *Journal of NEIES*. 18(2): 37-40
- Syiem, I. (2015) Study Habits of Secondary School Students of Tura Town, Meghalaya. *Journal of NEIES* 19(2): 74-78
- Kharbiryumbai, B. B. (2015) Variation of Social Customs in the Tribes of Meghalaya. *International Journal of Educational*

Research and Administration ISSN No: 2229-7162 3(4):

Kharbiryumbai, B. B. (2015) Emphasis on Value Education. *International Journal of Innovative Education*, 2(3): ISSN-2393-8404

Kharbiryumbai, B. B. (2016) Research and Innovation in Teacher Education-Need of the Hour. *International Journal of Innovative Education*, 2(3): 1-6. ISSN-2393-8404

Kharbiryumbai, B. B. (2015) Constructive Approach in Higher Education through ICT. *NEIES Journal* 19(2): ISSN-0973-4902

Kharbiryumbai, B. B. (2015) Women and Environment, *NEIES Journal* 18(2): 59-64 ISSN-0973-4902

Kharbiryumbai, B. B. (2015) Need and Importance of ICT in Education, *International Journal of Innovative Education*, 2(5): 1-5. ISSN-2393-8404

Kharbiryumbai, B. B. (2015) Integration of New ICT Trends in teaching Learning Environment, *Indian Journal of Experimentation and Innovative Education* 4(4): ISSN-2278-1730

Kharbiryumbai B. B. (2015) Impact of Climate Change on the Developing Countries, *Indian Journal of Educational Research and Innovation* 5(6): 1-6. ISSN-2231-0495

Bhutia, Y. & Subba, N. (2015) Semester System of Evaluation in the Colleges of Sikkim. *Higher Education for the future*. 2(1): 19-31. Sage Publications.

Bhutia, Y. & Sungoh, B. (2015). Mobile Phone Addiction among Post Graduate Students of North-Eastern Hill University. *Shillong. Education: North East*. 19(1): 1-10

Bhutia, Y. & Dey, S. (2015). Teacher Adjustment in Relation to Teaching Aptitude of Secondary School Teachers in Shillong. *International Journal of Education and Psychological Research*. 4(4): 1-7.

Bhutia, Y. & Dkhar, B. (2015). Self Concept and Academic Achievement of Students of Secondary Schools of Khliehriat Block, Jaintia Hills. *International Journal for Research and Development*. 3(4): 1-27.

Rymbai, R. (2015). Four Pillars of Education: A Focus on What Learning Ought to be. *Journal of the North East India Education Society*, 19(1): 32-36.

Rymbai, R. (2016). Teachers' Stress in Higher Education: A Review. *Journal of the North East India Education Society*, 19(2), 53-64.

Ashok Kumar, E. (2015) Impediments in Implementing CCC in Elementary Schools of Nagaland. *International Journal of Multidisciplinary Educational Research*, 4(1): 214-225. ISSN: 2277-7881

Book/ Book Chapter/ Proceedings

Gupta P. K. (2015). Quality & Excellence in Teacher Education in India: Issues & Challenges. In: Proceedings of National Seminar-Cum 22nd Annual Conference of North East India Education Society (University at Dibrugarh in Collaboration with North East India Education Society, Shillong), p. 8-14.

Nongbri, C., (2015). Financing Infrastructural Facilities in Science Education at The Secondary Level in Meghalaya. Book Chapter In: *Reasserting Basic Sciences*. M.N. Bhattacharjee, E.N. Dkhar, D.L. Buam, I.S. Warjri, (Eds.)

- Nongbri, C. (2015). Editor: *Proceedings of North East India Education Society 22nd Conference* (29- 30 April 2015). Shillong: Ri Khasi Enterprise. Nongbri, C. & Kharbiryumbai, B.B. (2015) Editors: *Education in the North East India*, EBH Publishers India, Guwahati
- Syiem, I. (2016) Emotional Intelligence of Post Graduate Students of NEHU, Shillong. In: *Education in North East India* (EBH Publishers India, Guwahati) pp. 85-90
- Syiem, I. (2015) Emotional Intelligence: Why it Matters in Teaching. In: *Proceedings of National Seminar on Innovative strategies* (St Mary's College, Shillong). pp. 133-138
- Kharbiryumbai, B. B. (2015). Women Empowerment-Indian Perspective. In: *Women's Wide Canvas- Issues and Challenges*. E. Kharkhongor & I. S. Warjri (Eds.). EBH Publishers, India. pp. 42-51
- Kharbiryumbai, B. B. (2015) Students Perception Regarding Curriculum of Colleges with Special Reference to Upper Assam. In: *Higher Education in India-Post Independence Era*, R. Gohain & R. Phukon, Eds. EBH Publishers India, Guwahati. pp. 171-178 ISBN-978-93-83252-43-5.
- Kharbiryumbai, B. B. (2016) Editor: *Education in North East India*, (EBH Publishers India, Guwahati) ISBN-978-93-83-252-831.
- Kharbiryumbai, B. B. (2016) Skill Based Education-Job Prospects for Students. In: *Education in North East India* (EBH Publishers India, Guwahati). ISBN-978-93-83-252-831. pp. 199-208.
- Kharbiryumbai, B. B. (2016) Attitudes of Teacher Trainees of DIET Nongpoh towards Teaching Profession. In: *Proceedings of North East India Education Society 23rd Annual Conference* (29-30 April, 2015). pp. 291-301.
- Kharbiryumbai, B. B. (2015) ICT in Innovative Teaching Learning. In: *Reasserting Basic Sciences*, (EBH Publishers India, Guwahati). ISBN-978-9383252-79-4. pp. 223-234.
- Kharbiryumbai, B. B. (2016) Skill Based Education. In: *Reasserting Basic Sciences* (EBH Publishers India, Guwahati). ISBN-978-9383252-79-4.
- Kharbiryumbai, B. B. (2016) CBCS-A Requirement in Higher Education. *Proceedings of National Seminar on Innovative Strategies: A Road Map for Upliftment of Teaching, Learning and Evaluation in Higher Education* (St Mary's College Shillong). pp. 106-119.
- Kharbiryumbai B. B. (2015) *Proceedings of International Conference on Quality of Higher Education in Indian and Global Context* (18-19 March, 2015) sponsored by NEHU, ICSSR-New Delhi, ICSSR-NERC, Shillong. In: *University News* (Association of Indian Universities) 53(20):
- Kharbiryumbai, B. B. (2015) *Proceedings of National Seminar on New Education Policy in the Making: North East Perspective cum 23rd Annual Conference and 25th Silver Jubilee Celebration* (26-27 November, 2015) sponsored by NEHU & ICSSR-NERC, Shillong. In: *University News (Assocn of Indian Universities)*, 53(50): 157-158
- Bhutia, Y. & Dey, S. (2015). Laboratory Method of Teaching Science- Is it Existent in Schools of Shillong. In: *Reasserting Basic Sciences*. M.N. Bhattacharjee, E.N. Dkhar, D.L. Buam, I.S. Warjri, (Eds.). pp. 100-107.

Rymbai, R. (2016). Teaching of Science at Elementary Level. In: *Module of Teaching of Science for Elementary Level*. Shillong: Directorate of Educational Research and Training.

Ashok Kumar, E. (2016) Importance of Higher Education in North-East India. In: *Education in the North-East India*. C. Nongbri & B.B.K Rymbai (Eds). EBH Publishers India, Guwahati. Chapter 6, pp. 47-56. ISBN:978-93-83252-83-1

Rymbai, R. (2015). Enhancing Quality in Teacher Education: A Need and Call for Value Oriented Programme. In: C. Nongbri (Ed.) *Proceedings of North East India Education Society & 22nd Annual Conference (April 2015)*. Shillong: Ri Khasi Enterprise. pp. 302-310.

Rymbai, R. (2016). Novel Endeavour in Higher Education in India's North Eastern States. In: C. Nongbri & B. B. Kharbiryumbai

(Eds.), *Education in North East India*. Guwahati: EBH Publishers. pp 130-147.

Funds received from agencies other than NEHU / UGC

Received Rs. 6.30 lakhs (Rupees six lakhs thirty thousand) only from MHRD, New Delhi for monitoring work of SSA for the State of Meghalaya.

Received 3.60 lakhs (Rupees three lakhs sixty thousand) only from MHRD, New Delhi for monitoring work of Rashtriya Madhyamik Shiksha Abhiyan.

The Department of Education being the Monitoring Institution for SSA and Rashtriya Madhyamik Shiksha Abhiyan is engaged in monitoring SSA Projects and signed the MOU with the Ministry of Human Resource Development New Delhi for the whole State of Meghalaya since 2003 till date.

Research Projects

Ongoing

Sl. No	Title of project	PI/Co-PI	Funding Agency	Amount
1.	Development and Problems of Secondary Education in the State of Sikkim	Dr. Yodida Bhutia	ICSSR, New Delhi	Rs. 6,00,000/-
2.	Crimes against Women and Children	Prof S. M. Sungoh	Police Department, Govt of Meghalaya	Rs 15,00,000/-
3.	Quality of Higher Education in India- a Study of Internal and External Quality Assurance at the Institutional (2015-16)	Dr B. B. Kharbiryumbai	NUEPA, New Delhi	Rs 4,40,000/-

Academic Collaboration

Academic collaborations with MHRD, NCERT, NUEPA, IGNOU, Regional Centre, MBOSE Shillong have been a regular feature. The Department of Education being the Monitoring Institution for SSA is engaged in monitoring SSA Project and have signed the MOU in September with the Ministry of Human Resource Development (MHRD), New Delhi for the whole State of Meghalaya since 2003 till date and very recently the Department of Education also undertakes monitoring Rashtriya Madhyamik Shiksha Abhiyan (RMSA) in the State of Meghalaya.

Awards

Dr. B. B. Kharbiryumbai has been awarded Diploma in Management and Post-Graduate Diploma in Environment and Sustainable Development from IGNOU.

Dr Y. Bhutia was awarded Post Doctoral Scholarship by IKY, Department of Special Programmes, Unit for Foreigners & Cultural Exchanges, Ministry for Culture, Education & Religious Affairs, Hellenic Republic of Greece. She completed Post Doctorate from the Department of Pedagogical Studies, University of the Aegean, Rhodes, Greece in 2015.

Dr Vandana has been awarded Post Doctoral Fellowship (USA).

Dr. N. Amreswaran has been awarded UGC Research Award (2016-18) and Two Gold Medals.

Other Academic Activities

P. K. Gupta

- (a) Delivered four lectures each in the 32nd Orientation Programme (22 & 23 April and 13 May 2015), the 33rd Orientation

Programme (3, 4 & 11 June 2015), the 34th Orientation Programme (5, 10 & 11 February 2016) and the 35th Orientation Programme (17, 24, 25 & 26 Feb 2016) organized by UGC-HRDC, NEHU, Shillong; (b) Attended an Interaction Meeting on "Inclusive Education" organized by the Department of Education, NEHU, Shillong with a faculty of NCERT, New Delhi on 24th June 2015, (c) Delivered four lectures in a Special Summer School for College & University teachers organized by UGC-Human Resource Development Centre (HRDC), NEHU, Shillong on 6 to 9 July 2015, (d) Delivered four Lectures in a Short Term Research Methodology Course for College & University Teachers organized by UGC-HRDC, NEHU, Shillong, on 17-20 August 2015, (e) was Chairman of the Editorial Committee for the 41st Annual Report (2014-15) of North-Eastern Hill University, (f) Gave two lectures in a Short Term Course on Soft Skills for College and University Teachers & Research Scholars organized by UGC-HRDC, NEHU, on 1-2 July 2015, (g) Delivered four lectures in a Short Term Course in Research Methodology for College and University Teachers organized by UGC-HRDC NEHU, Shillong, on 12, 14, 15 & 16 October 2015, (h) Delivered lecture on "Quality of Higher Education" in a Special Winter School on "Challenges in Higher Education and the Role of ICT" for College & University Teachers organized by UGC-HRDC, NEHU, Shillong, on 2nd November 2015, (i) Attended National Consultation Meeting on New National Education Policy organized by NCERT, New Delhi from 4-5th December 2015 at Hotel Samrat, New Delhi, (j) Was a member of University Steering Committee on NAAC for the preparation

of NEHU Self Study Report, 2015, (k) was Member of the NAAC Peer Team which visited Govt College of Education, Patiala (Punjab) on 16 & 17th November 2015, (l) was Member-Coordinator of the NAAC Peer Team which visited S.V.C.S. B.Ed. College, Solapur, (Maharashtra) on 7-9 December 2015, and visited Hojai College, Hojai (Assam) on 21-23 December 2015, (m) Delivered four lectures in a Short Term Course on “Research Methodology with Special Reference to SPSS” organized by UGC-HRD Centre, NEHU, Shillong on 16-18 March 2016.

S. M. Sungoh

- (a) Acted as a Resource Person for UGC-HRDC 32nd Orientation Programme (20th and 24th April, 2015), 33th Orientation Programme (18th and 26th May, 2015), 34th Orientation Programme (1st and 2nd Feb, 2016), 35th Orientation Programme (11th and 22nd Feb, 2016).

C. Nongbri

- (a) Delivered many lectures on Curriculum Development in 32nd Orientation Programme (7 May 2015), 33rd Orientation Programme (18 August 2015), 34th Orientation Programme (27 January 2016) and 35th Orientation Programme (27 February 2016) organized by UGC-HRDC, NEHU, Shillong; (b) Acted as a Panelist on “Role of Teachers and Students in a Constructivist Environment and its Applicability and Usefulness in the B.Ed. Semester System” during the *National Seminar on Constructivism* organized by St. Mary's College of Teacher Education, Shillong, and DERT, Shillong, on 26th June 2015; (d) was Resource Person in the 5 Day Training of Trainers Programme on “Social

Harmony and National Unity and Human Rights” for NSS Officers held at NEHU, Shillong (5-9 January 2016), organized by Rajiv Gandhi, and NSS Cell, NEHU, Shillong; (e) was member of UGC Expert Committee for Evaluation of MRP/Sem/Conf/Workshop Proposals on 11th January, 2016 at UGC-NERO, Guwahati; (f) was a Resource Person in DERT Refresher Course for teachers of DIETs, DERT and CTEs on 3-4 Feb, 2016 on NCTE Curriculum Framework; (g) was member of UGC Expert Committee for Evaluation of MRP/Sem/Conf/Workshop Proposals on 1st March, 2016, at UGC Complex, Kolkata.

Dr B. B. Kharbirymbai

Was Resource Person for following events:

- (a) IGNOU extension programme Post Graduate Diploma in Higher Education Programme conducted by IGNOU-Shillong and gave 3 lectures on 21st and 22nd July, 2015; (b) M.A Education counselling classes Programme conducted by IGNOU-Shillong on 15-27 May, 2015 and gave one lecture; (c) UGC sponsored Refresher Course organized by UGC-Academic Staff College (ASC) and gave 2 lectures on 23rd April and on 20th May; (d) UGC sponsored Summer School on 16th July, 2015, organized by UGC-ASC, NEHU, Shillong; (e) UGC sponsored Winter School, giving 3 lectures on 26th October and 5th November, 2015; (f) panel discussion on the topic “Challenges confronting Higher Education In Meghalaya: The Role of the State Government” organized by Khasi Students Union, NEHU on 15th June, 2015 on the occasion of B. Pakem Excellence Award 2015; (i) NERIE-NCERT Umiam on “Research and Innovation in Teacher Education” for the programme

on creating curricular modules for the teachers of Sikkim on 1st February, 2016; (j) at UGC-ASC Orientation Course on "Sampling Techniques" on 4th February, 2016, (k) UGC-Academic Staff College on "New Trends of ICT in Education" on 11th February, 2016,, (l) at DERT, Government of Meghalaya Refresher Course on 10th February, 2016 on "Use of ICT in Curricular Activities", (m) UGC-ASC Research Methodology Course on 15th March, 2016 on "Sampling Techniques"; (n) IGNOU-Shillong for M.A counselling classes on the 5th, 12th, 19th, 26th March, 2016 for MES-12 Blocks-1-4 and MES-16 Blocks 1-5.

Invited for viva voce and evaluation at IGNOU Shillong of (a) M.A Education dissertation on 24th July, 2015; (b) M.A Education and M.Ed dissertation on 29th May, 2015; (c) M.A Education dissertation on 17th February, 2016.

Rihunlang Rymbai

Was Resource Person for the following programmes: (a) on 24th April 2015 at the Orientation Course in Education of Academic Staff College (20th April to 17th May, 2015); (b) on 27th 2015 at Orientation Course of Academic Staff College (8th May to 14th June, 2015); (c) Workshop conducted by Directorate of Educational Research and Training (DERT), Shillong for preparation of "Module on Teaching of Science at the Elementary Level" (3rd August to 7th August, 2015); (d) on the topic "Women in Higher Education" on 24th November, 2015 at Nabon Women's Synod College organised by NSS Unit of this college; (e) on "Human Resource Development" on 9th December, 2015 at Pinewood Hotel, Shillong; on the theme 'Smart Village Smart

People' organised by Meghalaya Economic Association; (f) on 3rd February 2016 at the 34th Orientation Course in Education held in the Academic Staff College (25th January to 17th February, 2016); (g) on 10th March 2016 at the Guidance and Counselling Programme for Secondary School Teachers of Meghalaya held at DERT, Shillong from 7th to 11th March, 2016.

Joint Teacher In-charge for activities related to World Environment Day on 4th and 5th June 2015, at the Department of Education, NEHU, Shillong, where the Department received "Most Environment Friendly Award", 2015 from NEHUSU, NEHU, Shillong.

Ashok Kumar

Delivered a lecture on 'Qualitative and Quantitative Methods of Research in Education' in IGNOU Study Centre, Shillong, on 11th April, 2015.

Delivered three lectures on 'Research Methodology' at the Dr. B. R. Ambedkar Open University Study Centre-925, Andhra University, Visakhapatnam from 21st April, 2015 to 23rd April 2015

Participated as contributing member in the Focus Group Discussion for a National Project entitled "Quality of Higher Education in India: A Study of External and Internal Quality Assurance at the Institutional Level" on 17th November 2015

Euodia Bahun Myrthong

Was Resource Person in (a) 32nd Orientation Programme conducted by UGC-HRDC, NEHU, Shillong on 27th April, 2015; (b) Academic Counselling classes conducted by IGNOU, Regional Centre, Shillong on

Department of Education

16th & 23rd May 2016; (c) 33rd Orientation Programme conducted by UGC-HRDC, NEHU, Shillong on 28th May, 2015; (d) Refresher Course conducted by DERT, Shillong, on the 1.02.2016 for Teacher Educators of Meghalaya.

Amareswaran

Participated in (a) the First International Yoga Day organized by NEHU, Shillong on 21st June 2015;

(b) National Voluntary Blood Donation Day organized by NEHU NSS Unit on 30th October 2015; (c) as contributing member of Focus Group Discussion for a National Project entitled "Quality of Higher Education in India: A Study of External and Internal Quality Assurance at the Institutional Level on 17th November 2015; (d) Global Conference on Disaster Risk Management: Major Initiatives in North Eastern Region (India) towards Disaster Management Resilience organized by NEC, Shillong on 23rd – 25th November 2015; (e) Orientation Programme on Public Policy

Making in Education organized by NUEPA, New Delhi from 15th to 18th December 2015.

Co-chaired a session "Problems Involved in Skill Development Programmes" at the National Seminar on *Skilling India: Status, Contours and Strategies* organized by Department of Adult and Continuing Education, SVU, Tirupati on 22–23 December 2015.

Participated in the three day workshop on "Preparing and Sharing Guidelines for Making Pre-service Teacher Training Degree Programmes Inclusive, in the light of Recent Development" organized by NCERT at SCERT, Guwahati from 15th to 15th March 2016.

Others

The Department of Education was awarded the NEHU Sports Overall Championship-2015.

The Department of Education was felicitated as "THE MOST ENVIRONMENT-FRIENDLY DEPARTMENT" amongst all Departments of the University during the year under report.

DEPARTMENT OF EDUCATION (TURA)

Head: Dr (Mrs) Nikme S. C. Momin

Telephone: 09436315571

Email Id.: edntcnehu@gmail.com

Faculty

Designation	Name & Qualification	Specialization
Associate Professor	Dr. Nikme S.C. Momin, MA & Ph.D. NEHU	Value Education, Educational Psychology & Environmental Education
	Dr. B.C. Das, M.A.(Utkal), M.Phil (DAV), Ph.D (B.H.U)	Educational Technology, Teacher Education, Research Methodology
Assistant Professor	Dr. S.C. Subudhi, MA, M.Phil & Ph. (Kurukshetra University).	Research Methodology & Statistics, Special Education
	Dr. Madhusudan. J.V., M.Ed, M.Phil & Ph.D. (Gulbarga University)	Sociology of Education, Early Childhood Education.

Thrust Area of Research

Value and Peace Education, Teacher Education, Methods of Teaching at Tertiary Level, Special Education, and Elementary Education are the thrust areas of study and research in the department.

Brief Statement of Academic Activities

The Department of Education, NEHU, Tura Campus was established in August 2001. Since then, it has been offering two years

M.A.and Ph. D. Programmes in Education. Besides regular teaching and research work, the department conducted course seminars in which students presented papers on various topics. The department is also engaged in Research Project works funded by the UGC and ICSSR, New Delhi, and ICSSR, NEHU-Shillong. The Department has a well-established Psychological Laboratory with adequate number of psychological tests and equipments where students conduct tests and experiment as a part of their course work.

Students' Profile

Enrolment Capacity: M.A. : 30; Ph.D. : Variable

Actual Admission

	OBC	SC	ST	GEN	Male	Female	Meghalaya	Non- Meghalaya	Total
MA	1	-	28	1	4	26	29	1	30
PhD	-	-	4	1	2	3	3	2	5

Department of Education (Tura)

Degrees Awarded

	OBC	SC	ST	GEN	Male	Female	Meghalaya	Non- Meghalaya	Total
M.A	-	-	26	-	3	23	25	1	26
PhD	-	1	3	-	-	4	4	-	4

Ph.D. Degrees Awarded

Name of Student	Title of Thesis	Name(s) of Supervisor(s)/ Joint Supervisor
Ms. Monish ChMarak	"A Study of the Sense of Accountability in Relation to Job Satisfaction of Secondary School Teachers in West Garo Hills District, Meghalaya"	Dr. Nikme S.C.Momin
Ms. Kanika Das	"A Study of Guidance Needs in Relation to Stress, Mental Health and Academic Achievement of Higher Secondary Students in West Garo Hills District of Meghalaya"	Dr. Nikme S. C. Momin
Ms. Meuller Beul M Sangma	"A Comparative Study of parental Encouragement, Socio Economic Status, Achievement Motivation and Academic Achievement of Class X Students belonging to Garo and Bengali Communities in West Garo Hills of Meghalaya"	Dr. S. C. Subudhi
Ms. Pilne A Sangma	"A Study of Emotional Maturity in Relation to Decision Making Style and Personal Values of Secondary School Teachers of Garo Hills Region of Meghalaya"	Dr. Nikme S.C.Momin

Courses Conducted

M.A. (Education)

Semester I:

Philosophy of Education, Psychology of Education, Educational Management and Change, and Research Methodology in Education (I & II)

Semester II:

Curriculum Development and Instruction, Sociology of Education, Educational Testing & Evaluation, Environmental Education and Mental Health Education

Semester III:

Educational Technology, Comparative Education, Early Childhood Education, Teacher Education, Education for the Gifted & the Creative and Special Education,

Semester IV:

Laboratory Practical, Higher Education in India, Guidance and Counseling, Education for the Physically and the Cognitively Challenged, Methods of Teaching at Tertiary Level and Economics of Education.

Ph.D. Courses

Research Methodology, Data Analysis and Computer Application, Review of Related Literature

Educational Tour

Places/institutions visited: Kolkata and Santiniketan were visited, including Educational Institutions, National Science Centre, Historical Museums and Archaeological sites, places of Philosophical and Religious interests, areas of Ecological concerns and Cultural and Socio-economic centers.

Duration of tour: 11 days 09/01/2016 to 19/01/2016.

Purpose of tour: The Study Tour had in its objective to learn about the overall activities concerning the Educational as well as the Cultural, Economical, Sociological, Environmental and the Scientific Advancement of the people from the places in West Bengal in general. In particular, the UNESCO World Heritage of Sundarbans was visited for development of Environmental Sensitivity, Awareness and Action amongst the students

Seminars/ Conference/ Symposia/ Extension Programmes etc.

Dr. Nikme S. C. Momin

Presented two papers entitled "*Motivating Today's Youth for Higher Education*" and "*Do you want to be Successful as a Student? Have Your Goal Set!*" in Youth Festival cum Workshop on "*Youth Pursuit of Excellence in the Arena of Higher Education Amidst Challenges they Face*" organized by Hope for the Nations Ministries, Tura, at Dadenggre Puri Government Higher Secondary School, Dadenggre, Meghalaya on 24 October, 2015.

Presented a paper on "*Connecting Children Literature to Environmental Education for Sustainable Development of the 21st Century by placing a Garo Folktale*

Mijanggi" in a National Seminar on "*Oral Literature: A Reflection*" hosted by Dept of Garo, NEHU, Tura, in collaboration with ICSSR, New Delhi on 28-30 October, 2015. Co-authored with Mr Challang R Marak.

Presented a paper on "*Assessing the Students' Counseling Needs of North-Eastern Hill University, Tura Campus, Meghalaya*" In a National Seminar Cum 23rd Annual Conference and Silver Jubilee Celebration of North East India Education Society (NEIES) organized by the Department of Education, NEHU, Shillong, in collaboration with NEIES, Shillong on 26 and 27 November, 2015. Co-authored with Dr Kanika Das.

Participated in a Workshop on "*Facilitation of Innovation and Commercialisation by Intellectual Property Rights*" organized by Tezpur University Intellectual Property Rights Cell in collaboration with Department of English, NEHU, Tura, on 29 February, 2016 at NEHU, Tura Campus.

Presented four papers entitled "*A Reflection of Value Education for Deeper Inculcation in Garo Hills Region of Meghalaya*", "*Culturally Relevant Pedagogy and Skill-Based Education with Special Reference to the A'chik Community of Meghalaya*", "*Vocational Education towards empowerment of tribal youths in the state of Meghalaya*" and "*The impact of Socio-Economic Status on the Guidance Needs, Mental Health and Academic Achievement of the Science Students of Meghalaya*" in the National Seminar on *Re-thinking New Education Policy: Contextualizing the Issues of India's North-Eastern Region* hosted by Dept of Education, NEHU, Tura Campus, in collaboration with ICSSR, New Delhi on 20-21 March, 2016. Co-authored

with Tengchira T. Sangma and Kasaatchi T.K. Marak and Dr Kanika Das.

Dr. S. C. Subudhi

Presented a paper on "Challenges in Higher Education" in UGC sponsored National Seminar at SCB Degree College, Mayurbhanja, Odisha on 8-9 September, 2015.

Paper presented on "Vocational Education towards empowerment of tribal youths in the state of Meghalaya" in RGNIY (Ministry of Skill Development & Youth Affairs) sponsored National Seminar at Nongstoin College, West Khasi Hills, Meghalaya on 4-5 March, 2016.

Dr. J. V. Madhusudan

Participated as Resource Person in the ICSSR Sponsored National Seminar on *E-Governance in Higher Education: Challenges and Prospects with Special Reference to North-East Region* on February 20-21, 2016.

Publications

Research Papers

International

Momin, N.S.C., Das, K. (2015). Correlating of Mental Health amongst the Higher Secondary School Students with Ongoing Social Disturbance in Meghalaya. *International Journal of Informative and Futuristic Research* 2: 4223-4229. ISSN 2347-1697

Momin, N.S.C., Das, K. (2015). Understanding the Higher Secondary Students' Guidance Needs, Stress and Academic Achievement for Transition to Higher Education: A Study of Garo Hills of Meghalaya, India.

International Journal of Informative and Futuristic Research 3: 921-926. ISSN 2347-1697.

Momin, N.S.C., Marak, C.R. & Das, K (2015). Identifying Hindrances in Effective Implementation of Sakshaar Bharat Programme in Meghalaya. *International Journal of Informative and Futuristic Research* 3: 1230-1237. ISSN 2347-1697.

Momin, N.S.C., Tirkey, A. S. (2016). Identification of Environment Stress Amongst Secondary School Students of Garo Hills, Meghalaya. *International Journal of Informative and Futuristic Research* 3: 1607-1616. ISSN 2347-1697.

National

Momin, N.S.C., Marak, C.R. (2015). Attitude of Adult Learners: A Case of Sakshaar Bharat Programme for Women in West Garo Hills District of Meghalaya. *Education India: Quarterly Refereed Journal of Dialogues on Education*. 4: 12-37. ISSN 2278-2435.

Subudhi S. C. (2015). Use of internet and its impact on academic achievement among post graduate students of NEHU, Tura, Meghalaya. *Journal of Research and Innovations in Social Science*, Vol 2.

Books/Chapters/Proceedings

Subudhi S.C. (2015). *Teacher Education for Special Schools*; Lakshi Publisher & Distributer, New Delhi, ISBN: 978-93-82120-67-4.

Madhusudan J.V., Nongbri, C., Kharbiryumbai (2015). *Education in Rural Areas of North East India: Concerns for RMSA Education in North East India*, Eastern Publishers, Guwahati 978983252-83-1

Research Projects

Completed

Sl.	Title of the Project	PI	Funding Agency	Amount
1	'Concept Development in Science Subject among Hearing Impaired Children Studying in Integrated and Segregated Educational Settings of Meghalaya'.	S. C. Subudhi	ICSSR, New Delhi.	Rs 7,00,000/-
2	Study of Competencies in Organization of Co-Curricular Activities among Elementary School Teachers of West Garo Hills District of Meghalaya'	S. C. Subudhi	ICSSR- NERC, Shillong.	Rs 1,00,000/-

Other Activities

Dr. Nikme S. C. Momin

- (a) Directed and organized the ICSSR sponsored 10-day Training Course on *Research Methodology in Social Sciences and Humanities* held on 9-19 March, 2016, in Dept of Education, NEHU, Tura Campus; (b) Co-ordinated ICSSR Sponsored National Seminar on *Rethinking New Education Policy: Contextualizing the Issues of India's North-Eastern Region* on 20th and 21st March, 2016, in Dept of Education, NEHU, Tura Campus; (c) Participated in an ICSSR sponsored Workshop on "*Case Study Teaching Methods in Management Education*" organized by Dept of Management, NEHU, Tura Campus, in collaboration with the ICSSR, NERC, NEHU, Shillong, from 10th to 13th June, 2015.

Dr. S. C. Subudhi

- (a) Delivered three lectures on "Research methodology and Statistics" in an IGNOU work shop for 1st year B.Ed. students from 26th June to 7th July, 2015 at IGNOU

B.Ed. Study centre, Tura, Meghalaya; (b) Delivered two lectures on 'Sampling' as Resource Person in a Research Methodology Training Programme for Research Scholars by ICSSR at Tezpur University, Assam, on 18 Feb, 2016; (c) Delivered two lectures on 'Sampling' as a resource person in a Research Methodology Training Programme for Research Scholars by ICSSR at Dept of Education, NEHU, Tura campus, on 11th March, 2016.

Dr. J. V. Madhusudan

- (a) Organised (as Co-Coordinator) the National Seminar on *Re-thinking New Education Policy: Contextualizing the Issues of India's North-Eastern Region* from 20th to 21st March 2016 with Financial Assistance from ICSSR, New Delhi along with Dr. Nikme S. C. Momin; (b) Organised (as Co-Coordinator) the 10- day Training Course on Research Methodology for Researchers in Social Sciences and Humanities" held on 9-19 March, 2016, with Financial Assistance from ICSSR, New Delhi along with Dr. Nikme S. C. Momin.

CENTRE FOR DISTANCE EDUCATION

Head: Prof. R. N. Rai
Telephone: 0364-2226822/2228705 (Office), 9436303111 (M)
E-mail: mnrai1957@yahoo.co.in

Faculty

Designation	Name and Qualification	Specialization
Professor	R. N. Rai (M.A., Ph.D.)	Psychological Testing and Social Psychology of Aging
Assistant Professor	R. C. Pandey (M.A., Ph.D.)	Experimental Psychology & Statistics

Thrust Area of the Centre

The thrust area of the Centre is to offer General, Certificate, Diploma and Degree Courses in distance mode to all those who have for some reason or other been deprived of formal education and are seeking higher education irrespective of age or region where they reside. The Centre offers Degree, Diploma and Certificate Courses through distance mode relevant to the region.

Brief Statement of Academic Activities

The Centre for Distance Education (CDE) has been selected as the only nodal agency in Meghalaya of the Rehabilitation Council of India (RCI), New Delhi, to disseminate teaching/

learning on disability areas through the distance mode. In the disability areas, the Centre started the two-year B.Ed. Special Education (B.Ed-SEDE) programme in 2007, and the three-month Foundation Course on Education of Children with Disability (FC-SEDE) in 2010, both still in operation. The programme coordinators and counselors have been exposed to new techniques for distance mode of education through orientation programmes.

The Centre is hosting the IGNOU Study Centre, Shillong. Under this Centre, Master and Bachelor Degree Programmes, Diploma and Certificate Programmes are offered to students of different categories. More than 1200 distance learners are enrolled under this Study Centre.

Students Profile

Enrolment capacity: B.Ed-SEDE – 200; FC-SEDE - 300
 FC-SEDE is Foundation Course on Education of Children with Disabilities

Actual Admission

Course	SC	ST	GEN	OBC	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
B.Ed.-SEDE	8	87	67	38	79	121	68	132	200
(FC-SEDE)	5	145	61	20	110	121	46	185	231

Degrees Awarded

Course	SC	ST	GEN	OBC	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
B.Ed.-SEDE	Results to appear in July 2016								
(FC-SEDE)	1	43	29	10	46	37	2	81	83

Placement of Students

Successful students of Disability Programmes are placed under SSA and special schools of the North-East Region of the Country and all over the country. The students have also joined various NGO to cater the needs of the challenged population which is a sizable number in the North Eastern Region.

Courses Conducted

B.Ed. Special Education (B.Ed.-SEDE)

B.Ed. SEDE 1st Year

Theory

Education in Emerging Indian society
Educational Psychology
Introduction to Disability
Teaching of English/Hindi/Regional Language
Introduction to Education of Visually Impaired Children/Identification & Assessment of Persons with Mental Retardation / Foundation of Education for the Hearing Impaired

Practical

Core Training in Teaching Skill
Psychology Practical
Basic Computer Operation
Adaptive skills, Aids & Appliances
Training in Visual Impairment, Mental Retardation and Hearing Impairment.
Teaching Practice in English/Hindi/Regional

Language

Teaching Practice in Inclusive School

B.Ed. SEDE 2nd Year

Theory

Educational Planning and Management, Curriculum designing & Research, Teaching of Science/Teaching of Mathematics/ Teaching of social Studies
Educational Perspective of Visual Impairment
Instructional Methods
Mental Retardation: Its Multidisciplinary Aspects
Curriculum and Teaching Strategies
Aural and Oral Rehabilitation of the Hearing Impaired
Methodology of Teaching Language and Other Subjects to Hearing Impaired

Practical

Work Experience/Art Education
Co Curricular and Extra curricular activities
Project Work in Visual Impairment
Training on Equipment related to Visual Impairment
Project Work in Mental Retardation
Training on Equipment related to Mental Retardation
Project work in Hearing Impairment
Training on Equipment related to Hearing Impairment

Foundation Course on Education of Children with Disabilities (FC-SEDE)

Developing Broad Positive Perception of Children with Disabilities and Intervention Measures.

Understanding Education for the Children with Disabilities.

Understanding of Early Childhood Development and Intervention of Children with Disabilities.

Development of Adaptive Skills, Assistive Devices and Special Therapies for Children with Disabilities.

Basic Training for Teaching Children with Special Needs.

Seminars/Conferences/Symposia/Extension Programmes

Attended

R. N. Rai (i) Inaugurated the three days Orientation of Master Trainers of D.Ei. Ed. Programme organized by National Institute of Open Schooling at DERT, Shillong, from 20th May to 22nd May 2015, (ii) Participated in the consultative meeting on National Education Policy: Promoting Open and Distance Learning (ODL) and On-line Courses organized by Regional Centre, IGNOU Shillong on 25th September 2015, (iii) Attended Research Advisory Committee of National Institute of Open Schooling (NIOS), Noida, on 18th

February 2016, (iv) Chaired a Technical session in the Seminar on *Capacity Building of Rehabilitation Professionals for Persons with Disability in North-Eastern States* organized by Rehabilitation Council of India at State Convention Centre, Shillong from 25th to 28th February 2016, (v) Attended 5th Conference of Vice-Chancellors of Open Universities to discuss Assessment and Accreditation System of ODL Institution in Higher Education and CBCS organized by Indira Gandhi National Open University, New Delhi on 4th March 2016.

Academic Collaborations

The Centre is conducting the B.Ed.-SEDE and FC-SEDE courses in collaboration with the Rehabilitation Council of India, New Delhi.

Other Activities

R. N. Rai (i) Attended one day meeting of Programme Coordinators of Open Universities organized by Rehabilitation Council of India on 4th November 2015, (ii) Participated in the *Global Conference on Disaster Risk Deduction – Major Initiatives in North-Eastern Region (India) towards Disaster Resilience* organized by FICCI at State Convention Centre, Shillong, (iii) Delivered Lectures in NEIGRIMS for B.SC Nursing 1st Year students from July 2015 to February 2016.

CENTRE FOR SCIENCE EDUCATION

Head: Prof. M. S. Bisht
Telephone: 272-2955; 272 2951
E-mail: msbisht@nehu.ac.in

Faculty

<i>Designation</i>	<i>Name and Qualification</i>	<i>Specialization</i>
Professor	Dr. Man Mohan Singh M.A, Ph.D	Science Education
	Dr. Debashis Bhattacharjee Ph.D. (Warsaw University)	Number Theory (Arithmetical Functions)
	Dr. M. S. Bisht Ph.D. (Delhi University)	Biological and Environmental Sciences
	Dr. P. K. Patra Ph.D. (NEHU)	High Energy Physics/ Nanophysics

Thrust Areas of Research

To develop scientific temper in the area of mathematics, physics, biology, environment and other science and technology areas among the students and community at large. Conduct of research and spread of knowledge in the field of science education, environmental education and sustainable use of natural resources for the socio-economic development of the region.

Brief Statement of Academic Activities

The Centre is mainly involved in research activities in the area of physical, mathematical, biological and environmental sciences. Research is being conducted in the area of sustainable use of natural resources like bamboo which is a renewable natural resource and abundantly available in the region of North-East India. The Centre is also developing techniques and methods for waste management like use and recycling of it with value addition. Tools and methods for teaching are being developed to

make students and general public aware about their environment, sustainable use of natural resources and waste management. Faculty members have a number of research projects to fund their research activities.

Seminars/Conference/Symposia/Extension Programmes etc

Organised

Prof. P. K. Patra was Member of Organizing Committee for Program on "Commemoration of Birth Anniversary of Madam Marie Curie and Sir C. V. Raman" held on November 7th, 2015.

Attended and Participated

Prof. M. S. Bisht presented a paper in 10th World Bamboo Congress, Damyang, South Korea, held September 17-22, 2015.

Paper by Prof. P. K. Patra and B. R. L. Lyngdoh Mawphlang on "Expressions for Deflection and upper Bound on the

Load of a Cantilevered Carbon Nanotube using Nonlocal Continuum Models” was presented in International Conference on *Recent Advances in Nano Science and Technology* held at Sathyabama University, Chennai, on July 8-10, 2015

Publications

Research papers

Published abroad

Bajwa, H. K., Nirmala, C., Koul, A., Bisht, M. S. (2016). Changes in organoleptic, physico-chemical and nutritional qualities of shoots of an edible bamboo *Dendrocalamus hamiltonii* Nees and Arn ExMunro during

processing. *Journal of Food processing and Preservation*. Doi:1111/jfpp.12716.

Rawat, K., Sharma, V., Natasha S., Nirmala, C., Bisht, M. S. (2016). Impact of different boiling and soaking treatments on the release and retention of antinutrients and nutrients from edible shoots of three bamboo species. *American Journal of Food Science and Nutrition Research* 3: 31-41.

Funds Received from Agencies including NEHU/UGC

NEHU/UGC	Rs. 75, 000
Projects	Rs. 2,10,000
Total	Rs. 2,85,000

Research Projects

Ongoing

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1	Bamboo Shoot as a Functional Food and Nutraceutical: Extraction of Bioactive Compounds from Juvenile Shoots for Commercial Exploitation and Socio-Economic Development of the Region	Prof. M. S. Bisht (Co-PI)	Department of Biotechnology (DBT)	Rs. 14,38,000/- (NEHU Share)

Completed during Year

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1	Organic Garbage Recycling for the Generation of Livelihood and Zero Waste	Prof. M. S. Bisht (PI)	Department of Science and Technology	Rs. 13,50,584
2	Novel Plant Genotypes for Predicted Climate Change	Prof. M. S. Bisht	UGC	Rs. 4,57,409

Academic Collaborations

Collaboration with Prof. C. Nirmala, Department of Botany, Panjab University, Chandigarh.

Collaboration with Dr. K. Sarangthem, Department of Life Sciences, Manipur University, Canchipur, Manipur.

Other Activities

Prof. D. Bhattacharjee took an M.Tech. 1st Semester Course (Advanced Engineering Mathematics MA-901) in Department of Electronics and Communications, NEHU, Shillong as a Guest Faculty during the August-December 2015 session

Prof. M. S. Bisht was Technical Committee Member for *10th World Bamboo Congress*,

South Korea, held on September 17-22, 2015.

Prof. M. S. Bisht chaired the session on 'Food and Pharmaceuticals' in *10th World Bamboo Congress*, held Sep. 17-18, 2015, at Damyang, South Korea.

Prof. M. S. Bisht as Resource Person gave four lectures in a Refresher Course organized by the UGC Human Resource Development Centre, NEHU, Shillong.

Prof. P.K. Patra was a member of the organizing committee of viewing of solar eclipse to the public in collaboration with Science Centre, Govt of Meghalaya and Dept of Electronic Communication and Engineering, NEHU, on March 9th, 2016.

III

SCHOOL OF HUMANITIES

Dean: Prof. (Mrs) B. War
Telephone Nos: 0364-2723501 (O); 0364-2723502 (O); 9436337721 (M)
E-mail ID: bwar57@yahoo.co.in

The School of Humanities has five Departments in the Shillong Campus, i.e. English, Philosophy, Khasi, Linguistics and Hindi, and two Departments in the Tura Campus, i.e. English and Garo. All Departments conducted MA and PhD Programmes during 2015-16. Some departments like Khasi, Linguistics and Hindi also conducted the M.Phil. Programme during the year.

Faculty members of the School were actively involved in teaching, guiding research and other academic activities. Each department has its own identified thrust area of research. Faculty members of the various departments under the School have produced a large number

of research papers in academic journals and contributed chapters to a good number of books. They also have edited and written books and presented papers in seminars and conferences. Many faculty members have been invited as Resource Persons, Keynote Speakers, Panellists and Chairpersons to seminars, conferences, workshops and Refresher Courses within and outside NEHU. Departments under the School have organised international, national and regional seminars in addition to organising workshops and Refresher Courses. Some departments also organized study tours for students. The School has made significant progress in diverse research fields.

DEPARTMENT OF ENGLISH

Head: Prof. Sukalpa Bhattacharjee
Telephone: 0364-2723503/9436703957 (M)
E-mail: bsukalpa@hotmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	Esther Syiem, M.Phil, PhD	American Literature, Modern Fiction, Folk Literature
	Moon Moon Mazumdar, PhD, DDE	Shakespeare Studies, Modern British Literature, Colonial and Postcolonial Literature and Tagore Studies.
	Sukalpa Bhattacharjee, MPhil, PhD	Critical Theory, Postcolonial Literatures and Women's Studies
	Mala Renganathan, MPhil, PhD	Drama/Theatre (American & Indian); Terror Literature.
	Utpala G. Sewa, MPhil, PhD	Diaspora, North-East Writings in English
	Jyotirmoy Prodhani, PhD	Theatre, Ethnic Studies, Translations North East
Associate Professor	Nobonita Ganguly, MA	Modern British Fiction
	Nola Syiem, MPhil	British Drama 16 th -17 th Century
	Kynpham Sing Nongkynrih, PhD	Poetry / Northeast Poetry / World Poetry in English Translation.
	Ngangom Rabindra Singh, MA	Indian Literature in English & Modern Poetry
Assistant Professor	Lang Kupa K. War, MA	Modern Fiction
	Suranjana Choudhury, MPhil, PhD	Women Studies, Partition Writings, Popular Culture Studies, South Asian Literatures
	Rimi Nath, PhD	Indian Writing in English and South Asian Literature.
	Somjyoti Mridha, MPhil	Indian English Literature (Literature from Kashmir).

Thrust Areas of Research

The thrust areas of research are: New Literatures in English particularly South Asian Diasporic Fiction in English; Literature in English and in Translation from North-East India; Comparative Literature constituting various literatures in translation; Theories of Gender and Culture Studies, Ethnic and Cultural Studies and Theatre, with special focus on theatre traditions of Europe, America and India in general and North East India in particular.

Brief Statement of Academic Activities

The Department conducts the M.A. and Pd.D. programmes. Faculty are engaged in teaching and research in the thrust areas.

Dr. Cecile Fouache, Departement d' anglais, UFR de lettres et Sciences Humaines, Universite de Rouen, France visited the Department to deliver a lecture on Rewriting of Homer by Contemporary Writers on 29th October 2015 .

An Outreach Session for Fulbright-Nehru Fellowships 2015 was conducted by Ms. Shevanti Narayan, Regional Officer, USIEF, Kolkata on 21.5.2015 in the Department.

Students' Profile

Enrolment Capacity: MA – 52; PhD – Variable

Degree	SC	ST	GEN	OBC	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
MA	1	47	4		13	39	36	16	52
PhD		21	11	1	11	22	18	15	33
Post-Doctoral		1			1			1	1

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
MA		47	2	4	45	38	11	49
PhD		5	1	1	5	3	3	6

Students Awarded PhD Degree

Name of Student	Title of Thesis	Name(s) of Supervisor(s)/ Joint Supervisor
Madeline Y. Tham	Colonial Writings in the Khasi Hills 1789-1947: A Critical Study	Prof. Utpala G. Sewa
Longchanaro Longkumer	Novel and Myth: A Comparative Study of Myth in the Selected Novels of Chinua Achebe and Raja Rao	Prof. Moon Moon Mazumdar

School of Humanities

Clarissa Sawian	Women are Mankind: A Study of the Gender Matrix in Thomas Hardy's Shorter Fiction	Prof. Moon Moon Mazumdar
Ryan R. Kharkongor	Bob Dylan and the Poetry of Protest: A Select Study	Dr. Kynpham Sing Nongkynrih
Bondina Elangbam	Trajectories of Agony and Bonding in Rohinton Mistry's Fiction: A Select Study	Prof. Moon Moon Mazumdar
Grace Aonok	A Poetic Odyssey: A Critical Study of the Evolution of Poetry in English from North-East India	Prof. Utpala G. Sewa

Research Fellowships

Rajiv Gandhi National Fellowship – 1

JRF – 3

NEHU Non NET Fellowship – 12

Courses Conducted

Postgraduate: MA

Semester-I

ENG:C 101 Poetry I, ENG:C 102 Fiction I, ENG:C 103 Drama I, ENG:C 104 Literary Theory & Criticism I, ENG:C 105 American Literature I

Semester-II

ENG:C 106 Poetry II, ENG:C 107 Fiction II, ENG:C 108 Drama II, ENG:C 109 Literary Theory & Criticism II, ENG:O 110 Commonwealth Literature (Option A), World Literature in Translation (Option B)

Semester-III

ENG:C 111 Poetry III, ENG:C 112 Shakespeare I, ENG:C 113 Literary Theory & Criticism III, ENG:O 114 American Literature II (Option A),

ENG:O 114 Modern Indian Drama (Option B), ENG:O 115 Indian Fiction in Translation (Option A), Women's Writing (Option B)

Semester-IV

ENG:C 116 Fiction III, ENG:C 117 Drama III, ENG: C 118 Shakespeare II, ENG:C 119 Literary Theory & Criticism IV, ENG:C 120 Environment & Indian Writing in English

MPhil/PhD Courses

ENG 501 Research Methodology (4 Credits)
ENG 502 Research Writing and Presentation (4 Credits)
ENG 503 (Option D) The Literature of North-East India (4 Credits)
ENG 503 (Option G) India in Twentieth Century Narratives: English Writings and Translations (4 Credits)

Seminars /Conferences/Symposia / Extension programmes etc.

Organised

The Department in collaboration with The Sahitya Akademi held a two-day symposium on *Story Telling (Children's Literature) and Women's Writers from North-East India* on

Department of English

9-10 November, 2015. The Co-ordinator was Prof. Esther Syiem.

The Department of English organised a National Seminar on *Re-interpretations of the Past: The Discourse of Cultural Identity in South Asia* on 17-18 March 2016, with Prof. J. Prodhani as Coordinator and Mr Mankhrawbor. Dunai (Research Scholar) as Joint Co-ordinator.

Jyotirmoy Prodhani

Organized as Coordinator a National Seminar *Re-Interpretations of the Past: The Discourse of Cultural Identity in South Asia* on behalf of the Dept. of English, NEHU, Shillong, on 17 & 18 March, 2016.

Suranjana Choudhury

Coordinated a two day symposium *Story Telling and Women Writers from North-East India* organized by Sahitya Akademi in collaboration with Department of English, NEHU on 9th and 10th November, 2010 in NEHU, Shillong.

Co-convened National Conference *Reinterpretations of the Past: The Discourse of Cultural Identity in South Asia* organized by the Department of English, NEHU, Shillong on 17th and 18th March, 2016.

Rimi Nath

Worked as Co-coordinator of the National Seminar on *Re-interpretations of the past: The Discourse of Cultural Identity in South Asia* organised by the Department of English, NEHU, Shillong, 17-18 March, 2016.

Somjyoti Mridha

Co-coordinator of the National Seminar on *Re-interpretations of the Past: The Discourse*

of Cultural Identity in South Asia organised by the Dept. of English, NEHU, Shillong, held on 17-18 March, 2016.

Attended and Participated

Esther Syiem

Delivered an invited lecture on "Environment and Literature" on 23 July 2015 at the UGC-HRDC Special Summer School 2015 organised by Academic Staff College NEHU, Shillong.

Participated in the Study Week on *Historiography of Translation in India* organised by IAAS, Shimla, on 10-14 August 2015 and presented a paper on "The Oral Dynamic: A Critique of two Literary Histories (R. S. Lyngdoh's *Ka Histori Ka Thoh Ka Tar Bynta I & II* and O.L Snaitang's *A Dictionary of Khasi Literature*)".

Presented a paper on "Negotiating the Loss, Orality in the Indigenous Communities of North East India: Possibilities in the Contemporary Situation" in a National Seminar on *Indigenous Languages: Survival of the Oral in the Digital Future* jointly organised by IIC-Asia Project and Bhasha Research Centre at India International Centre from 22-24 Sept. 2015

Presented a paper on "A Historiography of Translation: The Khasi Context" in the National Seminar on *Indian Literary Historiography* organised by Sahitya Akademi, New Delhi, in collaboration with S.V. University, Tirupati, at S.V. University, Tirupati, on 28-29 September 2015.

Moon Moon Mazumdar

Presented an invited paper titled "Critiquing Gender Issues in Contemporary Khasi Society" at the International Conference

on *Know The Neighbours* organised by Gono Bishyobidyalay and Jehangirnagar University in Dhaka, Bangladesh (20-25 February, 2016)

Chaired a session at the International Conference on *Syntactic Typology: Language Contact and Convergence* organised by Department of Linguistics, NEHU, Shillong, in collaboration with CIIL, Mysore and ICSSR-NERC on 24th November, 2015.

Chaired two academic sessions at the National Seminar on *Reinterpretations of the Past: The Discourse of Identity in South Asia* organised by Department of English, NEHU on 17-18 March, 2016.

Sukalpa Bhattacharjee

Delivered the Keynote Address entitled "Theorizing Indian Writing in English: Identities, Politics and Representation" at the UGC-DEB sponsored National Seminar titled *Post-coloniality, Subalternity and Indian Writing in English: The Open Learning Praxis* organised by Netaji Subhas Open University, Kolkata on 1st October 2015.

Presented a paper entitled "Mapping Women's Writing in Northeast India" in a two day National Symposia on *Children's Writing and Women's Voices: Women's Writing from North East India* organised by the Department of English, NEHU, in collaboration with Sahitya Akademi, New Delhi on the 9th and 10th November 2015.

Presented a paper entitled "Recasting the Myth of Kali in Northeast India" at the National Seminar on *Diaspora and Folklore: Exploring the Changing Dimensions of Folklore in Tribal Diaspora* organised by

the Department of Cultural and Creative Studies, NEHU, on 30th March 2016.

Presented a paper on "Non-human Humans and the Politics of Representation" at an International Conference on *Reconfiguring Human and Non-Human: Text, Images and Beyond* organised by University of Jyväskylä, Finland, on 29-30 October 2016 at Jyväskylä.

Presented a paper on "Theorizing Tribal Literatures: A Postcolonial Perspective" at the National Seminar on *Interpreting Tribal Literature: A Multidisciplinary Approach* organised by the Khasi Department, NEHU, Shillong, from 18-20 February 2016 at NEHU, Shillong.

Presented a paper on "Gendered Selves and Collectives" at the International Conference on *Multitude and Democracy: Experiences from Northeast India and Myanmar* organised by the Omeo Kumar Das Institute of Social Change and Development, Guwahati, in collaboration with Peace Research Institute Oslo, Norway, on 19-20 of February at OKDISCD Guwahati.

Prof. Utpala Ghaley Sewa

Presented a paper on "Search for Identity and Space" in the International Seminar on *Social Interactions and Cultural Milieu* organised by Lady Keane College, Shillong, on 8th August 2015.

Jyotirmoy Prodhani

Attended International Conference on *Humanities and Social Sciences (ICHUSO 2015)* at Khon Kaen University, Bangkok, Thailand on 26-27 November, 2015.

Presented a paper on "The Bengal Renaissance and the Anxieties of Modernism in Assam"

in National Seminar on *Oral Literature: A Reflection* held 28-30 October 2015 and organised by EFLU, Shillong.

Presented a paper on "*Ittalan* and the Tales of the Walls" at the event *Art, Orality and the Spiritual World of the Saora* held at the Department of Garo, NEHU, Tura.

Ms. N. Ganguly

Presented a paper on "Shakespeare on Film: A Study of Hamlet/Haider" in the International Conference on *Shakespeare: Global Perspectives* organised by the Shakespeare Society of Eastern India and the Tagore-Gandhi Institute for Culture Studies and Service-Learning, Kolkata, on 24-25 February 2016.

Rabindra Singh Ngangom

Presented paper entitled "Contemporary Northeast Poetry in English" at National School of Languages & Literature, Sikkim University, on 29-31 May 2015.

Presented self-composed poems in literary session "Dancing Earth" at Mountain Echoes Literature Festival 2015, Bhutan, on 19-22 August 2015.

Presented paper titled "Poetry in a Time of Terror" at International Seminar on *Indigeneity: Expression and Experience* organized by Department of English, Mizoram University, on 25-26 February, 2016.

Suranjana Choudhury

Presented a paper on "The 'Other' Chronicles of Displacement and Loss: Studying Partition Writings from Barak Valley" in the International Conference on *Words Words Words: The Future of Literary*

Writing organized by the Department of English Literature, The English and Foreign Languages University, Hyderabad on 25-27 November, 2015.

Rimi Nath

Presented a paper entitled 'The crisis of an immigrant: A study of literature from Pakistan and North-East India in context' in an International Seminar on *Politics, History and Fiction in South Asia with Special Focus on Pakistan and North East India* held at the Department of English, Gauhati University, on 25-27 February, 2016.

Somjyoti Mridha

Presented a paper on "Interrogating the Idea of India: A Study of Cinematic Representations of Kashmir Conflict from Bollywood and Beyond" at the National Seminar on *The Idea of India in the 21st Century: Cinematic Perspectives* held 26-28 May, 2015 at Indian Institute of Advanced Study (IIAS), Shimla.

Participated in the 114th four-week Orientation Programme organised by the UGC-HRDC, Jamia Millia Islamia, New Delhi, from 03 November-03 December, 2015, and obtained grade A. Also presented a research paper on '9/11 and Ethnic Identity' during the course.

Publications

Research Papers/ Articles

Published in India

Bhattacharjee, Sukalpa (2016) Tagore's Swadeshi Samaj and Critique of Nation. Paper No. P-15, *Social and Political Philosophy*, Module-32, UGC-ePathshala,

- MHRD Project National Mission on Education through ICT. at <http://epgp.inflibnet.ac.in/>
- Prodhani, J. (2015) Poetry from India's North East: The Contemporary Voices. *GUNEIS Journal*, 2: 1-9. ISSN 2347-2669.
- Nongkynrih, K. S. (2015) Translation: Mother Tongue and other tongue. *Dhaulti Review*. Summer 2015: NPag
- Nongkynrih, K. S. (2015). Death by Burning. *Dhaulti Review*. Autumn 2015: NPag.
- Nongkynrih, K. S. (2015). Īing Sad: A Tour Guide. *Indian Literature*. 287:95-96.
- Nongkynrih, K. S. (2015). The Tree. *Indian Literature*. 287:96-97.
- Nongkynrih, K. S. (2015). The Pimp. *The Enchanting Verses Literary Review*. 12: 14-15.
- Nongkynrih, K. S. (2015). Sundori. *The Enchanting Verses Literary Review*.
- Nongkynrih, K. S. (2015). Stray Thoughts on Award Night. *Muse India*. 59: NPag.
- Nongkynrih, K. S. (2015). The Shadow. *Muse India*. 59: NPag.
- Nongkynrih, K. S. (2015). Elegy for Mother. *Muse India*. 59: NPag.
- Nongkynrih, K. S. (2015). Jilebi. *Muse India*. 59: NPag.
- Nongkynrih, K. S. (2015). Shaphang ka Haiku bad Senryu (Haiku and Senryu: An Analysis). *Ka Thiar ki Nongthoh*. 12: 20-26.
- Ngangom, Rabindra Singh (2015). Self-Composed Poems. *Guftugu*, October 2015 issue, (Indian Writers' Forum, New Delhi).
- Nath, R. (2014) Cricket and the Formation of Identities: A Study of Romesh Gunsekera's *The Match*. *Literary Miscellany*, 1-2: 80-92.
- Mridha, Somjyoti (2015). Memories of Home and Persecution: A Study of Recent Kashmiri Pandit Narratives. *The NEHU Journal*. 13(1): 47-56.
- Published abroad**
- Sewa, U.G. (2015) Nepali Diaspora. In: *A Globalised Era*, eds Subba, T. B. and Sinha, A.C. Routledge. ISBN 1138922269.
- Sewa, U.G. (2016) Between Two Worlds: A Re-Reading of *Brahmaputra Ko Cheuchau*, T.B. Subba and A.C. Sinha (Eds). Routledge: chapter XII p.188-202.
- Nongkynrih, K. S. (2015). The Pimp. *The New Welsh Reader*. 108: 78.
- Books**
- Published in India**
- Nongkynrih, K. S. (2015). *Time's Barter: Haiku and Senryu*. Harper Collins India, New Delhi.
- Nongkynrih, K. S. (2015). *Ki Kyrwoh: Ki Khana Phawer*. Pine Cones Publications, Shillong.
- Published abroad**
- Bhattacharya, A. & Renganathan, M. (Eds) (2015) *The Politics and Reception of Rabindranath Tagore's Drama: The Bard on the Stage*. Routledge (Taylor & Francis) New York & London: Reprint.
- Book Chapter/Proceedings**
- Published in India**
- Bhattacharjee, Sukalpa (2016) Recasting Ethnicity: Agency and the Social Space. In: *Ethnicity and Political Economy in Northeast India*. H. Srikanth & R. Borgohain eds. DVS Publishers, Guwahati. pp 44-61. ISBN:978-81-86307-91-5

Bhattacharjee, Sukalpa (2016) Tribal Literatures in Northeast India: Identities, Politics and Representation. In: *Emergent Identities in Literature*, M. L. Pachau and T. D. Singh, eds. Headword Publishing, New Delhi. ISBN:978-9-38-565645-3. pp 104-111.

Prodhani, J. (2016). Politics of Performance: The Changing Ethos of Sites and Obsessions for Enactments. In: *Perspectives in Cultural Studies*. Eds. D. P. Nath & P. Dutta. Purbanchal Prakash, Guwahati. pp 96-105.

Published abroad

Bhattacharjee, Sukalpa (2016) Tagore's Ideas of Nationalism: A Contemporary Perspective. In: *Tagore's Idea of Surplus*, Mrinal Miri Ed., Routledge (New Delhi, London & New York): pp 115-134. ISBN-978-1-138-63991-1

Prodhani, J. (2015). The Bengal Renaissance and the Anxieties of Modernism in Assam. In: *Proceeding 11th ICHUSO. Challenge, Equity and Responsibility*. Khon Kaen University, Thailand. Pp 990-1000.

Research Projects

New Research Project

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1	"Gendering Terrorism in South Asian Narratives in the post 9/11 Era: A Select Study of Indian-Pakistani-Afghan and Srilankan Writings in English"	Prof. Mala Renganathan	UGC, New Delhi	Rs 12,79,800/= w.e.f. 1/7/2015

Other Activities

Esther Syiem

Chaired a session at the *Symposia on Storytelling and Women's Writing* on November 9, 2015 held at NEHU, Shillong on 9-10 November 2015.

Chaired a session at the National Seminar on *Indigenous Languages: Survival of the Oral in the Digital Future* jointly organised by IIC- Asia Project and Bhasha Research Centre at India International Centre from 22nd -24th Sept. 2015.

Chaired a Panel Discussion on "The Resurgent Tribal Literature" on 17 November 2015 at

Samvaad 2015 A Tribal Conclave organised by Tata Steel at Jamshedpur.

Chaired a Panel Discussion at the *National Seminar on Re-interpretations of the Past: The Discourse of Cultural Identity in South Asia*, organised. by the Dept of English, NEHU, Shillong on 17-18 March 2016.

Participated as Resource Person to produce a workbook entitled *Celebrations, the Creation of a New Manual for Teachers* in a three day workshop organised by the Centre for Cultural Resources and Training (CCRT) Ministry of Culture at NEHU, Shillong on May 6-8 2015.

Moon Moon Mazumdar

Participated as an invited speaker in Panel Discussion on *Reinterpretations of the Past: The Discourse of Identity in South Asia* organised by the Department of English, NEHU on 18th March, 2016.

Chaired a session on "Storytelling" at a two day Symposium on *Storytelling and Women Writers from North East* organised Sahitya Akademi in collaboration with the Department of English, NEHU on 9th November, 2015.

Sukalpa Bhattacharjee

Delivered two Invited Lectures on "Tagore's *Gora* and Indian Nationalism" at English and Foreign Language University, Shillong Campus, on 21st and 22nd May 2015 respectively.

Delivered invited lecture at a Panel Discussion on *Literature and Society* in the two-week course on *Capacity Development for Young Faculty in Social Science* organised by the Omeo Kumar Das Institute of Social Change and Development, Guwahati, from 20 July to 2 August 2015.

Delivered a Lecture entitled "Role of Women in Cultural Politics" at the 34th Orientation Programme for College and University Teachers, organized by the UGC-Human Resource Development Centre, NEHU Shillong, on 10th February 2016.

Delivered a Lecture entitled "Gender and Society" at the 35th Orientation Programme for College and University Teachers, organised by the UGC-Human Resource Development Centre, NEHU Shillong, on 25th Feb 2016.

Delivered a Lecture entitled "Synthesis of Literature" at the Orientation Programme

for Research Scholars and Faculty Members belonging to SCs, STs and other Marginalized Groups organised by ICSSR-NERC Shillong, on 10th March 2016.

Delivered an Invited lecture on "Gender and Budgeting" on 14th March 2016 at the One Day Sensitization Programme on Gender at the Meghalaya Administrative Training Institute, Shillong, organised by the Govt. of Meghalaya.

Delivered two Invited lectures on "Critical Writing" and "Plagiarism" at the Workshop on *Academic Writing* organised by ICSSR-NERC Shillong on 22nd March, 2016, at ICSSR-NERC Shillong.

Chaired a session in National Seminar on *Diaspora and Folklore: Exploring the Changing Dimensions of Folklore in Tribal Diaspora* organised by the Department of Cultural and Creative Studies, NEHU. on 31st March 2016.

Mala Renganathan

Attended as an expert the Expert Committee Meeting for Certificate Programme in Folk Theatre & Performance of North East India in IGNOU, Delhi on 15 September.2015.

Participated in the EPG Pathshaala's video shoot programme for the video recording of modules on Performance Studies in NEHU, Shillong, from 23 to 26 September 2015.

Delivered one lecture on 30 April 2015 entitled "Scholarships and Academic Writing" in the Short Term Course organised by UGC-HRDC, NEHU, Shillong.

Nominated as UGC-ERO Expert for shortlisting of MRP (Minor) and Seminar proposals on official visit to UGC-ERO, Kolkata, on 29 Feb & 1 March 2016.

Nominated as APPSC Expert for the Interview for the Selection of Asst. Professor in Polytechnic Colleges held on 19th April 2016 in Itanagar, by the Arunachal Public Service Commission.

Organised a Lecture by Dr. R. Nalini Associate Professor, Department of Social Work, Pondicherry University, on "Emotional Violence and Child Abuse" for the Department of English, NEHU, Shillong, on 12 June 2015.

Organized a Lecture by Dr. R. Sudha, Associate Professor & Head, Department of French, Madurai Kamaraj University, Madurai on "Mahabharata" for faculty and MA students on 16 October 2015.

Organised a Lecture by Dr. Cecile Fouache, Departement d'anglais, UFR de lettres et Sciences Humaines, Universite de Rouen, France on "Rewriting of Homer by Contemporary Writers" on 29th October 2015.

Chaired the session "Women's Writing in English" on 10 November 2015 in the Sahitya Akademi National Seminar on *Storytelling and North East Women's Writing in English* organised by the Department of English, NEHU, Shillong on 9 & 10 November 2015.

Chaired the Technical Session I on South Asia on 17th March 2016 in the National Seminar on *Re-interpretations of the Past: The Discourse of Cultural Identity in South Asia* organised by the Department of English, NEHU, Shillong from 17th to 18th March 2016.

Jyotirmoy Prodhani

Chaired Session as Resource Person in the International Seminar on *Poverty Beyond Borders: Understanding Poverty in*

NER and the Neighbouring Countries of Bangladesh, Nepal and Bhutan, at PB College, Gauripur, Assam, on 10-12 February, 2016.

Chaired the "Meet the Author Session" for Jahnvi Baruah on the National Seminar on *Women's Writing* at NEHU, Shillong, organised by Sahitya Akademi on 10 November, 2015.

Published an article entitled "Don Bosco Desecration, Intellectual Response and the Act of Otherisation" in *Shillong Times*, 1 September, 2015.

Prodhani, J. (2015) "I call my theatre as the Theatre of the Earth"- An Interview with Heisnam Kanhailal. In NEZINE: Bridging the Gap. (<http://www.nezine.com>)

N. Ganguli

Chaired an academic Session in the International Conference on *Shakespeare: Global Perspectives* organised by Shakespeare Society of Eastern India and Tagore-Gandhi Institute for Culture Studies and Service-Learning, Kolkata on 25th February 2016.

K. S. Nongkynrih

A poem entitled "Lines Written to Mothers Who Disagree with Their Sons' Choices of Women" was selected by Australian Broadcasting Corporation, Melbourne, for broadcast in their special programme called 'Radio National Video Poems'.

Judged a Poetry Competition in Khasi organised by Khasi Authors' Society in Synod College, Shillong on 30th May 2015.

Delivered a lecture on "Myths and Khasi Religious Thought" during a UGC-HRDC Refresher Course in Tribal Studies on 12th August 2015.

R. Singh Ngangom

Panelist in discussion titled "Being Heard in Decibel Hell: Poetry in a Noisy World" at South India Writers' Ensemble, Kerala, on 24-26 July 2015.

Panelist in discussion titled "Love, Poetry & Nature" at Kaziranga Literary Festival, Guwahati, on 30 January 2016.

Suranjana Choudhury

Delivered an invited lecture "Language Problems in Research Writing" on 22nd March, 2016, in a workshop on *Research Methodology Course for PhD Students in Social Sciences* organised by ICSSR-NERC from 14th to 23rd March, 2016

Translated a short story "Surjaster Panshala" by Amitabha Dev Choudhury in *Humanities Underground* as "The Twilight Tavern" on 03.06.2015

DEPARTMENT OF ENGLISH (TURA)

Head: Dr. Dwijen Sharma
Telephone: 8414075571
E-mail: englishtura.nehu@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	Dr. Sujata Gurudev, M.A., M.Phil. & Ph.D. (NEHU)	American Lit., Modern British Fiction, Modern Poetry
Associate Professor	Dr. Angela R. W. Ingty, M.A. (Gauhati), M.Phil. (Madras Christian College), PGDTE (CIEFL, Shillong), Ph.D. (NEHU)	Language & Linguistics, British Poetry, Renaissance Drama
	Dr. Dwijen Sharma, M.A, M.Phil., Ph.D.(Dibrugarh)	Indian English Lit., Literary & Cultural Theory
	Dr. Ramona M. Sangma, M. A. & Ph.D. (NEHU)	Postcolonial Lit., Literary Theory & Criticism, Ethno-Literature.
	Dr. Jova C. Marak M.A. & Ph. D. (NEHU)	Indian Writing in English, Women Writings, Ethno-Lit
	Dr. Namrata Pathak, M.A. (Gauhati), M. Phil. & Ph.D. (EFLU)	British & Continental Drama, Literary Theory & Criticism, Gender Studies
	Dr. L K Gracy, M.A. & Ph.D. (NEHU)	British Fiction, British Poetry

Thrust Areas of Research

Cultural Studies and Ethnic Literature, Translation Studies, Dalit and Marginal Literature, Indian English Writings, Postcolonial Literature, Queer Studies, Women and Gender Studies, Theatre Studies, Green Studies, Western Literary Theories and Indian Poetics.

Brief Statement of Academic Activities

The Department is imparting M.A (Literature Course) and Ph. D. programme in English

Literature. Student Seminar has been introduced in the Department to orient the Master's Level students towards serious research. The Department in collaboration with the ASC conducts Refresher courses for the college and university teachers. A Research Journal *Protocol*, a journal for translation, creative and critical writings is published by the Department. Scholars and professionals from the areas of mass media, graphic design, anthropology, and film studies are invited to the Department to present their talks and interact with the students.

School of Humanities

Seminars and Workshops have been organized regularly. Regular film and audio-visual show are being held to give supplementary exposure

to the students. Further, the Department has produced plays and dramas to promote social-cultural awareness.

Students' Profile

Enrolment Capacity: M.A. – 33; Ph.D. – Variable

Degree	SC	ST	OBC	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.A.	01	25	02	03	09	22	25	06	31
Ph.D.	00	01	01	01	00	03	00	03	03

Degrees Awarded

Degree	SC	ST	OBC	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.A.	00	26	00	02	03	25	27	01	28
M.Phil.									
Ph.D.	00	00	01	01	01	01	00	02	02

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name(s) of Supervisor(s)/ Joint Supervisor
Alex Mathew	Revisiting Partition Literature: A selective Study of Khushwant Singh, Chaman Nahal and Bhisham Sahni	Prof. J. Prodhani
Preetinicha Barman	The 'Inherited Loss' of Art, Culture and Identity in the Works of Orhan Pamuk: A study	Prof. Sujata Gurudev

Research Fellowships

JRF : 01

UGC-Non-NET : 06

Educational Tour of Students

Teacher-in-Charge: Dr. L. K. Gracy

Places/Institutions visited: Darjeeling & Gangtok

Duration of tour: 15 Days

Purpose of Tour: The main objective of such excursions is to provide exposures to students. Students, by and large, experience the diversity and vastness of our country; it helps in promoting inter-cultural dialogue and harmony.

Courses Conducted

The M.A. and Ph.D. Courses conducted here are the same as conducted at the Department of English, Shillong Campus (q.v.).

**Seminars/ Conferences/ Symposia/
Extension Programmes etc.**

Organized

One Day Regional Workshop on Facilitation of Innovation and Commercialization by IPR in collaboration with IPR Cell, Tezpur University on 29th February, 2016

Attended and Participated

Sujata Gurudev

Presented a paper entitled "Consciousness: Education for Global Citizenship" in a National Seminar on Re-Thinking New Educational Policy at NEHU, Tura Campus on 20th & 21st March, 2016.

Presented a paper entitled "Everyday Life in Sheelabhadra's 'Madhupur Bohudoor'" in a National Seminar on Regionalism in Sheelabhadra and Thomas Hardy at P. B. College, Gauripur, Assam on 20th and 21st March 2015.

Presented a paper entitled "Oral Text: A Note on Some Interpretative Strategies" in a National Seminar on Oral Literature: A Reflection at NEHU: Tura Campus on 28th, 29th and 30th October 2015

Presented a paper entitled "The Mahout Songs of Gauripur Estate: An Inquiry" in an International Seminar on Orality: The Quest for Meaning at Bodoland University: Kokrajhar, Assam on 26th and 27th May 2016

Namrata Pathak

Presented a paper titled "Semiotics and the politics of knowledge production: relevance of a theory of signs in the classroom" in the UGC sponsored National Seminar on *English Language Teaching in India: Problems and Prospects* organized by Dept. of English, Sonapur College in

collaboration with XIMIT, Guwahati, on 27th and 28th August, 2015.

Presented a paper titled "Representation of Ojapali on the stage: A reading of Arun Sharma's *Buranjipath*" in the ICSSR Sponsored National Seminar on *Oral Literature: A Reflection* organized by the Department of Garo, N.E.H.U, Tura, in collaboration with Tribal Literary Forum of India from 28th-30th Oct., 2015.

Presented a paper titled "The "place" and "non-place": Visions of Utopia in Mahesweta Devi's *Rudaali* and Mamand Dai's *Legends of Pensam*" in the 18th International Conference organized by FCT in Ravenshaw University, Orissa, from 20th to 23rd of Dec., 2015.

Presented a paper titled, Trafficking the Female Body: The Position of Women and the Sex Trade in the North East India in the 2nd World Conference on Women's Studies, Empowering Future Generations of Women and Girls: Empowering Humanity organized by the International Institute of Knowledge Management in collaboration with the University of Karachi in Colombo, Sri Lanka from 5th to 6th May, 2016.

L K Gracy

Presented a paper entitled "Remnants of Animistic Elements in the Festivals and Rituals of Post-Christian Tangkhul Nagas" in a National Seminar on Oral Literature: A Reflection at NEHU: Tura Campus on 28th, 29th and 30th October 2015.

Presented a paper entitled "Women's Rights Among the Tribals in the North Eastern Region of India: Some Reflections" in a National Seminar on Women Education in India through the Ages at Mankachar College, Assam on 17th & 18th May, 2016.

Publications

Research Papers

Published in India

Ingty, Angela W. (2015). Struggles of the Adivasis, Tribals and Dalits: Reclaiming Land and Identity. *Protocol: Journal of Translation, Creative and Critical Writings*, 7(2): 67-76; ISSN 0973-9807

Sharma, Dwijen. (2015). Ghosh's *The Circle of Reason*: A Critique of Nationalism and Globalisation. *The Critique*, 6 & 7 (October 2015): 15-18; ISSN 2249-6769

Sangma, Ramona M. (2015). Naipaul's Kashmir Sojourn in *An Area of Darkness*. *Journal of Literature, Culture and Media Studies*, 5.9 & 10: 25- 32; ISSN 0974-7192

Pathak, Namrata. (2016). The "Place" and "Non-place": Visions of Utopia in Mahasweta Devi's *Rudali* and Mamang Dai's *Legends of Pensam*. *Muse India*. Issue 67: May-June.

Books/Book Chapters/Proceedings

Sharma, Dwijen (2015). "Nostalgia in Sheelabhadra's "Modhupur Bohudoor": A Reading," in *Sheelabhadra: Sristi aru Dristi*, ed. Akhtarul Islam, Zend Academy Publications, Gauripur (Assam), 2015; pp. 164-69; ISBN 978-81-928411-3-7

Sharma, Dwijen (2015). "Look East Policy: Power Politics and Gaze over North-East India," in *Look East Policy: Perspectives from the South-East Asian Architecture*, ed. Abhigyan Bhattacharjee, Excel India Publisher, New Delhi, 2015; pp. 208-13; ISBN 978-93-84869-86-1

Pathak, Namrata (2016). "Semiotics and the Politics of Knowledge Production: Relevance of a Theory of Signs in the

Classroom." In *English Language Teaching in India: Problems and Prospects*. ed. Nizara Hazarika, Olympia Prakashan, Guwahati: pp. 45-50

Funds Received from Agencies including NEHU/UGC

Rs. One Lakh from ICSSR, New Delhi, for publication of *Protocol: Journal of Translation, Creative and Critical Writings* by the Department.

Other Activities

Prof. Sujata Gurudev delivered two lectures as Resource Person in the ICSSR sponsored 10 Days Training Course on Research Methodology for Researchers in Social Sciences and Humanities organized by the Department of Education, NEHU, Tura Campus from 9th to 19th March, 2016

Prof. Sujata Gurudev was Co-Editor of the biannual peer reviewed research journal with ISSN accreditation published by the Department, *Protocol: Journal of Translation, Creative and Critical Writings*.

Dr. Angela W. Ingty has been a member of the Lok Adalat in Tura, West Garo Hills, Meghalaya since November, 2014.

Dr. Angela W. Ingty has been a part of a three member team formed by NEICC (North-East India Christian Council) for the Revaluation of the Union Christian College, Ri Bhoi District, Meghalaya from 2014-2016.

Dr. Dwijen Sharma chaired 2nd technical session in the National Seminar on Oral Literature: A Reflection organized by the Dept. of Garo at NEHU, Tura Campus on 29th October, 2015.

Dr. Dwijen Sharma chaired 3rd & 4th technical sessions in the National Seminar on Women

Department of English (Tura)

Education in India through the Ages at Mankachar College, Assam on 18th May, 2016

Dr. Dwijen Sharma chaired the 5th technical session in the International Seminar on Orality: The Quest for Meaning at Bodoland University, Kokrajhar, Assam on 26th May, 2016

Dr. Ramona M. Sangma was the Editor of *Protocol: Journal of Translation, Creative and Critical Writings*, the biannual peer reviewed research journal with ISSN accreditation (ISSN 0973-9807) published by the Department.

Dr. Ramona M. Sangma was a Resource Person for Science and Liberal Arts Course at National Institute of Design, Ahmedabad from 17th to 21st August, 2015

Dr. Jova Ch. Marak was Co-Editor of *Protocol: Journal of Translation, Creative and*

Critical Writings, the biannual peer reviewed research journal with ISSN accreditation published by the Department.

Dr. Namrata Pathak was Co-Editor of *Protocol: Journal of Translation, Creative and Critical Writings*, the biannual peer reviewed research journal with ISSN accreditation published by the Department.

Dr. Namrata Pathak was the Coordinator of the One day Workshop on IPR organized by the Department of English, NEHU, Tura Campus jointly with the IPR Cell of Tezpur University on 29th February, 2016.

Dr. L K Gracy was Co-Editor of *Protocol: Journal of Translation, Creative and Critical Writings*, the biannual peer reviewed research journal with ISSN accreditation published by the Department.

DEPARTMENT OF GARO (TURA)

Head: Dr. Fameline K. Marak
Telephone: 03651- 223107, Fax: 03651-223953
Email: fkmarak@gmail.com. & garodeptnehu@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Associate Professor	Fameline K. Marak, MA (Socio.) NEHU & PhD (NEHU)	Traditional & Modern Poetry, Folkloristic
Assistant Professor	Jacqueline R. Marak, MEd (Utkal); PhD (NEHU)	Fictional Studies
	Dokatchi Ch. Marak, MA & PhD (NEHU).	Linguistics
	Crystal Cornelious D. Marak, MA (NEHU)	Fictional Studies

Thrust Area of Research

The thrust areas of the Department include A-chik Literature, Language, Folklore, and Literature in translation, Environmental Studies and World Literature including Indian Writings in English.

Brief Statement of Academic Activities

The Department conducts the M.A., M.Phil. and Ph.D. programmes. It organises remedial classes annually on relevant topics, such as: English Grammar, Translation, Letter Drafting, Rhetoric and Prosody, Basic English pronunciation and Phonetic transcription etc.

Students Profile

Enrolment capacity: MA: 33; PhD: Variable

Degree	Male	Female	SC	ST	GEN	Meghalaya	Non-Meghalaya	TOTAL
MA	12	21	-	33	-	33	-	33
MPhil								
PhD	1	1	-	2	-	2	-	2

Degrees Awarded

Degree	Male	Female	SC	ST	GEN	Meghalaya	Non-Meghalaya	TOTAL
MA	9	7	-	16	-	16	-	16

Research Fellowships

NEHU Non-Net Scholarship: 04

Courses Conducted

Postgraduate: M.A.

Semester-I

GAR-101-Core: History of Garo Language and Literature

GAR-102-Core: Poetry-I-Sacrificial Rites & Invocations

GAR-103-Core: Drama-I

GAR-104-Core: Linguistics-I: Basic Concepts, Definition and Scope of Linguistics, Garo Morphology & Semantics

GAR-105-Core: Environmental Studies

Semester - II

GAR-201-Core: Fiction-I

GAR-202-Core: Literature in Translation

GAR-203-Core: Prose-I

GAR-204-Core: Linguistics-II- Phonetics & Phonology

GAR-205-Open: Linguistics-III – Tibeto-Burman Languages of the North-East (Classification and Bodo group of Languages)

Semester – III

GAR-301-Core: Literary Theory & Criticism

GAR-302-Core: Epic as a Literary Genre

GAR-303-Core: Drama-II

GAR-304-Open: Linguistics IV- Language & Society

GAR-305-Open: Folklore-I Definition, scope & different forms of folklore & field techniques

Semester - IV

GAR-401-Core: Poetry-II (Poetry from 1881 to 1944)

GAR-402-Core: Folklore-II-Garo Folktales, Folksongs, Proverbs & Sayings

GAR-403-Core: Tragedy as a Literary Genre

GAR-404-Core: Indian Literature in English

GAR-405-Core: Modern Poetry (from 1945-1985)

PhD Courses

GAR-501-Research Methodology

GAR-502-Seminar Paper (Literature Review; Research Paper and Presentation)

GAR-503-Literary Themes, Literary Theory and Criticism, Language and Folklore

Educational Tour of the Students

Teacher-in-charge: Dr. Fameline K. Marak

Places/Institutions visited: Mumbai & Goa

Duration of the tour/trip: 11th-21st January, 2016 (15 days)

Purpose of Tour: The purpose of the Academic study tour was to expose the students to life and world outside their University and to make them aware about the life and culture of the people outside their own. Another purpose was to make them visit the important places, Educational Institutions and Historical sites to learn new experiences and knowledge.

Seminar/Conference/Symposia/ Extension programmes, etc.

Organized

Organised National Seminar on *Oral Literature:*

A Reflection from 28th-30th October, 2015 in collaboration with Tribal Literary Forum of India at NEHU Tura Campus, Tura, with Dr D. Ch. Marak as Coordinator and C. C. D. Marak as Assistant Coordinator, along with Dr. F. K. Marak and Dr. J. R. Marak.

Organised Interactive Classes for the students and Research Scholars of the Department

with Mr. Wilbirth D. Marak, a well-known Fiction Writer on 25th February, 2016.

Organised Remedial course annually on literature studies, English grammar, translation, letter drafting, rhetoric and prosody, Basic English pronunciation and Phonetics transcription etc.

Organised with the A.Chik Literature Society a Workshop on *Dotdrong, Adil, Gongmina & Grika* from 2-12 December, 2015, with C. C. D. Marak as Member Secretary and Dr. F. K. Marak and Dr. J. R. Marak as Executive Members, ALS.

Attended and Participated

Fameline K. Marak

Attended a four day Workshop on *Developing Case Method of Teaching in Management Education* organised by Department of Management, NEHU Tura Campus, from 10-13 June, 2015.

Participated as resource person in All India Poetess Conference 16th Convention, Meghalaya, Shillong from 25-27 February, 2016.

Participated in a one day Workshop on *Facilitation of Innovation and Commercialization by Intellectual Property Rights* organised by Tezpur University Intellectual Property Rights Cell in collaboration with NEHU, Tura on 29th February, 2016.

Resource Person and Chairperson of the 3rd Session in a two day Programme of *North-East and Eastern Writers' Meet* at Burdwan, West Bengal by Sahitya Akademi, New Delhi from 30 April to 1st May, 2016.

Resource Person for Garo Language in a Workshop entitled *Development of Local*

Language Materials in Khasi and Garo for Classes I & II organised by NERIE, NCERT from 17th August, 2015 at Pearly Dew Higher Secondary School, Shillong.

Jacqueline R. Marak

Presented a paper entitled "A·chik Traditional Interpretation of Natural Phenomena Reflected in A·chik Oral Literature" in a three day National Seminar on *Oral literature: A Reflection* organised by the Dept. of Garo, NEHU, Tura Campus, Tura from 15-17 October, 2015.

Presented a paper on "Importance of Comprehensive Education in Girls' School: A Reflection of the First Girls' School in Garo Hills" in a two day National Seminar on *Re-thinking New Education Policy: Contextualizing the issues of India's North Eastern Region* organised by the Dept. of Education, NEHU, Tura Campus, Tura from 20-21 March, 2016.

Presented a paper on "Traditional Songs of the Garos" in a three day National Seminar on *Oral and Textual Traditions of North East India* at Arunachal Institute of Tribal Studies, Rajiv Gandhi University, Itanagar from 28-30 March, 2016.

Presented a paper on "A·chikrangni Sambolrangko Nie Agananiarouaranko Jakkalani" in a Seminar on *A·chik Asongni Sambolrang* organised by the A·chik Literature Society, Tura, Meghalaya on 7th November, 2015.

Recited a poem "*Aram simgopdapjok*" in the Poets' Meet organised by the A·chik Literature Society, Tura on 29 August, 2015 at Christian Girls Higher Secondary School, Tura, Meghalaya.

Department of Garo (Tura)

Recited a poem “*Janggin Sagalo*” in the All India Poetess Conference, Shillong, held 25-27 February, 2016 organised by AIPC Meghalaya Chapter.

Attended the Workshop on *Developing Case Method of Teaching in Management Education* organised by Department of Management, NEHU Tura Campus, from 10-13 June, 2015.

Participated in Workshop on *Facilitation of Innovation and Commercialization by Intellectual Property Rights* organised by Intellectual Property Rights Cell, Tezpur University, in collaboration with NEHU, Tura on 29th February, 2016.

Dokatchi Ch. Marak

Presented a paper entitled “Traditional Jhum Cultivation: Its Importance in the Preservation of A·chik Language” in a three day National Seminar on *Oral literature: A Reflection* in the Dept. of Garo, NEHU, Tura Campus, from 15-17 October, 2015.

Presented a paper in a two day National Seminar on *The Inclusion of Mother Tongue in the Primary Level of Education in Reputed Educational Institutions* held at Dept. of Education, NEHU, Tura Campus, from 20-21 March, 2016.

Presented a paper entitled “Mythological Figures in A·chik (Garo) Lores” in a three day National Seminar on *Oral and Textual Traditions of North East India*. Arunachal Institute of Tribal Studies, Rajiv Gandhi University, Itanagar, Arunachal Pradesh from 28-30 March, 2016.

Recited a poem “*Simsakbo*” at the All India Poetess Conference, Shillong, 25-27 February, 2016, organised by AIPC Meghalaya Chapter.

Participated and presented poems in Poets Meet, 29th August, 2015, organised by A·chik Literature Society, Tura.

Crystal Cornelious D. Marak

Presented a paper on “A·chik Children Songs” in a three-day National Seminar on *Oral Literature: A Reflection* from 28-30 October, 2015 organised by the Department of Garo, NEHU, Tura Campus, in collaboration with Tribal Literary Forum of India.

Presented a paper entitled “A·chik Pottery: A Dying Culture” in a three day National Seminar on the *Oral and Textual Traditions of North East India* from 28-30 March, 2016, organised by Arunachal Institute of Tribal Studies, Rajiv Gandhi University, Itanagar in collaboration with Indira Gandhi National Centre for the Arts, New Delhi, at Rajiv Gandhi University, Itanagar, Arunachal Pradesh.

Participated in a one day *Workshop on Facilitation of Innovation and Commercialization by Intellectual Property Rights* organised by Tezpur University Intellectual Property Rights Cell in collaboration with NEHU, Tura on 29th February, 2016.

Publications

Marak, F.K. (2016) “Gimajok Gam Katta!” *Souvenir of XVIth National Mega Convention All India Poetess Conference*, Shillong, Meghalaya. pp. 81-82 (AIPC, Meghalaya).

Marak, J.R. (2015) “Ma·gri Bi·sa” (An Orphan). In: *Protocol, Journal of Translation, Creative and Critical Writings*, 7(2): 41-45.

Marak, J.R. (2016) “Janggin Sagalo”. *Souvenir of XVIth National Mega Convention All India Poetess Conference*. pp. 82-83 (AIPC, Meghalaya).

Marak, J.R.,(2016) "Wangala: A Traditional Dance of the Garos". *Souvenir of XVIth National Mega Convention All India Poetess Conference*. pp. 49-52 (AIPC, Meghalaya).

Marak, D. Ch. (2015) "Cultural Memory in the Writings of D.S. Rongmuthu". *Protocol, Journal of Translation, Creative and Critical Writings*, 7(2): 81-86.

Marak, D. Ch., (2016) "Simsakbo". *Souvenir of XVIth National Mega Convention All India Poetess Conference*. pp. 84-85 (AIPC, Meghalaya).

Book Chapter/Magazine Articles

Marak, J.R. (2016). "Christian Medical College (CMC) Vellore-ni Chimik Mikaoa". In: *Annual Magazine of Garo Graduates' Union*, Tura, pp. 28-31.

Marak, J.R. (2016) "MikkangchinaTarisoani Nokdangonin A'bachenga". In: *Nokdangni Ripeng*, Annual Magazine of Mothers Union, Tura. pp. 36-38.

Marak, D.Ch., (2016) "Ku-siknirokom: GaraGan·ching, Meghalaya oagan-gipaku-sikarouarang nirokomrang". In: *Peoples Linguistic Survey of India, Meghalaya, Bakdilmong II, Bak 20*, Editors (Garo): Marak, C.R., Ingty, A.W., Marak,

D.Ch. (Ri Khasi Book Agency, Shillong). ISBN-13:978-81-926357-9-8, pp. 330-341.

Marak, D.Ch. (2016) "Ang' Katnapram," In: *Nokdangni Ripeng*, Annual Magazine of Mothers Union, Tura. p. 30.

Marak, D.Ch.,(2015-2016), "Ripeng Chong·mot", In: *Mikaoa*, Annual Magazine of Garo Graduates' Union, Tura, p. 27. Marak, C.C.D.,(2015) "Atchiram A'songtang", *Mikaoa*, Annual Magazine Garo Graduates Union, Tura, Chapter 30. p.52.

Marak, C.C.D., (2015), "Ajea". *Duramong* Annual Magazine of NEHU, Tura Campus, p. 11.

Marak, C.C.D., (2016)"Wangala". In: *Souvenir for XVIth National Mega Convention All India Poetess Conference*, Shillong, Meghalaya, p.85 (AIPC, Meghalaya Chapter).

Funds Received from Agencies including NEHU/UGC

Funds received from ICSSR, New Delhi, NEHU Tura Campus, Tura for organizing a National Seminar on *Oral Literature: A Reflection* in collaboration with Tribal Literary Forum of India at NEHU, Tura Campus, Tura from 28th -30th October, 2015.

Research Projects

Ongoing

Sl No	Title of Project	PI/Co-PI	Funding Agency	Amount
1	Text Book Translation from Hindi to Garo Language (3 books) under SRC, NEHU, Shillong Project	Dr. F. K. Marak	SRC, NEHU, Shillong	

Completed during Year

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1.	A Study on Identification of Local Dialects and Possibility of Developing Special Primers for Each Dialect with Special Reference to Selsella Block of West Garo Hills	Dr. F. K. Marak	SRC, NEHU, Shillong.	Rs. 50,000/-

Honours/ Awards/ Recognition

Jacqueline R. Marak received “*Janabai Award*” from the All India Poetess Conference, India on 26th February, 2016 at All India Poetess Conference at Shillong, Meghalaya.

Dokatchi Ch. Marak is (a) Member, Editorial Board, *Nokdangni Ripeng*, Tura, Meghalaya. 2015-16; (b) Member, Protocol, *Journal of Translation, Creative and Critical writings*, Department of English, NEHU, Tura Campus, for 2015-16.

Crystal Cornelious D. Marak is a Member of the Advisory Committee for the Government on the State Literary Award to Garo Literature from the year 2013-2015 under the Directorate of Arts & Culture Department, Government of Meghalaya.

Other Activities

Fameline K. Marak

Resource Person and presented own poem in the Poets’ Meet organised by A·chik Literature Society, Tura on 29th August, 2015 at the Christian Girls H. S. School, Tura.

Panelist in Panel Discussion on 14th May, 2015 at *Creative Arts Literature Music (CALM) Festival* organised by Govt. of Meghalaya, Department of Arts & Culture, at Shillong, 13-15 May, 2015.

Judge for different events/ competition Varsity Week Programme, NEHU, Tura Campus (2015).

Judge (Poetry on Garo Section), the Fourth Meghalaya Poetry Competition organized by the All India Poetess Conference Meghalaya Chapter since 2015-16.

Chairperson of Committee for Campus A·chik House Construction, NEHU, Tura Campus (2016).

PVC/Campus In-charge, NEHU, Tura Campus, Tura w.e.f. 29th June – 3rd Aug. 2015 & 22nd July, 2015 – 28th July, 2015.

PVC/Campus In-charge & additional charge of Joint Registrar, NEHU, Tura Campus, Tura w.e.f. 23rd July – 30th July, 2016.

Jacqueline R. Marak

Member, Governing Body, Mason Phillips Academy, Tura, Affiliated to MLCU, Shillong (2015-16).

Judge (Poetry on Garo Section), the Meghalaya Poetry Competition organised by the All India Poetess Conference Meghalaya Chapter (2015-16).

Dokatchi Ch. Marak

Recited self-composed poems “Atchiram A·songtang and Chame” in the Poets’ Meet organised by the A·chik Literature Society,

Tura on 29th August, 2015, at Christian Girls Higher Secondary School, Tura, Meghalaya.

Participated in the Workshop, 23th-25th July, 2015, CBSE, New Delhi

Participated in the Workshop, 13th – 16th Dec'2015, CBSE, New Delhi

Participated in the “Basic Introduction to Linguistics, Research Methodology for Researchers in Social Sciences and Humanities”, Department of Education, NEHU, Tura Campus, March 2016 (National).

Participated in the “Preservation of Endangered Languages, Awareness Programme on

Language preservation”, organised by the A-chik Youth Empowerment Society, Tura. 2016 at Williamnagar (Regional).

Crystal Cornelious D. Marak

Delivered a lecture on the *Establishment of A-chik Literature Society, its Functioning, Publication and how it is making Change in the Development of Society and Economy of the Region* to P.G. students and Research Scholars of Banaras Hindu University in the Department of History and Archaeology, NEHU Tura Campus, Tura on 13th April, 2016.

Judge for Varsity Week programme for different events/ competition in 2015.

DEPARTMENT OF HINDI

Head: Prof. D. K. Choubey
Telephone: 0364-2723514 (O); Mobile 9436312134
E-mail ID: hodhin@nehu.ac.in; dkchoubey@live.com

Faculty

Designation	Name and Qualification	Specialization
Professor	D. K. Choubey, M.A. (Gauhati); Ph.D. (Manipur)	Medieval Literature & Comparative Study
	M. P. Pandey, M.A. Ph.D. (Kashi Vidyapeeth)	Criticism & Poetics
Associate Professor	B. P. Tripathi, M.A., M.Phil., Ph.D. (JNU)	Modern Poetry
	H. K. Mishra, M.A., Ph.D. (BHU, Varanasi)	Hindi Journalism & Modern Literature

Thrust Areas of Research

Modern Hindi Literature and Comparative Study

Brief Statement of Academic Activities

The Department offers M.A., M.Phil. and Ph.D. courses. Apart from postgraduate teaching, research is also being carried out with much

interest. The Department was selected among the Universities by MHRD for up gradation in XII five year plan and sanctioned a separate fund for renovation of building, organizing seminar and purchase of books and for overall development annual contingency grant in present five year plan.

Students' Profile

Enrolment Capacity : M.A. – 55; M.Phil. – 10; Ph.D. – Variable

Actual Admissions

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	Total
M.A.	2	15	18	1	34	8	27	35
M.Phil	2	3	2	2	5	4	3	7
Ph.D.	1	1	3	2	3	1	4	5

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	Total
M.A.	1	12	7	3	17	7	13	20
M.Phil				1	3	4	-	4
Ph.D.	-	-	1	1	-	1	-	1

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Supervisor(s)/ Joint Supervisor
Akhil Chandra Kalita	<i>Samkaleen Hindi Kavita mein Krishak-Sanskriti ki Abhivvyakt</i>	Dr. B. P. Tripathi

Placement of Students

Some of our successful M.A. M.Phil. and Ph.D. students have been placed in various posts as Asstt. Professor, Research Associate, Translator, PGT & TGT teachers, Officials, Clerical staff etc. in many Institutions.

Educational Tour of Students

Departmental study tour visited Kolkata, Goa & Mumbai, from 16th January to 31st January, 2016, with Prof. M. P. Pandey and Dr. H. K. Mishra as teachers in charge.

Courses Conducted

M.A.

Semester - I

- HINc 101 Hindi Bhasha evam Uska Vikash
- HINc 102 Bhartiya Kavyashastra-I
- HINc 103 Aadhunik Kavya (Chhayavad tak) evam Paryavaran Parak Kavya
- HINc 104 Hindi Gadya Sahitya-I (Natak evam Nibandh)
- HINc 105 Aadikalin Hindi Sahitya ka Itihas

Semester - II

- HINc 201 Bhaktikalin Kavya
- HINc 202 Bhartya Kavyashastra-II
- HINc 203 Hindi Gadya Sahitya-II (Upanyas evam Kahani)
- HINc 204 Aadikalin Kavya
- HINo 205 Prayojanmoolak Hindi

Semester - III

- HINc301 Hindi Sahitya ka Madhayakal

- HINc 302 Ritikaleen Kavya
- HINc 303 Hindi Natak
- HINo 304 Anuvad-Sidhant evam Vyawhar
- HINo 305 Lok Sahitya

Semester - IV

- HINc 401 Hindi Sahitya ka Aadhunikkal
- HINc 402 Chhayavadottar Kavya
- HINc 403 Paschatya Sahityalochana evam Hindi Aalochana
- HINc 404 Bhasha Vigyan
- HINc 405 Hindi Nibandh

M. Phil/Ph.D. Courses

- HIN. C.W- I Anusandhan ki Pravidhi aur Prakriya
- HIN. C.W- II Hindi Sahitya ki Vaicharik Prishthbhoomi
- HIN. C.W- III Sangosthi evam Samiksha

Seminars/ Conferences/ Symposia/ Extension Programmes

Organised

A two day National Seminar on *Aadiwasi Vimarsh aur Hindi Sahitya* organized with assistance from UGC, Delhi, on 11-12 March, 2016, at Old Guest House, NEHU, Shillong.

Two day National Seminar on *Lok aur Lok ka Swar* organized in collaboration with Central Hindi Institute, Agra, on 18-19 March, 2016, at Science Seminar Hall, NEHU, Shillong.

Attended and Participated

Prof. D.K. Choubey

Presented a paper on '*Premchand Sahitya ka Moolyankan Vartman ke Sandarbh mein*'. and chaired an academic session in a two-day National Seminar on *Premchand Sahitya: Vartman ke Sandarbh mein* organized by Central Hindi Institute and Shabda Bharti (Hindi Sansadhan Kendra), Guwahati on 14th June, 2015.

Presented a paper on '*Ramayankaleen Samaj ki Sthiti aur Asomiya Ram Sahitya mein Varnit Ram Vangaman*' in two-day National Seminar on *Ram Vangaman ki Sahityik Nishpatti* organized by Akhil Bhartiya Sahitya Parishad Nays, New Delhi on 3-4 October, 2015, at Gramodaya Vishwavidyalaya, Chitrakut (M.P.)

Presented a paper on '*Asomiya Samkalin Katha Sahitya : Swaroop -Vivechan*' and chaired an academic session at a two-day National Seminar on the topic – *Purvottar Bharat ka Katha Sahitya: Vividh Charan* organized by Hindi Department, Tripura University in collaboration with Central Hindi Institute, Agra on 3.3.2016 at Agartala.

Chaired the session of Pre Ph. D. public seminar by the Department of Hindi, Tripura University, on the topic *Samkalin Hindi evam Kokborak Kavitaon ka Pravrittigat Vivechan* on 21.12.2015 at Agartala.

Prof. M. P. Pandey

Chaired a session and delivered a lecture on '*Bhakti Andolan aur Shankardew*' in a National Seminar organized by Department of Hindi, Gauhati University, Guwahati on 23-24 May, 2015.

Delivered Keynote address in a National Seminar organized by 'Shabd Barti', Guwahati, and Kendriya Hindi Sansthan, Agra, on the topic *Premchand ki Prasangikta* on 14th June, 2015 in Guwahati.

Chaired a session and gave a lecture on '*Purvottar Bharat ki Bhashayen aur Unka Sahitya*' in a National Seminar organized by Purvottar Bhasha evam Sanskriti Vibhag, Kolkata Kendra, and Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya, Vardha, on 7-9 August, 2015 in Kolkata.

Presented a paper on '*Purvottar Bharat ke Lok-Sahitya ki Samasyayen*' in a National Seminar organized by Dept of Hindi, Rajivgandhi University, Arunachal Pradesh & Akhil Bhartiya Sahitya Parishad Nyas, New Delhi on 16-17 Novembdr, 2015, in Ronohills Itanagar, (A.P.).

Presented a paper on '*Meera ke Kavya : Ghayal ki Gati Ghayal Jane*' organized by Department of Hindi, Jawaharlal Nehru Govt. College, Pasighat (Arunachal Pradesh) and Kendriya Hindi Sansthan, Agra on 30-31 March, 2016.

Dr. B. P. Tripathi

Presented paper in a National Seminar on *Vaishvik Pariprekshya aur Pravasi Hindi Sahitya* organized by Banaras Hindu University on 10th January, 2016 in Varanasi.

Dr. H. K. Mishra

Presented paper in a National Seminar on *Bakti ka Sagun Paksh: Vartman Pariprekshya* organized by Sri Aurbino College, Delhi University, Delhi, on 19.09.2015.

Presented paper in a National Seminar on '*Samakaleen Bharatiya Natak ke Pariprekshya mein Aadhunik Assamiya*

Natak, organized by Bodoland University, Kokrajhar, on 26.10.2015.

Presented Keynote Address and chaired a technical session in a National Seminar on *Samakaleen Bharatiya Natak ke Pariprekshya mein Aadhunik Assamiya Natak* organized by Bodoland University, Kokrajhar, Assam on 10th October, 2015.

Publications

Research Papers

Published in India

Choubey, D. K. (2015) "Purvottar Bharat ka Lok Sahitya", *Madai*, 29: 211-216; ISSN-2278-8352

Choubey, D. K. (2015) "Asamiya Ram Sahitya mein Varnit Ram Vangaman", *Chintan-srijan*, 2: 75-79; ISSN – 0973-1490

Choubey, D. K. (2015). "Gandhi Darshan our Asamiya Sahitya: Ek Vivechan," *Wisdom and Himalayan Culture*, 2: 116-121; ISSN – 2347-85-35

Choubey, D. K. (2015). "Tamas : Sampradayikata ka Akhyar", *Akshar Parva*, 1: 24-25; ISSN-2278-9766

Choubey, D. K. (2016). "Ramayan Kalin Samaj ki Sthiti aur Asamiya Ram Sahitya mein Varnit Ram Vangaman", *Samanwaya Purvottar* 24: 77-82; ISSN – 2231-6132

Tripathi, B. P. (2015). "Kavita ke Bajarikaran ka Swarnyug", p. 19-25 *Lahak*, 2348-2672

Tripathi, B. P. (2015). "Faintaisi ki Abhinav Bhumika", *Samsamayik Srijan*, p. 121-125; ISBN 2320-5733.

Tripathi, B. P. (2016). "Yatharth ke Bavishya ki Ahat", *Bahuvachan*, p. 125-131; ISSN-2348-4586

Tripathi, B. P. (2016). "Loot ke Jugadtantra ka Akhada", *Lahak*, ISSN – 2348-2672 : 12-16

Mishra, H. K. (2015). "Pragatisheel Chetana our Bhishm Sahani", *Aksharwarta*, 12:22-25; ISSN 2349-7521

Mishra, H. K. (2015). "Hindi Sahitetihas Punarlekhan ki Aawashyakats", *Aksharwarta, Varsh*, 12: 10-14; ISSN 2349-7521

Mishra, H. K. (2015). Book Review– '*Titas mein Santaran ke Baad, Parichay*, 16: 127-133; ISSN 2229-6212

Book/Book Chapter

Choubey, D. K. (2015). "Purvottar Kshetra ke Sandarbh mein Lok Sahitya : Ek Anushilan", In: *Purvottar Rajyon ka Lok Sahitya* (Akhil Bhartiya Sahitya Parishad Nyas, New Delhi), ISBN – 978-93-81829-07.3 : 9-12

Choubey, D. K. (2015) "Arunachal Pradesh ke Apatani Bhasha ki Lokoktiyan: Swarup-Vivechan". In: *Bhartiya Sahitya mein Lokoktiyn aur Muhavre* (Akhil Bhartiya Sahitya Parishad Nyas, New Delhi), ISBN – 978-81-92877-9-4: pp. 65-68

Pandey, M. P. (2015). 'Parampara ka Swikar, Adhunika ka Vikalp'. In: *Itihas, Parampara our Adhunika, Vani prakashan* (New Delhi) pp. 107-109

Pandey, M. P. (2015). 'Purvottar Bharat ke Sahitya mein Lok aur Shastra'. In: *Lok aur Shastra: Anuay aur Samanvay*. (Vani Prakashan, New Delhi), pp. 146-152

Tripathi, B. P. (2016). Book - *Beech Bajar mein Sahitya* (Shilpayan Publishers & Distributors), ISBN – 978-93-81610-70-1: pp. 1-192

Tripathi, B. P. (2016). Book - "Chhabees Kilo ka Bhoot" (Sahitya Bhandar, Allahabad), ISBN – 978-81-7779-461-8: pp. 1-96

Other Activities

Prof. D. K. Choubey (a) Attended Hindi Conference at the North-East region level by Air Force Eastern Command, Shillong as Guest of Honour on 27th July, 2015; (b) Delivered lecture in a workshop organized by Hindi Cell, NEHU, on Implementation of Official language in C region on 4th August, 2015; (c) Attended as resource person a Regional level meeting organized by CIIL, Mysore, for discussion on the theme 'Formulation of National Education Policy', at Guwahati University, Guwahati on 29th August, 2015; (d) Attended World Hindi Conference Bhopal on 10th to 12th September, 2015, to represent NEHU, Shillong, and participated in discussion on various topics to prepare resolution by concerned authorities; (e) Attended meeting as Academic Councilor and educationist for discussion on National Education Policy : Promoting open and Distance learning and online courses by IGNOU at Regional Centre, Shillong on 25th September, 2015; (f) Attended as resource person in Higher level committee to Promote cultural Integration through languages by MHRD, Department of Higher Education Language Division at JNU, Delhi on 20.11.2015; (g) attended as subject expert on the theme 'Promotion of Languages for National Education Policy 2015 by CIIL, Mysore at NCERT, New Delhi on 7th January, 2016; (h) Attended as resource person at high level committee meeting on preparation of Hindi Syllabus at National level, organized by Central Hindi Institute, Agra at Regional Centre, Delhi on 8th February, 2016; (i) Delivered

a lecture on Research Methodology at MGAHA University Kolkata Centre for M.Phil course on 25th & 26th February, 2016; (j) Member of Editorial committee for *Bharatavani Project for Hindi Language* w.e.f. 3rd March, 2016 by Govt. of India MHRD, Department of Higher Education, CIIL, Mysore.

Prof. M. P. Pandey (a) Delivered a lecture as resource person on 'Importance of Value Education' at a Refresher Course organized by Department of Adult & Continuing Education, NEHU in UGC Academic Staff College, NEHU, Shillong on 29th October, 2015; (b) Attended World Hindi Conference Bhopal on 10th to 12th September, 2015 to represent NEHU, Shillong and participated in discussion on various topics to prepare resolution by concerned authorities.

Dr. H. K. Mishra (a) Delivered a lecture as Chief guest on the occasion of Cluster Level Sports Meet 2015 on 7th August, 2015 at K. V. NEHU, Shillong; (b) Delivered a lecture on the occasion of Social Science Exhibition at K. V. NEHU, Shillong on 11th August, 2015; (c) Delivered a lecture on 'How to read the Hindi Sahitya ka Itihas', organized by Women's College, Shillong on 21st September, 2015; (d) Coordinated two-day National Seminar on '*Lok aur Lok ka Swar*' organized by Department of Hindi with the collaboration of Central Hindi Institute, Agra on 18th & 19th March, 2016 at Science Seminar Hall, NEHU, Shillong.

Invited Lectures: (a) Prof. Sachchidanand Chaturvedi, Central University, Hyderabad (A.P.) delivered lectures to the students and scholars of the Department on '*Hindi Bhasha Sahitya evam Rachanashilta*' on 04.09.2015; (b) Prof. S. M. Iquebal,

Andhra University, Vishakhapatnam, (A.P.), delivered lectures to the students and scholars of the Department on '*Tulnatmak Sahitya ka Mahatva*' on 16.09.2015; (c) Sri Naresh Saksena, Luknow has delivered lectures for the students and scholars of the Department on '*Aaj ki Hindi Kavita*' on 14.12.2015; (d) Prof. Chouthiram Yadav, BHU, Varanasi, delivered lectures to students and scholars of the Department on '*Hindi Navajagran*' on 10.03.2016; (e) Prof. Aanand Kumar, JNU, New Delhi, delivered lectures to the Department on '*Sahitya evam Samaj*' on 22.03.2016.

The Wall Magazine *KHUBLEI* is published continuously in the Department from 01.04.2015 for students and scholars.

The study tour of students of ADP College, Nowgong, Assam visited the Department under the leadership of Dr. A. Zaman, Head, Hindi Department along with four teachers on 14.10.2015. There was interaction among the Department family. It was good gesture for upcoming students of the neighboring state of Assam.

DEPARTMENT OF KHASI

Head: Prof. Streamlet Dkhar
Telephone: 2723301 (O)/ 9436117479 (M)
E-mail: s.dkhar@rediffmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	B. War MPhil (Delhi Univ.); PhD (London)	Linguistics
	Streamlet Dkhar M.A., MPhil, PhD (NEHU)	Khasi Drama
	A. Kharmalki MPhil, PhD(NEHU)	Linguistics
Associate Professor	D. R. L. Nonglait MPhil, PhD (NEHU); PGDTE (CIEFL)	Literary Criticism on Khasi Fiction
	B. Bairo M.A., PhD (NEHU)	Fiction
Assistant Professor	M. M. Khymdeit M.A. (NEHU), MPhil (Gauhati Univ)	Poetry

Thrust Areas of Research

The Thrust areas include Khasi Literature, Literature in Translation, Environmental Awareness in Khasi Literature, Khasi Literary Theory and Criticism and Folklore in Khasi Literature.

Brief Statement of Academic Activities

The Department conducts the M.A., M.Phil. and Ph.D. courses. Faculty are engaged in teaching and research on the above thrust areas. The Department continues to organize Seminars, Conferences and other events related to the Khasi language and culture.

Students' Profile

Enrolment Capacity: M.A. – 52; MPhil and PhD – Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	Total
M.A II&IV	X	104	X	20	84	104	X	104
M.Phil	X	10	X	01	09	10	X	10
Ph.D	X	03	X	01	02	03	X	03

Actual Admissions

Degree	SC	ST	GEN	Male	Female	Total
M.A.	-	52	-	07	45	52
MPhil	-	X	-	X	X	X
PhD	-	03	-	01	02	03

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	Total
M.A	X	51	X	06	45	51	X	51
M.Phil	X	03	X	X	03	03	X	03
Ph.D	X	01	X	01	X	01	X	01

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name of Supervisor
Mr. Doster Roy Khongngai	"Ka Sneng Ka Kraw Ha Ki Nongthoh Khasi Nadeh Ka Snem 1888 Haduh 1919: Ka Bishar Bniah"	Dr. D. R. L. Nonglait

Placement of Students

Three students were appointed as Assistant Professors in colleges.

Study Tour of Students

A Study Tour was undertaken on 7 November, 2015 to Lawbah, East Khasi Hills District, in connection with Course No. KHA-113 C (Culture in Khasi Literature – I).

Courses Conducted

Postgraduate

M.A.

Semester I: Khasi Linguistics I, Khasi Poetry I, Khasi Drama I, Khasi Fiction I and Literary Theory and Criticism – I.

Semester II: Khasi Linguistics II, Literary Theory and Criticism - II, Khasi Drama II, Literature in Translation- I and Khasi Poetry II.

Semester III: Khasi Linguistics III, Literary Theory and Criticism – III, Culture in Khasi Literature – I, Khasi Fiction- II and Literature in Translation-II.

Semester IV: Khasi Linguistics IV, Khasi Fiction- III, Environmental Awareness in Khasi Literature and Poetry-III, Culture in Khasi Literature- II and Literary Theory and Criticism – IV.

M.Phil/PhD Courses

Research Methodology (4 Credits), Seminar Papers (4 Credits), (Option A) Literary Theory and Criticism (4 Credits), (Option B) Literary Themes (4 Credits).

Seminars/Conferences/Symposia/ Extension Programmes etc.

The Department organised a Regional Seminar on *Khasi Language, Culture and Literature* on the 26th August 2015 in collaboration with the Society for Khasi Studies, Shillong.

The Department organised a two day National Seminar on *Interpreting Tribal Literature: A Multidisciplinary Approach* in collaboration with the Tribal Literary Forum of India and the Society for Khasi Studies on the 18th & 19th February 2016 at Science Seminar Hall NEHU, Shillong and the Conference room of Khasi Department, NEHU, Shillong

The Department jointly collaborated with KSU Mawlai Circle to commemorate the 75th Death Anniversary of U Soso Tham on 18th December, 2015, at the Science Seminar Hall, NEHU, Shillong.

The Department of Khasi, NEHU, in collaboration with AIPC Meghalaya Chapter and the Government of Meghalaya, hosted the 16th Mega Convention All India Poetess Conference from 25th to 27th February, 2016 at U Soso Tham Auditorium, Shillong.

Attended and Participated

Prof. B. War

Chaired the Inaugural Function and was Key Speaker on "Revisiting Austro-Asiatic Linguistics" in the *International Conference on Syntactic Typology: Language Contact ND Convergence* organised by the Department of Linguistics, NEHU (23-24 November, 2015).

Chaired the Inaugural Function and a session in the National Seminar on *Interpreting Tribal Literature: A Multidisciplinary Approach* on 18th February 2016 organised by the Department of Khasi, NEHU, in collaboration with the Tribal Literary Forum of India and the Society for Khasi Studies.

Chaired a session in the Seminar *Ki Lum bad ki Khlaw ha ka Kolshor bad ka Litereshor Khasi (Mountains and Forests as reflected in Khasi Culture and Literature)* organised

by the Khasi Authors Society on the 25th July 2015 at the Don Bosco Youth Centre, Shillong.

Chaired a session in the Seminar *Ka Bynta Ki Seng Niam Ha Kaba İada İa Ka Mariang* (The Role of Religious Bodies in Protecting the Environment) on the 8th August 2015 organised by Ka Seng Biria U Khasi in Mawkhair, Shillong, and released the book *Aiom Baieid Na Ri Ki Rngai* written by Wan Kharkrang.

Chief Guest in the Regional Seminar on *Khasi Language, Culture and Literature* organised on 26th August 2015 by the Department of Khasi, NEHU, Shillong in collaboration with the Society for Khasi Studies, Shillong.

Chief Guest at the Inaugural Session of the *Symposia on Storytelling and Women's Writing* on 9th November, 2015 organised by Sahitya Akademi in association with Department of English, NEHU, at Old Guest House, NEHU, Shillong.

Prof. Streamlet Dkhar

Delivered the Keynote address as Chief Guest at the UGC sponsored National Seminar on *Globalization and its Impact on Regional Languages* and presented an invited paper on "Impact of Globalization on Regional languages with Special Reference to Khasi Language and Literature" at Sankardev College, Shillong (9-10 November 2015).

Resource Person at a Training Workshop on *Gender Sensitivity and Disaster Management* and presented a paper on "Impact of Disaster Events on Women and Children" organised on 19th June 2015 by the District Disaster Management Authority, Govt of Meghalaya, held at the Conference Room of the DC's Office, Shillong.

Chaired a session in the *International Conference on Syntactic Typology: Language Contact and Convergence* held on 25th November 2015 organized by Department of Linguistics, NEHU in collaboration with CIIL, Mysore, ICSSR-NERC, Shillong.

Guest of Honour at the valedictory function of the National Seminar on *Lok aur Lok ka Swar* held on 19th March, 2016 organised by the Department of Hindi, NEHU, in collaboration with the Kendriya Hindi Sansthan, Regional Centre, Shillong

Guest of Honour at the inaugural function and a resource person in two technical sessions at the six-day Residential Workshop on *Women Connect for Leadership and Change* organised by Dibrugarh University in collaboration with Rajiv Gandhi National Institute of Youth Development on 14-19 December, 2015.

Chaired a technical session in the National Seminar on *Re-interpretations of the Past: The Discourse of Cultural Identity in South Asia* held on 18th March, 2016 organised by the Department of English, NEHU, in collaboration with the ICSSR, Sahitya Akademi, Shillong Forum for English Studies and DVS Publishers.

Resource person in the Multilingual Poetry Session of *The 5th North East Bengali Little Magazine Festival 2015* on 1-3 May 2015 and presented a self-composed poem in Khasi entitled “Ha Syrngiew ka Tieng” and three poems in English entitled “Tears of Blood”, “Truth of gender” and “Why?” organized by Bangiya Sahitya Parishad, Shillong at Bangiya Parishad Hall Jail Road, Shillong.

Resource person in the *Tribal Poetry Festival* on 15th February, 2016 organized by the

Sahitya Akademi, New Delhi and read out five poems in Khasi entitled “Ka Babe u Khun”, “A Dur Lanot”, “Ka Bynñiaw”, “Jingdum ka ap” and “U ’Rang Khasi” and English poems entitled “Identity”, “The Challenges of time” and “The Sweat”.

Resource person in the National Seminar on *Gender and Folklore in Northeast India: Beliefs and Practices* and presented a paper on “Khasi Folktales: A Study from Gender Perspectives on Crime Against Women” held on 30th March 2016 organized by the Department of Cultural and Creative Studies, NEHU, Shillong.

Prof. A. Kharmalki

Chaired a session in the National Seminar on *Interpreting Tribal Literature: A Multi-disciplinary Approach* held on the 19th February, 2016 organised by the Department of Khasi, NEHU, Shillong in collaboration with the Tribal Literary Forum of India.

Resource Person in a Workshop organized by Central Board of Secondary Education, Delhi (10-13 December 2015).

Dr. D. R. L. Nonglait

Chaired the Inaugural Session of the Seminar on *Ka Bynta ki Lum bad ki Khlaw kumba ka Paw ha ka Kolshor bad ka Litereshor Khasi* held on 25th July, 2015 and organised by the Khasi Authors' Society at Don Bosco Youth Centre, Shillong.

Presented a paper entitled “A Glimpse of *Ka Bri u Hynniew Trep* in Khasi Folktales” at the National Seminar on *Oral Literature* organized by the Tribal Literary Forum of India, Shillong in collaboration with Department of Garo, NEHU, Tura Campus at Tura (28–30 October, 2015).

Presented a paper entitled "Plato's Theory of Ideas" at a National Seminar on *Interpreting Tribal Literature: A Multidisciplinary Approach* organized by the Department of Khasi, NEHU, Shillong (18–20 February, 2016).

Dr. B. Bairo

Chaired a session and presented a paper entitled "The Dark Side of the Mother Archetype: A Critical Study of Paul Lyngdoh's Short Story Ka Khmat Baphuhsamrkhie" at the National Seminar on *Interpreting Tribal Literature: A Multidisciplinary Approach* organised by the Department of Khasi, NEHU, Shillong in collaboration with the Tribal Literary Forum of India and The Society for Khasi Studies, Shillong (18–19 February 2016).

M. M. Khyndeit

Presented a paper on "Analysing the Function of Repetition in the Selected Poems of Kynpham Sing Nongkynrih" at a Regional Seminar on *Khasi Language, Culture and Literature* held on 26th August, 2015, organised by the Department of Khasi, NEHU in collaboration with the Society for Khasi Studies, Shillong.

Presented a paper on "Superstitions and Admonitions in Radhon Singh Berry's *Ka Jingsneng Tymmen II*" at a National Seminar organized by the Department of Garo, NEHU, Tura (28–30 October, 2015).

Resource Person at the CBSE Workshop at New Delhi (10–13 December, 2015).

Chaired a session and presented a paper on "Fear of losing ethnic identity in the poems of Kynpham Sing Nongkynrih" at a National Seminar on *Interpreting Tribal Literature: A Multidisciplinary Approach* organized

by the Department of Khasi, NEHU in collaboration with the Tribal Literary Forum of India (18–19 February, 2016).

Publications

Articles

War, B. (2015). Kaba Pyrkhat bad Pynkhreh na ka bynta ban Kyntiew Kyrdan ia ka Ktien Khasi (Khasi Language Planning). *Ka Thwet Jingstad (Quest for Knowledge)* 3(2): 4–6.

Kharmalki, Antoinette (2015). Ka Ktien lajong: Ka Jingiadei jong ka bad ka pule puthi bad ka nang ka stad. *Ka Thwet Jingstad (Quest for Knowledge)*. 3(2): 7–11.

Nonglait, D.R. (2015). Ka Thiori ka Buitthaw ha ka *The Republic* u Plato. *Ka Thiar ki Nongthoh Thup–12*. Khasi Authors' Society, Shillong. p. 1–22.

Bairo, Bandarilin (2015). Inciting violence in the name of *U Thlen*: A Critical study of Paul Lyngdoh's short story 'U Thlen'. *Ka Thwet Jingstad (Quest for Knowledge)*. 3(2): 49–52.

Khyndeit, M.M. (2015). Ka Ktien Khasi bad ki Kyntien Shim-kylliing. *Ka Thwet Jingstad (Quest for Knowledge)* 3(2): 12–18.

Books

Dkhar, Streamlet (2015). *Ka Nongkylliing*. ESES PLUS Publications, Shillong, ISBN – 978-81-904740-7-8.

Kharmalki, Antoinette. (2015). *Ka Batai Kyntien (A Glossary of Literary and Linguistic Terms)*. Galaxy Book Centre, Shillong.

Nonglait. D.R. (Ed.). (2016). *Ka Thup Sah jingkynmaw Jingdap 25 Snem ka District Pariong 1991 – 2016*: Souvenir. Presbyterian Church of India, Pariong District, Pariong. p. 1–80.

Book Chapters/ Proceedings

Dkhar, Streamlet. (2015). Babu Jeebon Roy (1838-1903): The Tribal Guru of Meghalaya. In: *Sree Narayana Guru Cultural Centre Souvenir 2015*. Sree Narayana Guru Cultural Centre, Shillong. p. 41-44.

Dkhar, Streamlet. (2015). Translated poems from Khasi to Hindi "Ngi Dei Kiei" and "Ka Bapli Kynrad. In: *Shreekhand Setu, Bridging Communities*. S. J Kumar (ed.). Purbanchal Sahitya Parishad, Shillong in association with Meghalaya Hindi Prachar Parishad, Shillong. p. 86-88.

Dkhar, Streamlet (2015). Light of My Life. In *Synod College Golden Jubilee Souvenir-2015*. P. G. Marbaniang (Ed.). Shillong. p. 38.

Dkhar, Streamlet (2015). Ka Sang Bad Ki Jingkyndiah ha Ka Shongkha Shongman U Khasi. In: *Synod College Golden Jubilee Souvenir - 2015*. P. G. Marbaniang (Ed.). Shillong. p. 96-98.

Dkhar, Streamlet (2015). Impact of Globalization on Khasi language, Literature and Culture. In *Studies in Globalisation and Tribal Life in India*. Sangita Saikia (Ed.). Lakshmi Publishers & Distributors: New Delhi, (ISBN 978-93-82120-59-9). p. 63-78.

Dkhar, Streamlet (2016). Developing Skills for Quality Leadership in Promoting Gender Sensitisation in the Youth. In: *Souvenir*

of the XVIth National Mega Convention All India Poetess Conference, Shillong. Christina Wanniang (Ed.). Shillong. p. 53-55.

Dkhar, Streamlet. (2016). Poems "Faith in You", "Ka Klop bad ka Ngem", "Ki Kyrpien ka Por", "La Nang swai", "Umsyep", "Ka Babe U Khun" and A Dur Lanot". In: *Souvenir of the XVIth National Mega Convention All India Poetess Conference, Shillong*. Christina Wanniang (Ed.). p. 69, 78, 79 and 115.

Dkhar, Streamlet (2016). Poem in Khasi "Wanduh Baieit" and translated version in Hindi (Khasi Lok Geet). In: *Samanvaya Poorvottar*. Kendriya Hindi Sansthaan, p. 4-6

Dkhar, Streamlet (2015). Message as Secretary General AIPC. In: *Souvenir of AIPC Steps to Russia* (The 13th International Poetry Conference, Russia 2015). P. Sharma & R. Ara (Eds.). AIPC Aligarh. p. 2.

Book Forewords

Dkhar, Streamlet (2015). Foreword: Ki Kyntien Bynrap. In *U 'Tiewlasubon U Syiem Ki Syntiew* by B. Ioanis Khongthohrem, Shillong. p. 24-27.

Dkhar, Streamlet (2015). Foreword. In *Footprints*. By S. K. Phanbuh. Shillong. p. 5-7.

Dkhar, Streamlet (2015). Ka Maitphang. In *Ka Mynnor Bad Mynta* by Lucky Kharपुरi. Shillong. p. 4.

Research Projects

Research Projects completed 2015-2016

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount (in Rs)
1.	Translating Indian Folktales into Khasi & Translating Critical texts into Khasi	Streamlet Dkhar	Department of Arts and Culture, Govt. Of Meghalaya	3,00,000/-
2.	Documentary Film on Khasi Megalithic culture with reference to Monoliths at Nongksehrim	Streamlet Dkhar	Department of Arts and Culture, Govt. of Meghalaya	4,00,000/-

Honours/Awards/Recognitions

Prof. Streamlet Dkhar

Awarded the Maitreyi Award 2016 by the Sulabh Sahitya Academy at the 16th National Mega Convention, All India Poetess Conference, Shillong on February 26, 2016.

Nominated as Secretary General of the All India Poetess Conference (AIPC) 2016 -17, Head quarters: Aligarh, UP.

Nominated as a Member of the editorial Board of *Journal of Humanities & Social Sciences* (JHSS) ISSN 094-8806, Dodhpur, Aligarh, UP.

Other Activities

Prof. B. War

Chief Guest at a book release *Ki Matlong ka Krammar* written by Loloshon Marbaniang on the 6th May 2015 at the Khasi National Dorbar Hall, Shillong.

Chief Guest at a book release *Ka Kolshor Khasi Kumba Ka Paw Ha Ki Parom-Mutdur Jong U Dewi Singh Khongdup: Ka Bishar Bniah* written by Pynjopthiaw Nongrum, on the 13th May 2015 at the Conference Room, Shillong College, Shillong.

Chief Guest at the book release *Ki Sur Pangnud u V.G. Bareth ha ki Poetry Khasi* written by Baryllia M. Wolflang on the 17th September 2015 at Lady Keane College, Shillong.

Chaired a book release function organised by ESES Publications for books entitled *Ka Hok Ka Jeng Rasong* by Alfidarie Kharsyntiew, *Ka Bishar-Bniah Ia ki Poitri u Soso Tham* by Jean Simonne Dkhar, *Na Ki Ban Jar* by Deibormi Nongpoh and *Ka Nongkylliing* by Streamlet Dkhar on the 6th October 2015 at St. Edmund's College, Shillong.

Chief Guest at a book release *Ka Bynta Ka Kynthei ha ka Longiing Longsem kumba ka Paw ha ka Poitri Khasi: Ka Bishar Bniah* by Kerdalin Nongsiej on the 29th October 2015 at Tirot Sing Memorial College, Mairang, West Khasi Hills District, Meghalaya.

Chief Guest and delivered a lecture as resource person on "Strategies of Translation" in the Short Story Writing Competition on 11th September 2015 organised by the Department of Khasi, St. Mary's College, Shillong.

Delivered a lecture on "Restricted and Elaborated Codes in Communication" in the *Short-*

Term Course in Soft Skills Centre on 4th September 2015 organised by NEHU UGC-Human Resource Development Centre.

Prof. Streamlet Dkhar

Panellist in a discussion on *Voices from the Abode of Clouds - Elements of Myths in the Writings of Contemporary Writers* on the occasion of the Creative Arts Literature & Music (CALM) Festival 2015 organised by the Department of Arts and Culture Govt of Meghalaya in collaboration with Sahaki held on 14th May 2015 at State Library Shillong.

Chief Guest in the celebration of 40th *Jeebon Roy Memorial Welfare Institute* and delivered a talk on "Jeebon Roy as the Forerunner of the Renaissance Period in Khasi Literature" organised by The Jeebon Roy Memorial Welfare Institute on 16th May 2015 at Lakreh School Auditorium, Shillong.

Resource Person in *Shillong Book Fair* and read out four self-composed poems, namely: "Ka Jingduk" (Poverty), "Lost Souls", "Ka Step" (The Morn) and "A Virus" on 10th June 2015 organised by the National Book Trust, India.

Guest of Honour at a function titled *DANCE* and spoke on "Talents of Children Today" held on 28th June 2015 at Babu Mani Singh Gurung Auditorium, (Gorkha Pathshala Higher Secondary School), Mawprem, organized by Sristi Adhikari and Smriti Adhikari Dance Academy, Shillong.

Panellist in a discussion on "Roles and Responsibilities of a Leader: The Road Ahead" ("Ka Kamram bad ka Jingkitkhlieh ki Nonglalam- Ka Mynta bad Nangne Shakhmat") on the occasion of 180th *Death Anniversary of Tirot Sing* held on

17th July 2015 at Mebada Hall, Bishop Cotton Road, Shillong; organized by the Meghalaya Institute of Governance (MIG) in collaboration with Synjuk Ki Seng Samla Shnong (SSSS).

Panellist in a discussion on "Poetic Journey: Beginning at the end" on 26th July 2015 and also read out seven self composed poems in Khasi and the English Translations in the Poetry reading sessions on 25th July 2015 on the occasion of *South India Writers' Ensemble*, the poems were "Kaba wad" (In Quest), "Jinglong Synlar" (Simplicity), "Ki Jingjawum" (Dew drops), "Ngi Dei Kiei" (Who are We), "Kaba pli Kynrad" (Ah Poor She), "Truth" and "I am not what I am" : organized by Kerala Youth Welfare Board, PAMPA and SIWE, from 24-26 July 2015 at Pampapateera, Angadikkal Chengannur, Alapuzha, Kerala.

Special Guest in the *Annual function of the Sunray's School* and spoke on the "Promotion of young talents at the Educational Institutions" held on 5th August 2015 at the school auditorium, Mawlai, Shillong, organised by the Managing Committee of Sunrays Secondary School, Shillong.

Resource Person at a UGC-sponsored Refresher Course held on 10th August 2015 at the ASC, NEHU and lectured on "Khasi Matrilineal System: Traditional practice of the Clan lineage and its transition in the present day" organised by Academic Staff College NEHU, Shillong.

Panellist in a discussion on *The Insight Story: The Journey of Khasi Literature* held 11th August, 2015 organised by Doordarshan Kendra Shillong

Department of Khasi

Guest of Honour in the *Maitshaphrang & Excellence Award 2015* held on 26th September 2015 organised by KSU, Mawlai Circle at the Community Centre, NEHU Campus.

Resource Person and delivered two lectures on *Research Methodology* held on 28th September 2015 organised by the Department of Khasi, Synod College, Shillong.

Delivered ten self-composed poems from the collections, *Na Ki Sawkun Ka Mariang* and *Ki Kyrpien Ka Jingim* at a programme *Listen to Poet* on the 5th October 2015 organised by AIR, Shillong

Guest of Honour in the Annual Cultural Programme of the *Nikhil Bharatiya Bangiya Sahitya Sammelan* and spoke on "The Importance of Promotion, Preservation and Development of Mother Tongue in Higher Education" held on 10th October 2015 at Laban Bengalee Boy's Higher Secondary School, Shillong.

Chaired a Multilingual Poet's Meet on the occasion of the 140th Birth anniversary of *Sardar Vallabhai Patel* held on 31st October 2015 organized by Kendriya Hindi Sansthan and Shillong Hindi Academi, at Kendriya Hindi Sansthan Regional Office, Shillong.

Chief Guest at Kelian Memorial School on the occasion of Children's Day held on 12th

November 2015 and spoke on "Importance of Education for Brighter Career" organised by the Management of Kelian Memorial School, Shillong.

Chaired a book launch programme of *Always Something Else* authored by Dr. Pavel Jordana Diengdoh and Alexandria Pavel held on 21st November 2015 organized by Seng Kur Diengdoh at Don Bosco Youth Centre, Shillong.

Panellist at a discussion on "Importance of Poetry in North-east" held on 23rd February, 2016 at Doordarshan Kendra, Shillong.

Panellist in a discussion on "Women and Poetry" held on 4th March, 2016 at All India Radio, North Eastern Service, Shillong.

Prof. A. Kharmalki

Chief Guest at the *Phawar Red Ribbon Competition* held on 22nd March, 2016 organised by the Meghalaya Aids Control Society and Treilang Society, Shillong.

Member of Board of Faculty of Studies, Arts and Commerce, Tripura.

D. R. L. Nonglait

Chief Guest at a function held to commemorate U Soso Tham's Death Anniversary held on the 18th November, 2015 organised by the Hynniew Trep Youth (HYC), Shillong at the State Central Library, Shillong.

DEPARTMENT OF LINGUISTICS

Head: Prof. Shailendra Kumar Singh
Telephone: Office: (0364) 272 -3310; Mobile: + 91-09863279254
Email: toksingh@rediffmail.com, toksinghnehu@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	Shailendra Kumar Singh, M.A. (Delhi University); M.Phil. & Ph.D. (University of Hyderabad)	New Linguistic World Order, Alternative-Sociolinguistics, Translation, Deep Multilingualism, North-East India Linguistics & Linguistics Landscaping.
Associate Professor	Umarani Pappuswamy, M.A. & M.Phil. (Bharathiar University); Ph.D. (University of Mysore)	Computational Linguistics, Typology, Semantics, Intelligent Tutoring Systems, Artificial Intelligence in Education, Cognitive Linguistics, Dialogue Systems and Discourse Analysis.
Assistant Professor	Saralin A. Lyngdoh, M.Phil. & Ph.D. (Delhi University)	Syntax, Eco-Linguistics, Language Ideology, Typology.
	Barika Khyriem, M.A. (NEHU); M.Phil. (Delhi University).	Phonetics & Phonology, , Sociolinguistics, Austro-Asiatic Linguistics.
	Bijoy L. Dhanwar, M.A. (NEHU); M.Phil. (University of Hyderabad.	Tibeto-Burman Linguistics, Typology, Syntax, Lexicography, Historical Linguistics.

Thrust Area of Research

The chief thrust area is research in the numerous Tibeto-Burman and Austro-Asiatic languages/ dialects of North-East India and build up expertise for field work, data analysis, and descriptive linguistics by training students through the M.A. M.Phil. and Ph.D. programmes. Phonetics and Phonology, Morphology, Syntax, Semantics and Pragmatics, Lexicography, Computational Linguistics, Translation, Field Methods, Language Education, Ethnolinguistics,

Sociolinguistics, Languages of North-East India and language Ideology, etc., have been emphasized upon in order to provide a wide option for students of Linguistics.

Brief Statement of Academic Activities

The Department admitted 45 students to its M.A. programme and 9 students to its M.Phil Programme and 2 Ph.D. students during the current year. 38 students successfully completed the M.A. Program and 13 passed the UGC

Department of Linguistics

Net examination. The department organised a series of programmes including an International Conference and Workshops, and brought

in many international scholars from all the continents to the university.

Students' Profile

Enrolment Capacity: M.A. – 45; Ph.D. – Variable

Degree	SC	ST	Gen	Male	Female	Meghalaya	Non-Meghalaya	Total
M.A	x	44	1	15	30	35	10	45
M.Phil	x	6	3	3	6	3	6	9
Ph.D	x	6		3	3	3	3	6

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc/M.A	X	38	x	14	24	19	19	38
M.Phil	X	4	1	x	5	5	x	5
Ph.D	X	1	x	x	1	x	1	1

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name(s) of Supervisor
Ms Georginia Shallam	Cognitive Processing of Idioms And Compounds In Khasi And English : A Psycholinguistic Study	Prof S. K. Singh

Research Fellowships

Qualified NET : 2 Nos

UGC Fellowship: 13 Nos

Rajiv Gandhi Fellowship: 3 Nos

Educational Tours of Students

Field Trip of Students (3rd Semester):

Teacher –In- Charge: Dr S. A. Lyngdoh

Places Visited: Karimganj in Assam

Duration of the Trip: 30th October to 1st Nov 2015.

Purpose: Fieldwork Training - compulsory as part of curriculum in the M.A. programme.

Study Tour of 3rd Semester Students:

Teacher –In- Charge: Prof S. K. Singh

Places Visited: Gujarat and Pune

Duration of the Trip: 17th Jan to 31st Jan 2016.

Purpose: To expose the students to technological equipments, artificial intelligence, machine translation, corpus development.

Course Conducted

M.A.

Semester I: General Linguistics, Morphology, Syntax-I, Phonetics and Phonology and Socio-Linguistics

Semester II: Semantics and Pragmatics, Ethnolinguistics, Advanced Syntax, Lexicology and Lexicography, Advanced Sociolinguistics.

Semester III: Structure of Austro-Asiatic Languages, Field Methods, Linguistic Structure of South Asian Languages, Language Planning and Policy, Language of N.E India and Language Ideology.

Semester IV: Generative Phonology, Historical and Comparative Linguistics, Psycholinguistics, Translation Theory and Practice, Language Conflict and Resolution Studies

M.Phil/Ph.D Course Work

Research Methodology; Current Trends in Linguistics (Optional 1 and 2); Seminar Paper.

Publications

Research Papers

Swuli H. Sema and S. K. Singh (2016). Linguistic Landscaping in India: The Case of Sumi Speech Community. *International Journal of Dravidian Linguistics*, 45(2): 180-198.

Book

J. War, S. K. Singh, S. A. Lyngdoh, B. Khyriem (2016). *Austro-Asiatic Linguistics of North East India*. Eastern Book House Guwahati: 978-93-802-61-88-1.

Books/ Books Chapters/ Proceedings

Singh, S. K. (2015). Alternative Sociolinguistics. In: *Studies on Indian Languages and*

Cultures. G.K Panikkar, B. R. Reddy, K. Rangan, B. B. Rajapurohit (eds). International School of Dravidian Languages, Thiruvananthapuram. p.187-211.

Singh, S. K. and S. A. Lyngdoh (2016). *Abstract Volume*. Today and Tomorrow Publishers, New Delhi.

Lyngdoh, S. A. (2016). Some Aspects of the Grammar of Khasi: A Generative Approach. In: *Austro-Asiatic Linguistics of North East India*. J. War, S.K Singh, S.A. Lyngdoh, B. Khyriem (eds). Eastern Book House: Guwahati. p. 259-288.

Lyngdoh, S. A.; H. Buhphang. (2016). Structure of Noun Phrase in Nongjri: A variety of Khasi. In: *Austro-Asiatic Linguistics of North East India*, J. War, S.K Singh, S.A. Lyngdoh, B. Khyriem (eds). Eastern Book House: Guwahati. p. 215-243.

Lyngdoh, S. A.; A. Nongrang (2016). Syntactic Characteristics of Verbs in War Dewsawlia: A Variety of Khasi. In: *Austro-Asiatic Linguistics of North East India*. J. War, S. K Singh, S.A. Lyngdoh, B. Khyriem (eds). Eastern Book House: Guwahati. p. 23-40.

Khyriem, B. (2016). Major Phonological Processes in Khasi. In: *Austro-Asiatic Linguistics of North East India*. J. War, S.K Singh, S.A. Lyngdoh, B. Khyriem (eds). Eastern Book House: Guwahati. p. 79-87.

Khyriem, B.; Syiemlieh, B. (2016). Segmental Phonology in Mawlong. *Austro-Asiatic Linguistics of North East India*. J. War, S.K Singh, S.A. Lyngdoh, B. Khyriem (eds). Eastern Book House: Guwahati. p. 88-107.

Khyriem, B.; Sohkhlet, L. (2016). Multilingualism in Meghalaya: With reference to Byrnihat. In: *Austro-Asiatic Linguistics of North East India*. J. War, S.K Singh, S.A. Lyngdoh, B. Khyriem (eds). Eastern Book House: Guwahati. p. 108-145.

Seminars/ Conferences / Workshop/ Extension programmes etc.

Organized

International Conference on *Syntactic Typology: Language Contact and Convergence*, organized by the Department of Linguistics, NEHU, Shillong in collaboration with CIIL, Mysore and ICSSR-NER, from 23-25 November, 2015, with Prof. S. K. Singh as Co-ordinator.

Workshop on *Syntactic Typology: Language Contact and Convergence* organised by the Dept of Linguistics, NEHU, Shillong in collaboration with CIIL, Mysore on 25-28 Nov 2015, with Prof. S. K. Singh as Co-ordinator.

National Workshop on *Machine Translation and Computational Linguistics* in collaboration with C-DAC, Pune at Pune from 24-28 Jan 2016, with Prof. S. K. Singh as Co-ordinator.

Attended and Participated

Shailendra Kumar Singh

Presented paper on "Alternative Sociolinguistics of Globalization" in International Conference on *Sociolinguistics of Globalization* at Hong Kong University, Hong Kong (3-6 June, 2015).

Presented a paper on "How to Promote Cultural Integration through Language?" in the National Meet on *National Education Policy* organised by CIIL Mysore on 29th August 2015 at the Institute of Distance and Open Learning, Guwahati University, Guwahati.

Presented a paper on 'New Linguistic World Order and Contemporary Literature in the

North East India' and chaired a Session in the UGC sponsored National Seminar on *Contemporary Literature in the Changing Socio-cultural Scenario* organised by the Department of English, Margherita College, Margherita, Assam (18-19 September, 2015).

Presented a paper on "Computational Analysis of Syntactic Structure – SVO on L-TAG Parser: Towards Morpho-Syntactic Performance (SVO to SOV) Evaluation" and chaired a Session in the International Conference on *Syntactic Typology: Language Contact and Convergence* organised by Department of Linguistics, NEHU, Shillong in collaboration with CIIL, Mysore and ICSSR-NER (23-25 November, 2015).

Presented a paper on "Sociolinguistic Inquiry of Gender: Understanding Gender Dimensions in North-East Indian Languages" and chaired a session in the National Seminar on *Gender and Folklore in North-East India: Beliefs and Practices* organised by Department of Cultural and Creative Studies, NEHU, Shillong (30-31 March 2016).

Delivered a talk as a Resource Person in the Workshop on "A Study on Perception and Attitude of Community Members" organised by NERIE-NCERT at NERIE, Umiam (1-3 March, 2016).

Delivered a talk as Chief Guest titled "Purvotar me hindi ka badalta swarup" in the Hindi pakhvaRa at UCIL, Shillong, held 1-14 September, 2015.

Delivered a talk as Chief Guest titled "Purvotar me hindi ki sambhavna" in the Hindi pakhvaRa at Power Grid of India, Shillong. (14 September to 30 Sept, 2015).

Resource Person at the Workshop on *Syntactic Typology: Language Contact and Convergence* organised by Department of Linguistics, NEHU, Shillong in collaboration with CIIL, Mysore (25-28 November 2015).

Delivered a talk as a theme speaker on "Future of Machine Translation" in the National Workshop on *Machine Translation and Computational Linguistics* in Collaboration with C-DAC, Pune at Pune (held 24-28 Jan 2016).

Umarani Pappuswamy

Presented an invited talk on "Nominal Classification in Tibeto-Burman Languages". at University of Antwerpen, Belgium, May 2015.

Presented an invited talk on "Tibeto-Burman Languages of North-East India with Special Reference to Classifiers" at University of Paris, France, May 2015.

S. A. Lyngdoh

Presented a paper with G. War on "Agreement in Standard Khasi and its Variety: Pnar" at the International Conference on *Syntactic Typology: Language Contact and Convergence* organized by Dept of Linguistics, NEHU, Shillong in

collaboration with CIIL, Mysore (23-24 November, 2015).

Resource Person at Workshop on *Syntactic Typology: Language Contact and Convergence* organised by Dept of Linguistics, NEHU, in collaboration with CIIL, Mysore (25 & 28 November 2015).

Barika Khyriem

Resource Person in Workshop on *Syntactic Typology: Language Contact and Convergence* organised by Dept of Linguistics, NEHU, in collaboration with CIIL, Mysore (25 & 28 November 2015).

Presented a joint paper with L. Sohkhet titled "Language Contact in Byrnihat" at the International Conference on *Syntactic Typology: Language Contact and Convergence* organised by Department of Linguistics, NEHU, in collaboration with CIIL, Mysore on 23-24 November 2015.

Presented a Poster with R. Rymbai titled "Intonation in Khasi" at the International Workshop on *Tone and Intonation* jointly organized by the Centre for Linguistic Science and Technology and the Department of Humanities and Social Sciences, Indian Institute of Technology, Guwahati (6-7 January 2016).

Research Projects

New Project

Title of Project	Principal Investigator	Funding Agency	Amount (in Rs)
English to Indian Languages Machine Translation -Bodo	Prof. Shailendra Kumar Singh	Ministry of Communication and Information Technology, Delhi	78.11 lakhs

Ongoing Projects

Title of Project	Investigator(s)	Funding Agency	Amount (in Rs)
Language Documentation of Ruga and Rengma, Tibeto-Burman Languages of North-East India	PI: Dr. Uma Pappuswamy	University Grants Commission	12,49,400/-
Scheme for Protection and Preservation of Endangered Languages. Documentation of Atong)	PI: Dr. Uma Pappuswamy	Central Institute of Indian Languages, Mysore.	-
Mother Tongue Survey of India. Phase IV (Tibeto-Burman and Austro-Asiatic)	Coordinators: Dr. U. Pappuswamy and B. L. Dhanwar.	Language Division, Kolkata (Govt. of India)	-

Academic/Professional Collaborations

Dr. Umarani Pappuswamy collaborated with (1) International institutes: Australian National University, Australia; Nanyang Technological University, Singapore; University of Antwerpen, Belgium; University of Paris, France. (2) National Institutes: Central Institute of Indian Languages, Mysore; Manipur University, Manipur; Language Division, Kolkata.

Dr. Umarani Pappuswamy and Mr. Bijoy L. Dhanwar provided Consultancy services to the Mother Tongue Survey of India, a mega project undertaken by the Language Division, Kolkata.

Honours/ Award/ Recognitions

Shailendra Kumar Singh is Vice-President, Shillong Academic Society. Shillong.

Umarani Pappuswamy (a) is Nodal Officer for International Ranking. North-Eastern Hill University, Shillong w.e.f. June 12, 2015; (b) is Vice-President, Linguistic Society of India for three years w.e.f. January 2015; (c) Visiting Fellow. University of Antwerpen,

Belgium, May 2015; (d) Visiting Fellow. University of Paris, France, May 2015.

Other Activities

Prof. S. K. Singh

Organized Field Work Course on *Chorai - A Tibeto-Burman Language* at Karimganj District, Assam (30 October - 1 November, 2015)

Member, Campus Research Committee, EFLU, Shillong.

Teacher-In-Charge, Field Trip to Pune and Dwarka, January, 2016.

Conducted Ph.D. Viva-voce Examinations at Department of Linguistics of Guwahati University and at Department of Linguistics, EFLU, Hyderabad.

Umarani Pappuswamy

Invited talk titled "Pragmatics in Real Life Situations" held at the UGC-HRDC 35th Orientation Programme (General, North-Eastern Hill University, Shillong. (2nd and 3rd March 2016).

Invited talk titled "ICT and Life-Long Learning" held at the UGC-HRDC Special Winter School on November 3, 2015 in North-Eastern Hill University, Shillong.

Invited talk titled "Quality Issues in ICT-based Higher Education: Indian Context at the UGC-HRDC" Special Winter School on November 2, 2015 in North-Eastern Hill University, Shillong.

Invited talk titled "Effective Use of ICT in Higher Education" held at the UGC-HRDC Special Winter School on October 29, 2015 in North-Eastern Hill University, Shillong.

Invited talks titled "National Policy on ICT for Higher Education in India" held at the UGC-HRDC Special Winter School held on October 29, 2015 in North-Eastern Hill University, Shillong.

Invited talk titled "Language Documentation and Description on the Indigenous Languages of North-East India" held at the UGC-HRDC Refresher Course in Tribal in North-Eastern Hill University, Shillong (2 lectures). (August 11-12, 2015).

Invited talk titled "ANOVA and ANCOVA" at the UGC-HRDC Short-term course in SPSS, held on 11th July 2015. North-Eastern Hill University, Shillong.

Invited talks on "Hypothesis Testing and Inferential Statistics" and "Regression Analysis" at UGC-HRDC Short Term Course on *Research Methodology with*

Special Reference to SPSS held at NEHU, Shillong (16-17 March 2016).

Resource Person at Short-term Course in SPSS, UGC-HRDC, NEHU, Shillong, March 7 - 12 2016.

Panel on "Making Dictionaries of the Lesser-Known Languages of North-East India" in the 37th International Conference of the *Linguistic Society of India*, held at Jawaharlal Nehru University, New Delhi (October 15-17, 2015).

Short-term Course in *Soft Skills*, UGC-HRDC, North-Eastern Hill University, Shillong. (August 31 - September 5 2015).

Member, Advisory Committee, UGC-Academic Staff College, NEHU.

Member, Committee for Safety and Security of Girls and Women on Campus (UGC) w.e.f. October 2014.

Saralin Lyngdoh

Coordinator ICSLC November 2015.

Participated in organization of International Conference on *Syntactic Typology: Language Contact and Convergence* held at NEHU, Shillong in collaboration with CIIL, Mysore and ICSSR-NER (23-24 November 2015) and International Workshop on *Syntactic Typology: Language Contact and Convergence* held at NEHU, Shillong in collaboration with CIIL, Mysore and ICSSR-NER (25 - 28 November 2015).

DEPARTMENT OF PHILOSOPHY

Head: Prof. Xavier. P. Mao
Telephone: 2723552
E-mail: philosophynehu@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	Binod Kumar Agarwala, M.Phil (Delhi); Ph.D.(Lucknow)	Social & Political Philosophy, Ethics, Hermeneutics, Kant, Gadamar
	Vanlalnghak, M.A. (NEHU); Ph.D.(IIT Kanpur)	Philosophy of Culture, Moral Philosophy, Analytic Philosophy
	Xavier P. Mao, MPhil (Delhi); MLett(Sydney); PhD (NEHU)	Phenomenology & Existentialism, Ethics, Philosophy of Religion
Associate Professor	Prasenjit Biswas, M.A., Ph.D. (NEHU)	Phenomenology & Continental Philosophy, Philosophy of Mind, Philosophy of tribes of NE India
	Laxminarayan Lenka, MA(Utkal); M.Phil, Ph.D. (Hyderabad)	Analytic Philosophy, Philosophical Anthropology, Philosophy of Wittgenstein, Speech Acts, Western Epistemology
Assistant Professor	E. Richard Tongper, MA, M.Phil, Ph.D. (NEHU)	Philosophy of Religion, Philosophical Theology, Applied Ethics, Gandhian Philosophy
	Basil Pohlong, MA, Ph.D. (NEHU)	Philosophy of Religion, Philosophical Anthropology, Philosophy of Culture, Ethics
	Uttam A Sharma, M.A. (Manipur University)	Logic and Epistemology

Thrust Areas of Research

Kantian Philosophy, Hermeneutic Philosophy, Moral and Political Philosophy, Classical Indian Thinking etc.; Philosophy of Culture, Tribal Philosophy; Moral Philosophy, Existentialism; Tribal Philosophy of Northeast India. Phenomenology and Continental Philosophy,

Social Theory, South Asian Studies, Cognitive and Digital Humanities, Political Economy of Northeast India, Transhumanism, Disaster Resilience, Bioethics and Animal Studies; Wittgenstein's Philosophical Anthropology and Private Language Argument, Grice's Intentionalistic Theory of Meaning and

Quine's Philosophy; Philosophy of Religion, Contemporary Philosophy of Religion, Philosophical Theology; Environmental Ethics, Philosophical Anthropology, Philosophy of Culture, Philosophy of Religion; Logic, Epistemology, Philosophy of Music.

Brief Statement of Academic Activities

The Department conducts the M.A. and Ph.D. programmes.

Students' Profile

Enrolment Capacity: M.A. – 53; Ph.D. – Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.A.		50	3	20	33	41	12	53
Ph.D.		4		1	3	3	1	4

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.A.		45	4	14	35	32	17	49
Ph.D.		3	1	1	3	3	1	4

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name(s) of Supervisor(s)/ Joint Supervisor
Ms. Karabi Saikia	Concept of Morality in Existentialism: A Critical study	Dr. B.Pohlong Jt. Supervisor Prof. X P Mao
Ms. Temjenkala Jamir	Concept of Suffering in Buddhism and Christianity: A Comparative Study	Prof. Vanlalnghak
Ms. Mirada Blah	Nature of Understanding: A Study in Gadamar's Hermeneutics	Prof. B. K. Agarwala
Mr. Lamsing M Umlong	Freedom, Choice & Justice: A Comparative study of Jean Peal Sactre, Jiddu Khrishna Murty & Jacques Derrida	Dr. P. Biswas

Research Fellowships

Rajiv Gandhi SC/ST : 04
ICPR Fellowship : 03
UGC NET : 02

Educational Tour of Students

Teacher-in-charge: Prof. X. P. Mao
Places visited: Andhra Pradesh and Pondicherry
Duration of tour: 13–27 January, 2016
Purpose of Tour: The visit to Andhra Pradesh was to attend Gandhi Rama 2016 and 2nd Asian

Philosophy Congress 2016 - a great learning opportunity for the students since a galaxy of scholars from all over the world attended. It was a great opportunity to interact with eminent scholars who enlightened the students on the rich philosophical, religious and cultural heritage. We also visited Pondicherry which has many important sites, places, educational institutions and significant monumental sties. An exposure to all these sites has helped students in having a practical knowledge in Religion, Culture and Aesthetics.

Courses Conducted

Postgraduate: M.A.

Semester-I

PhiC-101-Indian Metaphysics, PhiC-102-Western Metaphysics,

PhiC-103-Symbolic Logic, PhiC-104-Philosophy of Religion, PhiC-105-Indian Philosophy of Language-I

Semester-II

PhiO-201-Ethics & Environment, PhiC-202-Indian Epistemology, PhiC-203-Western Epistemology, PhiC-204-Indian Moral Philosophy, PhiC-205-Indian Philosophy of Language-II

Semester-III

PhiO-301-Philosophy of Social Sciences, PhiO-302-Phenomenology & Existentialism, PhiC-303-Philosophy of Post-Modernism-I, PhiC-304-Analytic Philosophy, PhiC-3006-Contemporary Philosophy of Religion, PhiC-3007-Tribal Thought and Culture

Semester-IV

PhiC-401-Modernism & Responses, PhiC-402-Philosophy of Culture, PhiC-403-Philosophy of

Post-Modernism-II, PhiC-4004-Western Moral Philosophy, PhiC-4005-Applied Ethics

Ph.D. Courses

Phi-501-Research Methodology

Phi-502-Seminar Paper

Phi-503-Philosophy of Culture & Religion

Seminars/Conferences/Symposia/ Extension Programmes.

Organised

The Department collaborated with the University administration to organise a programme to commemorate the 153rd Birth Anniversary of Swami Vivekananda on 12th January, 2016.

P. Biswas organized a three day National Round Table on *Tribal World-View* at NERC-ICSSR, Shillong, funded by the Indian Council of Philosophical Research, New Delhi, held 30th March to 1st April, 2015.

Attended and Presented

B. K. Agarwala

"Why Modern Mind Finds it Difficult to Understand Classical Indian Thinking" at a National Seminar on *Teaching of Indian Philosophy in North-East India* sponsored by Indian Council of Philosophical Research, New Delhi, organised by the Department of Philosophy, NEHU (June 15-17, 2016).

"Gaps in Ramachandra Dattatrya Ranade's Understanding of Connection of Bhagavadgītā with Vedic Upanishads and Samhitās: An Attempt to Fill them up" at a National Seminar on *Prof. Ranade's Contribution to Indian Philosophy: An*

Appraisal, Department of Philosophy, University of Allahabad, Allahabad (May 1-3, 2016).

“*Yajña Puruṣa: The Uniting Thread in the Continuous Development of Śruti from Vedic Samhitās to Upanishads*” at a National Seminar on *Neo-Vedanta* organised by Department of Philosophy, Dr. Hari Singh Gour Vishwavidyalaya, Sagar (M.P.) (9-11 March 2016).

“The Phenomenological Ontology of Rasa and Taste” at a National Seminar on *Comparative Aesthetics in a Contemporary Frame*, organised by the Indian Institute of Advanced Study (IIAS), Simla. (17-18 November 2015).

“The Balanced Contrast of Individualist and Tribal Outlooks in the First Chapter of Bhagavadgītā” in a Round Table Conference on *Tribal Worldview(s): Concepts, Issues, Ideas, and Concerns*, organised by Indian Council of Philosophical Research, New Delhi in collaboration with NERC-ICSSR, Shillong, at NERC-ICSSR, Shillong (30 March to 1 April, 2015).

Vanlalnghak

Presented a paper on “Philosophical Reflections on Contemporary Moral Issues” in a two-day National Seminar on *Philosophical Reflections and its Central Importance in Understanding Problems of Human Conditions* organised by Cotton State University, at Cotton University Campus, Guwahati (20-21 April, 2015).

Delivered a Special Lecture on “Central Issues in Ethics and Applied Ethics” in *World Philosophy Day*, organised by the Department of Philosophy, Cotton State

University, on 29th January, 2016, at Cotton University, Guwahati.

Chaired an Academic Session on a Round Table Conference on *Tribal Worldviews: Concept Issues, Ideas and Concerns* organised by ICPR New Delhi in collaboration with NERC-ICSSR, Shillong at ICSSR Conference Hall, Shillong (30 March to 1st April 2016).

X. P. Mao

Presented a paper on “Politics, Economy and World Peace” at the *Third China-South Asia Think Tank Forum* in Kunming, China (11-12 June 2015).

Presented a paper on “Man Nature and God” at the *International Conference on Religions, Welfare of Humankind*, Jabalpur, M.P. (24-26 October 2015).

Presented a paper on “Value, Education and Social Reconstruction” at the *International Symposium on Moral Education of Global Age*, Shanghai University, Shanghai, China (11-12 December 2015).

Presented a paper on “Philosophical Reflection on Values” at the *2nd Asian Philosophy Congress* at Visakhapatnam, A.P. (19-21 January, 2016).

Presented a paper on “Doing Philosophy in India” at National Seminar on *Doing Philosophy in India* in Haridwar (29-31 January 2016).

L. N. Lenka

“Knowing One’s Own Self: An Analysis of Vivekananda’s Approach to One’s Identity” at ICPR sponsored Teachers Meet on *The Crisis of Multiple Identities in Contemporary World*, at Department of HSS, IIT Guwahati (15–17 February, 2016).

"The PLA-based Philosophical Anthropology" at the National Seminar on *Existence and Morality: Philosophical Perspectives*, Department of Philosophy, University of GourBangla, Malda, W.B. (8-11 March, 2016).

"Sabda as Linguistic Analysis: An Exposition of Ganeswar Misra's Analysis of Sat, Cit Ananda" at ICPR sponsored National Seminar on *Philosophy of Ganeswar Misra* held at Department of Philosophy, Ravenshaw University, Cuttack. (21st - 22nd January, 2016).

P. Biswas

"Cultural (In)Security in South and Southeast Asia: Exploring Issues, Concepts and Linkages" presented at *British Association of South Asian Studies Annual Conference*, 2015, University of Portsmouth, United Kingdom (8-10 April, 2015).

Prasenjit Biswas and Sashinungla Ao. "Thinking, Looking and Acting: Beyond East and Southeast to the 'Other Asia'" presented at Nordic Institute of Asian Studies, Copenhagen (7-8 May, 2015).

"Unveiling the Transhuman: Exploring Ethical Possibilities" at *International Conference on Reconfiguring the Human and the Non-Human*, University of Jyväskylä, Finland (29-30 October, 2015).

"Reconfiguring Disasters in Human and Non-Human Lives: Perspectives from Care Ethics" at *International Transdisciplinary Conference on Disasters* at Jawaharlal Nehru University, New Delhi (25-27 September, 2015).

"Claim Rights, Political Institutions and Multilateral Negotiations" as a moderator in the *International Workshop on Law,*

Institutions and Political Philosophy at the Department of Political Science, Delhi University, New Delhi. (21-22 August, 2015).

Prasenjit Biswas and Sashinungla Ao. "India's Foreign Policy and Domestic Compulsions: Theorizing the Margins of Exclusion" at *International Conference on Internal and External Constraints of India's Foreign Policy* at Jadavpur University, Kolkata (22-24 November, 2015).

Delivered three invited lectures on "Zomiyas and Northeast India: Methodological Perspectives" at the Indian Council of Philosophical Research sponsored workshop on *Philosophy, Culture, Anthropology, Community, Politics and Democracy* held at Tezpur University, Tezpur (23-25 April, 2015).

Invited to deliver special lecture at Assam Don Bosco University, Guwahati on 4th November on "Human Rights Situation in India and Northeast: A Philosophical Perspective" sponsored by Indian Council of Philosophical Research, New Delhi.

Invited Lecture on "Backward Reference and Forward Referring Anticipations: Husserl's Limits of Language" at ICPR sponsored *Phenomenology Workshop* held at Loyola College, Chennai. (3-5 March, 2016).

Invited to deliver two lectures on "Nature of Social Reality" at NERC-ICSSR, Shillong at workshop on *Research Methodology in Social Sciences* sponsored by ICSSR, New Delhi. (14-15 March, 2016).

B. Pohlong

Paper presented "Tribal Worldview: The Relevance of Folktales" at a Round Table

on *Tribal Worldview* organized by ICPR, at NEHU Shillong. (30-31 March 2015).

Lecture delivered on "Environmental Ethics" in *UGC-HRDC 32nd Orientation Programme ASC, NEHU* on 29th April, 2015.

Organized lectures by Prof. John Russon, Professor at the University of Guelph, Ontario Canada and Prof. Shannon Hoff, Professor Institute of Christian Studies, Toronto on (a) "The Limits of Money: Phenomenological Reflection on Selfhood and Value" and (b) "Translating Principles into Practice on Derrida and the terms of Feminism" on 21st April, 2015.

Publications

In Research Journals

Published Abroad

Agarwala, B.K. (2015). Errors revisited in light of the balanced contrast of two polarities in the first chapter of Bhagavadgītā. *Journal of Indian Council of Philosophical Research*. 32(3): 337-357.

Agarwala, B.K. (2015). The significance of three errors in the first chapter of Bhagavadgītā. *Journal of Indian Council of Philosophical Research*. 32(1): 19-30.

Published in India

Agarwala, B.K. (2015). Radhakrishnan's Erroneous Understanding of Bhagavadgītā and its Flawed Sources. *Madhya Bharati*. 69: 120-160 [ISSN 0974-0066].

Mao, X.P. "Intercultural Dialogue". *Manavayatan the Humanosphere. International Journal of Humanities of Centre for Studies in Humanities*. 4(2). J. Patgiri (Ed.). Centre for Studies in Humanities, Guwahati.

Biswas, P. (2015). Theorizing Social Theory for Dalits and Non-Dalits: Gopal Guru's Generic Interventions. *Summer Hill: IIAS Review* 9(2): 42-46.

Biswas, P. (2015). Presuppositionless Philosophy: An 'Anthropology of Care' and its Aporias. *Journal of Northeast Indian Cultures*. 2(2): 13-37.

Biswas, P., Gogoi, S. (2015). "From Sovereignty to Scheduling: Are the Curtains Closing?" (<http://www.countercurrents.org/gogoi181115.htm>.)

Lenka, L.N. (2015) On Descartes' Dream Argument. *Keanean Journal of Arts* 2: 86-95 (ISSN 2348-1110).

Book/ Book Chapter

Agarwala, B.K. (2015). The Ontology of Humanities and Social Sciences: A Gadamerian Perspective. In: *Pathways of Creative Research: Towards a Festival of Dialogues*, Vol. I, A. K. Giri (Ed.). Primus Books, New Delhi [ISBN: 978-93-84082-05-5]. p. 361-381.

Agarwala, B.K. (2015). Ethnic Identity Politics and Economic Development: Issues Confronting North-East India. In: *Culture, Identity and Development: The Global and the Local in Northeast India*. S. Varghese (Ed.). Abhijeet Publications, New Delhi (ISBN 978-93-5074-197-9). p.39-93.

Vanlalnghak (2014) Applied Ethical Issues in Environment: General Observation. In: Saji Varghese (Ed.) *Beyond Humanism (Philosophical Essays on Environmental Ethics)*. Concept Publishing Company, New Delhi. pp. 189-199.

Biswas, P. (2016). Sociality and Subjectivity: An Ontological Return to the Other. In: *Pathways of Social Research: A Festival of Dialogues*. A. K. Giri (Ed.). New Primus, New Delhi. Ch. 25. pp. 443-60.

Biswas, P. (2016). Unveiling the Transhuman: Dialetheia in Cultural Studies. In: *Perspectives in Cultural Studies*. D. P. Nath and P. Dutta (eds.) Purbanchal Prakash, Guwahati, Ch. 5. pp. 55-78.

Biswas, P. (2015) Introduction. In: *The Idea of Surplus: Rabindranath Tagore and Contemporary Human Sciences*. Mrinal Miri (ed.).

Routledge, London and New Delhi. Chapter 1. p. 1-21.

Biswas, P. (2015). Self in Tagore's Notion of History: A Project of Liberation? In: *The Idea of Surplus: Rabindranath Tagore and Contemporary Human Sciences*. Mrinal Miri (ed.). Routledge, London and New Delhi. Chapter 12. p.217-34.

Lenka, L. (2015) "Can there be a Transcendental Self?" In: *Language, Mind and Reality*, R. K. Panda (Ed). Overseas Press India, New Delhi, p. 79-89 (ISBN: 978-93-83803-16-3)

Research Projects

Completed

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1	Tribal Worldview(s) of Northeast India (completed 2015)	Dr. Prasenjit Biswas	Indian Council of Philosophical Research, New Delhi.	Rs 4,00,000/-

Honours/Awards/Recognitions

X. P. Mao

On 22nd February 2016 the Government of India nominated Prof. X. P. Mao as a National Member of the Reconstituted Indian Council of Philosophical Research for a term of three years along with 11 (eleven) National Members.

P. Biswas

Awarded Keast Lion Residential Scholarship, 2015-16, by the Centre for Citizenship

Studies, Wayne State University, Detroit, USA.

Other Activities

P. Biswas was (a) appointed as Observer at a ten days Doctoral workshop on "Research Methodology in Social Sciences" by ICSSR, New Delhi; (b) Invited to deliver four Lectures on "Philosophy of Natural and Social Sciences" at UGC-HRDC, Mizoram University, Aizawl (23-24 July, 2015).

IV

SCHOOL OF HUMAN AND ENVIRONMENTAL SCIENCES

Dean: Prof. Debendra Kumar Nayak
Telephone: 0364-2723221 (O); 0364-2550040
Email: dknak@rediffmail.com

The school of Human and Environmental Sciences comprise five departments, namely, Anthropology, Environmental Studies, Geography, Horticulture and Rural Development & Agricultural Production. The following report listing academic activities undertaken by each of these five departments is a testimony to the efforts made by these departments towards achieving excellence in most areas of teaching and research as well as other academic pursuits by the faculty and students.

As many as 28 research scholars were awarded Ph.D. degree from four of the five Departments under the school. The department of Horticulture-the youngest department has started its Ph.D. programme in the current year only. Mphil programme is offered by the Geography Department only and 7 scholars were awarded Mphil degree in the year under report.

The research profile has been just as bright with most faculty members from across the departments publishing research papers in well known peer reviewed journals published in India and abroad. As many as 59 research papers written by the faculty members of the

school appeared in such journals published in India while 16 others were published in journals published abroad. Papers contributed as book chapters were 15 in number. One of the faculty members from Anthropology Department published a book. Several collaborative research programmes were undertaken by nearly all the departments during the year under report.

The departments have also organised as many as 6 national and international conferences/seminars/workshops on important themes during the year under report. All the departments have received externally funded research projects. As many as 18 research projects are reported from all the departments under the school including ongoing and recently received ones. Large number of the faculty attended conferences and symposia organised in India and abroad and presented research papers written by them. Many of them delivered invited lectures and chaired sessions at these conferences/seminars/symposia.

Members of the faculty actively contributed to framing of a syllabus for Ph.D. coursework programme in Horticulture as part of their engagement in curriculum development.

DEPARTMENT OF ANTHROPOLOGY

Head: Prof. Lucy Zehol
Telephone: 0364-2723105 (Office)/9436118429 (Mobile)
E-mail: lzehol@yahoo.com

Faculty

Designation	Name and Qualification	Specialization
Professor	T. B. Subba, M.Phil., Ph.D. (N. Bengal) On lien as Vice-Chancellor of Sikkim University.	Cultural Anthropology
	H. Lamin, M.Phil. & Ph.D. (NEHU)	Cultural Anthropology
	R. Khongsdier, M.Phil. & Ph.D. (NEHU)	Biological Anthropology
	L.T.V. Zehol, M.Phil. & Ph.D. (NEHU)	Cultural Anthropology
Associate Professor	D. K. Limbu, M.Phil. & Ph.D. (NEHU)	Biological Anthropology
	B. Langstieh, M.Sc., Ph.D. (I.S.I., Calcutta Univ.)	Biological Anthropology
	G. Ranjan, M.A. & Ph.D. (Lucknow Univ.)	Cultural Anthropology
	V. Pakyntein, M.A. (NEHU); M.Phil. (Delhi Univ.)	Cultural Anthropology
Assistant Professor	J. W. Dkhar, M.Phil. & Ph.D. (NEHU)	Biological Anthropology
	Q. Marak, M.A. (Gauhati Univ.); Ph.D. (NEHU)	Archaeological Anthropology
	S. Ghosh, M.Sc. & Ph.D. (Delhi Univ.)	Biological Anthropology

Thrust Areas of Research

Trends and issues in the society and culture of North-East India with special references to material culture, ethnicity, development, social and cultural changes, and gender issues. Population genetics including DNA studies with special focus on phylogenetic relationship of human populations and other related health issues, bio-cultural aspects of human growth and nutrition, demography, reproductive and child health.

Brief Statement of Academic Activities

The Department offers specialization in Cultural and Biological Anthropology with broad orientation to Archeology and Linguistic Anthropology. It admitted thirty students for M.A./M.Sc. Programme, eight students for Ph.D. Programme, and two post-doctoral fellows during the current year. Twenty eight students successfully completed their M.A./M. Sc. and five students were awarded Ph.D. degree. The Department completed three projects: (1) an international project titled

“Nepal on the Move: Conflict, Migration and Stability” in collaboration with the Department of Anthropology, Aarhus University, Denmark, (2) “Antigen Typing among the Indigenous Populations of Meghalaya and Native Population of Mumbai” in collaboration with NEIGHIMS and the National Institute of Immunohematology, Mumbai, and (3) “Art, Artisans, and Culture: A Study on Garo Traditional Craftsmanship” sponsored by Sangeet Natak Akademi, Delhi.

The department is collaborating one international project entitled “A Dental Morphometric Examination of the Distinctiveness and Affinities of Austro-Asiatic- and Tibeto-Burman-speaking Ethnic Groups of South Asia” with Dr. Brian E. Hemphill, Department of Anthropology, College of Liberal Arts, University of Alaska, USA. The Department is also undertaking two projects titled “The Garo House: Traditional Craftsmanship and Cultural Expressions” sponsored by Sangeet Natak Akademy, New Delhi, and “Physical Growth and Development of Children in Northeast India: A Public Issue” in collaboration with the Anthropological Survey

of India, Ministry of Culture and Tourism, Government of India, North-East Regional Centre, Shillong.

The Department organised a national workshop on “Living Traditions of Pottery in Garo Hills, Meghalaya” on 8th and 9th December, 2015 at District Museum, Tura, in collaboration with ICSSR-NERC, NEHU, Shillong. It also organized an Inter-College Debate Competition on “Education Plays a Significant Role in Changing Harmful Gender Stereo Types that Promote or Change Violence against Women” on 25th November, 2015 as part of the international campaign protesting violence against women, in collaboration with the Meghalaya State Commission for Women (MSCW), Government of Meghalaya. The Department also organized a One-Day Interactive Session on 21st March, 2016 with the faculty and students of the Department of Anthropology, Shahjalal University of Science and Technology, Sylhet, Bangladesh. The faculty of the Department published more than twenty five publications including one book during the year under report.

Students' Profile

Enrolment Capacity: M.A./M.Sc. – 30; Ph.D. – Variable

Degree	SC	ST	GEN	OBC	Male	Female	Meghalaya	Non-Meghalaya	Total
M.A./M.Sc.	2	27	-	1	6	24	5	24	30
Ph.D.	1	7	-	-	2	6	3	5	8

Degrees Awarded

Degree	SC	ST	GEN	OBC	Male	Female	Meghalaya	Non-Meghalaya	Total
M.A./M.Sc.	-	28	-	-	6	22	15	13	28
Ph.D.	-	3	1	1	1	4	2	3	5

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name(s) of Supervisor(s)/ Joint Supervisor
Ms. Arundhuti Das	A Population in Genetic Study on Serotonergic Polymorphism among Three Ethnic Population of Shillong, Meghalaya	Dr. B. T. Langstieh
Ms. Peacefully Kharkongor	Significance of Bamboo in Khasi Culture	Dr. G. Ranjan (Supervisor) Prof T. B. Subba (Joint Supervisor)
Ms. Sezolu Khamu	Health Status of the Elderly Chakhesang Populations: A Comparative Study of the Chokris and the Khezhas.	Dr. B. T. Langstieh
Ms. R.K.Neeta Devi	A Study of Growth and Somatotype in Relation to Nutritional Status among the Meitei Children and Adolescents of Imphal Valley, Manipur	Dr. J. W. Dkhar
Mr. Pynshngainlang Marwein	An Anthropological Study of Food and Food Habits in Khasi Society	Prof. H. Lamin

Placement of Students

Four students were appointed Assistant Professors, namely, Chunthuiiu Kamei and Peacefully Kharkongor at Women's College, Shillong; Bhaboklang Sohkhlet at St. Claret's College, Ziro, Arunachal Pradesh; and Radhe Amung at Rajiv Gandhi University, Itanagar.

Four students were appointed/promoted in different government organisations: Senggrikchi

N. Marak, DSP, Govt of Meghalaya, West Khasi Hills, Nongstoin; Vitoshi Sumi, DSP, Govt of Nagaland, Kohima; Nirinchi G. Momin, District Research Officer, Govt of Meghalaya, West Garo Hills, Tura; and Pynshngainlang Marwein, Assistant District Officer, Govt of Meghalaya, Shillong.

Two UGC-Post-Doctoral Fellows were admitted to carry out research in the Department.

Research Fellowships

CSIR-UGC-NET	UGC Non-Net	Rajiv Gandhi SC/ST	Meritorious Malana Azad Minority Fellowship
10	32	3	1

Educational Tour of Students

Dr. B. T. Langstieh took 4th semester students for a 21-day anthropological fieldwork to village Mawshbuit, East Khasi Hills District, Meghalaya from 6th to 26th January, 2016.

Dr. Q. Marak took the 2nd semester students for a one-day archaeological fieldtrip to village Myrkhan, East Khasi Hills District, Meghalaya on 18th March, 2016.

Courses Conducted

MA./M.Sc.

Semester-I:

Introduction to Anthropology, Archaeological Anthropology, Biological Anthropology, Social and Cultural Anthropology, and Linguistic Anthropology.

Semester-II:

Palaeo-anthropology, Prehistoric Cultures, Material Culture and Museum Method, Human Ecology and Adaptation (Open), Anthropology of North East India (Open).

Semester-III:

Anthropology of India, Medical Anthropology, Field Work Methods and Techniques, Demography, Anthropology of Gender (Open), Human Genetics, Practical in Biological Anthropology –I, and Human Growth and Body Composition (Open).

Semester-IV:

Theories in Anthropology, Development Anthropology, Economic Anthropology, Biostatistics, Dissertation and *Viva-Voce*, Biocultural Anthropology, Dental Anthropology.

Ph.D. Courses

Research Methodology in Anthropology, Recent Developments in Social and Cultural

Anthropology, Advanced Studies in Biological Anthropology, Review of Literature and Seminar.

Seminars/Conferences/Symposia/Extension Programmes, etc.

Organized

V. Pakyntein

Organized an Inter-College Debate Competition on “Education Plays a Significant Role in Changing Harmful Gender Stereo Types that Promote or Change Violence against Women” on 25th November, 2015, as part of the international campaign protesting violence against women, in collaboration with the Meghalaya State Commission for Women (MSCW), Government of Meghalaya.

Q. Marak

Organised a Workshop on “Living Traditions of Pottery in Garo Hills, Meghalaya” on 8th and 9th December, 2015 at Tura, in collaboration with the District Museum, Tura, supported by the Indian Council of Social Science Research, Northeast Regional Centre, Shillong.

Attended and Participated

L. Zehol

Presented a paper entitled “Constructing the Naga Identity and Ethnicity: The Process” at the National Seminar on *Interpreting Tribal Literature Multidisciplinary Approach* organized by the Department of Khasi, NEHU, in collaboration with the Tribal Literary Forum of India and The Society for Khasi Studies, Shillong (February 18-19, 2016).

Presented a paper on "Naga Women as Resource Managers: Is Revival of Tradition always the best Option?" at the National Seminar on *Environment and Society: The Context of North East India* organized by Department of Sociology, NEHU, Shillong (March 14-15, 2016).

Presented a paper on "Understanding Gender Ideology in Naga Society: An Anthropological Critique" at the National Seminar on *Gender and Folklore in Northeast India: Beliefs and Practices* organized by the Department of Cultural and Creative Studies, NEHU, Shillong (March 30-31, 2014).

D. K. Limbu

Presented a paper on "A Brief Review of Physical Anthropology in North-East India" at the UGC-Sponsored National Seminar on *Child Health in India with Special Reference to North East India* organized by the Department of Anthropology, DHSK College, Dibrugarh, Assam (May 2-3, 2015).

Presented a paper titled "New Trends of Biological Anthropology in North-East India" at the 45th Annual Conference of the Indian Anthropological Society organized by the Indian Anthropological Society, Kolkata, in collaboration with Calcutta University, Visva-Bharati University and West Bengal State University (May 23-25, 2015).

Chaired a technical session at the UGC-Sponsored National Seminar on *Child Health in India with Special Reference to North-East India* organized by the Department of Anthropology, DHSK College, Dibrugarh (May 2-3, 2015).

B. T. Langstieh

Presented a paper jointly with Ms. Hoineilam Kipgen on "Effects of Demographic Characteristics on Child Health: A Study among the Thadou-Kuki of Senapati District, Manipur" at the National Seminar on *Child Health in India with Special Reference to North East India* organized by the Department of Anthropology, DHSK College, Dibrugarh, Assam (May 2-3, 2015).

Presented a paper jointly with Ms. Hoineilam Kipgen on and on "Utilisation of Maternal and Child Health Care Services among the Thadou-Kuki of Senapati District, Manipur" at the National Seminar on *Poverty, Inequality and Health in India with Special Reference to North East India* organised by the Department of Economics, NEHU, Shillong, in collaboration with the Indian Statistical Institute, Kolkata (October 8-10, 2015).

G. Ranjan

Presented a paper on "Invoking the Divine in Traditional Healing: A Study of the Bhoksas of Uttarakhand" at the National Seminar on *Folk Medicine and Traditional Healing in India: Theory and Practice* organized by the Department of Cultural and Creative Studies, NEHU, Shillong (March 26-27, 2015).

Presented a paper on "Influence of Different Religions on a Particularly Vulnerable Tribal group" at the National Seminar on *Syncretism in India* organised by the Sanskriti-North Eastern Institute of Cultural Research, Guwahati (November 21-22, 2015).

J. W Dkhar

Presented a paper entitled "Nutritional Status of Urban Meitei Boys of Imphal-West District, Manipur" at the UGC sponsored National Seminar on *Child Health in India with Special Reference to North East India* organised by the Department of Anthropology, DHSK College, Dibrugarh (May 2-3, 2015).

Q. Marak

Presented a paper on "Pottery Traditions of Garo Hills, Meghalaya: Present-Past Continuum" at the International Conference on *Oral Traditions: Continuity and Transformations in Northeast India and Southeast Asia* organized by the Indian National Trust for Arts and Cultural Heritage and Ambedkar University, Delhi, at Shillong (February 1-4, 2016).

Presented a paper on "Priest as Medium: A Case Study of the MiAmua Ritual in West Garo Hills, Meghalaya" at the National Seminar on *Oral and Textual traditions of North East India* organized by the Arunachal Institute of Tribal Studies, Rajiv Gandhi University and the Indira Gandhi National Centre for the Arts, New Delhi at AITS, RGU (March 28-30, 2016).

Presented a paper entitled "Women and Clay: Studying the Craft of Pottery among the Garos of Meghalaya" at the National Seminar on *Gender and Folklore in Northeast India: Beliefs and Practices* organised by Department of Cultural and Creative Studies, NEHU, Shillong (March 30-31, 2016).

Sudipta Ghosh

Presented a paper on "Association between Body Composition and Blood Pressure in Relation to Diverse Environmental

Conditions" at the National Seminar on *Anthropology and Environment* organized by the Department of Anthropology, University of Delhi (February 26, 2016).

Publications

Published in India

Daimai, C., Ranjan, G. (2015). Youth dormitory in the life of the Liangmai Naga. *International Journal of Interdisciplinary and Multidisciplinary Studies* 2: 84-91.

Gandu, S., Mishra, B. K., Limbu, D. K. (2015). Perception of Hb Eprobands: A study among the Garo tribes in Tura Town, Meghalaya. *International Journal of Current Research* 7:4-9.

Jami, J., Limbu, D.K. (2015). Digital and palmar dermatoglyphics of the Bhoi Khasis of Umden village, Ri-bhoi district, Meghalaya. *Journal of Life Sciences* 20: 12-14.

Khongsdier, R. (2015). Anthropology today with special reference to Northeast India: An integrative perspective. *Anthropology Today: International Peer Reviewed NEIRA Journal* 1(1): 1-20.

Limbu, D. K., Khongsai, L., Syiemlieh, S. (2016). Eruption of permanent teeth among the Deoribos of Mahadevpur Deori village of Arunachal Pradesh, India. *Imperial Journal of Interdisciplinary Research* 2:157-159.

Marak, Q. (2014). Much more than taste: The story of *Kharchi* and its usage among the Garos. *Bulletin of the Department of Anthropology, Dibrugarh University* 42: 53-66.

Marak, Q. (2015). Gendering the hearth: Studying aspects of femininity and

masculinity among the Garos of India. *Man and Society* 12: 41-55.

Marak, Q. (2015). The gendered paradoxes of the first born: An auto-ethnographical study of a matrilineal society. *Oriental Anthropologist* 15(2): 85-95.

Marak, Q. (2015). Carcasses on display: A study of butchery stalls in Shillong, Meghalaya, India. *Anthropos India* 1(2): 53-71.

Meitei, A. M., Marak, Q. (2013). The Megalithic burial tradition in Jaintia Hills of Meghalaya. *Frontier Anthropology* 2:19-34.

Meitei, A. M., Marak, Q. (2015). Megalithic burial rites of the Niamtre Jaintias of Meghalaya. *Bulletin of the Department of Anthropology, Gauhati University*, 16: 30-41.

Neli, V., Marak, Q. (2015). Brewing rice beer: Traditional knowledge systems of the Adi Padams of Arunachal Pradesh, India. *Bulletin of Department of Anthropology Gauhati University*, 15:67-77.

Ranjan, G. (2015). Being a caste: A journey down memory lane. *Man in India* 95:125-131.

Ranjan, G. (2015). Ethics in studying children: Fieldwork experience among the Bhoksa. *International Journal of the Social Research Foundation*, 3:88-98.

Ranjan, G. (2016). Political organization: Meaning and significance. *The Public* 5:1-2.

Zehol, L. (2015). Why do Naga men always win? *Anthropology Today*, 1(1): 182-88.

Zehol, L., Zehol, K. K. (2016). Festival: A celebration of life to a politics of heritage - The Naga case - a reflection. *Anthropology Today* 1(2): 103-25.

Book

Ranjan, G. (2016). *Approaches to the Study of Indian Culture and Society*. Pragun Publications, New Delhi.

Book Chapters

Published in India

Khongsdier, R. (2015). Anthropology and history. In: *Myths and Realities*. J. P. Mishra (Ed.). Rajesh Publications, New Delhi, p.162-165.

Marak, Q. (2015). Keeping house and herding cows: Games played by Garo children. In: *Contemporary Society: Tribal Studies, Vol. 10: Tribal Children and Their Childhood*. D. K. Behera (Ed.). Concept Publishing Co. New Delhi: Chapter 11, p. 196-210.

Marak, Q. (2015). Megaliths and living cultural traditions. In: *Explorations in Anthropology of North-East India*. S. Sengupta (Ed.). Gyan Publishing House, New Delhi: Chapter 2, p. 31-51.

Ranjan, G. (2015). Bringing up children: A study of child rearing beliefs and practices among the Khasi of Meghalaya. In: *Contemporary Society: Tribal Studies Vol. 10: Tribal/ Indigenous Children*. D. K. Behera (Ed.). Concept Publishing Company, New Delhi: p. 56-67.

Ranjan, G. (2016). Inheritance of loss and portrayal of Indian Nepalese. In: *Nepali Diaspora in a Globalised Context*. T.B. Subba and A.C. Sinha (Eds.). Routledge, New Delhi: Chapter 9, 144-152.

Published Abroad

Marak, Q. (2015). Pest control. In: *The Sage Encyclopaedia of Food Issues, Vol. 3*. Ken Albala (Ed.). Sage Publications, Thousand Oaks, p. 1130-1133.

Marak, Q. (2015). Preservatives. In: *The Sage Encyclopaedia of Food Issues, Vol. 3.* Ken

Albala (Ed.). Sage Publications, Thousand Oaks, p.1158-1161.

Research Projects

Ongoing

Title of Project	PI/Co-PI	Funding Agency	Amount
A Dental Morphometric Examination of the Distinctiveness and Affinities of Austro-Asiatic- and Tibeto-Burman-speaking Ethnic Groups of South Asia	Dr B. Langstieh (Co-PI) & Dr. B. E. Hemphill (PI), Dept of Anthropology, Univ. of Alaska, USA.	Fulbright-Nehru Senior Research Fellowship and College of Liberal Arts, Univ. of Alaska, USA.	USD \$5,000 plus
The Garo House: Traditional Craftsmanship and Cultural Expressions	Dr. Q. Marak (PI)	Sangeet Natak Akademi, New Delhi	Rs.75,000
Physical Growth and Development of Children in Northeast India: A Public Issue	Dr. D. K. Limbu (PI) & Dr. J. W. Dkhar (Co-PI)	Anthropological Survey of India, Kolkata	Rs.6,00,000

Completed

Title of Project	PI/Co-PI	Funding Agency	Amount
Nepal on the Move : Nepalese Migrants in the Coal Mines of Jaintia Hills : Risk, Remittance and Return to Nepal	Dr. G. Ranjan (PI)	DANIDA Fellowship Centre, Denmark	Rs. 40 lakh approx.
Red Blood Cell Antigen typing among the indigenous populations of Meghalaya and native population of Mumbai	Dr B. Langstieh (Co-PI) in collaboration with Dr. L. N. Lyngdoh (NEIGHRIMS) and Dr K. Vasantha and Dr A. C. Gorakshakar (NIIH, Mumbai)	DBT Twinning Project 2012-2015	Rs. 8.7 lakh
Art, Artisans, and Culture: A Study on Garo Traditional Craftsmanship	Dr. Q. Marak (PI)	Sangeet Natak Akademi	Rs. 1 lakh

Academic Collaborations

Collaborated with Dr. Brian E. Hemphill, Department of Anthropology, College of Liberal Arts, University of Alaska, USA, on project "A Dental Morphometric Examination of the Distinctiveness and Affinities of Austro-Asiatic- and Tibeto-Burman-speaking Ethnic Groups of South Asia."

Collaborated with Prof. Gregory Livshits, Department of Anatomy and Anthropology, Sackler faculty of medicine, Tel-Aviv University, Israel, on "Body Composition Analyses."

Honours/Awards/Recognition

R. Khongsdier

Member of the Editorial Boards of the *Journal of Life Sciences*, *Indian Journal of Research in Anthropology*, and *The Anthropologist*.

G. Ranjan

Conferred the UGC-Research Award (2016-18) for the project entitled "Girl Child Domestic Labour: A Study in Lucknow City" at the Department of Anthropology, Lucknow University.

Sudipta Ghosh

Was awarded the Raman Fellowship by the University Grants Commission for Post-Doctoral for Indian Scholars in the USA (2016-17).

Other Activities

R. Khongsdier

Member of (a) UGC Expert Committee for Evaluation of Research Projects, NE Region, Guwahati; (b) Meghalaya State

Level Scrutiny Committee for Scheduled Tribes, Govt of Meghalaya, Shillong; (c) Meghalaya State Task Force Committee on Minorities, Govt of Meghalaya, Shillong; (d) Board of Post-Graduate Studies in Anthropology, Rajiv Gandhi University, Arunachal Pradesh.

Visitor's Nominee for Selection Committee of the School of Human Sciences, Sikkim University, Gangtok.

Chaired a technical session at the National Seminar on *Role of Religion in Protection and Preservation of Environment* organized by the Seng Biria U Khasi at St. Dominic High School, Shillong (August 8, 2015).

Delivered an invited lecture on "Application of Statistics in Anthropometry" at the Dept of Anthropology, Gauhati University, Guwahati (November 20, 2015).

L. Zehol

Acted as a Panelist on the topic "Environmental ethics and sustainable use of resources in NE India" organised by North-Eastern Hill University Students Union, Shillong (June 5, 2015).

Chaired a technical session at the National Seminar on *Gender and Folklore in Northeast India: Beliefs and Practices* organized by the Department of Cultural and Creative Studies, NEHU, Shillong (March 30-31, 2016).

B. T. Langstieh

Was Resource Person for Summer School at the Academic Staff College, NEHU, Shillong.

Delivered two lectures at the *Refresher Course in Folkloristics and Semiotics* at Department of Cultural and Creative Studies, NEHU (May 4, 2016).

V. Pakyntein

Was a Resource Person at Six-Day Residential Workshop on *Women Connect for Leadership and Change* organized by Dibrugarh University in collaboration with Rajiv Gandhi National Institute of Youth Development, Sriperumbudur, at Dibrugarh University (December 14, 2015), and facilitated discussions on “Paradigm Shift from Women’s Studies to Gender Studies” and “Women Rights, Domestic Violence Act 2005 and CEDAW” on 15 December, 2015.

Served as a Consultant on the Project “Socio-Economic, Legal and Political Status for the Empowerment of Women in Meghalaya” by the Meghalaya State Commission for Women (MSCW), Government of Meghalaya.

J. W. Dkhar

Chaired two technical sessions at the UGC-Sponsored National Seminar on *Child Health in India with Special Reference to North-East India* organised by the Department of Anthropology, DHSK College, Dibrugarh (May 2-3, 2015).

Q. Marak

Participated in the 21-Day Summer School held at NEHU by UGC-Human Resource

Development Centre, Shillong (July 6-26, 2015).

Wrote a module titled “Industrialisation and Globalisation” (Block VII, Unit III) for Masters’ course in Anthropology for Indira Gandhi National Open University, New Delhi.

Member of PG Pathshala, an MHRD Project for National Mission on Education through ICT (NME-ICT) and wrote 13 modules in Archaeological Anthropology.

Delivered a lecture on “Cultural Resource Management” at the 34th Orientation Programme in UGC-HRDC, NEHU, Shillong (February 17, 2016).

Sudipta Ghosh

Delivered an invited lecture on “Association between Body Composition and Blood Pressure in Two Ethnically Diverse Populations” at the Indian Statistical Institute, Kolkata (2nd February, 2016).

Chaired a technical session of the One-Day National Seminar on *Anthropology and Environment* organized by Dept of Anthropology, University of Delhi (February 26, 2016).

DEPARTMENT OF ENVIRONMENTAL STUDIES

Head: Prof. Devesh Walia since 22-03-2016; Prof. O. P Singh till 21-03-2016.
Telephone: 0364-272-1150 (O); 91-9436163641 (Cell)
E-mail: hodces@nehu.ac.in; deveshwa@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	Lalit Kumar Jha, M.Sc. (Bhagalpur Univ.); Ph.D. (LNMU)	Forestry, Forest Laws and Rural Development
	B. K. Tiwari, M.Sc. (Gorakhpur Univ.); Ph. D. (NEHU)	Natural Resource Management
	O. P. Singh, M. Sc. (BHU); Ph. D. (BHU)	Environmental Monitoring and Remediation of Degraded Ecosystems
	Devesh Walia, M.Tech. (Dr H S G. Univ.); Ph.D. (Gauhati Univ.)	Magnetotelluric, Seismotectonics, Radon monitoring studies in NER
	D. Paul, M. Sc., Ph. D. (NEHU)	Entomology, IPM, Soil faunal ecology and biodiversity
Assistant Professor	S. S. Chaturvedi, M.Sc. (Gorakhpur Univ.); Ph.D. (BHU)	Environmental Monitoring, Abetments and Environmental Biology

Thrust Areas of Research

Natural resource management, environmental monitoring and remediation of degraded ecosystems, forest management, forest biodiversity monitoring and management, land reclamation (social/agro forestry) and rural development, forests policy and law, environmental impact assessment, environmental biology, integrated pest management, policy oriented research on forest and environment and watershed management, magnetotelluric studies, global positioning system studies and micro-seismicity of NE Region, radon activity concentration in NE Region, earthquake forecasting research and impact of seismicity on infrastructure.

Brief Statement of Academic Activities

The Department took part in several international and national workshops/seminars/training programs and undertook research projects aimed at creating much-needed database for promoting ecologically sound and sustainable development of the hill regions in northeast India. The Department also contributed towards configuring the deeper crustal structure for understanding crustal evolutionary processes, global positioning system and seismicity of northeast India along with the radon activity concentration. The Department received grants to support research and other activities of the Department. The grants received from various external funding agencies were used to strengthen the on-going research and extension activities and to develop laboratories and other infrastructure.

Students' Profile

Enrolment Capacity: M.Sc. – 25; Ph.D. – Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc.	0	22	3	8	17	21	4	25
Ph.D.	-	-	-	-	-	-	-	-

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc.	0	22	2	6	18	23	2	25
Ph.D.	0	4	2	2	4	5	1	6

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Miranda D. Sohkhlet	Evaluation of Traditional Insect-Pest Management Practices in the Agricultural Crops of Khasi And Jaintia Hills, Meghalaya	Prof. D. Paul
Ms. Moumita Choudhury	Insecticidal Bioefficacy of some Indigenous Plant Extracts against Pest Complex of <i>Lycopersicon Esculentum</i> Linn. in Meghalaya	Prof. D. Paul
Mr. Thangjam Somendro Singh	Landuse/Landcover Dynamics and Landscape Stability in Jaintia Hills District, Meghalaya	Prof. O.P. Singh
Mr. Andrew Cuthbert Lyngdoh	Study of Seismicity and Active Tectonics in the South Eastern Part of the Shillong Plateau	Prof. D. Walia
Ms. Ublari Shilla	Impact of Fire and Grazing on Structure and Function of Grassland Ecosystem of Cherrapunjee	Prof. B.K. Tiwari
Ms. Batriti Nongbri	Carbon Storage Potential and Biodiversity of the Forests of Upland Meghalaya	Prof. B.K. Tiwari

Educational Tour of Students

Teacher-in-Charge: Dr. S. S. Chaturvedi

Places/Institutions visited: Institute of Indian Oceanography, Goa; Kolkata Botanical Garden, Alipur Zoo, Science City

Duration of tour: 14 days

Purpose of Tour: To visit research and academic institutions, different habitats and ecosystem for data collection and study of flora and fauna, marine ecology and different geo-environmental/ mining and industrial areas and submission of report

Courses Conducted

Postgraduate M.Sc.

Semester-I:

Environment, Ecology and Ecosystem Dynamics
Environmental Pollution, Forestry and Water
Resources.

Semester-II:

Environmental Microbiology, Biotechnology
and Toxicology, Environmental Impact
Assessment and Environmental Policies,
Remote Sensing and Geographical Information
System, Environmental Law.

Semester-III:

Disaster Management, Environmental
Geoscience and Energy, Environmental Issues
and Problems of North East India, Research
Methods, Techniques and Statistical Analysis.

Semester-IV:

Environmental Economics and Sociology,
Forest Management and Biodiversity.

Ph.D. Courses

Research Methodology in Environmental
Science, Contemporary Environmental Science.

Seminar/Conference/Symposium/ Extension Programme, etc.

Organized

B. K. Tiwari organized the Stakeholder
Consultation Workshop for North-Eastern
Region in Shillong on "Review and
Revision of National Forest Policy"
in collaboration with the Center for
Policy Studies, Indian Institute of Forest
Management on October 13-14, 2015.

Attended and Participated

B. K. Tiwari

Chaired a session on "Climate Change and
Agriculture" and presented a paper
on "Socio-Economic Implications of
Climate Change in North-East India" at
the *Brainstorming Session on Climate
Change* organised by the National Academy
of Sciences at Jammu (May 19-20, 2015).

Presented a paper on "Implications of Climate
Change on Forestry and Allied Sectors" at the
Regional Workshop *Towards Strengthening
Voices of The Youth on Climate Change
and Sustainable Development* organised
by Indian Youth Climate Network, Shillong
(July 23-24, 2015).

Made a lead presentation on "Effect of Climate
Change on the People and Socio-economics
of North-East India" at the *Indian Himalayas
Climate Adaptation Programme Phase
II Workshop* organised by the Indian
Himalayas Climate Adaptation Programme
and Swiss Agency for Development and
Cooperation, Gurgaon (August 10-12,
2015).

Presented a paper entitled "Socio-economic
Implications of Climate Impacts" at the
Workshop on *Climate Change Projections,
Impact, Vulnerability and Adaptation for
Third National Communication* organised
by the Ministry of Environment Forests
and Climate change in New Delhi (October
28-29, 2015).

Presented a paper on "Introducing ICH
Safeguarding in Post Graduate Courses
in India" at the Regional Symposium on
*Development of Post-Graduate Degree
Courses Focus on Intangible cultural
heritage in the Asia-Pacific Region*

organised by UNESCO in Bangkok, Thailand (November 2-3, 2015).

Made a presentation on "Issues Concerning North-East India for Consideration for Inclusion in Revised Forest Policy" at the First National Stakeholder Consultation Workshop on *Review and Revision of National Forest Policy* at the India International Centre, New Delhi (December 15, 2015).

Presented a paper on "Sacred Groves of Meghalaya: A Tradition in Transition" at the National Seminar on *Sacred Groves in North-East India: Perceptions, Practices and Policy Implications* organised by Indira Gandhi Rashtriya Manav Sangrahalaya, Bhopal (March 4-5, 2016).

O. P. Singh

Presented a paper entitled "Impact of Mining and Industries on Water Resources with Emphasis on Northeast India" at the "International Conference on *Water Resource Management in the Eastern Himalayan Region*" organized by St. Anthony's College, Shillong (November 4-5, 2015).

Devesh Walia

Presented a paper on "Seismotectonics in South Eastern part of Shillong Plateau" jointly with Y. Sharma, A. Saxena, D. Maibam, A. Lyngdoh, and D. M. Siangshai at the 103rd Indian Science Congress - Earth System Sciences Section, University of Mysore, Mysore (January 3-7, 2016).

Presented a paper on "Electrical Resistivity Tomography for Deciphering Shallow Sub-surface Water Resources and Geology of Jowai Town, Meghalaya" jointly with E. K. Mawkhiewat at the 103rd Indian Science

Congress - Earth System Sciences Section, at University of Mysore (3-7 January, 2016).

Presented a paper on "Deeper Crustal Structure along Shillong Plateau -Data Gaps" at the 36th International Geological Congress on *A Unique Opportunity for Advancement in Geosciences* at Shillong (January 28-29, 2016).

Presented a paper on "Solutions to Problems Connected with Cloud Bursts and Flash Floods" at the Global Conference on *Disaster Risk Reduction: Major Initiatives in North East towards Disaster Resilience* organized by the Federation of Indian Chambers of Commerce and Industry (FICCI), North Eastern Council, and others held at Shillong (November 23-25, 2015).

Publications

Published in India

Etiban, L., Tiwari, B. K. (2015). Effect of plant density on growth and yield of *Thysanolaena maxima*: An important non-timber forest product of Meghalaya. *Inter. J. Current Research* 7 (7):18193-18196.

Imotemsu, Jha, L.K. (2015). Changpang petroleum mining lease agreement (2007) between Government of Nagaland and Oil and Natural Gas Corporation Limited: A critique on the violations of Forest (Conservation) Act, 1980 and pronouncements of Hon'ble High Courts and Apex Court of India. (*Environment and Forest law Times Journal* 5(4&5):47-64.)

Jha, L.K., Imotemsu (2015). Strengthening the Biological Diversity Act, 2002 through institution of provisions on conservation and management of forest biological diversity and or to link it with the existing

- provisions on forest biological diversity conservation, management and benefit sharing of the Indian Forest Act, 1927 and the Wildlife (Protection) Act, 1972. *Environment and Forest law Times Journal* 5(1&2):1-14.
- Lamare, R. E., Singh, O.P. (2015). Localized effects of artisanal and small scale mining of limestone on water quality in Meghalaya, India. *Pollution Research* 34 (2): 321-329.
- Lapasam, E., Tiwari, B.K. (2015). Effect of plant density on economic return from *Thysanolaena maxima* (Roxb) Kuntze (Broom Grass) Plantation in Jaintia Hills, Meghalaya, India. *J. Biodiversity*, 6 (1&2): 30-35.
- Maibam, D., Sharma, Y., Dewasaw, A.K., Kenye, A., Walia, D., Saxena, A. (2015). Assessment of soil-radium content, indoor radon activity and the associated radiation risks in Kohima Town, Nagaland. *Journal of Applied and Fundamental Sciences* 1(1):130-135.
- Maibam, D., Sharma, Y., Dewasaw, A.K., Lalventluanga, Walia, D., Saxena, A. (2015). Measurements of radon activity concentrations in the environs of Aizawl City, Mizoram. *Journal of Applied and Fundamental Sciences* 1(2):207-212.
- Mir, A.H., Iralu, V., Pao, N.T., Chaudhury, G., Khonglah, C.G., Chaudhary, K.L., Tiwari, B. K., Upadhaya, K. (2016). *Magnolia lanuginosa* (Wall.) Figlar & Noot. in West Khasi Hills of Meghalaya, Northeastern India: Re-collection and implications for conservation. *Journal of Threatened Taxa* 8 (1): 8398-8402.
- Sharma, Y., Maibam, D., Ram, P.P., Saxena, A., Walia, D. (2015). A study on the indoor radon concentration in hospitals in the Shillong Region, Meghalaya. *Journal of Applied and Fundamental Sciences* 1(1):93-97.
- Shilla, U., Tiwari, B. K. (2015). Impact of fire and grazing on plant diversity of grassland ecosystem of Cherrapunjee. *Keanean Journal of Science* 4:67-78.
- Somendro, T., Singh, O.P. (2015) Analysis of Land use/Land cover Dynamics using Remote Sensing and GIS Techniques: A case study of Jaintia Hills, Meghalaya. *Inter. J. Current Research* 7: 11873-11879.
- Tynsong H, Dkhar, M., Tiwari, B. K. (2015). Bird tree interrelationship in term of food in the subtropical forest of Meghalaya, North-East India. *Journal of Science and Environment Today*. 1:24-32.
- Upadhaya, A., Chaturvedi, S.S., Tiwari, B.K. (2016). Utilization of wild citrus by Khasi and Garo tribes of Meghalaya. *Indian Journal of Traditional Knowledge* 15 (1): 121-127.
- Upadhaya, A., Chaturvedi, S.S., Tiwari, B. K. 2016. Utilisation of wild citrus by Khasi and Garo tribes of Meghalaya. *Indian Journal of Traditional Knowledge* 15 (1): 121-127.

Published Abroad

- Das, S., Jha, L.K. (2015). Clonal variation in adventitious rooting of *Taxus baccata*, L. stem cuttings. *Inter. J. Current Research* 17(2):12304-12311.
- Marak, A.N.C., Singh, O.P. (2014). Prospects of environmental protection and sustainability through corporate social responsibility (CSR) in India. *Journal of Economics and Sustainable Development* 5: 1-5.

Oberlack, C., La Haela W. P., Schmerbeck, J., Tiwari, B.K. (2015). Institutions for sustainable governance of forests: Equity, robustness and cross-level interactions in Mawlyngbna, Meghalaya, India. *International Journal of the Commons* 9 (2): 670-698.

Books/Book Chapters/Proceedings

Rao, K.S., Saxena, K.G., Tiwari, B.K., Singh, B.S.M.P. (2016). *Biodiversity, Climate Change and Socio-Economic Development in the Indian Himalaya: An Overview*. Dehra Dun, ISBN: 9788121109291.

Research Projects

New

Title of Project	PI/Co-PI	Funding Agency	Amount (Lakhs)
Assessment of Carbon Stock and Carbon Sequestration Potential of Major Land Use Sectors in Meghalaya	Dr. S. S. Chaturvedi	Dept of Science and Technology, GOI, New Delhi	34.62

Ongoing

Title of Project	PI/Co-PI	Funding Agency	Amount (Lakhs)
Plant Diversity and Phytosociological Characterisation in Sacred Groves of Meghalaya, September, 2014- August, 2016	PI: Professor B. K. Tiwari Co PI: Dr K. Upadhyay	Meghalaya Government, Forest Dept	20.00
Impact of fire and grazing on Structure and Function of Grassland Ecosystem of Cherrapunjee, 2012-2015	PI: Professor B. K. Tiwari	Ministry of Environment and Forests, GOI	16.36

Academic Collaborations

Prof. B. K. Tiwari collaborated with the Centre for Policy Research, Indian Institute of Forest Management, Bhopal on "Review and Revision of National Forest Policy."

Lithosphere Atmosphere Ionosphere and Magnetosphere (LIAM) Workshop on 18th January 2016.

O.P. Singh served as Member of the National Assessment and Accreditation Council, Bangalore.

Honours/Awards/Recognition

Prof. Devesh Walia received an award from Dr. Harsh Vardhan Ji, Minister of Science and Technology and Earth Sciences, Government of India during the

Other Activities

B. K. Tiwari

Delivered an invited talk on "Sustainable Production and Consumption" organised

by the Shillong College Academy Society at Shillong College, Shillong.

Delivered a lecture on "Traditional Forest Management System in North-East India" at the UGC-Human Resource Development Centre, NEHU (June 3, 2015).

Chaired a session and spoke as a Panellist in the Panel Discussion on "Prioritizing Actions under Meghalaya's Action Plan on Climate Change", Shillong (May 13, 2015).

Delivered a talk on "Role of Environmental Awareness in Achieving the Objects of Swachh Bharat Abhiyan" at the Workshop on *Swachh Bharat Abhiyan* on 31st July, 2015.

O. P. Singh

Member of the Board of Undergraduate Studies, Department of Ecology and Environmental Sciences, Assam University, Silchar, Assam; Member of BUGS, Department of Forestry, North Eastern Regional Institute Science & Technology, Nirjuli, Arunachal Pradesh.

Delivered an invited talk on "Environmental Impact Assessment (EIA): A tool for Environmental Protection" during the

Training Programme on *Solid Waste Management for Urban Local Bodies* organized by the Meghalaya Urban Development Authority, Shillong (May 6-8, 2015).

Participated as an expert at the Consultative Workshop on "Bioresources and Sustainable Development" organized by Bioresources Development Centre, Meghalaya and Institute of Bio-resources and Sustainable Development, Imphal (May 15, 2015).

Delivered a speech as Guest Speaker on "Seven Billion Dreams, One Planet, Consume with Care" on the occasion of the World Environment Day 2015 Celebration organized by the North Eastern Electric Power Corporation, Shillong (June 5, 2015).

Devesh Walia

Member of the Board of Postgraduate Studies, Department of Geology, Nagaland University, Nagaland.

Delivered an invited talk on "Geology and Tectonics of North East India" at the Workshop on *Lithosphere Atmosphere Ionosphere and Magnetosphere* (LIAM) on 18th January, 2016.

DEPARTMENT OF GEOGRAPHY

Head: Prof. H. J. Syiemlieh
Telephone: 0364-272-3211
Email: hjsyiemlieh@nehu.ac.in

Faculty

Designation	Name and Qualification	Specialization
Professor	A.C. Mohapatra, M. Phil. (JNU); Ph.D.(NEHU)	Regional Development and Planning, Environment and Development
	B. S. Mipun, M.A. (JNU); Ph.D. (NEHU)	Agricultural Geography, RS and GIS
	D. K. Nayak, M.Phil. & Ph.D. (JNU)	Social and Population Geography, Gender and Health related Issues
	H. J. Syiemlieh, M.Phil. & Ph.D. (NEHU)	Fluvial and Applied Geomorphology
	Sunil Kumar De, M.Sc. & Ph.D. (Calcutta University)	Geomorphology (Geomorphological Hazards)
Associate Professor	L. Cajee, M.Phil. & Ph.D. (NEHU) (On lien as Controller of Examination, NEHU)	Bio-Geography and Quantitative Techniques
	P.G. Momin, M.A. (JNU); M.Phil. (NEHU)	Climate and Ecology
Assistant Professor	P. K. Ryngnga, M.Phil. & Ph.D. (JNU)	Regional Development, Urban Geography, Remote Sensing and GIS
	S. Purkayastha, M.Phil. & Ph.D. (NEHU)	Social and Population Geography, Environmental Issues

Thrust Areas of Research

(i) Geomorphology with focus on Regional and Applied Geomorphology, (ii) Environmental studies with focus on Climatology and Climate Change, Water Resources and Hydrology, Biogeography and Biodiversity and Watershed Management Studies, (iii) Regional Development and Regional Planning, (iv) Researches on Social and Cultural Diversity of

the North-Eastern Region with special focus on Tribal Development, and (v) GIS and Remote Sensing applications in Environment and Land Use Planning.

Brief Statement of Academic Activities

The Department conducts the MA/MSc, MPhil and PhD programmes. It also runs a self-financed two-semester P.G. Diploma in

Geoinformatics in the University, the sixth batch to complete the Diploma in July, 2016. The Department organized the 28th Indian Institute of Geomorphologists' three-day Conference on 29–31 October, 2015. The Department organised a number of special lectures by eminent persons like Prof. N.R. Dash, Prof. Rambabu Bhagat, Prof. S. Bandopadhyay from different universities and institutes of the country. Few collaborators, namely, Prof. T. Hayashi, Prof. D. Tsutsumi of DPRI, Kyoto University, Kyoto, Japan and Dr. Lukasz Wiejaczka of the Department of Geo-environmental Research, Polish Academy of Sciences, Krakow, Poland also delivered special lectures at the Department.

The faculty remained active in publication of research papers in a number of international and

national journals as well as in book chapters. Most of the faculty members attended and presented research papers at national and international conferences/seminars, along with a number of research scholars. Nine research scholars were awarded their Ph.D. degree. Research scholars of the Department take keen interest in running the '*NEHU Geographical Research Forum*' to share, exchange and improve intellectual capacity. The forum organised a number of talks on contemporary issues of geographical significance, where research scholars present papers and progress of their work. The Department has a Geographical Society of the North-Eastern Hill Region (India) which publishes the journal "*Hill Geographer*" regularly.

Students' Profile

Enrolment Capacity: MA/MSc – 38; MPhil – 15; PhD – Variable; PG Diploma – 24

Degree	SC	ST	Gen	Male	Female	Meghalaya	Non-Meghalaya	Total
M.A./M.Sc.	01	32	6	9	30	20	19	39
M. Phil.	07	01	05	03	02	06	08	07
Ph.D.	02	09	03	10	04	03	11	14
P.G. Diploma (Geoinfo)	0	20	3	11	13	17	07	24

Degrees Awarded

Degree	SC	ST	Gen	Male	Female	Meghalaya	Non-Meghalaya	Total
M.A./M.Sc.		35	03	18	20	24	14	38
M. Phil.		04	03	02	05	02	05	07
Ph.D.	02	03	04	04	05	03	06	09
P.G. Diploma (Geoinfo)	0	08	11	05	15	03	17	20

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name(s) of Supervisor(s)/ Joint supervisor(s)
Mr. Gauri Sankar Narzary	Forest Related Activities for Livelihood in Ripu Reserve Forests	Prof. Surendra Singh (Supervisor) Prof. Z. H. Qureshi (Jt. Supervisor)
Mr. Khupmuanlal Zou	Assessment of HIV/AIDS Vulnerability in Mizoram	Prof. D. K. Nayak
Mr. L.T. Sasang Guite	A Geographical Study of Karbi-Kuki Conflicts in Assam	Prof. D. K. Nayak
Mr. Bring Blessing L. Ryntathiang	Channel Morphology on the Southern Slopes of Meghalaya Plateau	Prof. H.J. Syiemlieh
Mr. James Melvin Lyngdoh	Drainage Networks in Southern and Northern Khasi Hills: A Comparative Study	Prof. H.J. Syiemlieh
Mr. C. Lalnunkima	Geohazards in Aizawl City with Special Reference to Landslide	Prof. Z. H. Qureshi
Mr. Shembhalang Kharwanlang	Quality of Life in the West Khasi Hills District of Meghalaya	Prof. A.C. Mohapatra
Ms. Mayurakshi Bhuyan	Water Deficiency in Jorhat Town: A Geographical Study	Prof. Z. H. Qureshi
Mr. Sonam Tshering Bhutia	Tourism Carrying Capacity of Major Tourist Destinations in Sikkim Himalaya	Dr. L. Cajee

Research Fellowships

Type of Fellowship					
UGC (Non-NET)		UGC-NET		ICSSR	Rajiv Gandhi
M.Phil.	Ph.D.	JRF	SRF		
22	19	6	1	1	3

Study Tours/Field Trips of Students

Teacher In-Charge: Dr. S. Purkayastha,
accompanying staff: Shri P. L. Shome

Places Visited: Bhubhaneshwar, Puri, and Ranchi

Duration: Fourteen days from 17th December to 29th December 2015

Purpose: All India Study Tour under Course No. GEOC 201- Geography of India

Teacher In-Charge: Prof. H.J. Syiemlieh

Places visited: Shangpung village, West Jaintia Hills District, Meghalaya

Duration: Seven days from 11th December to 20th December 2015

Purpose: Socio-economic and physical survey by the IV Semester M.A./M.Sc. students, under Course No. GEOC 401- Dissertation

Courses Conducted

M.A./M.Sc.

Semester I:

Geomorphology, Climatology, Economic Geography, Geographical Thought-I, Quantitative Techniques in Geography-I, Cartography-I (Practical)

Semester II:

Geography of India, Principles of Ecology (open course) Biogeography (open course), Population and Settlement Geography, Geographical Thought-II, Quantitative Techniques in Geography-II, Cartography-II (Practical), Geography of North-East India (open)

Semester III:

Regional Development and Planning, Social and Cultural Geography (open course), Environment

and Development (open course), Research Methodology, Computer Aided Cartography (Practical), Remote Sensing and GIS (Practical)

Semester IV:

Dissertation, Advanced Geomorphology, Tropical Geomorphology, Environmental Geomorphology, Applied Climatology, Agricultural Geography, Geography of Tourism, Urban Geography, Social Geography, Cultural Geography, Population and Development

PG Diploma in Geoinformatics

Semester I:

Principles of Remote Sensing & GPS; Fundamentals of GIS; Cartography & Geo-Statistics; Geosciences & Image Interpretation; Computer Programming.

Semester II:

Digital Image Processing; Spatial Analysis & Modelling; Project; Geoinformatics in Agriculture, Soil & Land Evaluation; Geoinformatics in Regional and Urban Planning; Geoinformatics in Water Resources; Geoinformatics in Disaster Management.

M.Phil./Ph.D. Courses

Research Methodology in Geography, Advanced Tools and Techniques in Geographical Researches, Contemporary Geomorphic Issues in North-east India, Geo-Hydrological Processes of Extreme Humid Tropics; Population, Development and Environment, Remote Sensing and GIS Techniques for Agricultural Geography, Contemporary Issues in Urban Development with Special Reference to India, Geographical Perspectives in Cultural Tourism.

Seminars/Conferences/Symposia/ Extension Programme:

Organized

The 28th Annual Conference of the Indian Institute of Geomorphologists and National Seminar on *Human Impact on Landscapes*, was held on October 29-31 2015, at the Dept. of Geography, NEHU, Shillong, with Prof. H.J. Syiemlieh as Convener, Prof. S. K. De as Organising Secretary, and Dr. P. K. Ryngnga as Assistant Secretary.

Attended and Participated

B. S. Mipun

Presented a paper entitled "Solid Waste Management in Greater Shillong Planning Area Using Spatial Multi-criteria Decision Analysis for Site Suitability Assessment" at the 36th International Symposium on *Remote Sensing of Environment (ISRSE)* organized by the German Aero Space Center, Berlin, Germany (May 11-15 2015).

Presented a paper on "Border Trade and Social Security in Mizoram" at the International Conference on *India's Look East Policy - Act East and South East Asia: Beyond Borders* organized by CRRID, Chandigarh at Manipur University, Imphal (May 23-25 2015).

D. K. Nayak

Presented a paper titled "Climate Change and Migration" at the National Seminar on *Climatic Aberration: Contemporary Dilemma of the Anthropogenic Climate in Socio and Ecological Issues* held at Sankardev College, Shillong (July 23-24, 2015).

Presented a Paper on "Language Change among Immigrant Labourers of Assam" at 10th

DGSI International Seminar on *Sustainable Planet Earth: Ecological Dimensions and Strategies*, Department of Geography, Mohanlal Sukhadia University, Udaipur (October 17-19, 2015).

Presented a special lecture on "Assessment of Vulnerability to HIV/AIDS in Mizoram: A Study of Groups-at-Risk" at the 8th India International Geographical Union Conference on *Land-use, Water and Urban Health in Changing Urban Environments* held at SNDT Women's University, Pune (November 4-6, 2015).

Delivered a special lecture on "Vulnerability to HIV/AIDS in Mizoram: A Study of Groups-at-Risk" at the UGC National Seminar on *Health Disparity in India: Conceptual and Empirical Explorations*, Seetalkuchi College, Cooch Bihar, West Bengal (January 9, 2016).

Presented invited Paper on "Smart Cities: The New Urban Utopia" at the UGC National Seminar on *Development and Management of Urban Infrastructures in India: Growth, Constraints and Prospects* held at Patna women's College, Patna (January 18-19, 2016).

Presented a key note paper on "Geography, Regions and Regional Cooperation" and chaired Sessions I, XVIII and XIII at the International Conference on *Urbanization and Regional Sustainability*, Department of Geography, University of Calcutta (January 28-30, 2016).

Presented a paper on "Importance of Regional Perspective in Geography Curriculum" at the IIG Workshop on *Why do We Teach What We Teach* at Department of Geography, Delhi University, 9-10 February 2016.

Presented a paper on "Spatial Analysis of Internal Migration in Odisha: A District Level Analysis" and served on Panel of Judges for Young Geographers Award at the 37th Geographers Meet and International Conference on *Land Resource Policies, Agriculture and Expanding Urban Industrial Complexes* at Kurukshetra University, Kurukshetra (February 11-13, 2016).

Delivered an invited special lecture on "Changing Fields of Geography" at the Workshop on *GIS and Its Applications: Recent Trends in Geography and Geology* organized by Central University of Punjab, Bathinda (February 15-19, 2016).

Presented a paper on "Development Projects and Forced Migration" and chaired a session at the National Conference on *Development and Environment*, West Bengal State University, Barasat, Kolkata (March 17-18, 2016).

Presented a paper on "Commercialization of Agriculture and Food Security Issues in Tribal areas of the North-East India: The Case of Meghalaya" at the SAP Seminar on *North-East India: Society and Environment*, Department of Geography, Gauhati University, Guwahati (March 29-30, 2016).

H. J. Syiemlieh

Presented a paper on "The Progress of Research Activities in Meghalaya Plateau" at the Workshop on *Rainfall in Heavy Rainfall Areas of the Indian Sub-Continent* organized by Kyoto University, Kyoto, Japan (January 15, 2016).

S. K. De

Presented a paper on "Anthropogenic Impacts on the Morphology of the Haora River, Tripura, India" and chaired a session on Geomorphological Hazards at the IAG Regional Conference on *Geomorphology - Gradualism and Catastrophism in Landscape Evolution* organised by Altai State University, Barnaul, Russia (July 2-4, 2015).

Delivered an invited lecture on "Landslides and human intervention in Darjeeling Himalayas and Their Mitigation" at the UGC sponsored National Seminar on *Natural Hazard and Disaster: Special Emphasis on Cyclone and Flood in West Bengal* organised by the Department of Geography, Vivekananda Mahavidyalaya, Haripal, West Bengal (October 9, 2015).

P.K. Ryngnga

Presented a paper entitled "Building Vulnerability Assessment for Hazard Management: A Case of Riatsamthiah" at the 28th Indian Institute of Geomorphologists (IGI) Conference and National Seminar on *Human Impact on Landscapes*, Department of Geography, NEHU, Shillong (October 29-31, 2015).

S. Purkayastha

Presented an invited research paper titled "Gender Equality and Good Governance" at the National seminar on *Good Governance for Social Change* at KJP Conference Center, organised by William Carey University, Shillong (September 23-24, 2015).

Publications

Published in India

- Graham, C., Mipun, B.S. (2016). Old borders, new region: Re-imagining peace and prosperity in North East South Asia. *Hill Geographer* 30(1): 1-28.
- Kipgen, V., Rynnga, P.K. (2015). Adaptation and coping strategies of migrants in their areas of destination: A theoretical analysis with special reference to North-East India. *Man and Society - A Journal of North East Studies* XII:100-111.
- Mitra, S. Roy, S., De, S. K. (2015). Tourism industry of Namchi, South Sikkim: An overview. *Geographical Review of India* 77 (2): 170-181.
- Mitra, S., Das, B., Roy, S., Kumar De, S. (2015): Transport network system in Namchi Town of South Sikkim: A geographical appraisal. *Geo-Analyst* 5(2): 1-9.
- Mitri, M., Kharmawphlang, D., Syiemlieh, H.J. (2015). A preliminary report on the excavation of the neolithic site at Law Nongthroh (Sohpetbneng Hill), Khasi Hills, Meghalaya. *Man and Environment* XL(1):33-42.
- Mohapatra, A. C. (2016). At the heart of darkness: India development story and the land question of the central Indian tribes. *Hill Geographer* 30: 29-40.
- Purkayastha, S. (2015). Gender and women empowerment in India and the role of value education. *Spectrum, Humanities, Social Sciences and Management* 2:14-23.
- Purkayastha, S., Laskar R. (2016). Tourism and associated Business opportunities in Dzongu, Sikkim. *Hill Geographer* 30 (2):51-60.

Sen, S., Santra, A., Debbarma, D., Mitra, S., De, S.K. (2015). Morphology of Tilla-lunga topography in West Tripura District, Tripura, India. *Annals of the National Association of Geographers, India* 35(2): 77-93.

Syiemlieh, H.J., Khutso-U Weko, Lyngdoh A. T., Khanganpam, P.S. (2015). Bedload characteristics of lower order streams in extremely high rainfall region: A case study of Um-U-Lah watershed, Cherrapunjee, Meghalaya. *Journal of Indian Geomorphology* 2:29-36.

Published Abroad

- Behera, R.N., Nayak, D.K., Andersen, P., Måren, I.E. (2016). From jhum to broom: Agricultural land-use change and food security implications on the Meghalaya Plateau, India. *Ambio* 45 (1):63-77.
- Gohain, B., Ganesh, B., Mipun, B.S, Singh, K.K. (2015). Web based GIS for infrastructure information using Google earth imagery, open source software and standards. *International Journal of Remote Sensing & Geoscience* 4 (4): 23-27.
- Mipun, B.S., Hazarika, R, Mondal, M., Mukherjee, S. (2015). Solid waste management in Greater Shillong Planning Area (GSPA) using spatial multi-criteria decision analysis for site suitability assessment. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences* XL-7/ W3:657-662.
- Purkayastha S. (2016). Development of eco-cultural tourism for sustainable management of the natural resource base of Meghalaya. *South Asian Journal for Tourism and Heritage* 9(1):77-100.

Turconi, L., Tropeano, D., Savio, G., De, S. K., Mason, P. J. (2015). Landscape analysis for multi-hazard prevention in Orco and Soana valleys, North-Western Italy. *Nat. Hazards Earth Syst. Sci.* 15:1–26.

Books/Book Chapters/Proceedings

Das, P., Syiemlieh, H.J. (2015). Seasonal behaviour of rainfall in North East India. In: *Exploring Environment and Sustainable Development*. P.K. Kumar, N.H. Zaidi and M.M. Khan (Eds). Regal Publications, New Delhi: Chapter 4, p. 35-45.

Mohapatra, A. C., Kanungo, N. (2016). Urbanization, Industry, and Infrastructure. In: *ICSSR Review on Economic Geography*, Vol. 2. L.S. Bhat, H.S. Sharma and M.H. Qureshi (Eds.). Oxford University Press, New Delhi, p. 7-40.

Nayak, D.K. (2015). A social perspective on natural disaster management and planning. In: *Natural Hazards and Disaster Management: Concept and Approaches*. B.K. Misra and G.K. Panda (Eds.). Artech, Bhubaneswar, p. 38-48.

Ryngnga, P.K. (2015). India's North East: Political Instability, Conflict and Regional Disparities. In: *Conflicting Extremism in North East India*. B. J. Deb (Ed.). Concept Publishing House, New Delhi, p. 159-168.

Ryngnga, P.K., Sarma, S. (2016). *Meghalaya*. Geophil Publishing House, Guwahati, ISBN 81-902028-6-3.

Sen, S., Paul, S., Mitra S., Kumar De, S. (2015). Assessment of paleo-seismic condition and deformation of quartz tectonite rock in seismo-tectonically active zone, Atharomura Hill, Tripura, India. In: *Resource Management and Development Strategies: A Geographical Perspective*. A.R. Siddiqui and P. K. Singh (Eds.). Pravalika Publications, Allahabad, p. 131-140.

Syiemlieh, H.J., Das, P. (2015). Spatial distribution of wastelands in Sonitpur District, Assam. In: *Exploring Environment and Sustainable Development*. P.K. Kumar, N.H. Zaidi and M. M. Khan (Eds). Regal Publications, New Delhi: Chapter 4, p. 35-45.

Research Projects

New Projects

Title of Project	PI/Co-PI	Funding Agency	Amount
Remote Sensing and GIS Road Network Gap Assessment and Alignment for New Roads in Ri Bhoi District, Meghalaya	Prof. B.S. Mipun	ISRO, Dept. of Space, Govt. of India	Rs. 11.72 lakh

Ongoing

Title of Project	PI/Co-PI	Funding Agency	Amount (Rs. in Lakhs)
Rainfall-Runoff-Sediment Response near Uranium Mining site, Domiasiat	Prof. H. J. Syiemlieh (PI) Prof. S. Singh (Co-PI) Prof. O. P. Singh (Co-PI)	DAE(BRNS), Mumbai	20.00
Desertification Status Mapping of India (Second Cycle) in collaboration with SAC, ISRO, Ahmedabad	Prof. B.S. Mipun	Funded by MoEF, New Delhi,	17.836
A Preliminary Study on the Neolithic Culture of Khasi Hills of Meghalaya	Prof. H. J. Syiemlieh (Co-PI)	NEICOD, NEHU	
'Niangtaser'- A unique Biodiversity Resource from Ri Bhoi District of Meghalaya	Prof. H. J. Syiemlieh (Co-PI)	Meghalaya Basin Development Agency, Meghalaya	

Academic Collaborations

Indo-Polish Collaboration on "Impact of Extreme Rainfall on Soil Properties and Water resources in NE India."

Indo-Japan Collaboration on "Climate Change in South Asia."

MoU signed with Kagawa University.

Other Activities

A. C. Mohapatra

Chaired a session of the Annual Conference of Indian Geomorphological Institute organised by Department of Geography, North Eastern Hill University, Shillong (October 26-28, 2015).

Delivered two lectures during the UGC Refresher Courses organised by Academic Staff College, NEHU, Shillong.

B. S. Mipun

Delivered two lectures during the 33rd UGC Orientation Course (June 1, 2015), HRDC, NEHU, Shillong.

Delivered three lectures at the UGC Summer School, HRDC, NEHU, Shillong on 30th July and 7th August, 2015.

Delivered a lecture during the UGC-HRDC Short Term Course in Environmental Science (October 5-10, 2015).

Chaired a session at the 28th Annual Conference of the Indian Institute of Geomorphologists and National Seminar on *Human Impact on Landscapes*, Department of Geography, NEHU, Shillong (October 29-31, 2015).

Acted as Chief Guest and chaired a session at the National Seminar on "Environmental and Landscape" at Mizoram University, Mizoram (5-7 November 2015).

Department of Geography

Delivered a lecture at the UGC Winter School, HRDC, NEHU, Shillong (November 12, 2015).

Delivered a special lecture on "Explore the Power of Map" at Dibrugarh University, Dibrugarh, (November 17, 2015).

Delivered a lecture during the 34th Orientation Course (25 January to 21 February, 2016), HRDC, NEHU, Shillong.

Chaired a session at the 37th IIG Meet and International Conference, Kurukshetra University, Kurukshetra, Haryana (February 11-13, 2016).

Delivered two lectures during the 35th Orientation Course (8 February to 6 March, 2016), HRDC, NEHU, Shillong.

D. K. Nayak

Delivered lectures at the UGC Human Resource Development Centre, NEHU on the following topics: (a) "Tribal Population and Allied Issues" on 28th July 2015 and 4th August 2015 (Refresher Course on Tribal Studies), (b) "Evaluation and Setting of Question Papers" on 3rd June, 2015 and on "Research Projects, Academic Writing and Publications" on 4th June, 2015 (33rd Orientation Programme), (c) "Choice of Variables and Indicators in Research" during the Short Term Course on Research methodology (October 12-17, 2015), (d) "Population Growth and Its Impact on Environment" on October 7, 2015 during the UGC-HRDC Short Term Course in Environmental Science, (e) "Choice of Variables and Indicators in Social Science Research" and (f) "Research Projects, Academic Writing and Publications" during the 34th Orientation Course (25 January to 21 February 2016), and (g) "Understanding

the Concept of Research and Politics of Climate Change" during the 35th Orientation Course (8 February to 6 March 2016).

Delivered two lectures on "Climate Change and Migration" and "Demographic Implications of Climate Change" at UGC- HRDC, Gauhati University (September 11, 2015) during the Short Term Course on Population, Environment and Development.

Delivered two lectures on "Indicators in Social Science Research" and "Writing a Research Paper: Identification and Selection of Research Issues and Formulation of Objectives" at the ICSSR Sponsored Workshop on *Research Methodology* at Moridhal College, Dhemaji, Assam, (30 December, 2015).

H. J. Syiemlieh

Acted as Panelist at the International Conference on *Water Resource Management in the Eastern Himalayan Region* organized by St. Anthony's College, Shillong (November 4-5, 2015).

Participated in the "Bi-Lateral Seminar of Kyoto University initiative for Strengthening Collaboration between India and Japan" in Kyoto University on 14th January, 2016.

S. K. De

Delivered an invited lecture on "Human Interference on Landslides in Darjeeling Himalayas" at the UGC DRS-III Seminar organised by the Department of Geography, Delhi University, Delhi (March 20-21, 2015).

Served as Secretary General of the International Association of Geomorphologists (IAG/ AIG) and delivered a lecture at the Inaugural Session of the 3rd International

Symposium on “Danxia Landform” held in Jianglangshan, Zhenjiang Province, China (September 21-23, 2015).

Delivered one lecture as a Resource Person during the UGC-HRDC Short Term Course in Research Methodology on “Statistical Methods for Research” at UGC-HRDC, NEHU (October 16, 2015).

Chaired the Plenary Session III of the International Conference on “Urbanization and Regional sustainability and 47th Annual Seminar of Regional Science Association” at the Department of Geography, University of Calcutta (January 28-30, 2016).

Delivered the 1st Sabitri Mukhopadhyay Memorial Lecture on “Geomorphological Hazards in Tripura - Some Cases of Concern” at the Department of Geography, Raja N. L. Khan Women’s College, Midnapore (February 14, 2016).

Delivered two lectures as a Resource Person during the Refresher Course on *Natural Hazards and Disasters* organized by the UGC- HRDC, Calcutta University (March 5, 2016).

Delivered a panel speech at the “Book Release Function & Two-day National Conference on ICSSR Research Survey and Explorations in Economic Geography” organized by the ICSSR, New Delhi, JNU, New Delhi (March 22-23, 2016).

P. K. Rynnga

Prepared the map of the East Khasi Hills Polling Station for Election Department, Govt of Meghalaya.

Served as a Resource Person for Mapping Field Data to the GIS Technician, Election Department, Government of Meghalaya (May 10, 2016).

DEPARTMENT OF RURAL DEVELOPMENT AND AGRICULTURAL PRODUCTION (TURA)

Head: Dr. D. C. Kalita
Telephone: 9436708669 (M), 8731998352 (M)
E-mail: durgack@yahoo.com

Faculty

Designation	Name and Qualification	Specialization
Professor	S .C. Srivastava, Ph.D.	Regional Planning, Micro Planning Development Studies, Rural Development
Associate Professor	D.C. Kalita, Ph.D.	Agricultural Marketing, Production Economics
Assistant Professor	J. P. Jaiswal, M.Sc.	Agricultural Engineering
	B. K. Mishra, Ph.D.	Dairy and Livestock Management
	B. Mathew, Ph.D.	Fruit and Orchard Management
	L. S. Pereira, Ph.D.	Fruit and Orchard Management

Thrust Area of Research in the Department

The Department mainly concentrates on multi-disciplinary research in the areas of rural development and impact assessment, micro and decentralized planning, local governance, globalization and food security, making of rural products, agronomy, horticulture, and animal science.

Brief Statement of Academic Activities

Being multidisciplinary in nature, the Department undertakes both teaching and research in areas concerning rural development, agronomy, horticulture, and animal science. The Department provides both theoretical and practical exposure to M.Sc. (RDAP) students in various areas relating to the multidisciplinary P.G. Programme within the stipulated time. The

Department is also running M.Phil. and Ph.D. Programmes. In addition, the Department is involved in consultancy, research, seminars, and workshops. The Department established one Bio-informatics Infrastructure Facility (BIF) Lab with 12 computers in 2015-16. The Department has one instructional farm unit housing, one Vermi-compost unit, Net House and Poly House, Horticulture Unit, Agronomy Unit, Cow and Heifer Shed. The Department has a fully functional instructional dairy unit including four Laboratories for horticulture, agronomy, soil and animal sciences were established for giving practical training to M.Sc. (RDAP) students. The Department organized a National Seminar on "Advances of Bioinformatics and Computational Biology in applied Biotechnology" on 5th October, 2015 in collaboration with the Bioinformatics Infrastructure Facility (BIF) Centre.

Students' Profile

Enrolment Capacity: M.Sc. –24; M.Phil./Ph.D. - variable

<i>Degree</i>	<i>SC</i>	<i>ST</i>	<i>GEN</i>	<i>Male</i>	<i>Female</i>	<i>Meghalaya</i>	<i>Non-Meghalaya</i>	<i>Total</i>
M.Sc.	-	21	3	7	17	21	3	24
M.Phil.	-	1	1	-	2	1	1	2
Ph.D.	-	5	-	1	4	4	1	5

Degree Awarded

<i>Degree</i>	<i>SC</i>	<i>ST</i>	<i>GEN</i>	<i>Male</i>	<i>Female</i>	<i>Meghalaya</i>	<i>Non-Meghalaya</i>	<i>Total</i>
M.SC.		19	2	7	14		3	21
M.Phil.		3			3		1	3
Ph.D.		1		1			1	1

Students Awarded Ph.D.

<i>Name of the student</i>	<i>Title of Thesis</i>	<i>Supervisor/Joint Supervisor</i>
Mr. Haolun Hangsing	Factors Affecting Physico-Chemical Properties and Productivity of Mandarin Orange in Garo Hills, Meghalaya	Dr. B. Mathew (Supervisor) Dr. D. C. Kalita (Joint Supervisor)

Research Fellowships

Rajiv Gandhi SC/ST - 2 nos.

Conservation and Watershed Management,
Computer Application.

Educational Tour of Students

Teacher In-charge: Dr. B. Mathew

Places/Institutions visited: Kolkata, Bhubaneswar, OUAT, BCKV

Purpose of tour: Educational

Semester-II:

Rural Development Approaches, Programmes and Policies, Package and Practices of Field Crops, Plant Propagation and Nursery Management, Dairy and Livestock Management, Farm Management, Organic Farming (Open Course).

Courses Conducted

M.Sc. (RDAP)

Semester-I:

General Aspects of Rural Development, Introductory Agriculture and Agronomy, Fundamentals of Horticulture, Introduction to Animal Husbandry and Poultry, Soil

Semester-III:

Basic Statistics and Software Applications, Rural Development Organizations, Institutions and Administration, Production Technologies of Horticultural Crops-I, Principles and Practices of Dairy Management, Rural Development Planning and Project Management, Commercial Floriculture and Landscaping; Swine, Goat and

Sheep Production; Dairy Farming and Rural Development; and Economic Reforms and Rural Development.

Semester IV:

Rural Marketing and Entrepreneurship development, Research Methods, Agricultural Surveying and leveling, Rural Credit and Micro-finance, Production Technology of Horticultural Crops-II, Processing of Livestock Products, IEC and Rural development, Post-harvest Management of Horticultural Crops; Rabbit, Fishery and Poultry Production; Micro-enterprise and Non-farm sector Development; Protected Cultivation of Horticultural Crops; and Indigenous Dairy Products and Soya Milk.

Seminars/Conferences/Symposia/ Extension Programmes, etc.

Organised

National Seminar on *Advances of Bioinformatics and Computational Biology in Applied Biotechnology* in collaboration with the Bioinformatics Infrastructure Facility (BIF) Center (October 5, 2015).

One Week Training Programme on "Horticultural Nursery Management, Plant Propagation and Vermicomposting" for the students of Harding Theological College, Tura (April 6-11, 2015).

Short-term Training Programme on "Bio-informatics: Biology on Your Computers" at BIF Center NEHU, Tura Campus (October 6-8, 2015).

Publications

Published in India

Abhishisha, Pereira, L.S. (2015). Effect of plant spacing on yield and quality of strawberry

cv. Festival in West Garo Hills, Meghalaya. *Journal of Agriculture and Technology* 3(2):25-28.

Hangsing, H., Mathew, B., Kalita, D.C. (2015) Factors affecting mandarin productivity in Garo Hills (Meghalaya)- An empirical study. *Journal of Agriculture and Technology* 2(1):108-111.

Islam, M., Kalita, D.C. (2015). Establishment methods and weed management effects on productivity and soil fertility in wetland rice (*Oryza sativa* L.). *Journal of the Indian Society of Soil Science* 63(3):339

Islam, M., Kalita, D.C. (2016). Weed dynamics and productivity of wetland rice as influenced by establishment methods and integrated management. *Bangladesh J. Bot.* 45(1): 1-8.

Mini, P., Mathew, B., Tarai, R.K. (2015). Evaluation of germplasm for cashew apple processing industry. *Indian Journal of Horticulture* 72(3):411-415.

Book Chapters/Proceedings

Deb A.K., Mathew, B. (2015). Extent of agricultural diversification in Meghalaya with special reference to West Garo Hills. In: *Look East Policy: Perspectives from the South-East Asian Architecture*. A. Bhattacharjee (Ed.). Excel India Publishers, New Delhi: p. 126-133.

Momin, J., Kalita, D.C. (2015). Economics of Investments in jhum cultivation under SHG Finance in West Garo Hills District, Meghalaya. In: *Agricultural Marketing System in India: A Comparative Exploration with Manufacturing and Service Sector*. D. Bhagat and S.L.S. Akoijan (Eds.). Bio-tech Publications, New Delhi: p. 234-239.

Sangma, S.Y.A., Dang, J.C., Pereira, L.S., Mathew, B. (2015). *In vitro* germination of citrus macroptera Mont. An endangered plant of Garo Hills, Meghalaya, India. In: *Proceedings of the National Seminar*

on Newer Trends in Chemistry and Environment. J. N. Vishwakarma (Ed.). D.K. Agencies Pvt. Ltd., New Delhi: p. 219-224.

Research Projects

Ongoing

Sl. No.	Title of the Project	PI/Co-PI	Funding Agency	Amount
1	Prospecting Lactic Cultures from North-Eastern Regions to Develop Functional Fermented Soya Foods with Potential Health Benefits	PI: Dr. B. K. Mishra Co-PI: Dr. A. K. Chaurasiya	DBT, Govt. of India	Rs. 72,062

Academic Collaboration

The Department has collaborated with NIRD, Hyderabad and CAPART, New Delhi, ICAR Research complex for NEH Region, Barapani for practical exposure as well as for getting better seed varieties for RDAP farm. The Department has also developed networking with local NGOs where the 3rd and 4th semester students are acting as resource persons and interacting directly with the villagers.

Other Activities/Information

Field Trips

Field trips are integral part of the Course Curriculum of the Department and for that reason students visit either villages or interact with the beneficiaries of various government programmes or Organizations/ Departments involved in the implementation of rural development, horticulture and livestock development programmes. All these visits are assignment oriented and marks are awarded on the basis of the reports prepared by students. So all courses in-charge are involved in these visits.

B. K. Mishra

Served as Fellow of International College of Nutrition (FICN), UP, India.

B. Mathew

Organised an International Seminar on Look East Policy: Perspectives from the South East – Asian Architecture at NEHU Tura campus, Tura (June 26-27, 2015).

Organised a Short Term Training (2 weeks) on “Gene Cloning, Protein Biochemistry, Structural Biology and Bioinformatics” at Tata Memorial Centre, ACTREC, Kharghar, Mumbai (29th June to 10th July, 2015).

Collaborated with Don Bosco College, Tura on “Plant Tissue Culture or Rare and Endangered Species.”

Acted as Co-investigator of Biotech Hub Project entitled “*In Vitro* Propagation of Endangered/ Economically Important Plants and DNA-Barcoding of Animals/ Plants” sponsored by DBT (NER), Ministry of Science and Technology, New Delhi.

DEPARTMENT OF HORTICULTURE (TURA CAMPUS)

Head: Prof. C. Perinba Suresh
Telephone: 8974455216 (M), 9434126786 (M), 03651-223628 (O)
E-mail: nehuhort@gmail.com, sureshcp2112@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	C. Perinba Suresh M.Sc. Agri. (Hort.), Ph.D. (Hort.)	Fruits and Orchard Management, Post-Harvest Technology of Horticultural Crops
Associate Professor	Dr. Sunil Kumar M.Sc. (Hort.), Ph.D.(Hort.)	Floriculture
Assistant Professor	Dr. Arvind K. Chaurasiya M.Sc. Agri. (Hort.), Ph.D. (Hort.)	Post- Harvest Technology of Horticultural Crops
	Mr. Arindam Barman M.Sc. (Hort.)	Vegetable Science
	Mr. Yumnam Somi Singh M.Sc. (Hort.)	Fruit Science

Thrust Areas of Research

The thrust area includes conservation of genetic biodiversity, sustainable green farming and to adapt to the changing climatic scenario.

Brief Statement of Academic Activities

The utmost priority of the Department is to impart knowledge and education related to

Horticulture and Allied branches and to serve as a centre for academic excellence in Horticulture. The department mainly concentrates on multi-disciplinary research and extension works with an aim to improve the aspects of Hill Horticultural System and develop technical manpower in North-Eastern regions in general and Meghalaya state in particular.

Students' Profile

Enrolment Capacity: M.Sc. – 18; Ph.D.—Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	Total
M.Sc.	-	15	3	5	13	15	3	18
Ph.D.	-	-	-	-	-	-	-	-

Degree Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	Total
M.Sc.	-	7	2	3	6	8	1	9

Courses Conducted

Postgraduate M.Sc.

Semester-I:

Propagation and Nursery Management of Horticultural Crops, Protected Cultivation of Horticultural Crops, Organic Horticulture, Post-Harvest Technology of Horticultural Crops, Biotechnology of Horticultural Crops, and Basic Statistical Methods in Agriculture,

Semester-II:

Growth & Development of Horticultural Crops, Tropical and Dry Land Fruit production, Biodiversity & Conservation of Fruit Crops, Production Technology of Warm Season Vegetable Crops, Seed Production Technology of Vegetable Crops, Production Technology of Cut Flowers, Landscaping & Ornamental garden, Production of Plantation Crops, and Library Information & Basic Concepts of Laboratory Techniques.

Semester- III:

Post-Harvest Technology for Fruit Crops, Production technology and Processing of Spice Crops, Value Addition in Flowers, Organic Horticulture, Climate Management in Horticulture, Biodiversity and Conservation of Fruit Crops, Tropical and Dry Land Fruit Production, Production Technology of Cool season Vegetable Crops, Production Technology of Cut Flowers, Research/Dissertation (3).

Semester IV:

Intellectual Property and Its Management in Agriculture, Research /Dissertation (9),

Research II (Field Laboratory Analysis), Research III (Data Analysis & Interpretation), Research IV Dissertation, Research II (Field Laboratory Analysis), Research III Dissertation, Research IV (Data Analysis & Interpretation), Research II (Field Laboratory Analysis), Research III Dissertation, and Research IV (Data Analysis & Interpretation).

Ph.D. Courses

Research Methodologies in Horticulture, Advances in Production of Fruit Crops, Advances in Growth and Development of Fruit Crops, Advances in Production of Major and Under Utilized Vegetable Crops, Advances in Breeding of Vegetable Crops, Advances in Flower Production, and Advances in Breeding of Flower Crops.

Seminars/Conferences/Symposia/ Extension Programmes, etc.

Organised

The Department organised the “Training Workshop on PCR Techniques and its Applications” at NEHU, Tura (September 28 to October 01, 2015).

It also organized a workshop on “Protein Electrophoresis for Diversity Analysis” at NEHU, Tura (October 14-15, 2015).

Dr. C. P. Suresh co-organised the International Symposium on *Next Generation Approaches for Sustainable Development of Hill and Upland Horticulture* in the Department of Horticulture, Sikkim University (November 5-7, 2015).

Attended and Participated

C. P. Suresh

Presented papers on: (a) "Biodiversity of wild horticultural plants and its conservation in Meghalaya, north east India," (b) "Nutritional Aspects of Wild Edible Fruits in Sikkim Himalayas, India," (c) "Indigenous Wild Edible Fruits in Sikkim Himalayas, India, and (d) "Mahua: A Potential Underutilized Wild Fruit" at the Third International Symposium on *Minor Fruits, Medicinal & Aromatic Plants for Health and Environment* organised by Bangladesh Agricultural University, Mymensingh, Bangladesh (May 20-21, 2015).

Presented a paper on "India's Look East Policy: Potential Benefits for the North East Region of India" at the International Seminar on *India's Look East Policy: Potential Benefits for the North East Region of India* held at NEHU, Tura Campus (June 26-27, 2015).

Delivered an invited lecture on "Large Cardamom scenario in Meghalaya" at the National Consultative Meet on *Large Cardamom* at Kalimpong (September 18, 2015).

Co-chaired a technical session and presented a poster at the National Seminar on *Advances of Bioinformatics and Computational Biology in Applied Biotechnology* organised by the Dept of Rural Development for Agriculture Production, NEHU, Tura Campus (October 5, 2015).

Presented a paper on "Optimization of Osmotic Dehydration of Strawberry Using Response Surface Methodology" at the International Symposium on *Next Generation Approaches for Sustainable Development of Hill*

and Upland Horticulture organised by the Department of Horticulture, Sikkim University (November 5-7, 2015).

Chaired a technical session and presented paper on the topic "Integrating Horticulture into the School Education System" at the National Seminar on *Re-thinking New Education Policy: Contextualizing the Issues of India's North Eastern Region* organized by the Department of Education, NEHU, Tura Campus (March 20-21, 2016).

Sunil Kumar

Presented a paper on "Strategies for Improvement in Ornamental Crops through Biotechnological Tools" at the National Seminar on *Advances of Bioinformatics and Computational Biology in Applied Biotechnology* organised by the Department of RDAP and BIF Centre, NEHU, Tura (October 05, 2015).

A. K. Chaurasiya

Presented a paper on "Processing Industry Boon for Secure Livelihood in N. E. India" at the National Seminar on *Sustainable Agriculture and Food Security*, organized by M. S. Swaminathan School of Agriculture, Paralakhemundi, Odisha (March 28-29, 2015).

Presented a paper entitled "Horticulture Development through Tissue Culture" at the National Seminar on *Advances of Bioinformatics and Computational Biology in Applied Biotechnology* organized by the Department of RDAP, NEHU, Tura Campus (October 5, 2015).

Publications

Published in India

Barman, A., Mitra R., Singh, Anshumali, D.K. (2015). Diversity among indigenous germplasms of melon (*Cucumis melo* L.) through seed protein profiling pattern. *Vegetos*. 28 (3): 65-70.

Barman, R.M., Mishra, B.K., Barman, A. (2016). OCP Residues analysis in cow milk of Dhanbad City, Jharkhand, India. *IJAPSA* 2(5): 6-11.

Bhanusree, M.R., Ravi Kumar, K., Suresh, C. P., Shukla, G., Chakravarty, S. (2015). Comparative studies on tissue culture plantlet versus conventional sucker var. Grand Naine banana. *Plant Archives* 15(2): 785-788.

Bhutia, K. D., Pala, N. A., Shukla, G., Pradhan, K., Suresh, C. P., Chakravarty, S. (2015). Informants consensus and knowledge on the use of wild edible fruits from, Sikkim. *Journal of Hill Agriculture* 6: 207-212.

Kumar, S. (2015). Genetic variability and correlation studies on vegetative and floral characters of gladiolus (*Gladiolus grandiflorus*). *Current Horticulture* 3(2): 35-42.

Kumar, S., Momin B.C., Dewan, N. (2015). Response of nutrition on growth and flowering of *Dendrobium* orchids under eastern Himalayan region. *Hort Flora Res. Spectrum* 4(3): 214-219.

Momin, B.C., Kumar, S., Momin, K.C., Dewan, N. (2015). Evaluation of gladiolus (*Gladiolus grandiflorus* L.) genotypes under West Garo Hills district, Meghalaya. *Hort Flora Res. Spectrum* 4(3): 224-229.

Momin, K. C., Dhiman, S. R., Gupta, Y. C., Bhardwaj, S.K., Kumar, S. (2015). Nutrient management for cutting production in carnation (*Dianthus caryophyllus*). *Indian Journal of Agricultural Sciences* 85(4): 509-514.

Momin, K. C., Dhiman, S. R., Gupta, Y. C., Bhardwaj, S.K., Kumar, S. (2015). Economics and profitability of rooted carnation cutting production influenced by fertilization modules. *Indian Journal of Agricultural Sciences* 86 (1): 50-54.

Sangma, O.K., Barman, A., Marak, C.M., Sangma, C.S. (2016). Occurrence of *Gymnopetalum cochinchinense* (Lour.) Kurz. (Apolka) in Garo Hills of Meghalaya, India. *IJAPSA* 2(4): 211-215.

Published Abroad

Kumar, K.R., Bhanusree, M.R., Ghosh, S.K., Suresh, C.P., Chakravarty, S. (2016). Economics and quality of banana (*Musa* spp., AAA) var. Grand Naine as influenced by sucker retention in Terai zone of West Bengal. *International Journal of Tropical Agriculture* 34: (1): 55-58.

Kumar, K.R., Ghosh, S.K., Bhanusree, M.R., Suresh, C.P., Chakravarty, S. (2016). Effect of sucker retention on growth and yield of banana (*Musa* spp., AAA) var. Grand Naine: Plant crop. *International Journal of Tropical Agriculture* 34: (1): 49-54.

Mahato, S. K., Gurung, S., Chhetri, B., Suresh, C. P. (2015). Effects of nitrogen and potassium on growth morphology of Plantain cv. Nendran. (AAB) under Terai region of West Bengal. *International Journal of Agriculture Sciences* 7(10): 707-713.

Mahato, S. K., Pariyar, B., Chhetri, B., Suresh, C. P. (2015). Influence of nutrient and mulch management practices on strawberry cv. Chandler under rain-fed condition. *Green Farming* 6(3):101-106.

Mahato, S.K., Gurung S., Chetri B., Suresh C.P.(2015). Effect of nitrogen and potassium on growth morphology of plantain Cv. Nendran (AAB) under terai region of West Bengal. *International Journal of Agriculture Sciences* 7(10):707-713.

Pal, R., Mahato, S. K., Chhetri, B., Suresh, C. P. (2015). Growth regulators influencing yield and quality of pineapple (*Ananascomosus* L.). *Ecology, Environment and Conservation* 21(2): 885-890.

Singh, A. K., Chaurasiya, A. K., Chakraborty, I. (2015). Quality retention in alum treated bael (*Aegle marmelos* CORR.) preserve. *The Bioscan*. 10(1): 135-139.

Books/Book Chapters/Proceedings

Barman, A., Barman, R. M. (2015). QTL Analysis for fruit quality traits in tomato. In: *Proceedings of the National Seminar on Newer Trends in Chemistry and Environment*. J.N. Vishwakarma (Ed.). D.K. Agencies Pvt. Ltd., New Delhi: p. 127-137.

Barman, R. M., Barman, A. (2015). Application of biopesticides as an ecofriendly approach to pest control. In: *Proceedings of the National Seminar on Newer Trends*

in Chemistry and Environment. J.N. Vishwakarma (Ed.). D.K. Agencies Pvt. Ltd., New Delhi: p. 225-229.

Chaurasiya, A. K., Singh, A. K. (2015). Value addition in minor fruits: Jamun and jackfruit. In: *Dairy and Food Product Technology*. B. K. Mishra and Subrota Hati (Eds.). Biotech Books, New Delhi. p. 245- 264.

Kumar, S., Barman, K., Sharma, S. (2015). Post-harvest management of commercial flowers. In: *Post-harvest Management of Horticultural Crops: Practices for Quality Preservation*. M.W. Siddiqui, and A. Ali (Eds.). Apple Academic Press, Canada.

Mahato, S. K., Suresh, C. P. (2015). *Studies on the Performance of Nendran in the Terai Region*. Lambert Academic Publishing, Saarbrücken, ISBN: 978-3-659-76004-4.

Singh, A. K., Chaurasiya, A. K. (2015) Post-harvest technology in ber (*Ziziphus* Spp.). In: *Dairy and Food Product Technology*. B. K. Mishra and S. Hati (Eds.). Biotech Books, New Delhi. p. 265-280.

Suresh, C. P., Momin, K. C., Mohan, J. (2016). Post-harvest management of horticultural produce for sustainable livelihood development in North East India. In: *Agricultural Marketing System in India: A Comparative Exploration with Manufacturing and Services Sector*. D. Bhagat and S. L. S. Akoijam (Eds). Biotech Books, New Delhi. p. 165-174.

Ongoing Research Projects

Title of Project	PI/Co-PI	Funding Agency	Amount
Bio-prospecting of Lactic Cultures from 'North-Eastern Regions' to Develop Functional Fermented Soy Products with Potential Health Benefits	A. K. Chaurasiya	DBT Twinning Project, GOI	72.062 lakh

Molecular and Morphological Diversity Analysis of Cucurbits of Garo Hills Meghalaya	A. Barman and Y.S. Singh	DBT, New Delhi	42.81 lakh
SDS-PAGE Characterization of Indigenous Germplasms of Cho-Cho and Jackfruit in Garo Hills of Meghalaya	Arindam Barman	UGC, New Delhi	10. 718 lakh

Academic Collaboration

Arindam Barman collaborated with Uttar Banga Krishi Viswavidalaya, Coochbehar, West Bengal on the DBT project entitled "Molecular and Morphological Diversity Analysis of Cucurbits of Garo Hills Meghalaya."

Honours/Awards/Recognitions

C.P. Suresh

Editor of the *Journal of Agriculture and Technology* and the *International Journal of Minor Fruits, Medicinal and Aromatic Plants*.

Sunil Kumar

Editor of *Current Horticulture*, *Indian Journal of Agricultural Sciences* and *Hort Flora Research Spectrum*.

Other Activities

C.P. Suresh

Member of the Board of Studies, Department of Horticulture, Sikkim University.

Member of the Board of Studies of the Department of Fruit and Orchard Management Faculty of Horticulture Bidhan Chandra KrishiViswavidyalaya.

Evaluator of the International Project "Tbilisi," Georgia National Science Foundation.

Member of the Executive Committee of the International Society for Minor Fruits, Medicinal & Aromatic Plants.

Acted as Judge of the Mango Exhibition Show 2015 at BAU, Sabor, Bagalpur (June 16, 2015) and MOSAIC 2015 NEHU, Tura (October 30, 2015).

A.K. Chaurasiya

Participated in the Refresher Course on "Food Science and Bio-Technology" at ASC, UGC, BHU, Varanasi (July 4-24, 2015).

Arindam Barman

Attended and secured the Best Poster Presentation Award at the National Seminar on Advances of Bioinformatics and Computational Biology in Applied Biotechnology organized by the Dept of RDAP, NEHU, Tura (October 5, 2015).

Reviewer of the *Indian Journal of Agriculture Sciences* and the *Journal of Environmental and Agricultural Sciences*.

Y. S. Singh

Delivered a lecture on Organic Farming Training to the farmers registered under FDS Mission Organic Burny Hills on November 10, 2015, Garo hills, Meghalaya.

V

SCHOOL OF LIFE SCIENCES

Dean: Prof. R. Sharma
Telephone: 0364 2722001 (O), 9436117141 (M), FAX: 0364 2550108
Email: *deansls@nehu.ac.in, rsharma@nehu.ac.in, sharamesh@gmail.com*

The School of Life Sciences comprises four academic Departments, namely, Biochemistry, Biotechnology & Bioinformatics, Botany and Zoology. All the four constituent departments of the school offer both M.Sc. and Ph.D. programmes. The total strength of the Faculty during the period under report was 45. During the year, 31 (thirty one) research scholars of the School were awarded Ph.D. degree. The Faculty of the School attended several conferences/ symposia. Many of them delivered invited lectures and chaired sessions at conferences/ symposia. The Faculty of the

School has received large amount of extramural funds from various research funding agencies. The activities of the Faculty members have brought recognition and fame to the School. Many Faculty members are members of various Project Advisory Councils/ Task Forces of the funding agencies. Our Faculty has been contributing to curriculum development and research activities of other Institutions by way of being members of Board of Studies /Academic / Executive Council(s) of various Universities of the country.

DEPARTMENT OF BIOCHEMISTRY

Head: Prof. D. Syiem
Telephone: 364-272-2101
E-mail: dsyiem@yahoo.com

Faculty

Designation	Name and Qualification	Specialization
Professor	A. N. Rai, M.Sc. (BHU), Ph.D. (Dundee University)	Plant-Microbe Interaction
	R. Sharma, M.Sc., Ph.D. (BHU)	Biochemistry of Aging
	R. N. Sharan, M.Sc. Ph.D. (JNU)	Radiation and Cancer Molecular Biology
	A. Alam, M.Sc. (AMU), Ph.D. (FTI, Moscow)	Cancer Immunotherapy
	D. Syiem, M.Sc. Ph.D. (NEHU)	Medical Biochemistry, Enzymology, Natural Producta
	A. K. Singh, M.Sc. (Gorakhpur University), Ph.D. (HCU)	Molecular Microbial Ecology
	M. B. Syiem, M.Sc. Ph.D. (NEHU)	Cyanobacterial Diversity, Cyanobacterial Biofertilizer and Bioremediation
Assistant Professor	P. K. Ambasht, M.Sc. Ph.D. (BHU)	Enzymology: Enzyme purification, kinetics and immobilization
	L. Kma, M.Sc. Ph.D. (NEHU)	Cancer and Radiation Countermeasures
	S. Bhan, M.Sc. Ph.D. (BHU)	Medical Biochemistry, Nano-biomaterials
	T. Tripathi, M.Sc. (University of Mysore), Ph.D. (JNU)	Molecular Biology, Biochemical Parasitology, Biophysics

Thrust Areas of Research

1. Medical Biochemistry (Development & Aging, Medicinal Plants, Carcinogenesis and Radiation Biology, Drug Delivery and Tumor Immunology and Neuro-biochemistry)
2. Microbial Biochemistry (Plant-Microbe Interaction, Cyanobacterial Diversity and Nitrogen Fixation, Microbial bio-remediation).
3. Protein Chemistry (Enzymology, Molecular Biophysics)

Brief Statement of Academic Activities

The Department admitted 21 students for M.Sc. and 5 students for Ph. D. programme. During this period 21 students have successfully completed

their M.Sc. and 7 students have been awarded Ph. D. degree. Faculty members and research scholars participated and delivered lectures in various seminar/workshops/conference/symposia in India and abroad.

Students' Profile

Enrolment Capacity: M.Sc. – 21; Ph.D. – Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc.	0	18	3	7	14	19	2	21
Ph.D.	0	4	1	2	3	5	0	5

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc.	0	17	4	5	16	15	6	21
Ph.D.	0	6	1	2	5	7	0	7

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Names of Supervisor/ Joint Supervisor
Mr. Banteiskhem Kharwanlang	Studies on the biomodulators of glucocorticoid receptors in mice	Prof. R. Sharma
Ms. Auphelia B. Syiem	Evaluation of selected wild edible plants of Meghalaya for their anti-diabetic potential and effect(s) on carbohydrate metabolism in mice	Prof. D. Syiem
Ms Momita Sokhlet	Purification and immunochemical characterization of tumor-associated antigens (TAA) expressed on hepatocytes in mice exposed to diethylnitrosamine	Prof. A. Alam
Ms. Saibadaiahun Nongrum	DNA Microarray based identification of early radiation response genes in human peripheral blood lymphocytes exposed to γ -radiation <i>ex vivo</i>	Prof. R.N. Sharan Dr. L. Kma (Joint Supervisor)
Ms. Smita Goswami	Identification and characterization of metal tolerant cyanobacterial strains from East Khasi Hills, Meghalaya.	Prof. M. B. Syiem
Ms. Stephanie P. Basaiwmoit	Study on liver mitochondrial membrane proteins and lipids in mice treated with diethylnitrosamine	Prof. A. Alam
Mr. Wanaiborlang Jala Kharbhih	Dietary and hormonal regulation of inorganic pyrophosphatase in mice	Prof. R. Sharma

Research Fellowships

CSIR-NET JRF	: 04
NET Lecturership	: 01
UGC Non-NET	: 14
NET	: 02
Rajiv Gandhi Science	: 05
Fellowship for ST/ST	

Educational Tour of Students

Teacher-in-Charge: Dr. S. Bhan and Dr. L. Kma

Places/Institutions visited: Thiruvananthapuram and Goa

Duration of tour: 14 Days, February 2-15, 2016

Purpose of Tour: Students visited premier academic institutions in Thiruvananthapuram (Regional Cancer Centre) and Goa (Goa University and National Institute of Oceanography) which provided them much needed scientific exposure in their field and definitely help them to decide about their future career in research.

Courses Conducted

Postgraduate

Semester-I:

Chemistry and Biomolecules; Metabolic Pathways; Enzymology; Practicals

Semester-II:

Techniques in Biochemistry; Physiological Chemistry; Microbiology; Practicals.

Semester-III:

Genetics; Medical Biochemistry; Environmental Biochemistry; Nutritional and Clinical Biochemistry; Practicals.

Semester-IV:

Molecular Biology; Bioenergetics; Immunology; Practicals.

The Department offers *Open Courses* on Techniques in Biochemistry, Microbiology, Environmental Biochemistry, and Nutritional and Clinical Biochemistry under CBCS in the 2nd and 3rd Semesters.

Ph.D. Courses

Research Methodology; Topics in Biochemistry; Review of Literature and seminar.

Seminars/Conferences/Symposia/Extension Programmes etc.

Organized

Prof. A. N. Rai, Prof. R. Sharma, Prof. R. N. Sharan, Prof. A. Alam, Prof. D. Syiem, Prof. A. K. Singh, Prof. M. B. Syiem, Dr. P. K. Ambasht, Dr. L. Kma, Dr. S. Bhan and Dr. T. Tripathi organized a one-day Seminar on *Recent Developments in Medical and Microbial Biochemistry*, at the Department of Biochemistry, NEHU, Shillong, on March 31, 2016.

Attended and Presented

Prof. A. N. Rai

Assessment and accreditation. (*Higher Education in 2025: Growth, Challenges and Opportunities*), IIS University, Jaipur. 20-21 November 2015. Key note speaker.

Climate change and its implications for plant microbe interactions. (*Impact of climate change on plant-microbe interactions and its implications*) Banaras Hindu University, Varanasi. 18-19 December, 2015. Chief guest at valedictory function.

Prof. R. Sharma

Nutraceuticals in amelioration of protein oxidation loads during aging in mice. (136th Ann. Meeting of Pharmaceutical Society of Japan) Yokohama, Japan March 26-29, 2016.

Prof. R. N. Sharan

High Throughput Molecular Biodosimetry for the Future: End of the tunnel visible? (*Future of Biodosimetry in Asia: BIDOSENET 2015*) National Institute of Radiological Science (NIRS), Chiba, Japan September 13-21 2015.

Molecular Bio-dosimetry: The futuristic tool for triage and medical intervention in radiological emergencies (*International Conference on Recent Trends in Biotechnology and Biodiversity*) T. N. B. College, Bhagalpur University, Bhagalpur (July 27-29, 2015).

Dr. S. Bhan

Effect of a composite wound dressing containing nanosilver loaded polyvinyl alcohol (PVA) nanogels for wound care (*National Conference on Recent Advances in Biomedical Engineering (NCRABME-2015)*) Department of Biomedical Engineering, School of Technology, NEHU, Shillong (August 28-29, 2015).

Dr. T. Tripathi

Thiol-based redox metabolism of parasites as a target for rational structure-based drug development. (*International Congress of Liver flukes and Cholangiocarcinoma: Towards Control and Elimination*) Khon Kaen University, Khon Kaen, Thailand (May 11-12, 2015).

Thiol-based redox proteins as a target against the liver fluke infection (*International Conference on Recent Developments in Medical Biotechnology and Structure-Based Drug Designing 2015, RDMBSBDD-2015*) Department of Biosciences and Bioengineering, Indian Institute of Technology, Guwahati (December 06-07, 2015).

Thiol-based redox active proteins as target against the parasitic liver flukes (*International Conference on Trends in Cell and Molecular Biology*) Birla Institute of Technology and Science, Pilani, Goa campus, Goa (December 19-21, 2015).

Thiol-based redox proteins as drug target against *Fasciola* (*ASEAN Neglected Tropical Diseases Conference, NTDASIA2016*) Khon Kaen University, Khon Kaen, Thailand (January 14-15, 2016).

Thiol-based redox active proteins as target against the parasitic liver flukes (*International Conference on Translational Biotechnology (Biosangam 2016)*) Motilal Nehru Institute of Technology, Allahabad, (February 04-06, 2016).

Publications

Research Papers

Published in India

Ahad R.I.A., Phukan T., Syiem M.B. (2015). Random sampling of cyanobacterial diversity from five locations within Eastern Himalayan Biodiversity hot spot. *International Journal of Advanced Research in Biological Sciences* 2: 20-29.

Belho, K., Nongpiur, S.R., Ambasht, P.K. (2015). Purification and partial characterization of phytase from rice bean (*Vigna umbellata*

- Thunb.) germinated seeds. *Journal of Plant Biochemistry and Biotechnology* (DOI: 10.1007/s 13562-015-0333-7.
- Diengdoh O.L., Warjri S.M., Syiem M.B. (2015). Zn²⁺ Biosorption Efficiency of a *Nostoc* sp. Isolated From a Coal Mine in Sohra, Meghalaya. *International Journal of Industrial Biotechnology and Biomaterials* 1: 1-12.
- Dutta, S. P., Jamir, R. P. Basaiawmoit, S.P., Alam, A. (2016). Effects of N-nitrosodibutylamine on the liver mitochondria morphology and on the expression of liver mitochondrial membrane surface proteins in mice. *International Journal of Pharmacy and Pharmaceutical Sciences* 8: 162-168.
- Hadem, K.L.H., Sharan, R.N., Kma, L. (2016). Phytochemicals of *Aristolochia tagala* and *Curcuma caesia* exert anticancer effect by tumor necrosis factor- α -mediated decrease in nuclear factor kappaB binding activity. *Journal of Basic and Clinical Pharmacy* 7:1-11.
- Phukan T., Ahad R.I.A., Syiem M.B. (2015). Analysis of Viability Index and Growth of Regenerated Cyanobacteria Following Long-Term Preservation in Calcium Alginate Beads. *International Journal of Industrial Biotechnology and Biomaterials*. 1: 13-22.
- Tripathi, T. (2015). The N-terminal portion of the glutaredoxin like protein 1 of *Plasmodium falciparum* does not contribute to the stability of the enzyme. *Journal of Protein and Proteomics*. 6: 153-158.
- Published Abroad**
- Akoijam, C., James, L., Chettri, B., Singh, A. K. (2015). Cyanobacterial diversity in hydrocarbon polluted sediments and their possible role in bioremediation. *International Biodeterioration & Biodegradation* 103: 97-104.
- Anjum, S., Gupta, A., Sharma, D., Gautam, D., Bhan, S., Sharma, A., Kapil, A., Gupta, B. (2016). Development of novel wound care systems based on nanosilver nanohydrogels of polymethacrylic acid with *Aloe vera* and curcumin, *Materials Science and Engineering C* 64: 157-166.
- Chhetri, G., Kalita, P., Tripathi, T. (2015). An efficient protocol to enhance recombinant protein expression using ethanol in *Escherichia coli*. *Methods X* 2: 385-391.
- Chhetri, G., Pandey, T., Chinta, R., Kumar, A., Tripathi, T. (2015). An improved method for high-level soluble expression and purification of recombinant amyloid beta peptide for *in vitro* studies. *Protein Expression and Purification* 114: 71-76.
- Goswami S., Syiem M.B., Pakshirajan K. (2015). Cadmium removal by *Anabaena doliolum* Ind1 isolated from a coal mining area in Meghalaya, India: associated structural and physiological alterations. *Environmental Engineering Research* 20: 41-50.
- Gupta, A., Keshewani, M., Velmurugan, D., Tripathi, T. (2016). *Fasciola gigantica* thioredoxin glutathione reductase: Biochemical properties and structural modeling. *International Journal of Biological Macromolecules* 89: 152-160.
- Gupta, A., Pandey, T., Kumar, B., Tripathi, T. (2015). Preferential regeneration of thioredoxin from parasitic flatworm *Fasciola gigantica* using glutathione system. *International Journal of Biological Macromolecules* 81: 983-990.

- Gupta, A., Sripa, B., Tripathi, T. (2016). Purification and characterization of a two-domain glutaredoxin in the parasitic helminth *Fasciola gigantica*. *Parasitology International*. doi:10.1016/j.parint.2016.05.005.
- Hadem, I. K. H., Sharma, R. (2016). Age- and tissue-dependent modulation of IGF 1/PI3K/Akt protein expression by dietary restriction in mice. *Hormone and Metabolic Research* 48: 201-206.
- Kumar, A., Nisha, C.M., Silakari, C., Sharma, I., Anusha, K., Gupta, N., Nair, P., Tripathi, T., Kumar A. (2016). Current and novel therapeutic molecules and targets in Alzheimer's disease. *Journal of the Formosan Medical Association* 115: 3-10.
- Majaw, T., Sharma, R. (2015). Arginase I expression is upregulated by dietary restriction in the liver of mice as a function of age. *Molecular and Cellular Biochemistry* 407: 1-7.
- Nisha, C.M., Kumar, A., Nair, P., Gupta, N., Silakari, C., Tripathi, T., Kumar A. (2016). Molecular docking and *in silico* ADMET study reveals acylguanidine 7a as a potential inhibitor of β -secretase. *Advances in Bioinformatics* Doi:10.1155/2016/9258578.
- Pandey, T., Singh, S.K., Chhetri, G, Tripathi, T., Singh, A.K. (2015). Characterization of a highly pH Stable Chi-Class glutathione S-transferase from *Synechocystis* PCC 6803. *PLoS One*. 10:e0126811
- Roy A.S., Hazarika J., Manikandan N.A., Pakshirajan K., Syiem M.B. (2015). Heavy metal removal from multicomponent system by the cyanobacterium *Nostoc muscorum*: Kinetics and interaction study. *Applied Biochemistry & Biotechnology* 175: 3863-3874.
- Saio, V., Syiem, D., Sharma, R., Dkhar, J. (2016). Amelioration of age-dependent increase in oxidative stress markers in male mice by extract of *Potentilla fulgens*. *Redox Report* 21: 130-138.
- Sharan, R. N., Vaiphei, S. T., Nongrum, S., Keppen, J., Ksoo, M. (2015). Consensus reference gene(s) for gene expression studies in human cancers: End of the tunnel visible? (Review). *Cellular Oncology* 38: 419-431 (DOI: 10/1007/s13402-015-0244-6).
- Singh, J.S., Kumar, A., Rai, A.N., Singh, D.P. (2016). Cyanobacteria: a precious bio-resource in agriculture, ecosystem and environmental sustainability. *Frontiers in Microbiology* Doi: 10.3389/fmicb.2016.00529.
- Tripathi, T, Suttiaprapa, S., Sripa, B. (2016). Unusual thiol-based redox metabolism of parasitic flukes. *Parasitology International*. Doi 10.1016/j.parint.2016.05.013.
- Vaiphei, S. T., Keppen, J., Nongrum, S., Chaubey, R. C., Kma, L., Sharan, R. N. (2015). Evaluation of endogenous control gene(s) for gene expression studies in human blood exposed to ^{60}Co γ -rays *ex-vivo*. *Journal of Radiation Research* 56: 177-185.

Books/Book Chapters/Proceedings

- Bhan, S. (2015). Significance of apoptosis in diseases. In: *Trends in Experimental Biology*. L. Kma (Ed.). Excel India Publishers, New Delhi: Chapter 2, p. 38-61.
- Kma, L. (2015). MicroRNA as molecular target in cancer detection and therapy. In: *Trends in Experimental Biology*. L. Kma (Ed.). Excel India Publishers, New Delhi: Chapter 3, p. 62-141.

Sharan, R. N. (2015). Challenges facing the 21st century youth in nation building: Out-of-box thinking is the way forward. In: *Role of NSS in Nation Building: Scope and Challenges*. L. Kma (Ed.). Excel India Publishers, New Delhi: pp 53-60 (ISBN: 978-93-84869-78-6).

Funds Received from Agencies including NEHU/UGC

NEHU Non-Plan : 17.3 lakhs

UGC SAP DRS : 10.0 lakhs

Research Projects

New Research Projects

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount (in INR)
1	Interactions of mRNA export factors and nuclear pores characterized and quantified by biochemistry, biophysics and high-resolution imaging	Dr. T. Tripathi (PI)	UGC-Israel Science Foundation	2.1 Crore
2	Structural and functional study of the unique parasitic CYP450 in liver flukes	Dr. T. Tripathi (PI)	DST-Russian foundation for basic research	25 lakhs

Ongoing Research Projects

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount (in INR)
1	Study of Induction Kinetics of Dicentric (DC), Micronuclei (MN) and Premature Chromatin Condensations (PCC) in the Peripheral Blood Lymphocytes (PBL) of Ethnic Population Groups of the North-East India Following γ -Irradiation <i>Ex Vivo</i> : A Comparative Study	Dr. R. N. Sharan	International Atomic Energy Agency (IAEA), Vienna (Austria)	Approx. Rs. 6 lakh/year (for 4 years)
2	How AMFR gene regulates cell division and cancer after stress exposure?	Dr. A. Mishra (IIT Rajasthan, Jodhpur); Co Investigator: Dr. R. N. Sharan	Board of Research on Nuclear Science DAE, Mumbai	Approx. Rs. 8 lakh/year (for 3 years)

Department of Biochemistry

3	Mineralization and biotoxicity assessment studies of selected surfactant formulations by some advanced oxidation processes	Dr. M. K. Sahoo (Dept. of Chemistry, NEHU); Co-Investigator: Dr. R. N. Sharan	Board of Research on Nuclear Science DAE, Mumbai	Approx. Rs. 10 lakh/year (for 3 years)
4	Study the effect of <i>Potentilla fulgens</i> L extract on the (AMP-activated protein kinase) AMPK pathway –regulated metabolism in induced diabetic mice.	Dr S. Majaw (Dept. of Bio-technology & Bioinformatics, NEHU); Co-Investigator Prof. D Syiem	Department of Biotechnology, New Delhi.	Rs. 13.5 lakhs
5	Quantitative Coupling of Hydrocarbon degradation and Bacterial Communities in Petroleum Hydrocarbon Impacted Sediments Undergoing Bioremediation	Prof. A. K. Singh	Department of Biotechnology, New Delhi	Rs. 6.29 lakhs
6	Evaluation of the Radio-sensitizing Potential of <i>Ocimum sanctum</i> L. and its Constituent on Human Cancer Cell Line	Dr. L. Kma	SERB, DST, New Delhi.	Rs. 12 Lakhs
7	Biochemical and functional properties of <i>Synechocystis</i> glutathione S-transferase(s)	Dr. T. Tripathi	SERB, DST, New Delhi	50 Lakhs

Research Projects completed during Year

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1	A detailed study on the potential of locally isolated cyanobacteria in biosorption of heavy metals common in water bodies of Meghalaya.	PI: Prof M. B. Syiem (NEHU, Shillong)	UGC, New Delhi	Rs. 13.22 lakhs
2	Enhancing functional repertoire of eukaryotic RNA Polymerase II	Dr. T. Tripathi (PI)	DBT, New Delhi	85 lakhs
3	An investigation into the role of solution variables in amyloidogenesis	Dr. T. Tripathi (PI)	SERB, DST, New Delhi	19 Lakhs
4	Identification, molecular characterization and structure determination of glutaredoxin system proteins from infectious flukes	Dr. T. Tripathi (PI)	DBT, New Delhi	44 Lakhs

Academic Collaborations

Prof. R. Sharma was a Visiting Researcher, Toho University, Chiba, Japan (Jan. 01-March 31, 2016).

Prof. R. N. Sharan visited THS Aachen, Juelich Campus, Germany on invitation to discuss the future research collaboration (22-24 September 2015).

Prof. D. Syiem has Research collaboration with Bioresource Development Centre, Govt. of Meghalaya, Shillong.

Prof. M.B. Syiem has research collaboration with Indian Institute of Technology, Guwahati, Guwahati, Assam.

Dr. P.K. Ambasht has research collaboration with Department of Chemistry, NEHU, Shillong and School of Biotechnology, Banaras Hindu University, Varanasi.

Dr. Timir Tripathi has research collaboration with Prof. Y. Shav-Tal, Bar-Ilan University, Israel. (Indo-Israel Research Project, UGC-ISF) and with Dr. V. Mordvinov, Institute of Cytology and Genetics, Russia (Indo-Russian Research Project DST- RFBR).

Honours/Awards/Recognitions

Prof. A. N. Rai

Chief Guest at Republic Day function of TM Bhagalpur University, Bhagalpur (26/01/16).

Chairman NAAC Team for VB University Hazaribagh (24-27 Feb 2016)

Member Search Committee for VC Central University, Jharkhand

Member, Selection Committee for BBR University, Lucknow

Prof. R. Sharma

Editorial board member: of (a) *Biogerontology*, Springer, The Netherlands; (b) *International Journal of Developmental Neurosciences*, Elsevier, USA; and (c) *Frontiers in Genetics of Aging*, Science Park, Switzerland;

Member of (a) Task Force on Neuro-Disease Biology, DBT, MoST, GOI (2015-17); (b) NAAC Peer Team, Bangalore (2016); (c) State Higher Education Council, Mizoram

Prof. R. N. Sharan

Invited Expert in the "National Summit on the Role of Civil Society in Protection of Environment" at Ranchi (May 29, 2015).

Prof. D. Syiem

Chaired a Technical Consultative Workshop on Bio Resources & Sustainable Development, organised by Meghalaya Basin Development Agency, Govt. of Meghalaya, Shillong on May15, 2015.

President, NEHU Alumni Association and founding member 2014 till date

Member of (a) District task force for documentation of tribal medicine, April, 2015; (b) Screening committee of the Directorate of Higher & Technical Education, Govt. of Meghalaya, for placement of Govt. College Lecturers; (c) Examination Committee for MBBS selection, Govt. of Meghalaya, 2015-16; (d) Advisory Committee, St Anthony's College Star College Scheme under DBT, 2015-16; (e) Biotech Hub Advisory Board, Lady Keane College, 2015; (e) State Level Expert Appraisal Committee (SEAC) for Environmental Impact Assessment, Govt. of Meghalaya, (August 2015 to Aug, 2018); (f) Editorial Board, Bodoland University, an

open online science journal entitled "Bio-Science Letters" (bi-annual), 2015 onwards; (g) Governing Body, Nabon Women's Synod College 2015 till date.

Prof. M. B. Syiem

Reviewer for Journals: (a) *Clean-Soil, Air and Water*; (b) *Journal of Hazardous Material*

Dr. T. Tripathi

Chaired a Scientific session in the International Conference on Translational Biotechnology (Biosangam 2016), held in the Motilal Nehru Institute of Technology, Allahabad. (February 04-06 2016).

Visiting Professor to Khon Kaen University, Thailand (5.7.15- 30.7.15)

Life Member of Asia Pacific Travel Health Society, Singapore since 2015.

Other Activities

Prof. A. N. Rai

Delivered lectures on (a) "Quality assurance in higher education" at HRDC, NEHU Shillong (6 November 2015); (b) "A ramble through cyanobacterial symbioses" at HRDC, University of Hyderabad (13 November 2015); (c) "Quality Assurance" at IQACs at GNDU, Amritsar (1/6/15); Kashi Vidyapeeth, Varanasi (26/7/2015); Guwahati University (29/8/15); Manipur University (24/11/15).

Attended meetings of (a) Academic Council and Executive Council, Mizoram University (4/6/15 and 31/7/15); (b) Court meeting of Manipur University, Manipur (25/8/15); (c) IQAC of University of Hyderabad, Hyderabad (13/11/15); (d) Planning Board of MG Chitakoot Gramoday University,

Chitakoot (24-24/7/15); (e) Executive Council of Manipur University, Manipur

Prof. R. Sharma

Delivered lectures on (a) "Why and how we age? Strategies to have healthy aging" at Toho University, Chiba campus, Japan (3/3/2016); (b) "Mechanisms of aging: how to have healthy aging" at Toho University, Tokyo campus, Japan (8/3/2016); (c) "Causes for aging: interventions to age healthily" at National Institute of Radiation Sciences, Chiba, Japan (14/3/2016).

Prof. R. N. Sharan

Delivered an invited talk on Ethical Issues in Research for the faculty of Lady Keane College, Shillong on May 9, 2015 under the initiative of the Research Monitoring Committee.

Delivered an invited talk on "Genomic and Proteomic Biomarker for Molecular Biodosimetry in Future" at University Hospital of Duisburg-Essen University, Germany (September 26 - October 2, 2015).

Prof. M. B. Syiem

Delivered a lecture on "Environmental Pollution and Bioremediation" in short term course on Environmental Sciences for College & University teachers and research scholars (8/10/2015)

Visited Vishakha Govt. Degree College for Women on June 25-27, 2015 as NAAC Peer Team Member.

Dr. P. K. Ambasht

Delivered three guest lectures in School of Biotechnology, Banaras Hindu University, Varanasi on "Mechanism of enzyme catalysis and regulation" (February 15-17, 2016).

DEPARTMENT OF BIOTECHNOLOGY & BIOINFORMATICS

Head: Professor S. Rama Rao

Telephone: 0364-272-2401/2402/2404

E-mail: srrao22@yahoo.com/ biotechnologynehu@gmail.com/srrao@nehu.ac.in

Faculty

Designation	Name and Qualification	Specialization
Professor	Professor Anupam Chatterjee, M.Sc.. (Burdwan), Ph. D. (BHU)	Genetics & Molecular Biology
	Professor S. Rama Rao, M.Sc./Ph.D. (Jodhpur Univ.)	Plant Cellular and Molecular Genetics
	Professor Kripamoy Aguan, M.Sc (IARI) Ph.D.(Univ.of Birmingham)	Genetics & Molecular Biology
Associate Professor	Dr. S. R.Joshi, M.Sc. / Ph.D. (NEHU)	Microbiology
Assistant Professor	Dr. (Mrs.) Suktilang Majaw, M.Sc.(Tezpur), Ph.D (NEHU)	Biochemistry
	Dr. Atanu Bhattacharjee, M.Sc(NEHU), M.Sc (Annamalai Univ), Ph.D (NEHU)	Bioinformatics & Microbiology
	Dr. (Mrs.) Neha Chaurasia, M.Sc./ Ph.D (BHU)	Environmental Biotechnology

Thrust Areas of Research

These are (1) Molecular Genetics, and (2) Microbiology

Brief Statement of Academic Activities

The Department of Biotechnology & Bioinformatics was started in 2005. It offers Post Graduate (M.Sc. and Ph.D.) academic programmes. The North Eastern Region of India is rich in flora and fauna, being a hotspot of biodiversity. The Department has initiated programmes providing training and research environment which provides people with latest information in their respective fields and

bring them closer to the rest of the world as far as scientific advancements are concerned. Based on overall academic objectives of the Department and its faculties' potentialities the department was considered for financial support for "M.Sc. Biotechnology" by the Department of Biotechnology, New Delhi. Five batches of M.Sc. students have successfully completed their M.Sc. degree and some of them have joined in different IITs, IMTECH, AIIMS, IISc. etc for their Ph.D. degree while many others had joined different National Biotech Companies. The department while giving importance to the global scenario has regional priorities in research and development incorporated into

its programme. This programme is intended to develop and maintain modern state-of-the-art teaching, training, research, databases and software development related to North-East India, ultimately to contribute towards socio-economic development of the tribal people of the region. The department in 2010 received DST-

FIST support for strengthening infrastructural facility for academic support from Department of Science & Technology, Govt. of India. Extramural support in the form of projects received by the faculties come from DBT, ICAR, DST, UGC, DAE, BRNS, OIL, NEC, DRDO etc.

Students' Profile

Enrolment Capacity: M.Sc. – 21; Ph.D. – Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc.	-	14	7	10	11	15	06	21
Ph.D.	-	02	01	02	01	01	02	03

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc.	-	12	09	05	16	13	08	21
M.Phil.	-	-	-	-	-	-	-	-
Ph.D.	-	01	03	02	02	01	03	04

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name(s) of Supervisor(s)/ Joint Supervisor
Mr. Subhro Banerjee	Studies on bacterial biofilms colonizing the speleothems in Meghalaya	Dr. S. R. Joshi
Mrs. Archana Nath	Characterization of endophytic fungi associated with some enthno-veterinary medical plants of Northeast India	Dr. S. R. Joshi
Mr. Devendra Kumar Biswal	Phylogenetic assessment of the lung fluke, <i>Paragonimus westermani</i> species complex (plathelminth:trematoda) and other lelminth –parasites based on mitochondrial and nuclear rDNA sequences: an in silico approach	Prof. Anupam Chatterjee (Supervisor) Prof. (Mrs) Veena Tandon (Jt. Supervisor) Dr. S. Ramachandran (Jt. Supervisor)

Ms. Sillarine Kurkalang	Loss of heterozygosity at chromosome 4q27 and 3p14 regions and methylation and or expression status of selected tumor suppressor and check-point genes in betel-nut induced human and mouse tumor samples	Prof. Anupam Chatterjee
-------------------------	---	-------------------------

Research Fellowships

NET	- 04
UGC Non-NET	- 10
Rajiv Gandhi SC/ST Fellowship	- 01
DS Kothari Post Doc Fellowship	- 01
DBT-JRF	- 04
SLET	- 02

Courses Conducted

Postgraduate

Semester-I:

Cell Biology & Genetics, Biomolecules, Microbiology

Semester-II:

Molecular Biology, Immunology, Microbial Technology

Semester-III:

Animal Cell Science & Technology, Genetic Engineering, Plant Biotechnology

Semester-IV:

Bioprocess Engineering & Technology, Environmental Biotechnology, Molecular Genetics, Applied Microbiology

The department offers open courses on Microbial Technology, Applied Molecular Genetics, Bioinformatics in Molecular and cellular Biology under CBCS in the M.Sc. 2nd and 3rd semesters.

Ph.D. Course Work (One Semester)

1. Research Methodology (School Level)
2. Biotechnology in Medicine, Agriculture and Microbiology (Dept. Level)
3. Review of literature (Dept. Level)

Seminars/Conferences/Symposia/ Extension Programmes etc.

Attended and Participated

N. Chaurasia

- (a) Gave talk on "Effect of Locally Used Pesticides Mancozeb and Profenofos on the Soil Microbes in Rice Fields of Meghalaya" In UGC sponsored National Conference on *New Approaches and Concepts in Microbial Biotechnology* on 29-30 September 2015 at Maharani Science College for Women, Bangalore; (b) Gave talk on "Enhanced lipid production under nutrient depletion in two native isolates of algae isolated from freshwater sources of Meghalaya" In 103rd Indian Science Congress 2016 at Mysore, India, from 3-7 January 2016.

A. Chatterjee

- (a) Chaired a session and delivered an invited lecture in National Conference on *Recent Developments in Medical Biotechnology and Structure Based Drug Designing* held at IIT, Guwahati. 6-7 December, 2015; (b) attended several DBT-Task Forces meetings at New Delhi and Trivandrum.

Prof. S. R. Rao

- (a) Delivered an invited lecture on “Advances of Bioinformatics and Computational Biology in Applied Biotechnology” at National Seminar on *Application of Bioinformatics Tools in Understanding of Plant Diversity and Inter-species Relationships* held at Department of RDAP, NEHU, Tura Campus, in October, 5; 2015; (b) delivered an invited lecture on “Cellular and molecular genetic approaches to understand the species diversity in *Curcuma*” at *International Conference on Emerging Biotechnologies*, Kakatiya University, Warangal (28-30 January 2016); (c) delivered two invited lectures on “New frontiers of Chromosome Research and their significance in understanding the diversity of Plant Genetic Resources” and “Heterochromatin distribution and its distribution pattern in the Genus *Curcuma* L.” at National Seminar on *Inventory, Sustainable Utilization and Conservation of Bioresources* held at the Department of Botany, Nagaland University, on 26-27, February, 2016; (d) delivered an invited lecture at the event on *Emerging trends in Chromosome Research and their Relevance to Characterization of Plant Genetic Resources* held at Department of Botany, Dayalbagh Educational Institute (Deemed University), Dayalbagh, Agra, on 28-29 March, 2016; (e) delivered an invited lecture on “Genetic fidelity of Plant Tissue and Organ Cultures” at a seven day training programme on “Techniques in Plant tissue Culture” at Department of Botany, NEHU, Shillong, on March 15-21, 2016.

S. R. Joshi

Presented a paper on “Carriage of CMY-96 mediated Cephalosporin resistance

in *Escherichia coli* of food origin: A report from India” at the 6th Congress of European Microbiologists at Maastricht, The Netherlands, June 7-11, 2015; (b) Gave an Oral presentation at the International Conference on Molecular Signalling organized by Department of Zoology, NEHU, Shillong, from 20-22 Nov 2015.

Publications

Research Papers

Published in India

- Rajkumari, K., John, K. J., Yadav, S. R., Bhat, K. V., Shamurailatpam, A., Rao, S. R. (2015). Cytogenetical treatise of Indian representative species of *Cucumis*. A karyotypic approach. *Cytology and Genetics*, 49(6), 388-396.
- Lamare, A., Rao, S. R. (2015). Efficacy of RAPD, ISSR and DAMD markers in assessment of genetic variability and population structure of wild *Musa acuminata* Colla. *Physiology and Molecular Biology of Plants*, 21(3), 349-358.
- Shubhanand, N., Agrawal, M., John, K. J., Sutar, S., Yadav, S. R., Rao, S. R., Bhat, K. V. (2015). Phylogenetic informativeness of plastid regions in inferring the species relationships among *Cucumis* species. *Indian Journal of Genetics and Plant Breeding (The)*, 75(2), 232-236.
- Patil, P., Sutar, S., Joseph, J. K., Malik, S., Rao, S., Yadav, S., Bhat, K. V. (2015). A systematic review of the genus *Abelmoschus* (Malvaceae). *Rheedeia*, 25(1), 14-30.
- Shamurailatpam, A., Wahlang, D. R., Madhavan, L., Yadav, S. R., Bhat, K. V., Rao, S. R. (2015). Further observations on chromosome diversity analysis in wild species

- of *Vigna* from India. *The Nucleus*, 58(3), 225-230.
- Lamare, A., Baruah, I., Borah, N., Rao, S. R. (2016). Analysis of intraspecific genetic variation in *Musa balbisiana* Colla from Meghalaya as revealed by Single Primer Amplification Reaction approach. *The Nucleus*, 59(1), 25-34.
- Bareh, D.A., Banerjee, A., Joshi, S.R. (2015) Microbial dynamics and diversity in foot hills of Eastern Himalayan range: A focus on shifting cultivation. *ENVIS Himalayan Ecology*. 23: 1-8
- Published Abroad**
- Podder, S., Ghoshal, N., Banerjee, A., Ganguly, B., Upadhyay, R., Chatterjee, A. (2015) Interaction of DNA lesions induced by sodium fluoride and radiation and its influence in apoptotic induction in cancer cell lines. *Toxicology Reports*, 2: 461-471.
- Choudhury, A., Radhika, M., Chatterjee, A., Banerjee, U., Singh, IP (2015) Qualitative and quantitative analysis of *Potentilla fulgens* roots by NMR, MALDI-TOF-MS, and HPLC-UV. *Phytochemical Analysis*, 26: 161-170.
- Das, A., Chaudhuri, D., Ghate, N. B., Chatterjee, A., Mandal, N. (2015) Protective effect of *Clerodendrum colebrookianum* leaves against Iron-induced Oxidative Stress and Hepatotoxicity in Swiss albino mice. *Ind. J of Expt. Biol.*, 53: 281-291.
- Tripathy D, Choudhary A, Banerjee U C, Singh, I P, Chatterjee A (2015) Induction of Apoptosis and Reduction of Endogenous Glutathione Level by the Ethyl-Acetate Soluble Fraction of the Methanol Extract of the Roots of *Potentilla fulgens* in Cancer Cells. *PLoS ONE* 10(8): e0135890.
- Gurung, A.B., Aguan, K., Mitra, S., Bhattacharjee, A. (2016). Identification of molecular descriptors for design of novel Isoalloxazine derivatives as potential Acetylcholinesterase inhibitors against Alzheimer's disease. *Journal of Biomolecular Structure and Dynamics* (Online).
- Upadhyay, S., Joshi, S.R., Khryiem, A.B., Bhattacharyya, P. (2016) Acquired 16s methyl transferase associated high level aminoglycoside resistance in *Acinetobacter baumannii* recovered from ICU patients from a tertiary referral hospital of northeast India. *International Journal of Infectious Diseases*. 45S-46.
- Nath, A., Joshi, S. R. (2016) Endophytic fungi from tropical ethnoveterinary plants and their antibacterial efficacy against *Pasteurella multocida* Capsular Type A strain. *Revista de Biologia Tropical*. 64 (2): 733-745.
- Borthakur, M., Joshi, S.R. (2016) Micrographical analysis of growth deformities in common pathogens induced by voucher fungi from India. *Journal of Microscopy and Ultrastructure*. DOI: 10.1016/j.jmau.2016.04.001
- Lyngwi, N.A., Nongkhaw, M., Kalita, D., Joshi, S.R. (2016) Bioprospecting of Plant Growth Promoting Bacilli and Related Genera Prevalent in Soils of Pristine Sacred Groves: Biochemical and Molecular Approach. *PLoS ONE* 11(4): e0152951. doi:10.1371/journal.pone.0152951
- Palepu, N.R., Premkumar, J.R., Verma, A.K., Bhattacharjee, K., Joshi, S.R., Forbes, S., Mozharivskyj, Y., Rao, K.M. (2015) Antibacterial, in vitro antitumor activity and structural studies of rhodium and iridium

- complexes featuring the two positional isomers of pyridine carbaldehyde picolinic hydrazone ligand. *Arabian Journal of Chemistry*. <http://dx.doi.org/10.1016/j.arabjc.2015.10.011>
- Upadhyay, S., Mustafa, M., Joshi, S.R. (2016) Naturally evolving extended spectrum cephalosporin resistance in soil borne isolates of Enterobacteriaceae. *National Academy Science Letters*. 39: 181-184. DOI:10.1007/s40009-016-0463-z.
- Khaund, P., Joshi, S.R. (2016) *Lentinula edodes* based GIS mapping, biometabolites and antiinflammatory activity of wild edible mushrooms from tropical 'sacred grove' forests of Meghalaya, India. *Revista de Biologia Tropical*. 64 (1): 247-257.
- Upadhyay, S., Hussain, A., Mishra, S., Maurya, A.P., Bhattacharjee, A., Joshi, S.R. (2015) Genetic environment of plasmid mediated CTX-M-15 extended spectrum beta-lactamases from clinical and food borne bacteria in north-eastern India. *PLoS ONE* 10(9): e0138056. doi:10.1371/journal.pone.0138056.
- Nongkhlaw, F.M.W., Joshi, S.R. (2016) Horizontal gene transfer of the non-ribosomal peptide synthetase gene among endophytic and epiphytic bacteria associated with ethnomedicinal plants. *Current Microbiology*. 72: 1-11. doi:10.1007/s00284-015-0910-y.
- Banerjee, S., Joshi, S. R. (2015) Mineralogical footprints of bacterial biofilms associated with Labit cave, a part of the longest cave system in India. *Geomicrobiology Journal* DOI: 10.1080/01490451.2015.1083060.
- Das, A.R., Borthakur, M., Saha, A.K., Joshi, S.R., Das, P. (2015) Growth of mycelial biomass and fruit body cultivation of *Lentinus squarrosulus* collected from home garden of Tripura in Northeast India. *Journal of Applied Biology & Biotechnology*. 03(04): 17-19.
- Lyngwi, N.A., Joshi, S.R. (2015) 'Traditional Sacred Groves', an ethnic strategy for conservation of microbial diversity. *Indian Journal of Traditional Knowledge*. 14(3): 474-480.
- Upadhyay, S., Joshi, S.R. (2015) Carriage of multidrug resistant integrin gene cassette arrays within environment and food isolates in a high altitude city of northeast India. *International Journal of Antimicrobial Agents*. 45: S84-S85.
- Palepu, N.R., Nongbri, S.L., Premkumar, J.R., Verma, A.K., Bhattacharjee, K., Joshi, S.R., Forbes, S., Mozharivskyi, Y., Thounaojam, R., Aguan, K., Rao, K.M. (2015) Synthesis and evaluation of new salicylaldehyde-2-picolinyldihydrazone Schiff base compounds of Ru(II), Rh(III) and Ir(III) as in vitro antitumor, antibacterial and fluorescence imaging agents. *Journal of Biological Inorganic Chemistry* DOI 10.1007/s00775-015-1249-3.
- Joshi, S. R., Banerjee, S., Bhattacharjee, K., Lyngwi, N.A., Koijam, K., Khaund, P., Devi, L.S., Nongkhlaw, F.M.W. (2015). Northeast Microbial database: A web based databank of culturable soil microbes from Northeast India. *Current Science* 108(9): 1702-1706.
- Majaw, S., Das, A., Borah, V.V. (2016). Effect of *Clerodendron colebrookianum* Walp. aqueous leaf extract on liver oxidative stress and the immune system of mice exposed to cold restraint stress. *Int J. Curr. Sci.* 19(2): E95-104.

- Gurung AB, Ali MA, Bhattacharjee A, AbulFarah M, Al-Hemaid F, Abou-Tarboush FM, Al-Anazi KM, FSM Al-Anazi, Lee J., (2015). Molecular docking of the anticancer bioactive compound proceraaside with macromolecules involved in the cell cycle and DNA replication. *Genetics and molecular research*. 15:1-8.
- Gurung, A.B., Myllemngap, B.J., Bhattacharjee, A., Ali, M.A. and Al-Hemaid, F.M.A., (2015). Interactome analysis and design of inhibitors against selected protein targets of Ser/Thr protein kinase (STPK) signaling pathways in Mycobacterium tuberculosis H37Rv. *Genetics and Molecular Research*. 14: 10390-10403.
- Islam, M.M., Gurung, A.B., Bhattacharjee, A., Aguan, K. and Mitra, S., (2016). Human serum albumin reduces the potency of acetylcholinesterase inhibitor based drugs for Alzheimer's disease. *Chemico-biological interactions*. 249:1-9.
- Gurung, AB and Bhattacharjee. A., (2015). Significance of Ras Signaling in Cancer and Strategies for its Control. *Oncology & Hematology Review*. 11: 147-52
- Books/ Book Chapters/ Proceedings**
- V. R. Rajpal., S. R. Rao., S. N. Raina (Eds.) 2016. *Molecular Breeding for sustainable crop improvement. Series: Sustainable Development and Biodiversity*, Vol. 10; Springer (Amsterdam).
- V. R. Rajpal., S. R. Rao., S. N. Raina (Eds.) 2016. *Gene Pool Diversity and Crop Improvement Series: Sustainable Development and Biodiversity*, Vol. 10; Springer (Amsterdam).
- Sarma, B., Joshi, S.R. (2015) Environmental toxicity and the role of Pseudomonads in biodegradation of xenobiotics. In: *Biology, Biotechnology and Sustainable Development*. (Ed: H. Choudhury) Research India Publications, India, pp. 41-61.
- Debajit, K., Sarma, B., Joshi, S.R. (2015). Lead(Pb) tolerant bacterial strains from uranium rich soil of Domiasiat in Meghalaya. In: Bioreview - Proceedings of National Seminar on *Conservation of Biodiversity: National Perspectives and Sustainable Development* organized by Morigaon College, Assam, on 27-28 June 2014. pp 63-69.
- Ojha, A., Rao, C. S., Tak, N., Gehlot, H. S., Rao, S. R. (2015). Genetic Diversity Analysis of Rhizobial Symbionts Associated with Legumes of India for Efficient Biological Nitrogen Fixation (BNF) Technology and Natural Soil Fertility. In: *Biology, Biotechnology and Sustainable Development*, 183.H. Chaudhury (Ed.). Research India Publications: Chapter 9, p.183-196.
- Lamo J.M., Hynniewta M., Rao S. R. (2015) Morpho-genetic diversity between and within the species of the genus *Curcuma* L and its relevance for conservation efforts. In: *Biology, Biotechnology and Sustainable Development* (Ed. H. Choudhury). Research India Publications. pp 197-207.
- Chaurasia N. (2015).Cyanobacterial genes as a potential targets for removing heavy metal contamination from agroecosystems (chapter 4). In *Trends in Experimental Biology*, L. Kma (Ed.) Excel India Publishers, New Delhi. pp.142-60.
- Joshi, S.R., Biswas, K.(2015) Antioxidants in fermented Foods. In: *Health Benefits of Fermented Foods and Beverages* (Ed: J.P.

Tamang), CRC Press-Taylor & Francis. pp 553-565.

Molins., A. C., Galvez, A., Joshi, S. R., et al. (2016) Indigenous Fermented Foods of South Asia. In: *Indigenous Fermented Foods of South Asia* (Ed: V. K. Joshi). Taylor and Francis Group, LLC. Pp. 1-67.

Senapati., A.K., Ann, A., Joshi, S.R., et al. (2016) Diversity of Indigenous Fermented Foods and Beverages of South Asia. In: *Indigenous Fermented Foods of South Asia* (Ed: V.K. Joshi). Taylor and Francis Group, LLC. Pp.69-106.

Kumari, K., Pandey, A., Joshi, S.R., et. al. (2016) Indigenous Alcoholic beverages of South Asia. In: *Indigenous Fermented Foods of*

South Asia (Ed: V.K. Joshi). Taylor and Francis Group, LLC. Pp. 501-596.

Rosma, A., Singh, A., Joshi, S.R., et. al. (2016) Indigenous Fermented foods. In: *Indigenous Fermented Foods of South Asia* (Ed: V.K. Joshi). Taylor and Francis Group, LLC. Pp. 645-713.

Funds Received from Agencies including NEHU/UGC

UGC/NEHU (Non-plan)	: Rs 28.862 lakhs
DBT	: Rs 352.34 lakhs
DST	: Rs 61.6 lakhs
OIL	: Rs 9.58 lakhs
NEC	: Rs 39.0 lakhs

Research Projects

New Projects

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount (₹)
1	Association between the loss of tumor suppressor genes and deregulation of Mad2 expression in raw areca-nut induced cancer samples	Prof. A. Chatterjee	DST, GoI	36.60 lakhs
2	"Network Programme for Enrichment and Update of Plant Chromosome Database for Spermatophytes and Archegoniates".	Prof. S Rama Rao	DBT, GoI	8.40 Lakhs
3	Study the effect of <i>Potentilla fulgens</i> L. extract on the AMP-activated protein kinase) AMPK pathway-regulated metabolism in induced-diabetic mice.	Dr. S. Majaw (PI) Prof. D. Syiem (Co-PI)	DBT, GoI	13.5 Lakhs

Ongoing

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount (₹)
1	"Network Programme for Enrichment and Update of Plant Chromosome Database for Spermatophytes and Archegoniates".	Prof. S. Rama Rao	DBT, GoI	8.40 lakhs
2	Characterization of Probiotics of Non-Diary origin from North-East India	Dr. S. R. Joshi	DBT, GoI	45.35 lakhs
3	Studies on upgrading of water quality in coal mining areas of Meghalaya an Eastern Coal Mines by Chemisorption and Bioremediation towards mitigation of unscientific coal mining	Dr. S. R. Joshi	DBT, GoI	30.50 lakhs
4	Impact Assessment of Jhumming on native plants and soil microbiota and restoration of sustainable jhum Agro – Ecosystem in Northeast India.	Dr. S. R. Joshi	DBT, GoI	55.48 lakhs
5	Screening of endophytic fungi having biofuel generation potential from biodiesel plants of Assam	Dr. S. R. Joshi	Oil India Limited Duliajan, Assam	9.58 lakhs
6	Remediation of produced water from NE oil field by microbial and membrane intervention with modeling of an affluent unit for the recovery of usable water	Dr. Suktilang Majaw	DBT, GoI	1.85 lakhs
7	"Molecular basis of toxicity analysis of locally used <i>alphamethrin</i> on cyanobacteria and algae in soil microflora of Meghalaya"	Dr. N. Chaurasia	DST, GoI	25.0 lakhs
8	"Development of Ache-inhibitor for Alzheimer's disease: Screening, Designing, Synthesis and Biological validation using Chemical Library & Traditional North-East Indian Plants"	Prof. K. Aguan	DBT, GoI	89.68 lakhs
9	"miRNA Mutation in Epilepsy- an explorative study"	Prof. K. Aguan	DBT, GoI	81.20 lakhs

Completed during Year

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount (₹)
1	"Whole Genome and Transcriptome Changes as a Consequence of Allo and Auto Polyploidy in <i>Vigna L</i> ".	Prof. S. Rama Rao	DBT, GoI	10.60 lakhs
2	Collection and Molecular Characterization of Mushrooms from Sacred Groves of Meghalaya.	Dr. S. R. Joshi	DST. GoI	25.381 Lakhs
3	Assessment and conservation of microbial biodiversity in Sacred Groves with special reference to plant growth promoting <i>Bacillus</i> and related genera as influenced by environmental degradation.	Dr. S. R. Joshi	North Eastern Council (NEC), Government of India	39.00 Lakhs
4	Genomic and biochemical activity characterization of bacterial community associated with Tungtap - a traditionally fermented fish product of Meghalaya.	Dr. S. R. Joshi	UGC	19.312 Lakhs
5	Protein protein interface targeted drug designing	Dr. Atanu Bhattacharjee	DBT, GoI	6.86 Lakhs
6	"Development of Antiepileptic Drugs: based on molecular physiology of epilepsy causing gene EFHC1 and Ayurvedic remediation.	Prof. K. Aguan	DBT, GoI	103.68 lakhs

Academic Collaborations

With (a) NIPER Chandigarh; (b) Bose Institute, Kolkata; (c) National Bureau of Plant Genetic Resources, New Delhi; (d) JNV University of Jodhpur; (e) Department of Horticulture, NEHU, Tura Campus; (f) National Institute of Technology, Durgapur; (g) Molecular Biology Division, Bhabha Atomic Research Centre, Mumbai; (h) IIT, Kharagpur, W.B.

Other Activities

S. R. Rao

- (a) delivered an invited lecture on "Plant Biotechnology and Biotechnology" at Annamalai University, 3 -5th February.2016;
- (b) delivered an invited lecture on "Cellular and Molecular Genetic Approaches for Characterization of Horticultural Resources of North East India" at Department of Biotechnology, School of Life Sciences, Pondicherry University on 5 February,

2016; (c) became a member of School Board of Life Sciences (SBLs) Assam University, Silchar; (d) became a member of School Board of Life Sciences (SBLs) Nagaland University, Lumami.

S. R. Joshi

- (a) Invited Member of State Biodiversity Board, Government of Meghalaya, Shillong;
- (b) delivered a talk at UGC-HRDC 32nd Orientation Programme held on 21st April, 2015 on the topic "Resource Utilization in Teaching" at Academic Staff College, NEHU, Shillong;
- (c) delivered a talk at UGC-HRDC 33rd Orientation Programme (General) held on 25-28 May, 2015 on the topic "Resource Utilization in Teaching" at

Academic Staff College, NEHU, Shillong;

- (d) delivered a talk at UGC-HRDC 35th Orientation Programme (General) held on 17th February, 2016 on the topic "Resource Utilization in Teaching" at Academic Staff College, NEHU, Shillong;
- (e) gave a talk at UGC-HRDC 34th Orientation Programme held on 28th January, 2016 on the topic "Resource Utilization in Teaching" at Academic Staff College, NEHU, Shillong;
- (f) delivered an invited lecture in 35th Orientation course at NEHU-HRDC on topic entitled : Applications of information technology in medical sciences" on 10th February 2016;
- (g) participated in a 21 days Special Winter School from 26th Oct 2015 till 15th Nov 2015 at NEHU, HRDC.

DEPARTMENT OF BOTANY

Head: Prof. S. K. Barik
Telephone: +91 364 2722201, 2722202
E-mail: headbotany@nehu.ac.in

Faculty

Designation	Name and Qualification	Specialization
Professor	Dr. P. Tandon*, M.Sc. (Lucknow); Ph.D. (Jodhpur)	Plant Physiology, Biochemistry and Biotechnology
	Dr. R. C. Laloo,** M.Sc. & Ph.D. (Gauhati)	Ecology
	Dr. A. K. Misra, M.Sc. & Ph.D. (Meerut)	Cell and Molecular Genetics
	Dr. N. K. Chrungoo, M. Sc. & Ph.D. (Kashmir)	Plant Physiology, Plant Molecular Biology
	Dr. M. S. Dkhar, M. Sc. & Ph.D. (NEHU)	Microbiology and Microbial Ecology
	Dr. N. Venugopal, M. Sc. & Ph.D. (Madras)	Plant Reproductive Biology and Anatomy
	Dr. S. K. Barik, M. Sc. (Berhampur); Ph.D. (NEHU)	Forest Ecology and Management, Biodiversity Conservation, and EIA
	Dr. Uma Shankar, M.Sc. (Agra); Ph.D. (NEHU)	Ecology, Biodiversity and Conservation
	Dr. H. Kayang, M. Sc. & Ph.D. (NEHU)	Microbiology and Microbial Ecology
	Dr. S. Kumaria, M. Sc. & Ph.D. (NEHU)	Plant Physiology and Biotechnology
Associate Professor	Dr. Y. Kumar, M.Sc. (Agra); Ph.D. (NEHU)	Plant Taxonomy and Biosystematics
	Dr. L. Kharlukhi, M. Sc. (NEHU); Ph.D. (IARI)	Seed Physiology
	Dr. P. Ramanujam, M. Sc. & Ph. D. (NEHU)	Plant Ecology, Algal Ecology
Assistant Professor	Dr. M. C. Das, M. Sc. & Ph.D. (NEHU)	Plant Biotechnology

* Up to 31st October, 2015; **Up to 31st August, 2015

Against two vacant positions, Dr. Bibhuti B. Das and Ms. Neeta Pathaw were appointed as Guest faculty at Assistant Professor level during the year. Prof. H.S. Gehlot of J. N. Vyas University, Jodhpur, joined the Department as DBT Visiting Professor (NER) during the year.

Thrust Area of Research

Plant and microbial diversity: Assessment, Characterization, Bio-prospection and Conservation

Brief Statement of Academic Activities

The Department of Botany is a UGC Centre for Advanced Studies in Botany (Phase II). It offers two M. Sc. Programmes: (i) M.Sc. (Botany) and (ii) M.Sc. (Plant Molecular Biology), and Ph.D. Programme in Botany. The faculty members are active in diverse areas of research in plant sciences and are operating several research projects funded by various national and international agencies. The department is currently coordinating three all India research projects involving 55 institutions/ universities in the country. The Department has research collaboration with several international and national organizations/universities. During 2015-16, thirteen individual research projects were undertaken. The Department received grant of Rs. 255.72 lakh from different funding agencies (including non-plan grant from UGC) during the year.

Faculty members were invited by different institutions and universities in the country and abroad to deliver lectures, and invited to important national and international events, symposia and seminars as Keynote and Lead speakers. Research students attended workshops and training programmes organized by different

universities/ institutions and also presented papers in different seminars, symposia in India and abroad. Nine students were awarded Ph.D. degree during the year. 30 students were admitted to M.Sc. (Botany) and 10 students to M.Sc. (Plant Molecular Biology) programmes. 31 students were awarded M.Sc. degree in Botany and 10 students were awarded M.Sc. degree in Plant Molecular Biology. 33 research papers were published in peer-reviewed scientific journals of national and international repute. 12 book chapters were published and two books were edited by the faculty members during the year.

Besides regular teaching and research programmes, the Department organized three workshops and training programmes, a short term winter school of eight days for B.Sc. (Botany) students. The department also organized a national seminar in collaboration with Institute of Bioresources and Sustainable Development, Department of Biotechnology, Govt. of India, Takyelpat, Imphal, Manipur. A Lecture series on "Functional Biology" was organized by the Department where eight distinguished scientists were invited to deliver thematic talks during the year. 5 M.Sc. students were offered student fellowship within the department and 5 Traineeships were awarded to Post-M.Sc. students. 8 students underwent two-month Research Internship during winter break outside NEHU.

Students' Profile

Enrolment Capacity: M.Sc. (Botany) - 30; M.Sc. (Plant Molecular Biology) - 10; Ph.D. – Variable

Students enrolled

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc.(Botany)	-	28	3	8	23	18	13	31

Department of Botany

M.Sc (PMB)		6	4	3	7	8	2	10
Ph.D.	-	0	0	0	0	0	0	0

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc. (Botany)	-	28	3	8	23	18	13	31
M.Sc (PMB)	-	6	2	-	8	4	4	10
Ph.D.	-	8	1	1	8	6	3	9

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name (s) of Supervisor (s)/ Supervisors
Mr. Banshanlang langrai	Development of microsatellite markers and assessment of genetic diversity in ricebean (<i>Vigna umbellata</i> (Thunb.) Ohwi and Ohashi) collections from northeast India.	Prof. N. K. Chungroo (Supervisor) & Dr. A. Pattanayak (Jt. Supervisor)
Ms. Ester Jones Marbaniang	Reproductive biology of <i>Aquilaria malaccensis</i> Lam. and <i>Illicium griffithii</i> Hook. f. Thomson, two threatened tree species of northeast India.	Prof. N. Venugopal
Ms. Shiveirou Raomai	<i>In vitro</i> propagation of <i>Paris polyphylla</i> Sm. and assessment of saponin production in cultures and regenerated plantlets.	Prof. P. Tandon (Supervisor) & Prof. S. K. Kumaria (Jt. Supervisor)
Ms. Ophilia Shylla	Algal diversity in selected lentic bodies of Meghalaya with emphasis on productivity and nutrient value.	Dr. Papiya Ramanujam
Ms. Pantilunglu Daimej	Floristic studies on the family Zingiberaceae of Tamenglong District, Manipur.	Dr. Yogendra Kumar
Ms. Lalnuntluangi Ralte	Isolation and characterization of endosymbiotic cyanobacteria in some members of river-weeds (Podostemaceae).	Prof. N. Venugopal (Supervisor) & Prof. Arvind Kumar Singh (Jt. Supervisor)

Ms. Lucy Badaplin Nongbri	Niche characterization and study of genetic variability in <i>Panax</i> species complex of northeast India.	Prof. S. K. Barik (Supervisor) & Prof. A. K. Misra (Jt. Supervisor)
Ms. Lalchhanhimi	Studies on the vascular cambium and its derivatives in some ring and diffuse porous angiospermous trees of sub-tropical wethill forest of Meghalaya.	Prof. N. Venugopal
Ms. Rajkumari Jashmi Devi	Development of molecular profiles for characterization of accessions of <i>Chenopodium quinoa</i> Willd., an important underutilized crop from Indian Himalayas.	Prof. N. K. Chrungoo

Placement of Students

Dr. Ester Jones Marbaniang was awarded Research Associateship in Biodiversity Board, Govt. of Meghalaya, Shillong.

Dr. Evanylla Kharlyngdoh joined as Scientist in Meghalaya Basin Development Authority, Shillong.

Dr. Hygina Siangbood joined as Scientist in Meghalaya Basin Development Authority, Shillong. Dr. L.S. Soso joined as Assistant Professor in the Department of Botany, Banaras Hindu University, Varanasi.

Dr. Lucy Badaplin Nongbri was awarded the DBT-Research Associateship and has joined the Indian Institute of Science, Bengaluru.

Dr. Moutusi Das joined as Assistant Professor in University of Science and Technology Management, Baridua, Khanapara, Meghalaya.

Dr. Paromik Bhattacharya was awarded Research Associateship, University of KwaZulu-Natal, Durban, South Africa.

Dr. Rajkumari Jashmi Devi was awarded the 'DBT-Research Associateship in Biotechnology

and Life Sciences' and has joined the Institute of Biodiversity and Sustainable Development, Imphal.

Dr. Sheveirou Raomai was awarded 'DBT-Research Associateship in Biotechnology and Life Sciences' and has joined Jawaharlal Nehru University, New Delhi.

Dr. Subarna Hajong joined as Scientist, ICAR.

Dr. Wishfully Myllemngap was awarded the Research Associateship and has joined the G B Pant National Institute of Himalayan Environment and Sustainable Development, Itanagar.

Mr. T. Aochuba Longkumer joined Indian Forest Service.

Research Fellowships

NET: 2; UGC Non-NET: 24; Rajiv Gandhi SC/ST (NFSC/ST): 2; Meritorious: 1; Moulana Azad Minority Fellowship: 2; Inspired Fellowship: 1; Projects: 20.

Courses Conducted

Postgraduate

M.Sc. Botany

Semester I:

Mycology, Plant Pathology and Microbiology; Algae, Bryophytes and Pteridophytes; Gymnosperms and Plant Anatomy.

Semester II:

Plant Taxonomy and Economic Botany; Plant Biochemistry and Molecular Biology; Stress Biology; Bioprocess Development; Techniques in Molecular Biology.

Semester III:

Genetics, Cytogenetics and Plant Breeding; Plant Physiology; Biodiversity and Phytogeography; Environmental Pollution and Conservation; Biostatistics.

Semester IV:

Plant Reproductive Biology and Biotechnology; Plant Ecology and Ecosystem Analysis; Project Work and Submission of Dissertation.

M.Sc. Plant Molecular Biology

Semester I:

Mycology and Plant Pathology; Microbiology; Cell Biology and Plant Physiology.

Semester II:

Plant Biochemistry and Molecular Biology; Eukaryotic Genome Organization; Stress Biology; Bioprocess Development; Techniques in Molecular Biology.

Semester III:

Genetics, Cytogenetics and Plant Breeding; Metabolite Engineering; Environmental Pollution and Conservation; Computer Applications and Bioinformatics; Project Work.

Semester IV:

Plant Biotechnology; Molecular Basis of Differentiation; Continuation of Project Work and Submission of Dissertation.

Ph. D. Course Work

Paper I: Research Methodology

Paper II: Plant Sciences

Paper III: Review of Literature and Seminar

Educational Tour of Students

Teacher-in-Charge: Dr. L. Kharlukhi and Prof. H. Kayang

Places/Institutions visited: Kerala, Chennai and Kolkata.

Duration of tour: Fifteen days (January 3 - 17, 2016).

Purpose of tour: (a) Acquainting students with unique plants and animals in different ecosystems and botanical gardens; (b) Acquainting students with research work in agricultural and plant sciences.

Seminar/ Conference/Symposium/ Extension Programmes etc.

Organised

The Department collaborated with Ashoka Trust for Research in Ecology and the Environment and India Biodiversity Portal, Bangalore for organizing a Launching-cum Training Workshop on "North-East India Biodiversity Portal" at Shillong during 23 - 25 September, 2015.

The Department in collaboration with Institute of Bioresources and Sustainable Development, Department of Biotechnology, Govt. of India, Takyelpat, Imphal, Manipur organised a National Symposium on *Bioresources*

and Sustainable Development and the 2nd National Bioresources and Sustainable Development Summit at Shillong during 28–29 October, 2015.

A Winter School on “Different Biological Techniques” from 7–15 January, 2016 was organized by the Department under DBT Biotech Hub programme for B.Sc. students wherein they were given extensive training on handling and operation of various equipments. The students also conducted experiments on SDS-PAGE, genomic and plasmid DNA isolation, PCR, RNA isolation, Real time PCR, blue white screening for identification of recombinant clones.

Training programmes: (a) A Hands-on training on “RACE” organized from 23rd February to 3rd March, 2016 under DBT Biotech Hub programme; (b) On “Techniques in Plant Tissue Culture” organized under DBT State level Biotech Hub Project from 15 to 21 March, 2016.

A Lecture Series on “Functional Biology of Plants” was organized during 30-31 March, 2016.

Training programmes under DST collaborating project entitled “Popularization and dissemination of Technology of Biopesticide formulation among the poor and marginal farmers of weaker sections in North East region” were organized as follows: (a) On 2nd May, 2015 in collaboration with Bio Resource Development Centre (BRDC), Meghalaya at BRDC, Upper Shillong; (b) On 16th May, 2015 in Mawngap Village, East Khasi Hills District, Meghalaya; (c) On 8th August, 2015 in Mawlein Mawkhan Sohkyndur Village, Ri-Bhoi district, Meghalaya; (d) On 22nd August, 2015 in

Umwiehsnieh Village, Ri-Bhoi District, Meghalaya; (e) On 24th October, 2015 in Mawryngkneng Village, East Khasi Hills District, Meghalaya.

Attended and Participated

Prof. N. K. Chrungoo

Delivered an invited lecture on “Sequence polymorphism in the waxy locus and its relationship with apparent amylose content of endosperm starch in cultivars of rice from northeast India” during the session “Genomics, Epigenomics and Regulation Biology” on December 11, 2015 at third International Plant Physiology Congress, Jawaharlal Nehru University, New Delhi held during December 11-14, 2015.

Prof. S. K. Barik

Delivered an invited lecture on “Understanding ecological complexities: Modelling, Molecular and Chemical approaches” in the National Seminar on *Molecular Approaches in Applied Biochemistry: Recent Advancements* organized by West Bengal State University at Kolkata during 12-15 February, 2016.

Delivered an invited lecture on “Anthropogenic disturbances reduce ecosystem services of sacred groves” in the National Seminar on *Sacred Grove Conservation* held at IGRMS, Bhopal during March 3-5, 2016.

Prof. Uma Shankar

Delivered an invited talk on “Medicinal plant diversity in Meghalaya: utilization and conservation patterns” in International Conference on *New Approaches in Biotechnology and Biosciences* held February 18-20, 2016 at RBS Engineering College Technical Campus, Bichpuri, Agra, U.P.

Publications

Research Papers

Published in India

- Das, P. and Kayang, H. (2015). Growth response in *Michelia champaca* L. inoculated with arbuscular mycorrhizal fungi. *Journal of Forestry Research* (ISSN: 1007-662X (print version)).
- Kharwanlang, L., Das, M. C., Kumaria, S. and Tandon, P. (2016). Histological and SEM studies on somatic embryogenesis in rhizome- derived callus of *Panax assamicus*. *Ban. The Pharma Innovation Journal*, 5(4): 93-99.
- Venugopal, N. and Marbaniang, E. J. (2015). Observations on the presence of an aril in the seeds of *Aquilaria malaccensis* Lam. (syn. *A. agallocha* Roxb.) growing in Meghalaya, North-east India. *The International Journal of Plant Reproductive Biology*, 7 (2): 189-194.
- Venugopal, N. and Marbaniang, E. J. (2015). An unusual development of flowers in *Aquilaria malaccensis* J. Lamarck (Thymelaceae) growing in Meghalaya, Northeast India. *Pleione*, 9(1):140-143.
- Venugopal, N. and Pamidimarri, S. (2015). Rediscovery of critically endangered *Gymnocladus assamicus* Kanjilal ex P.C. Kanjilal (Caesalpinioideae) from West Khasi Hills District of Meghalaya. *Pleione*, 9(1):186-192.
- Kharkongor, D. and Ramanujam, P. (2015). Spatial and Temporal Variation of carotenoids in four species of *Trentepohlia* (Trentepohliales, Chlorophyta). *Journal of Botany*, 2015:1-8.

Published Abroad

- Adhikari, D., Tiwary, R. and Barik, S.K. (2015). Modelling hotspots for invasive alien plants in India. *PLoS ONE* 10(7): e0134665. doi:10.1371.
- Baishya, R. and Barik, S.K. (2015). Ecosystem level carbon and net primary productivity of an old-growth and regenerating humid tropical forest of north-eastern India. *International Journal of Plant and Environment*, 1: 126-140.
- Barman D. and Dkhar M. S. (2015). Amylolytic activity and its parametric optimization of an endophytic bacterium *Bacillus subtilis* with an ethno-medicinal origin. *Biologia*, 70(3): 283-293.
- Bhattacharyya, P., Kumaria, S. and Tandon, P. (2015). Applicability of ISSR and DAMD markers for phytomolecular characterisation and association with some important biochemical trait of *Dendrobium nobile*, an endangered medicinal orchid. *Phytochemistry*, 117: 306-316.
- Bhattacharyya, P., Kumaria, S., Job, N. and Tandon, P. (2015). Phyto-molecular profiling and assessment of antioxidant activity within micropropagated plants of *Dendrobium thyrsiflorum*: A Threatened Medicinal Orchid. *Plant Cell, Tissue Organ Culture*, 122, 535-557.
- Bhattacharyya, P., Kumaria, S. and Tandon, P. (2016). High frequency regeneration protocol for *Dendrobium noilei*: A model tissue culture approach for propagation of medicinally important orchid species. *South African Journal of Botany*, 104: 232-243.
- Bose, B., Kumaria, S., Choudhury, H. and Tandon, P. (2016). Assessment of genetic homogeneity and analysis of phytomedicinal

- potential in micropropagated plants of *Nardostachys jatamansi*, a critically endangered, medicinal plant of alpine Himalayas. *Plant Cell, Tissue and Organ Culture (PCTOC)*, 124(2): 331-349.
- Chrungoo, N. K. and Devi A.G. (2015). Morphological and Rheological Properties of Starches Separated from Cultivars of Rice (*Oryza sativa* L.) from North East India. *American Journal of Plant Sciences*, 6: 2019-2031.
- Devi, A. M., Goel, S. and Misra A.K. (2015). Generation of silver stained TE-AFLP markers in tea (*Camellia sinensis*) and their assessment in filling gaps with construction of a genetic linkage map, *Scientia Horticulturae*, 192: 293-301.
- Devi, R. J., Chungoo N. K. (2015). Species relationships in *Chenopodium quinoa* and *Chenopodium album* on the basis of morphology and SDS-PAGE profiles of soluble seed proteins. *Journal of Applied Biology and Biotechnology*, 3: 029-033.
- Devi, S. P., Kumaria, S., Rao, S.R. and Tandon, P. (2015). Genetic fidelity assessment in micropropagated plants using cytogenetical analysis and heterochromatin distribution: a case study with *Nepenthes khasiana* Hook. f. *Protoplasma*, 252: 1305-1312.
- Elangbam, M. and Misra A. K. (2016). Development of CAPS markers to identify Indian tea (*Camellia sinensis*) clones with high catechin content, *Genetics and Molecular Research* 15(2): <http://dx.doi.org/10.4238/gmr.15027860>.
- Kar P., Dey P., Misra A.K., Chaudhari T. K. and Sen A. (2016). Phytometabolomic fingerprinting of selected actinorhizal fruits popularly consumed in North-East India, *Symbiosis* DOI 10.1007/s13199-016-0415-x.
- Kehie, M., Kumaria, S. Devi, K. S. and Tandon, P. (2016). Genetic diversity and molecular evolution of Naga King chilli inferred from internal transcribed ribosomal DNA. *Meta Gene*, 7: 56-63.
- Kehie, M. Kumaria, S. and Tandon, P. (2016). Biotechnological enhancement of capsaicin biosynthesis in cell suspension of Naga King chilli (*Capsicum chinense* Jacq.). *Bioprocess Biosystem Engineering*, 39: 205-210.
- Khonglah, D., Devi, H. R. and Dkhar, M..S. (2015). Diversity of culture dependent mycoflora of the Rhizosphere and non rhizosphere soil of maize (*Zea mays* L.). *International Journal of Advanced Agricultural Science and Technology*, 4: 86-95 ISSN/ISBN : 2320-026X.
- Khonglah, D., Majaw, S. P, Kayang, H and Rao, M. S. (2015). Efficacy of bioformulations of indigenous bacterial bioagents strains against bacterial wilt of *Curcuma longa* L. *Journal of Agricultural Technology*, 11(7): 1523-1533. ISSN 1686-9141.
- Majaw, S. P., Makdoh, K., Devi, H. R. and Kayang, H. (2015). Fungal Diversity in the Rhizosphere of *Nepenthes khasiana* Hook.f., and Endemic and Endangered Insectivorous Plant of Meghalaya, India. *International Journal of Advanced Research in Biological Sciences*, 2(1): 96-102 (ISSN 2348-8069).
- Makdoh, K. and Kayang, H. (2015). Soil physico-chemical properties in coal mining areas of Khliehriat, East Jaintia Hills

- District, Meghalaya, India. *International Research Journal of Environment Sciences*, 4(10): 1-10 (ISSN 2319-1414).
- Middha S.K., Usha T., Babu D., Misra A. K., Lokesh P., Goyal A. K. (2016). Evaluation of antioxidative, analgesic and anti-inflammatory activities of methanolic extract of *Myrica nagi* leaves – an animal model approach, *Symbiosis* DOI 10.1007/s13199-016-0422-y
- Myllemngap, W., Nath, D. and Barik, S. K. (2016). Changes in vegetation and nitrogen mineralization during recovery of a montane subtropical broadleaved forest of North-eastern India following anthropogenic disturbance. *Ecological Research* 30: DOI: 10.1007/s11284-015-1309-8.
- Nongkling, P. and Kayang, H. (2015). Arbuscular Mycorrhizal status of Upland Rice in Jhum cultivation of Ri-Bhoi District, Meghalaya. *International Journal of Current Research*, 7 (3): 13686-13689. (ISSN: 0975-833X).
- Shailajan, S., Kumaria, S., Gurjar, D., Joshi, M., Paul, P. and Khongthaw, N. (2015). Variation in the marker content of five different *Dendrobium* species: comparative evaluation using validated HPTLC technique. *Journal of Applied Pharmaceutical Science*, 5(10): 032-038.
- Shailajan, S., Kumaria, S., Pednekar, S., Menon, S., Choudhury, H. and Matani, A. (2015). Estrogenic potential of *Flemingia vestita* Benth tubers in ovariectomized rat model. *Pharmacognosy Journal*, 8(1): 43-49.
- Songachan, L. S. and Kayang, H. and Moinao P. (2015). Diversity and species composition of arbuscular mycorrhizal fungi in *Clerodendrum* species, *Mycosphere* 6 (2): 150 - 158. (Thailand). (ISSN: 2077 7019).
- Songachan, L.S., Kayang, H. and Iodalanabiang, T. (2015). Diversity and species composition of arbuscular mycorrhizal fungi in *Citrus* species. *Journal of Agricultural Technology*, 11(4):863-873 (Thailand). (ISSN: 1686-9141).
- Tripathi, R. S., Prabhu, S. D., Pandey, H. N. and Barik, S. K. (2015). Vegetation change during recovery of shifting cultivation (Jhum) fallows in a subtropical evergreen forest ecosystem of north-eastern India. *International Journal of Plant and Environment*, 1: 30-44.

Books

- Zhou Meiliang, Kreft Ivan, Woo, Sun-Hee, Chrungoo, N. K., Wieslander G. (2016). *Molecular Breeding and Nutritional Aspects of Buckwheat*. Elsevier Inc., San Diego, CA 92101-4495 ISBN: 978-0-12-803692-1.
- Kumaria, S., Choudhury, H. and Das, M.C. (2015). *Biotechnological Approaches in Ex Situ Conservation of Plant Genetic Resources of Northeast India*. Excel India. ISBN:978-93-84869-79-3

Book Chapters

- Adhikari, D. and Barik, S. K. (2016). Climate envelope modelling of *Pandanus tectorius* Soland ex Parkins. (Screwpine) for its conservation in the Eastern Himalayan and Northeastern region of India. In: *Biodiversity and Environmental Conservation* (Ed. Upadhaya, K.). Discovery Publishing House Pvt. Ltd. New Delhi. pp. 159-166.
- Barik, S.K., Adhikari, D. and Kharlyngdoh, E. (2015). Ecological impact assessment and predictive modelling of bamboo flowering. In: *Bamboo Flowering and Rodent Control*

- (eds. Tandon, V. and Barik, S.K.). Astral International Publications, New Delhi.
- Chrungoo, N. K. (2015). Genome Plasticity in buckwheat. In: *Gene Pool Diversity and Crop Improvement*, (V.R. Rajpal, S. R. Rao, S. N. Raina eds.) Springer Verlag, Dodrecht.
- Chrungoo, N. K., Dohtdong, L. and Chettry, U. (2016). Genome Plasticity in Buckwheat. In: *Gene Pool Diversity and Crop Improvement, Sustainable Development and Biodiversity*. V.R. Rajpal *et al.* (eds.). DOI 10.1007/978-3-319-27096-8_7 pp. 227-240 (Springer International Publishing, Switzerland).
- Chrungoo, N. K., Dohtdong, L. and Chettry, U. (2016). Phenotypic Plasticity in Buckwheat In: *Molecular Breeding and Nutritional Aspects of Buckwheat*. Zhou *et al.* (eds.). <http://dx.doi.org/10.1016/B978-0-12-803692-1.00010-9> Elsevier Inc. San Diego, CA. ISBN: 978-0-12-803692-1; PII: B978-0-12-803692-1.00010-9.
- Chrungoo, N. K., Dohtdong, L. and Chettry, U. (2016). Diversity in Seed Storage Proteins and Their Genes in Buckwheat In: *Molecular Breeding and Nutritional Aspects of Buckwheat*. Zhou *et al.* (eds.). <http://dx.doi.org/10.1016/B978-0-12-803692-1.00031-6> Elsevier Inc. San Diego, CA ISBN: 978-0-12-803692-1; PII: B978-0-12-803692-1.00031-6.
- Chrungoo, N. K., Devadasan, N., Kreft, I. (2016). Waxy Locus in Buckwheat: Implications for Designer Starches. In: *Molecular Breeding and Nutritional Aspects of Buckwheat*. Zhou *et al.* (eds), <http://dx.doi.org/10.1016/B978-0-12-803692-1.00032-8> Elsevier, San Diego, CA ISBN: 978-0-12-803692-1; PII: B978-0-12-803692-1.00032-8.
- Das, B. B. and Dkhar, M. S. (2016). Understanding soil microbial diversity. In: *Biodiversity and Environmental Conservation*. Discovery Publishing House, New Delhi. pp. 77-90.
- Das, M. C. (2015). *In vitro* propagation and conservation *Cymbidium devonianum* and *Dendrobium lituiflorum* Lindl., rare and threatened epiphytic orchids of North-East India. Biotechnological approaches. In: *Ex Situ Conservation of Plant Genetic Resources of North-East India*. (eds. Kumaria, S., Choudhury, H., Das, M.C.). Excel India Publisher. pp. 42-58.
- Kharlyngdoh, E., Adhikari, D. and Barik, S. K. (2016). Modelling the distribution of a few lesser known bamboo species of Meghalaya and determining areas for their conservation. In: *Biodiversity and Environmental Conservation* (Ed. Upadhaya, K.). Discovery Publishing House, New Delhi. 202-216 pp.
- Kumaria, S. (2015). Genetic variation assessment and *in vitro* propagation of *Jatropha curcas* L. from Meghalaya and Assam. Biotechnological approaches. In: *Ex situ Conservation of Plant Genetic Resources of Northeast India*. (eds. Kumaria, S., Choudhury, H., Das, M.C.). Excel India Publisher. pp. 121-130.
- Kumaria, S. (2015). *In vitro* propagation of *Dendrobium fimbriatum oculatum* Hk.F.: some functional and biochemical aspects of its growth. Biotechnological approaches. In: *Ex situ Conservation of Plant Genetic Resources of Northeast India*. (eds. Kumaria, S., Choudhury, H. and Das, M.C.). Excel India Publisher. Pp. 1-16.

Department of Botany

Funds Received from Agencies including NEHU/UGC

Funding Agency	Amount (Rs in lakh)
NEHU (Non-Plan)	: 18.10
CAS	: 10.80
DBT	: 142.87
DST	: 26.76
MoEF & CC	: 7.39
Govt. of Arunachal Pradesh	: 49.80
Total	: 255.72 lakh

Research Projects

New Project

Sl. No.	Title of the project	PI/Co-PI(s)	Funding Agency	Amount received (Rs in lakhs)
1	Convergence of Traditional Knowledge Systems for Integration to Sustainable Development in the Indian Himalayan Region with focus on Climate Change Adaptations.	Prof. S.K. Barik (PI) Dr. K Upadhaya (Co-I)	DST, New Delhi	24.26

Ongoing Research Projects

Sl. No.	Title of the project	PI/Co-PI(s)	Funding Agency	Amount received 2014-2015 (Rs in lakhs)
1	Chemical Ecology of the North East Region (NER) of India: A Collaborative Programme Linking NER and Bangalore Researchers.	Prof. S.K. Barik (PI)	DBT, New Delhi	83.43

School of Life Sciences

2	Popularization and dissemination of technology of bio-pesticide formulations among the poor and marginal (ST) farmers of weaker sections in North East region.	H. Kayang (PI)	DST, New Delhi (Collaborating Project)	2.50
3	Survey of endophytic fungi associated with some aromatic plants of North Eastern region and assessment of their effect on chemical profile and biological activity as antimicrobial, aflatoxin inhibitors and antioxidant.	M. S. Dkhar (PI) H. Kayang (Co-PI) Collaborators: Banaras Hindu University	DBT, New Delhi (Twinning Project for NER),	13.64
4	Molecular characterization and chemo-profiling of two pharmacologically relevant species of <i>Dendrobium</i> found in Northeast India.	S. Kumaria (PI) M. C. Das (Co-PI) Hiranjit Choudhury (Co-PI) Collaborators: S. Shailajan (PI) Herbal Lab., Mumbai	DBT's Twinning programme for the NE.	9.07
5	All India coordinated network Research project "Functional genomics approaches in understanding the regulation of synthesis and accumulation of apocarotenoids in saffron crocus (<i>Crocus sativus</i> L.)"	N. K. Chrungoo, PI and All-India programme Coordinator.	DBT, Govt. of India, New Delhi	7.35
6	Kinetics and mechanism of uptake, translocation and accumulation of natural uranium and fission product ¹³⁷ Cs in plants	N. K. Chrungoo, PI Collaborator: P.M. Ravi, BARC, PC	DAE-BRNS	Nil

Department of Botany

7	All India network project on “Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools Sub project 1A”	S.K. Barik (PI)	DBT, Govt. of India, New Delhi	11.67
8	All India network project on “Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools Sub project 2A”	N. K. Chrungoo (PI)	DBT, Govt. Of India, New Delhi	4.93
9	All India network project on “Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools Sub project 15A”	S.K.Barik (PI)	DBT, Govt. of India, New Delhi	12.78
10	Conservation of some <i>Paphiopedilum</i> species (orchid) of Northeast India through asymbiotic seed germination and cryopreservation	Meera Chettri Das (PI) S. Kumaria (Co- PI)	UGC, New Delhi	Nil
11	All India Coordinated research project on sacred grove ecosystem services of Meghalaya	S. K. Barik (PI) and All India Coordinator and K. Upadhaya (Co-PI)	MoEF & CC	7.39
12	Perspective plan for development of Tawang river basin: e-flow assessment, cumulative impact assessment, determination of basin carrying capacity, and landscape level biodiversity management plan.	S.K. Barik, Coordinator	Government of Arunachal Pradesh	49.80

Academic Collaborations

India

- (a) Jawaharlal Nehru University, New Delhi;
- (b) Herbal Research Lab., Ramnarain Ruia College, Mumbai;
- (c) Banaras Hindu University, Varanasi;
- (d) Indian Institute of Horticultural Research (IIHR), Bengaluru;
- (e) National Institute of Plant Genome Research, New Delhi;
- (f) University of Jammu, Jammu;
- (g) University of Kashmir, Srinagar;
- (h) 36 Universities/Institutions all over the country under the DBT programme, "Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools" (Being coordinated by the Department);
- (i) 16 Universities/Institutions all over the country under the All India Coordinated research project on "Quantification of Sacred Grove Ecosystem Services", sponsored by Ministry of Environment and Forests (Being coordinated by the Department);
- (j) National Centre for Biological Sciences, Bengaluru;
- (k) Indian Institute of Science, Bengaluru.

Abroad

- (a) Freiburg University, Freiburg, Germany;
- (b) University of Ljubljana, Slovenia

Other Activities

Some distinguished scientists who visited the department and delivered lectures are: Prof. R. R. Rao, Bangalore, Prof. S. N. Raina, Amity University, Noida, Prof. R. S. Tripathi, NBRI, Lucknow, Prof. R.N. Gohil, BGSB University, Rajouri, Jammu and Kashmir, Prof. S.P. Adhikari, V.C., F.M. University, Odisha, Prof. A. K. Koul, BGSB University, Rajouri, Jammu and Kashmir,

Prof. J. L. Karihaloo, Ex Director, NBPGR, New Delhi and Sr. Consultant, Asia-Pacific Association of Agricultural Research Institutions, Prof. H. S. Gehlot, J. N. Vyas University, Jodhpur, Prof. Sumita Jha and Prof. A. K. Paul of Calcutta University, Kolkata.

Prof. N. K. Chrungoo

Chairman, DBT PMC on "Biotechnology -Led Socio-economic empowerment of farm women" at IARI, New Delhi

Member of (a) DBT task force on Task Force on Basic Plant Biology, Agriculture and Frontier Areas; (b) DBT task force on Biotechnology Based Programme for Women; (c) DST SERB YSLS Committee in Life Sciences; (d) Board of Faculty of Biotechnology, D.Y. Patil University, Pune; (e) Executive Committee, International Buckwheat Researchers Association; (f) Editorial Board, "Fagopyrum", the official journal of International Buckwheat Researchers Association.

Prof. N. Venugopal

Delivered an invited lecture on "Conservation and reproductive biology of some endangered trees of Northeast India" in the Orientation Course organized by the Department of Plant Sciences, Bharathidasan University, Tiruchirapalli-620024 held on March 22, 2016.

Prof. S. K. Barik

Delivered three talks in Refresher Courses organized by ASC, NEHU, Shillong

Chaired a Session on Developing future strategies for sacred grove conservation in India and also acted as a panellist for developing a policy framework for sacred

Department of Botany

groves at IGRMS, Bhopal, on March 4, 2016.

Participated as a Resource Person in the Association of Indian Universities Programme on 'Projects for Young Scientists' at FM University, Baleshwar on January 21, 2016.

Chairman, SEAC, Arunachal Pradesh (MoEF & CC)

Member of (a) Executive Committee, International Society for Tropical Ecology; (b) Executive Committee, International Society of Environmental Botanists; (c) Editorial Board, Journal of Biodiversity; (d) Scientific Advisory Committee, ENVIS, MoEF & CC; (e) DBT Task Force on Environmental Biotechnology; (f) DBT Task Force on Northeast Twinning Environmental Biotechnology Programme; (g) DBT Task Force on Northeast Apex Committee; (h) Scientific Advisory Committee, IBSD, DBT, Imphal; (i) Expert Committee for Sixth schedule areas, MoEF & CC; (j) Meghalaya State Biodiversity Board; (k) Meghalaya Wildlife Board; (l) Fellow, LEAD International, Rockefeller Foundation, USA; (m) Associate Editor, Tropical Ecology

Prof. Uma Shankar

Participated in the SAP Review Committee of the University Grants Commission as Expert Member at the UGC, New Delhi held on June 3, 2015.

Participated in Group Discussion for a National Project entitled "Quality of Higher Education in India: A Study of External and Internal Quality Assurance at the Institutional Level" held on November 17, 2015 at Department of Education, North-Eastern Hill University, Shillong

Prof. H. Kayang

Member of (a) Editorial Board of Science Vision, an official publication of the Mizo Academy of Sciences for the term 2014 -2016; (b) Board of Studies of the Department of Environmental Science, Mizoram University, Mizoram (w. e. f. 3.10. 2013 – 3.10. 2016); (c) Board of Studies in Botany, Nagaland University (w. e. f. 2015 -2018)

Delivered 5 lectures on "Popularization and dissemination of Technology of Biopesticide formulation among the poor and marginal farmers of weaker sections in North East region" at Upper Shillong on May 2, 2015; Mawngap village, East Khasi Hills District on May 16, 2015; Mawlein Mawkhan Sohkyndur Village, Ri-Bhoi district Meghalaya on August 8, 2015; Umwiehnsnieh Village, Ri Bhoi District, Meghalaya August 22, 2015 and Mawryngkneng Village, East Khasi Hill District, Meghalaya on October 24, 2015.

Prof. Suman Kumaria

Executive Member of the journal 'The Orchid Society of India'.

From outside NEHU

Dr. Asif Md. Iqbal, Asst. Professor, Plant Breeding and Genetics, S K University of Agricultural Sciences & Technology, Srinagar, worked as an INSA fellow from October 26 to December 20, 2015 Molecular Plant Physiology Lab (Prof. N. K. Chrungoo).

Ms. Ayangla S. Pongen from FRI Deemed University, Dehradun worked as M.Sc. Project Student in Microbial Ecology Lab (Prof. M. S. Dkhar and Prof. H. Kayang) from February 22 to March 25, 2016.

Winter School for B.Sc. Students

Four students from different colleges of Meghalaya namely Ms. Christalin Mawlong of St. Mary's College, Ms. Teilin Nongspung of St. Mary's College, Ms. Sonia B. Umdor of Lady Keane College and Ms. Ibaniada Khonglam of St. Mary's College were selected for a short term winter school of 8 days from January 7-15, 2016 wherein they were given extensive training on handling and operation of various equipments as well as made to conduct experiments on

SDSPGE, genomic and plasmid DNA isolation, PCR, RNA isolation, Real time PCR, blue white screening for identification of recombinant clones.

Internships:

Eight students of the Department availed Internships at various Universities/ laboratories during the winter vacation wherein they worked out specific projects that were assigned to them by their mentors.

DEPARTMENT OF ZOOLOGY

Head: N. Saha (w. e. f. 01.04.2015 to 23.11.2015)
 S. N. Ramanujam (w.e.f. 24.11.2016 to 31.03.2016)
Telephone: 03642722301
E-mail: ramanujamsunkam@gmail.com (present Head email)

Faculty

Designation	Name and Qualification	Specialization
Professors	B. K. Sharma, M.Sc. & Ph.D. (Panjab Univ.)	Limnology & Biosystematics
	B. B. P. Gupta, M. Sc. & Ph.D. (BHU)	Endocrinology
	S. B. Prasad, M.Sc. & Ph.D. (BHU)	Cell and Tumour Biology
	R. N. K. Hooroo, M.Sc. & Ph.D. (NEHU)	Developmental Biology
	N. Saha, M.Sc. & Ph.D., (NEHU)	Biochemical Adaptation
	S. N. Ramanujam, M.Sc. (Bangalore Univ); Ph.D. (NEHU).	Fish Biology; Environmental Toxicology
	A. K. Yadav, M.Sc. (Agra Univ.), Ph.D. (NEHU)	Parasitology & Ethnopharmacology
	B. Roy, M.Sc. (NBU), Ph.D. (NEHU)	Parasitology and Toxicology
	A. S. Dixit, M.Sc. (Gorakhpur), Ph.D. (BHU)	Endocrinology
Associate Professors	B. Keshan, M.Sc. & Ph.D. (University of Calcutta)	Insect Endocrinology & Molecular Biology
	S. Ghosh, M.Sc. & Ph.D. (University of Calcutta)	Genetics
Assistant Professors	S. Choudhury, M.Sc. & Ph.D. (NEHU)	Entomology
	S. R. Hajong, M.Sc. & Ph.D. (NEHU)	Entomology
	B. Das, M.Sc. (Berhampur Univ), Ph.D. (NEHU)	Biological Chemistry

Thrust Areas of Research

The Department is engaged in research under the thrust area "Faunal Diversity and Ecophysiology" in various disciplines such as biodiversity of freshwater zooplanktons, fishes, amphibian and insects in N.E. region, adrenergic signal transduction in pineal gland, hormonal regulation of oxidative metabolism, and breeding biology

of endangered fishes, amphibians and birds, cisplatin action as an anticancer drug, and efficacy of putative anticancerous plants and animals from N.E. region, biochemical adaptation to nitrogen, carbohydrate, protein and oxidative metabolism, and nitric oxide signaling under various environmental stresses in air-breathing fishes, diversity of helminth parasites and entomopathogenic nematodes in N.

E. region with emphasis on molecular taxonomy of zoonotic parasites and bioprospection of anthelmintic efficacy of plants used in traditional medicine systems, chronoendocrinology and photophysiology of reproduction, migration and moult in some birds of N. E. region, silkworm growth and development under various environmental stresses and the involvement of hormones mediated signaling pathway, and epigenetic study of human cancer with emphasis on the role of DNA methylation.

Brief Statement of Academic Activities

The Department offers the M.Sc. and Ph.D. Programmes, adopting the choice-based credit system at the M.Sc. level, and offering specializations in all major disciplines of Zoology. The Department regularly conducts UGC Refresher courses in Zoology for College and University teachers. The faculty has several collaborations with international and national academic and research institutions. The Department has successfully organized many national and regional seminars, symposia and workshops of regional and national relevance. Besides book(s)/book chapters, a large number

of research papers have been published in reputed national and international journals. Some research students qualified in the NET examination and some have acquired important faculty positions in educational and research institutions of the N.E. region and other parts of the country. Faculty members and research students of the Department are recipient of various awards, distinctions and fellowships.

Based on overall academic and research contributions, the Department was awarded with three phases of DRS and two phases of DSA programme by University Grants Commission Special Assistance Programme (Rs 100 lakhs in DSA Phase II). The Department has received grant of Rs 110 lakhs recently under DST-FIST programme (second time). The Department has research projects sponsored by UGC, DST, DBT, ICMR, ICAR, MoEF etc., all with direct relevance to socio-economic development of the N.E. region. The Department conducts weekly seminars for M.Sc. students to deliver talks under the supervision of faculty members. The Department runs a "Zoonic Society" for various activities involving students, teaching and non-teaching staff.

Students' Profile

Enrolment Capacity: M.Sc. – 30; Ph.D. – Variable

Degree	SC/ OBC	ST	GEN	Male	Female	Meghalaya	Non- Meghalaya	Total
M.Sc.	1	18	2	5	15	20	10	30
Ph.D.	-	6	3	4	5	6	3	9

Degrees Awarded

Degree	SC/ OBC	ST	GEN	Male	Female	Meghalaya	Non- Meghalaya	Total
M.Sc.	-	26	2	8	20	16	12	28
Ph.D.	1	10	5	9	7	5	11	16

Department of Zoology

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name(s) of Supervisor(s)/ Joint Supervisor
Mrs. Icydora Nongtraw	"Study on the diversity of Hemiptera and Coleoptera on some aquatic ecosystems of Meghalaya"	Dr. S. Choudhury (Supervisor) Prof. S. N. Ramanujam (Jt. Supervisor)
Ms. Ranjana Sahu	"Molecular characterization of some zoonotic extrahepatic and intestinal trematodes prevailing in Northeast India"	Prof. Veena Tandon (Supervisor)
Mr. Ruokuovikho Dominic	"Evaluation of putative piscicidal activity of plants used in traditional fish catching methods in Nagaland, North-East India"	Prof. S. N. Ramanujam (Supervisor)
Mr. Kh. Thianminlian Vaiphei	"Studies on the reproductive biology and captive breeding of ornamental fish, <i>Danio dangila</i> , (Hamilton-Buchanan)"	Prof. B. B. P. Gupta (Supervisor)
Mr. Brandon Keith Myllemngap	"Studies on ichthyofauna in the streams and rivers with reference to coal mining in Jaintia Hills, Meghalaya"	Prof. S. N. Ramanujam (Supervisor)
Mr. Holdingstone Kharbani	"Diversity and role of ant community in a forest ecosystem of Meghalaya"	Dr. S. R. Hajong (Supervisor)
Mrs. Suravi Kalita	"Studies on modulatory effect of vitamin C on the antitumor and toxic activities of chlorambucil in tumor-bearing mice"	Prof. S.B. Prasad (Supervisor)
Mr. Khirod Deori	"Studies on the therapeutic efficacy and safety profile of some traditional anthelmintic plants used by tribes of upper Assam"	Prof. A. K. Yadav (Supervisor)
Mr. Bikash Ranjan Giri	"Evaluation of cestocidal activity and toxicity evaluation of <i>Carex baccans</i> (Cyperaceae), a traditionally used medicinal plant in Meghalaya"	Prof. B. Roy (Supervisor)
Mr. Ksh. Manisana Singh	Studies on regulation of arylalkylamine N-acetyltransferase (AA-NAT) gene expression in photoreceptive pineal organ of the catfish <i>Clarias gariepinus</i>	Prof. B. B. P. Gupta (Supervisor)

Placement of Students

Dr. Manas Das (Supervisor: Prof. N. Saha) has joined as Assistant Professor, Department of Zoology, Gauhati University, Guwahati.

Dr. Namram Sushindrajit Singh (Supervisor: Prof. A. S. Dixit) has joined as Assistant Professor, Department of Zoology, Cotton College State University, Guwahati.

Dr. Holdingstone Kharbani (Supervisor: Dr. S. R. Hajong) joined as District vector borne disease consultant in District Medical Office, Meghalaya.

Dr. Ruokuovikho Dominic (Supervisor: S. N. Ramanujam) has joined as Assistant Professor, Department of Zoology, Kohima Science college against leave vacancy post.

Dr. Brandon Keith Myllemngap (Supervisor: S. N. Ramanujam) has joined as Assistant Professor, Department of Zoology, St. Edmund's College, Shillong as temporary lecturer.

Research Fellowships

CSIR-UGC NET	: 2
SLET	: 1
National Fellowship	: 9
UGC Meritorious	: 2
Non-NET (NEHU)	: 7

Educational Tour of Students

Teacher-in-Charge: Prof. Bishnupada Roy and Dr.B. Das

Places/Institutions visited: Kaziranga, Majuli and Jorhat

Duration of tour: 15-02-2016 to 18-02-2016

Purpose of Tour: Academic study tour is an integral part of the academic activities of the Department of Zoology and has marks in the paper ZOO-C 402 (Biosystematics and Evolution).

Courses Conducted

Postgraduate: M.Sc. in Zoology

Semester-I :

Cell Biology & Immunology, Biological Chemistry & Molecular Biology, Genetics & Developmental Biology.

Semester-II :

Animal Physiology, Parasitology & Entomology, Techniques in Biology.

Semester-III:

Endocrinology & Reproductive Biology, Aquatic Biology & Fisheries, Animal Diversity.

Semester-IV:

Biosystematics & Evolution, Ecology & Environmental Biology, Special Paper*.

**Special Papers offered:* Biochemical Adaptation and Metabolic Regulation, Developmental Biology, Endocrinology and Reproductive Physiology, Fish Biology, Genetics, Helminth Parasitology, Insect Physiology, Limnology, Molecular Cell Biology and Immunology.

Ph.D. Courses

Paper 1: Research Methodology

Paper 2: Optional Papers: (A) Applied Entomology, (B) Chronobiology, (C) Fish Physiology and Toxicology, (D) Freshwater Ecology, (E) Molecular and Biochemical Zoology and (F) Tropical Parasitology

Paper 3: Review of Literature:

Seminars/Conferences/Symposia/ Extension Programmes etc.

Organized

The Department organized an International Conference on *Molecular Signalling: Recent Trends in Biosciences* at NEHU, Shillong, on November 20-22, 2015, with Prof. B.B.P. Gupta as Organising Secretary, Prof. N. Saha as Convenor, Prof. S. N. Ramanujam as Jt. Secy.

The Department organized a *Symposium on Faunal Diversity and Ecophysiology* under the UGC-DSA-Phase II Programme at NEHU, Shillong on 30 March, 2016, with Prof. S. N. Ramanujam as Chairman, Prof. S.B. Prasad as Coordinator, Prof. B.B.P. Gupta as Convenor, Prof. A.S. Dixit as Organizing Secy. and Dr. B. Keshan as Member.

The Department organized the 3rd DST-SERB School in Avian Biology at NEHU, Shillong, from 27.09.2015 to 11.10.2015, with Prof. A. S. Dixit as Coordinator,

Attended and Participated

Prof. B.B.P. Gupta

Chaired a scientific session and delivered an invited lecture entitled "Circadian rhythm of clock genes (*clock* and *Bmal1*) and arylalkylamine N-acetyltransferase 2 (*aa-nat2*) gene in photoreceptive pineal organ of air-breathing fish *Clarias gariepinus* under different photo-period at the National Symposium on *Comparative Endocrinology and Reproductive Physiology* at Department of Zoology, Visva Bharati, Santiniketan (1-3 October, 2015).

Chaired a scientific session and delivered an invited lecture entitled "Molecular

components of adrenergic signaling in regulation of arylalkylamine N-acetyltransferase (AA-NAT) activity in photoreceptive fish pineal" at International Conference on *Molecular Signalling: Recent Trends in Biosciences* at NEHU, Shillong (20-22 November, 2015).

Chaired a scientific session and delivered an invited lecture entitled "Adrenergic signal transduction pathway involved in regulation of AA-NAT activity in the pineal of fish and mammals" at the International Symposium on Integrative Physiology and Comparative Endocrinology along with Brain-storming Session on Geno-Eco-Neuroendocrinology, at the Department of Zoology, BHU, Varanasi (12-14 February, 2016).

Prof. R. N. K. Hooroo

Co-chaired a session in the International Conference on *Molecular Signalling, recent trends in Biosciences* organized by Department of Zoology, NEHU, Shillong on 20-22 November, 2015, being Treasurer for this event.

Chaired a session in the Symposium on Faunal diversity and Ecophysiology at Department of Zoology, NEHU, March 30, 2016, being Treasurer for this event.

Prof. N. Saha

Delivered the Keynote address on "Air-breathing catfishes of India: Their cellular and biochemical adaptational strategies with relation to nitrogen metabolism" in the *Summer Workshop & Hands on Training on Techniques in Biochemistry and Molecular Biology* organized by the Department of Zoology, Guwahati University, Guwahati, on July 6, 2015.

Chaired a Session and delivered an invited lecture on "Regulation of ureogenesis in Air-breathing Catfishes under Hyperammonia stress" in the International Conference on *Molecular Signaling: Recent Trends in Biosciences* organized by Department of Zoology, NEHU, Shillong on November 20-22, 2015.

Delivered the Keynote address on "Adaption to nitrogen metabolism and regulation of ureogenesis in air-breathing catfishes under environmental constraints" in the *National Level Young Scientists' Meet-2016* organized by the Zoological Society, Kolkata, and Department of Zoology, University of Calcutta, Kolkata on February 5-6, 2016.

Chaired a session in the *Symposium on Faunal diversity and Ecophysiology* hosted by the Department of Zoology, NEHU, March 30, 2016

Prof. S. N. Ramanujam

Co-chaired a session in the International Conference on *Molecular Signalling: Recent Trends in Biosciences* hosted by Department of Zoology, NEHU, Shillong (November 20-22, 2015).

Chaired a session in the Symposium on Faunal diversity and Ecophysiology hosted by the Department of Zoology, NEHU, on March 30, 2016.

Prof. A. K. Yadav

Delivered an invited lecture on "Herbal remedies against intestinal worms - A Panoramic Perspective from Northeast India" in the *26th National Congress of Parasitology* held 21-23 January, 2016, at Department of Biochemistry, Banaras Hindu University, Varanasi.

Delivered an invited lecture on "Herbal medicines: a resource for controlling monogenean infections in fish industry" in the *2nd National Symposium on Fish Parasites* held 23-24 November, 2015, at Department of Zoology, Rajiv Gandhi University, Itanagar.

Delivered an invited lecture on "Gordian worms (Phylum, Nematomorpha): A poorly studied group of parasites in Indian sub-continent" in a National Training Workshop on *Fauna of Hotspots-3: Eastern Himalaya* held March 17-21, 2016, organized by Zoological Survey of India, Shillong.

Prof. A. S. Dixit

Attended and presented research paper in *Cold Spring Harbor Asia Meeting on Biological Rhythms*, at Cold Spring Harbor Laboratory, Suzhou, China (October 26-30, 2015).

Co-chaired a session in International Conference on *Molecular Signalling: Recent Trends in Biosciences* hosted by Department of Zoology, NEHU, Shillong (November 20-22, 2015).

Dr. B. Keshan

Co-Chairperson of technical session "Biochemical and Molecular basis of Ecophysiology" for *Symposium on Faunal Diversity and Ecophysiology* hosted by Department of Zoology, NEHU, March 30, 2016.

Invited as resource person to deliver two lectures and conducted hands-on-training program to participants of the 3-day *Workshop on Applied Chemical Zoology*, held April 29-May 01, 2015, at University of Tripura, Tripura.

Publications

Research Papers

Published in India

- Sharma, B. K. (2015). Phytoplankton diversity of Deepor beel-a Ramsar site in the floodplain of the Brahmaputra river basin, Assam, northeast India. *Indian J. Fish.* 62(1):33-40.
- Sharma, B. K. and Sharma, Sumita (2015). New records of rotifers (Rotifera: Eurotatoria) from Deepor beel- a Ramsar site of India with an update on its Rotifera diversity. *Journal of Threatened Taxa* 7(3): 7011-7016.
- Turnia, I., Borah, M.P., Prasad, S.B. (2015). Inhibitory effect of propolis on onion (*allium cepa*) root tip meristem cells. *Journal of Science* 12:1345-1349.
- Turnia, I., Nongkhaw, F.M.W., Joshi, S.R., Prasad, S.B. (2015). Antibacterial and antitumor activity of methanolic extract of propolis from Meghalaya. *World Journal of Pharmacy and Pharmaceutical Sciences* 4 (11): 1809-1821.
- Khongwir, S., Hooroo, R.N.K. and Dutta, S.K. (2016). "Breeding and nesting behavior of *Rhacophorus maximus* (Anura-Rhacophoridae) in Meghalaya, North East India. *Current Science*, 110 (6): 1102-1105.
- Lalthanzara, H., Sailo, L., Solanki, G. S. and Ramanujam, S. N. (2015). Density and Relative Abundance of Grey Peacock Pheasant (*Polyplectron bicalcaratum*, Linnaeus, 1758) in Montane Broadleaved Evergreen Forest of Mizoram, North East India. *International Journal of Innovative Science, Engineering & Technology* 2: 654-661.
- Manorama, M and Ramanujam, S. N. (2016). Morphometry, meristic characters and conservation aspects of the vulnerable fish species *Pethia shalynius* Yazdani & Talukdar, 1975 (Actinopterygii: Cypriniformes) in the Uiam River, North-east India. *Indian Journal of Fisheries* 63: 113-116.
- Paul, R., Ramanujam, S. N. (2016). Scanning Electron Microscopic study of erythrocytes of *Heteropneustes fossilis* (Bloch) exposed to cadmium and copper. *Indian Journal of Science* 23: 111-114.
- Paul, R., Ramanujam, S. N. (2016). Copper- and Cadmium-Induced Glutathione Redox Status in tissues of air-breathing catfish, *Heteropneustes fossilis*. *South Asian Journal of Multidisciplinary Studies* 3:179-186.
- Lalthanzara, H., Sailo, L., Solanki, G.S., Ramanujam, S.N., Lalpawimawha (2016). Factors affecting habitat selection by Mrs Hume's Pheasant *Symaticus humiae* (Hume, 1881) in Mizoram, Northeast India. *Science Vision* 16: 46-52.
- Yadav, A. K., Schmidt-Rhaesa, A., Laha, R., Sen, A. (2016). On the recovery of horsehair worms, *Gordius* sp. (Nematomorpha: Gordiida) from pork in Shillong, India. *J Parasit Dis.* doi: 10.1007/s12639-016-0789-y.
- Roy, B., Giri, B. R. (2016). Fumarate reductase inhibitory potential of phytostilbenes, resveratrol and α -viniferin. *International Journal of Pharma and Bio Sciences*, 7(2): 134-137.
- Swargiary A., Roy, B. (2015). *In vitro* anthelmintic efficacy of *Alpinia nigra* and its bioactive compound, astragalgin against *Fasciolopsis buski*. *International Journal of Pharmacy and Pharmaceutical Sciences* 7(10): 30-35.

- Hajong, S.R. (2015). Observations of Black-tailed Crane *Zapornia bicolor* in Shillong, Meghalaya. *Indian Birds* 10 (6):156-157.
- Shangpliang, J.W. & Hajong, S.R. (2015). Diversity, species richness and evenness of wild silk moths collected from Khasi hills of Meghalaya, North East India. *J. of Entomol. & Zool. Stud.* 3(1):168-173.
- Shangpliang, J.W. & Hajong, S.R. (2015). The wild silk moths (Lepidoptera: Saturniidae) of Khasi Hills of Meghalaya, North-East India. *Int. J. P. Ani. & Env. Sci.* 5(2). 20-24.
- Kharbanger, M., Hajong, S.R., & Choudhury, S. (2015). Total phenol content in thrips infested rice leaves of Khasi Hills. *Ento. and Appld. Sci. Lett.*, 2(1) 42-46.
- Published Abroad**
- Sharma, B. K. and Sharma, Sumita (2015). Biodiversity of freshwater rotifers (Rotifera: Eurotatoria) of Mizoram, Northeast India: composition, new records and interesting features. *International Journal of Aquatic Biology* 3(5): 301-313.
- Sharma, B. K., Sharma, S. & Hatimuria, M. K. (2015). Rotifer assemblages (Rotifera: Eurotatoria) of the floodplain lakes of Majuli River Island, the Brahmaputra river basin, Northeast India. *International Journal of Aquatic Biology* 3(1):1-13.
- Sharma, B. K., Hatimuria, M. K. & Sharma, S. (2015). Ecosystem diversity of *Cladocera* (Crustacea: Branchiopoda) of the floodplain lakes of Majuli River Island, the Brahmaputra river basin, Northeast India. *International Journal of Aquatic Biology* 3(2):78-88.
- Sharma, B. K. 2016. Interesting rotifers (Rotifera: Eurotatoria) from a sub-tropical wetland of Meghalaya: new records. *Turkish J. Zoology* 40(2): 433-437.
- Longchar, A., Prasad, S.B. (2016). Ascorbic acid (Vitamin C) mediated protection on mutagenic potentials of Cisplatin in mice bearing ascites Dalton's Lymphoma. *Research Journal of Mutagenesis* (6) 1-21.
- Devi, L.M., Thabab, C.M., Hooroo, R.N.K., Dey, S. (2016). Morphological and microstructural changes of the oral apparatus in two Anuran tadpoles in regard to pH. *Micron* 82: 41-51.
- Srivastava, A.K. and Prasad, S.B. (2015). Study of diversity and abundance of Anopheline mosquitoes in Meghalaya, India. *Aust. J. Infect. Disease* 2(1): 1016-1024.
- Choudhury, M. G. and Saha, N. (2016). Induction of inducible nitric oxide synthase by lipopolysaccharides and the influence of cell volume changes, stress hormones and oxidative stress on nitric oxide efflux from the perfused liver of air-breathing catfish, *Heteropneustes fossilis*. *Plos One* 11(3): e0150469.
- Hangzo, H., Banerjee, B., Saha, S. and Saha, N. (2016). Ammonia stress under high environmental ammonia induces Hsp70 and Hsp90 in the mud eel, *Monopterus albus*. *Fish Physiol. Biochem.* DOI: 10.1007/s10695-016-0269-4
- Nath, P., Yadav, A. K. (2016). Anthelmintic activity of a standardized extract from the rhizomes of *Acorus calamus* Linn. (Acoraceae) against experimentally induced cestodiasis in Rats. *J. Int. Ethnopharmacol.* doi: 10.5455/jice.20160521124439.
- Deori, K., Yadav, A. K. (2016). Anthelmintic effects of *Oroxylum indicum* stem bark extract on juvenile and adult stages of

- Hymenolepis diminuta* (Cestoda), an *in vitro* and *in vivo* study. *Parasitol. Res.* 115:1275-1285.
- Giri, B. R., Roy, B. (2016). *Cysticercus fasciolaris* infection induced oxidative stress and apoptosis in rat liver: A strategy for host parasite cross talk. *Parasitol. Res.*, DOI: 10.1007/s00436-016-5008-3.
- Roy, B., Giri, B. R. (2016). α -Viniferin and resveratrol induced alteration in the activities of some energy metabolism related enzymes in the cestode parasite *Raillietina echinobothrida*. *Acta Tropica* 154: 102-106.
- Giri, B. R., Roy, B. (2015). Apoptosis like cell death in *Raillietina echinobothrida* induced by resveratrol. *Research in Veterinary Science* 101: 120-125.
- Giri, B. R., Roy, B. (2015). Resveratrol and α -viniferin induced alterations of acetyl cholinesterase and nitric oxide synthase in *Raillietina echinobothrida*. *Parasitol. Res.* 114(10): 3775-3781.
- Sahu, R., Biswal, D.K., Roy, B., Tandon, V. (2015). Molecular characterization of *Opisthorchis noverca* (Digenea : Opisthorchiidae) based on nuclear ribosomal ITS2 and mitochondrial COI genes. *Journal of Helminthology* 1-8; DOI: <http://dx.doi.org/10.1017/S0022149x15000851>.
- Dixit, A. S., Singh, N. S. (2016). Seasonality in circadian locomotor activity and serum testosterone level in subtropical tree sparrow (*Passer montanus*). *J. Photochem. Photobiol. B: Biology* 158: 61-68.
- Singh, N. S., Bamon, I., Dixit, A. S., Sougrakpam, R. (2015). Structural variations and their adaptive significance in the bones of some migratory and resident birds. *J. Basic Appl. Zool.* 70: 33-40.
- Keshan, B., Thounaojam B., Kh S. D. (2015). A comprehensive study of the changes in ecdysteroid levels during the feeding phase of fifth instar larvae of the silkworm, *Bombyx mori* (Lepidoptera: Bombycidae). *Eur. J. Entomol.* 112: 632-641. doi 10.14411/eje.2015.088.
- Rahman, S., Hajong S.R., Gévar, J., Lenoir, A., & Darrouzet, E. (2016). Cuticular hydrocarbon compounds in worker castes and their role in nestmate recognition in *Apis cerana indica*. *J. Chem. Ecol.* 42(5): 444-51.
- Liu, X. and Hajong, S. R. (2015). *Inocellia indica* sp. nov. (Raphidioptera: Inocelliidae): a new snakefly species from Northeastern India. *Zootaxa* 40(3): 393-400
- Seenappa V., Das B., Joshi B.M., Satyamoorthy K. (2016). Context dependent regulation of PEPCK isoforms via promoter DNA methylation and RNA stability in human cells. *Journal of Cellular Biochemistry* doi: 10.1002/jcb.25543 IF 3.446
- Dutta A.K., Ramnath, V. Tandon, Das B. (2016). Biocomputational analysis of phosphoenol pyruvate carboxykinase from *Raillietina echinobothrida*, a cestode parasite, and its interaction with possible modulators. *Parasitology* 143:300-313 doi:10.1017/S0031182015001742.
- Dutta A. K., Ramnath, Dkhar B., Tandon V., Das B. (2015) Cloning and expression of phosphoenolpyruvate carboxykinase from a cestode parasite and its solubilization from inclusion bodies using L-arginine. *Protein Expression and Purification* <http://dx.doi.org/10.1016/j.pep.2015.09.004> IF 1.407
- Das B., Ramnath, Dutta A.K., Tandon V. (2015) Differential kinetics at PK/PEPCK

branch point in the cestode, *Raillietina echinobothrida*. *Experimental Parasitology* 153:151-159.

Books/Book Chapters/Proceedings

Vaiphei, Kh. T., Gupta, B. B. P. (2016). *Fish Diversity in Meghalaya*. Akinik Publications, New Delhi. pp. 1-216.

Choudhury, M. G. & Saha, N. (2015). Nitric oxide synthetic machineries and possible roles of nitric oxide in various physiological functions in fish. In: *Advances in Fish Research*, Vol. VI. Ed. U.C. Goswami, Narendra Publishing House, Delhi, pp. 29-67.

Paul, R. & Ramanujam S. N. (2015) Haematological alterations in air breathing

catfish, *Heteropneustes fossilis* exposed to copper and cadmium. In: *Proceedings of the National Seminar: Aquaculture in North East Region: Realities, Opportunities and Challenges*. Bhuyan, R. N., Ghosh, D. Kharbuli, S. M. and Nath, R.(Eds.) ISBN No. 9780 0000 09784. (Department of Fishery Science, St. Anthony's College, Shillong). pp 64-71.

Kharbangar, M., Hajong, S. R., & Choudhury, S. (2016) Endemic Thrips of Northeast India. In: *Bioprospecting of Indigenous Bioresources of North East India*, Purkayastha, J. (Ed). Springer Singapore. Chapter 16.

Research Projects

Ongoing

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount (Rs in lakhs)
1	Studies on Circadian Rhythm of Arylalkylamine N-Acetyltransferase Gene Expression and its Regulation in Photoreceptive Pineal of the Fish, <i>Clarias gariepinus</i>	Prof. B. B. P. Gupta (PI)	Science and Engineering Research Board (SERB), New Delhi	35.292 lakhs
2	Possible upregulation of ornithine-urea cycle genes and involvement of MAPKs to adapt under hyper-ammonia stress in air-breathing catfish, <i>Heteropneustes fossilis</i>	Prof. N. Saha (PI)	Department of Science and Technology, New Delhi (DST-SERB)	49.95 lakhs
3	Cyto-toxic Potential of α -Viniferin, a Natural Polyphenolic Compound, in Swiss Albino Mice	Prof. Bishnupada Roy (PI)	Department of Science and Technology, New Delhi	49.58 lakhs

Department of Zoology

4	Studies on the pharmacological properties of <i>Lysimachia ramosa</i> and its active component(s)	Prof. Bishnupada Roy (PI)	University Grants Commission, New Delhi	12.78 lakhs
5	Anticipation in genes: Molecular, physiological and behavioral correlates of response of circa-annual clocks to seasons in night-migratory song birds: Investigation of physiological and metabolic adaptations in migrants	Prof. A. S. Dixit (PI)	Department of Biotechnology, New Delhi	69.884 lakhs
6	Identification and development of DNA methylation biomarkers for oral/oropharyngeal cancers prevalent in the North-Eastern states of India	Dr. Srimoyee Ghosh (PI), Dr. B. Shunyu (Co-PI)	DBT, GOI	53.08 lakhs
7	Identification and development of DNA methylation biomarkers for stomach cancers prevalent in Mizoram, India	Dr. Srimoyee Ghosh (PI), Dr. Saia Chenkual, (Co-PI)	DST, GOI	46.54 lakhs
8	Identification of biomarkers of oropharyngeal cancer prevalent in North-Eastern states of India by whole genome methylation and expression profiling	Dr. Srimoyee Ghosh (PI), Dr. B. Syunyu (Co-PI), Dr. Arindam Maitra (Co-PI), Dr. Sharmila Sengupta (Co-PI)	DBT (NER) GOI	85.20 lakhs
9	'Niangtaser' an unique insect resource from Ri-Bhoi District.	Dr. S. R. Hajong (PI) Prof. H. J. Syiemlieh (Co-PI)	MBDA, North East Council	03.51 lakhs
10	Epigenetic status of pro/anti apoptotic activity of age-related genes involved in breast cancer	Dr B. Das (PI & Coordinator) and Others	DBT, GoI	36.23 lakhs

Completed during Year

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount (Rs in lakhs)
1.	Molecular characterization in the expression of mRNAs for ornithine-urea cycle enzymes and enzyme proteins, multiple glutamine synthetase genes and signaling cascades under hyper-ammonia stress in the air-breathing walking catfish, <i>Clarias batrachus</i>	Prof. N. Saha (PI) Dr. M. Santra, NCCS, Pune (CO-PI)	Department of Biotechnology, New Delhi	105.5 lakhs
2.	Effects of high environmental ammonia on the expression of multiple glutamine synthetase genes, mitogen-activated protein kinases and Hsp70 in the air-breathing mud eel, <i>Monopterus albus</i>	Prof. N. Saha (PI)	University Grants Commission, New Delhi	12.76 lakhs
3.	Role of kisspeptin and GnIH in regulation of seasonal breeding in the tree sparrow	Prof. A. S. Dixit	Dept of Science and Technology, New Delhi	48.91 lakhs
4.	Antibiosis and other protective mechanisms against entomopathogens in a nest building eusocial ant.	Dr. S. R. Hajong (PI)	SERB,DST, New Delhi	12.00 lakhs

Academic Collaborations

India

Prof. R. N. K. Hooroo collaborated with S. K. Dutta, Chairman, Nature Environment and Wildlife Society, Odisha.

Prof. N. Saha collaborated with Dr. Manas Santra, Scientist F, National centre for Cell Science, Pune

Prof. A. S. Dixit collaborated with (i) Prof. Vinod Kumar, Department of Zoology, Delhi University, New Delhi (ii) Prof. Sangeeta

Rani, Department of Zoology, Lucknow University, Lucknow (iii) Dr. Praful Singru, NISER, Bhubaneswar (iv) Dr. Monika Sadanada, Mangalore University, Mangalore (v) Sanjay Bhardwaj, Ch. Charan Singh University, Meerut.

Dr. S. Ghosh collaborated with (i) Dr. Arindam Maitra, National Institute of Biomedical Genomics (NIBMG), Kalyani, W. Bengal, (ii) Dr. Neizekhotuo Brian Shunyu of (NEIGRIHMS), (iii) Dr. Saia Chenkual, Civil Hospital, Aizawl, Mizoram.

Dr. S. R. Hajong collaborated with Prof. H.J. Syiemlieh, Department of Geography, NEHU, Shillong.

Dr. B. Das collaborated with (i) Dr. Amit Sharma, Group leader, International Centre for Genetic Engineering and Biotechnology, New Delhi (ii) Prof. K. Satyamoorthy, Director, MLSC, Manipal University, Manipal (iii) Prof. S. Mishra, Scientist-E, ILS, Bhubaneswar, Odisha (iv) Dr. A. Kataki, Director, BBCI, Guwahati, Assam

Abroad

Prof. R. N. K. Hooroo collaborated with (i) Indraneil Das, Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak, Malaysia

Prof. A.K. Yadav collaborated with Prof. Andreas-Schmidt Rhaesa, University of Hamburg, Germany on Biodiversity studies on gordiid worms in Northeast India.

Prof A. S. Dixit collaborated with Prof. Kazuyoshi Tsutsui, Laboratory of Brain Science, Faculty of Integrated Arts and Sciences, Hiroshima University Higashi-Hiroshima, Japan.

Dr. S. R. Hajong collaborated with (i) Dr Xingue Liu, Department of Entomology, China Agricultural University, Beijing, China, (ii) Dr.J. Gévar, Dr.A. Lenoir & Dr E. Darrouzet, IRBI UMR CNRS 7261, Université François Rabelais, Faculté des Sciences, France.

Dr. B. Das collaborated with (i) Dr V. Ferro, Group leader, SIPBS, Strathclyde University, Scotland, UK (ii) Dr Todd Holyoak, Associate Professor, Department of Biology, University of Waterloo, 200 University Avenue West Waterloo, ON N2L 3G1, Canada.

Honours/Awards/Recognitions

Prof. B. B. P. Gupta acted as Member of the Editorial Board, Proceedings of Indian National Science Academy (PINSA: Biological Sciences), INSA, New Delhi.

Prof. N. Saha was nominated as (i) PAC member of the DST-SERB Animal Science Group, New Delhi (2015-2018), (ii) Expert Committee member of DST-SERB Young Scientists Scheme, New Delhi (2015-2018).

Prof. A. K. Yadav was awarded Overseas Research Associateship for NER Region (2015-16) by Department of Biotechnology, Govt. of India to visit University of Hamburg, Germany, and serves as Editorial Board Member of Journal of Parasitic Diseases (Springer), Journal of Alternative Medicine (USA), Humanitis Medicine (South Korea), and is Fellow, Zoological Society, Kolkata.

Prof. A. S. Dixit was elected Vice President of the Indian Society for Chronobiology.

Dr. B. Das was awarded DBT Overseas Associateship 2015-2016

Other Activities

The 4th meeting of DST-SERB Young Scientists – Life Sciences Expert Committee meeting was held in the Department from April 18-20, 2016.

Prof. B.BP. Gupta was Member, Selection Committee for Science Academies' Summer Research Fellowship (SRF), December 15-17, 2015, Indian Academies of Sciences, Bangalore.

Prof. N Saha was (i) Visitor's nominee for Life Sciences selection committee in Mizoram University, Aizawl, (ii) BPGS member

of the department of Zoology, Tripura University, Agartala, (iii) BOS member of the Department of Zoology, Sikkim University, Gangtok.

Prof. S. N. Ramanujam was (i) Chancellor's nominee for University teachers selection/screening in Department of Aquaculture and Management, Vidyasagar University, West Bengal. (ii) Member of School Board of Environmental Sciences, Assam University, Silchar, Assam.

Prof. S. N. Ramanujam participated in JSTOR India User's Forum Workshop, organized by JSTOR, USA in collaboration with Central Library, NEHU on 6th October, 2015 at NEHU, Shillong.

Prof. R. N. K. Hooroo attended a lecture series held in the Department of Zoology, NEHU, Shillong on 26-27 March, 2015.

Dr. B. Keshan was Member of the University level Yoga Committee, NEHU, 2015-2016 to organize "International Yoga Day" on June 21, 2015, NEHU, Shillong.

Dr. S. Choudhury attended four UGC-HRDC Short Term Courses (2015-2016).

Dr. S. R. Hajong attended the *International Workshop on Parasitic Insects; how and where they are?* held 21-25 Sep 2015 at Dept of Entomology, Annamalai University, Chidambaram.

Prof. A. K. Yadav serves as Ad hoc reviewer for Journal of Ethnopharmacology (Elsevier), PLoS ONE, PLoS Neglected Tropical Diseases, International Journal of Pharmaceutics (Elsevier), BMC Complementary Alternative Medicine, Journal of Parasitic Diseases (Springer), Memórias do Instituto Oswaldo Cruz (Brazil).

VI

SCHOOL OF PHYSICAL SCIENCES

Dean: Prof. B. Jyrwa,
Telephones: 0364 272 2501/2503/2830; Mobile No. 9863082703
Fax: 0364 2550486/2550076
E-mail: bjyrwa@gmail.com; bmjyrwa@nehu.ac.in

The School of Physical Sciences consists of Departments of Chemistry, Mathematics, Physics and Statistics. All Departments are involved in postgraduate teaching (M.Sc.) and research (the M.Phil. and Ph.D. programs). All departments have their thrust areas for carrying out research work. The faculty members of the School through their significant research contributions have earned recognition. In addition to individual research projects the

department of Chemistry, Mathematics, Physics and Statistics have got extra financial support from DST-FIST and UGC-SAP. Besides there are quite a number of faculty members having individual Projects, Refresher Courses have also been conducted, and Seminars/Workshops have been organized by different departments at different times. Many faculty members have national and international collaboration besides individual projects.

DEPARTMENT OF CHEMISTRY

Head: Prof. K. Mohan Rao

Telephone: 2722601; 9436166937 (M)

E-mail: kmrao@nehu.ac.in

Faculty

Designation	Name and Qualification	Specialization
Professor	K. Ismail, M.Sc./Ph.D. (AMU)	Physical Chemistry
	B. Myrboh, M.Sc./Ph.D. (NEHU)	Organic Chemistry
	R. H. Duncan Lyngdoh, M.Sc. (NEHU); Ph.D. (IIT Madras)	Organic Chemistry
	R. A. Lal, M.Sc./Ph.D. (BHU)	Inorganic Chemistry
	K. Mohan Rao, M.Sc. (S. V. Univ.); Ph.D. (IIT Kanpur)	Inorganic Chemistry
	A. K. Chandra, M.Sc./Ph.D. (Burdwan Univ.)	Physical Chemistry
	G. Bez, M.Sc./Ph.D. (Gauhati Univ.)	Organic Chemistry
Associate Professor	H. Askari, M.Sc./Ph.D. (AMU)	Physical Chemistry
	T. S. Basu Baul, M.Sc. (Jabalpur); Ph.D. (North Bengal)	Inorganic Chemistry
	M. K. Sahoo, M.Sc. (Utkal); Ph.D. (Comenius, Czechoslovakia)	Organic Chemistry
	S. Mitra, M.Sc. (Vidyasagar Univ); Ph.D. (IACS, Kolkata)	Physical Chemistry
	M. Velusamy, M.Sc/Ph.D. (Bharathidasan)	Inorganic Chemistry
Assistant Professor	R. L. Nongkhlaw, M.Sc./Ph.D. (NEHU)	Organic Chemistry
	E. K. Rymmai, M.Sc./Ph.D (NEHU)	Inorganic Chemistry
	D. P. S. Negi, M.Sc. (Roorkee); Ph.D. (IIT Roorkee)	Physical Chemistry
	B. Sarkar, M.Sc. (N. Bengal); Ph.D. (IIT Guwahati)	Physical Chemistry
	A. K. Pal, M.Sc. (Calcutta); Ph.D. (Kalyani)	Organic Chemistry
	S. Khatua, M.Sc. (Vidyasagar Univ); Ph.D. (IIT Kharagpur)	Inorganic Chemistry

Department of Chemistry

Thrust Areas of Research

Organometallic Chemistry, Coordination Chemistry, Computational Chemistry, Theoretical Reaction Kinetics, Synthetic Organic Chemistry, Heterocyclic Chemistry, Chemistry of Surfactants, Dynamics of Excited States, Photocatalysis, Natural Products Chemistry

Brief Statement of Academic Activities

The Department is a UGC Centre for Advanced Studies in Chemistry and also supported by DST-

FIST. The Department offers M.Sc. and Ph.D. programmes. Thirty-seven M.Sc. and eleven Ph.D. students were admitted to the Department in the said period. Nine students were awarded the Ph.D. degree. All the Faculty members are engaged in active research. The Department organized a National Symposium attended by many reputed national scientists. One student qualified for the CSIR NET Lectureship and one cleared the Gate examination. There are many individual research schemes funded by DST, UGC, CSIR, DAE (BRNS), DBT and DIT.

Students' Profile

Enrolment Capacity: M.Sc.: 36 Ph.D.: Variable

Actual Admissions:

Degree	SC	ST	Gen	Male	Female	Meghalaya	Non-Meghalaya	Total
M.Sc.	--	22	15	14	23	13	24	37
Ph.D.	--	06	05	08	03	09	02	11

Degrees Awarded

Degree	SC	ST	Gen	Male	Female	Meghalaya	Non-Meghalaya	Total
M.Sc.	03	18	08	18	11	22	17	29
Ph.D.	02	04	03	02	07	05	04	09

Details of Students awarded Ph.D. degree

Name of the student	Title of Thesis	Name(s) of supervisor(s)/ Jt. Supervisor
Ms. Icydora Kharkongor	"Synthesis of Heterocycles using Copper-based Catalysts and Development of New Methodologies using Group 16 elements and their Compounds in Organic synthesis"	Prof. B. Myrboh
Ms. Manisha Bihani	"Synthesis of Organic Solids and Studies on their Reactivity with Transition Metal Salts in Solid State"	Dr. Hassan Askari (Supervisor) Prof. G. Bez (Jt. Supervisor)

School of Physical Sciences

Ms. Angira Koch	"Synthesis, characterization and reactivity study of some transition metal complexes with nitrogen and oxygen donor ligands"	Prof. R.A. Lal
Ms. Badaker M. Laloo	"SeO ₂ - promoted synthesis of a-substituted and a, a-disubstituted aromatic ketones and related compounds"	Prof. B. Myrboh (Supervisor) Dr. R.L. Nongkhaw (Jt. Supervisor)
Ms. Tejeshwori Salam	"Base pairing motifs and repair mechanisms associated with alkylated DNA: Some computational insights"	Prof. R.H. Duncan Lyngdoh
Mr. Morten Marbaniang	"Comparative studies on decolorization and mineralization of Ponceau S and Ponceau Xylidine by some advanced oxidation processes"	Dr. M.K. Sahoo
Mr. K. Mahesh	"Synthesis and study of transition metal complexes containing arenes and multidentate nitrogen donor ligands"	Prof. K.M. Rao
Ms. Shilpi Mandal	"Physicochemical studies of some metal complexes: Experimental and computational approach"	Dr. Hassan Askari
Ms. Nazima Sultana	"Assessment of aggregation and adsorption characteristics of ionic surfactants in presence of organic counter ions and cosolvents"	Prof. K. Ismail

Placement of Students:

M.Sc. students passing out from this Department have been placed as Teachers in different colleges and schools, as Scientists in research organizations, and as Research Scholars in this Department and other Institutes. Some research scholars have joined different Universities and Institutes as Research Associates. Three Ph.D. scholars got Faculty position in various colleges in Shillong.

Study Tour of Students

Teachers in-charge: Dr. M.K. Sahoo and Dr. S. Khatua

Places/Institutions visited: Kolkata, Vishakapatnam and Puri

Duration of Tour: 2nd January to 17 January 2016.

Purpose of Tour: To visit different Scientific/ Research Institutes

Courses Conducted

M.Sc. Courses:

Semester I :

Inorganic Chemistry-I, Organic Chemistry-I, Physical Chemistry-I, Quantum Chemistry, Laboratory Course in Organic Chemistry.

Semester II:

Inorganic Chemistry-II, Organic Chemistry-II, Physical Chemistry-II, Molecular Spectroscopy, Laboratory Course in Inorganic Chemistry.

Topics in Organic Synthesis, Computer Programming in Chemistry, Organometallic Chemistry, Bioorganic Chemistry, Chemistry of Surfactants.

Semester III:

Inorganic Chemistry-III, Organic Chemistry-III, Physical Chemistry-III, Applications of Spectroscopic Methods, Laboratory Course in Physical Chemistry, Environmental and Analytical Chemistry, Photochemistry, Bioinorganic Chemistry, Natural Products Chemistry, Principles and Applications of Fluorescence Spectroscopy.

Semester IV:

Inorganic Chemistry-IV, Organic Chemistry-IV, Physical Chemistry-IV, Seminar, Project Work in Inorganic, Organic and Physical Chemistry.

Ph.D. Courses

Research Methodologies in Chemistry; Spectroscopic & Crystallographic Techniques in Chemistry; Advanced Inorganic Chemistry; Advanced Organic Chemistry; Advanced Physical Chemistry and Advanced Quantum Chemistry.

Seminar/ Conference/ Symposium/etc.

Organised

A two day National Symposium (sponsored by DST, NEHU and UGC-CAS) entitled *Emerging Trends in Chemistry* (ETC-2016)" was organized by the Department during 28-29 March 2016, with Dr. A.K. Pal and Dr. S. Khatua as Convener.

Attended and Participated

Prof. K. Ismail

Delivered an Invited Lecture entitled "Tuning the behaviour of surfactants by additives" in the *Annual Convention of Chemists and International Conference on Recent Advances in Chemical Sciences* organized by Indian Chemical Society and hosted by JECRC University, Jaipur during December 28-30, 2015.

Prof. R. H. Duncan Lyngdoh

Attended the 56th *Sanibel International Symposium on Quantum Chemistry* held at St Simons Island, Georgia, USA, from 14th to 19th February, 2016, being invited to present a paper entitled "Molecular criteria for mutagenesis by methylation of DNA: Some computational elucidations".

Attended *National Conference on Contemporary Developments in Chemical Sciences* held 23rd to 24th November 2015 at Tezpur University, Napaam, Assam, and presented an invited lecture entitled "Molecular criteria for mutagenesis by methylation of DNA: Some computational elucidations".

Attended UGC-SAP *National Seminar on Emerging Trends in Chemical Sciences* (Golden Jubilee Celebrations of Department of Chemistry) held 5th to 6th November,

2015, at Gauhati University, Guwahati, Assam, and delivered an invited lecture entitled "Computational design of repeat units for potential information-bearing macromolecular H-bonded duplexes, Part I. Polyamide backbone".

Dr. M. K. Sahoo

Member of Advisory Committee for 2nd National Conference on Advanced Oxidation Processes (AOP 2015), held at Dr. SSB University of Chemical Engineering, Panjab University, Chandigarh, October 15-16, 2015.

Delivered an invited talk entitled "Fenton process: Its limitations, modifications and applications" at 2nd National Conference on Advanced Oxidation processes (AOP 2015), Dr. SSB University of Chemical Engineering, Panjab University, Chandigarh, October 15-16, 2015.

Chaired a session on 15th October, 2015 at the 2nd National Conference on Advanced Oxidation processes (AOP 2015), Dr. SSB University of Chemical Engineering, Panjab University, Chandigarh, October 15-16, 2015.

Dr. D. P. S. Negi

Dr. D.P.S. Negi presented a Poster entitled "Photocatalytic degradation of methyl orange dye using sodium dodecylsulfate micelle stabilized colloidal ZnS nanoparticles" co-authored with L.M. Devi, at the Materials Research Society of India Symposium, CSIR-NEIST, Jorhat during 18-20 February 2016.

Dr. A. K. Pal

Delivered an invited lecture entitled "Synthesis of Biologically Relevant Heterocycles by Using Nanoparticles via One-Pot

Multicomponent Reaction Regards" in the National Seminar on Perspectives in Environmental and Marine Research: Retrospect and Prospect organized by the Department of Environmental Science & Department of Marine Science, University of Calcutta on 22nd January 2016.

Delivered an invited lecture at the National Symposium on Natural Products: Prospects & Perspectives held at CSIR-North East Institute of Science and Technology, Jorhat, Assam during 21-22 March 2016.

Research Papers

Published in India

Borthakur, R.; Kumar, A.; Lal R. A. (2015). A synthesis and characterization of some heterobimetallic complexes of Cu, Zn and Mn derived from succinoyldihydrazones. *J. Indian Chem. Soc.* 92(7), 1071-1081.

L. M. Devi and D.P.S. Negi, (2015). Synthesis of zinc sulfide nanoparticles stabilized by sodium dodecylsulfate micelles and evaluation of photocatalytic activity. *Indian J. Chem.*, 54A, 1440-1445.

Published abroad

Dey, J., Kumar, S., Aswal, V. K., Panicker, L. V., Ismail, K., Hassan, P. A. (2015). Effect of sodium salicylate and sodium deoxycholate on fibrillation of bovine serum albumin: Comparison of fluorescence, SANS and DLS techniques. *Phys. Chem. Chem. Phys.*, 17: 15442-15451.

Thapa, U., Ray, D., Dey, J., Sultana, N., Aswal, V. K., Ismail, K. (2015). Influence of hydro-tropic coions on the shape transitions of sodium dioctylsulfosuccinate aggregates in aqueous medium. *RSC Adv.*, 5: 45956 - 45964.

- Dey, J., Sultana, N., Kumar, S., Aswal, V. K., Choudhury, S., Ismail, K. (2015). Controlling aggregation of sodium dodecylsulphate in aqueous poly (ethylene glycol) solutions. *RSC. Adv.*, 5: 74744-74752.
- Sultana, N., Ismail, K. (2016). Specific ion effects of chloride vis-à-vis acetate, propionate and butyrate counterions on the cetylpyridinium head group at the micelle-solution and air-solution interfaces. *J. Mol. Liquids*, 213: 145-152.
- Dey, J., Ray, D., Kumar, S., Sultana, N., Aswal, V. K., Kohlbrecher, J., Ismail, K. (2016). Effect of acetonitrile-water mixtures on aggregation and counterion binding behavior of sodium dioctylsulphosuccinate micelles. *J. Mol. Liquids*, 216: 450-454.
- Koya, P. A., Wagay, T. A., Ismail, K. (2016). Effect of ethylene glycol and propylene glycol on the aggregation of alkanediyl- α,ω - bis(tetradecyldimethylammonium bromide) (14-s-14; s = 4-6) Gemini surfactants. *J. Mol. Liquids*, 219: 505-512.
- Barbhuiya, A. H., Ismail, K. (2016). Effect of fiber length and loading on the properties of *Schumannianthus dichotomus* (murta) fiber-reinforced epoxy composites. *Inter. J. Polym. Anal. Charact.*, 21: 221-227.
- Wagay, T. A., Dey, J., Kumar, S., Aswal, V. K., Ismail, K. (2016). Aggregation, adsorption, counterion binding, thermal and scattering behavior of metallosurfactant cis-[Co(en)₂(C₁₂H₂₅NH₂)Cl](NO₃)₂. *Colloids Surf. A.*, 503: 61-69.
- Barbhuiya, A. H., Ismail, K. (2016). Characterization of Hybrid Epoxy Composites Reinforced by Murta and Jute Fibers. *Inter. J. Polym. Anal. Charact.*, DOI:10.1080/1023666X.2016.1183276.
- Wagay, T. A., Dey, J., Kumar, S., Aswal, V. K., Ismail, K. (2016). Aggregation and surface behavior of aqueous solutions of cis-bis(1,3-diaminopropane) bis(dodecylamine) cobalt(III) nitrate. A double-chained metallosurfactant. *RSC. Adv.*, 6: 66900-66910.
- Barbhuiya, A. H., Choudhury, S. U., Ismail, K. (2016). Characteristics of murta bast fiber reinforced epoxy composites. *J. Appl. Polym. Sci.*, DOI: 10.1002/APP.44142.
- Dey, J., Ray, D., Biswas, K., Aswal, V. K., Joshi, S. R., Kohlbrecher, J., Dey, P., Ismail, K. (2016). AOT micelles/vesicles for synthesis of silver nanoparticles and micellar transitions affected by nanoparticles. *Chemistry Select*, 1: 2864-2871.
- Kharkongor, I.; Myrboh, B. (2015). One-pot synthesis of α -ketoacetals from aryl methyl ketones in the presence of selenous acid catalyzed by boron trifluoride etherate. *Tetrahedron Lett*, 56: 4359-4362.
- Devi, S. P.; Salam, T.; Duncan Lyngdoh, R. H. (2016). Uncatalyzed thermal gas phase aziridination of alkenes by organic azides. Part I: Mechanisms with discrete nitrene species. *J. Chem. Sci.* 128: 681-693.
- Kurbah, S. D.; Kumar, Arvind; Asthana, M.; Shangpong, S.; Koch, A.; Lal, R. A. (2016). Water soluble heterobimetallic complex [CuZn(bz)₃(bpy)₂][BF₄]: a catalyzed selective oxidation of alcohols to aldehydes mediated by hydrogen peroxide in aqueous medium in the absence of a base and co-catalyst, *Current Organocatalysis*, 3: 45-51.
- Shangpong, S.; Kumar, A.; Asthana, M.; Dey, A. K.; Kurbah, S. D.; Basumatary, D.; Lal, R. A. (2015). Crystal structure and catalytic studies of heterodinuclear complex

- [CuZn(μ -OAc)(μ -OH) (μ -OH₂)(bpy)₂ (ClO₄)₂. *Inorg. Chem. Comm.*, 58: 48-52
- Borthakur, R.; Kumar, A.; Lal, R. A. (2015). Synthesis, characterization and electrochemical studies of some NiII/CuII heterobimetallic complexes derived from succinoyldihydrazones. *Spectrochim. Acta, Part A: Mol. Biomol. Spectroscopy*, 149: 621-629.
- Basumatary, D.; Lal, R. A.; Kumar, Arvind (2015). Synthesis, and characterization of low- and high-spin manganese(II) complexes of polyfunctional adipoyldihydrazone: Effect of coordination of N-donor ligands on stereo-redox chemistry, *J. Mol. Struct.*, 1092: 122-129.
- Koch, A.; Kumar, Arvind; Singh, Suryabhan; Borthakur, R.; Basumatary, D.; Lal, R.A.; Shangpung, S. (2015). Synthesis, crystal structure and spectroscopic and electrochemical properties of bridged trisbenzoato copper-zinc heterobinuclear complex of 2,2'-bipyridine. *J. Mol. Struct.*, 1083: 381-388.
- Palepu, N. R.; Premkumar, J. R.; Verma, A. K.; Bhattacharjee, K.; Joshi, S. R.; Forbes, S.; Mozharivskyj, Y.; Kaminsky, W.; Mohan Rao, K. (2016). In vitro biological activity studies of platinum group metal complexes containing N,N'-Bis(picolinoyl)hydrazine ligand. *Current Inorg. Chem.*, 6: xxx.
- Punna Rao, A. B.; Palepu, N. R.; Deb, D. K.; Uma, A.; Chiranjeevi, T.; Sarkar, B.; Kaminsky, W.; Mohan Rao, K. (2016). Synthesis, structural, DFT studies and antibacterial evaluation of Cp*rhodium and Cp*iridium complexes using hydrazide based dipyriddy ketone ligand. *Inorg. Chim. Acta*, 443: 126-135.
- Kalidasan, M.; Sangilipandi, S.; Nagarajaprakash, R.; Mohan Rao, K. (2016). Synthesis and structural studies of arene ruthenium and Cp*Rh/Cp*Ir complexes containing pyridylpyrazole and pyridylthiazole based ligands. *Trans. Metal Chem.*, 41: 261-270.
- Sangilipandi, S.; Sutradhar, D.; Kaminsky, W.; Chandra, A. K.; Mohan Rao, K. (2016). Synthesis, molecular structure and DFT studies of tricarbonylrhenium(I) complexes containing nitrogen based bis, tris, tetrakis-(di-2-pyridylaminomethyl)benzene ligands. *J. Mol. Struct.*, 1115: 8-16.
- S. Sangilipandi, S.; Sutradhar, D.; Bhattacharjee, K.; Kaminsky, W.; Joshi, S. R.; Chandra, A. K.; Mohan Rao, K. (2016). Synthesis, structure, antibacterial studies and DFT calculations of arene ruthenium, Cp*Rh, Cp*Ir and tricarbonylrhenium metal complexes containing 2-chloro-3-(3-(2-pyridyl)pyrazolyl)quinoxaline ligand. *Inorg. Chim Acta*, 441: 95-108.
- Palepu, N. R.; Premkumar, J. R.; Verma, A. K.; Bhattacharjee, K.; Joshi, S. R.; Forbes, S.; Mozharivskyj, Y.; Mohan Rao, K. (2016). Antibacterial, in vitro antitumor activity and structural studies of rhodium and iridium complexes featuring the two positional isomers of pyridine carbaldehyde picolinic hydrazone ligand. *Arab. J. Chem.*,
- Sangilipandi, S.; Nagarajaprakash, R.; Sutradhar, D.; Kaminsky, W.; Chandra, A. K.; Mohan Rao K. (2015). Synthesis, molecular structural studies and DFT calculations of tricarbonyl rhenium(I) metal complexes containing nitrogen-based NNN donor polypyridyl ligands. *Inorg. Chim. Acta*. 437: 177-187.
- Kalidasan, M.; Nagarajaprakash, R.; Mohan Rao, K. (2015). Synthesis, spectral and

- molecular studies of half-sandwich arene ruthenium and $\text{Cp}^*\text{Rh/Cp}^*\text{Ir}$ complexes containing bidentate P-N and E-N ligands ($\text{E} = \text{S}, \text{Se}$) based on diphenyl(2-pyridyl)phosphine *J. Coord. Chem.*, 68: 3839-51.
- Kalidasan, M.; Nagarajaprakash, R.; Mohan Rao, K. (2015). Synthesis and molecular studies of half-sandwich arene ruthenium and $\text{Cp}^*\text{Rh/Cp}^*\text{Ir}$ complexes containing (3-picolyl)thiourea derivatives as N,S-bidentate donor ligand. *Trans. Met. Chem.*, 40: 531-539.
- Sutradhar, D.; Zeegers-Huyskens, T.; Chandra, A. K. (2016). Theoretical study of the interaction of fluorinated dimethyl ethers and the ClF and HF molecules. Comparison between halogen and hydrogen bonds. *Int. J. Quantum. Chem.* 116: 670.
- Sutradhar, D.; Zeegers-Huyskens, T.; Chandra, A. K. (2015). Theoretical study of the interaction between pyridine derivatives and atomic chlorine. Substituent effect and nature of the bonding. *Mol. Phys.* 113: 3232.
- Lily, M.; Chandra, A. K. (2015). Theoretical investigation on kinetics and thermochemistry of reaction of $\text{CHF}_2\text{CF}_2\text{OCH}_2\text{CF}_3$ with OH radicals and global warming potentials, *Mol. Phys.* 113: 508.
- Lily, M.; Chandra, A. K. (2015). Theoretical studies on atmospheric chemistry of $(\text{CF}_3)_2\text{C}(\text{OH})\text{CH}_3$: Kinetics, mechanism and thermochemistry of gas phase reactions with OH radicals. *J. Fluor. Chem.* 175: 185.
- Basu Baul, T. S.; Linden, A. (2015). Synthesis and structural facets of dialkyltin(IV) complexes constructed from 2-(2-(3,5-Dimethyl-4-oxocyclohexa-2,5-dien-1-ylidene)hydrazinyl)benzoate. *Z. Anorg. Allg. Chem.* 641: 1581-1588.
- Basu Baul, T. S.; Longkumer, I.; Linden, A. (2015). Synthesis and structure of a polymeric homobimetallic mercury compound constructed from (E)-acetyloxy{4-[(pyridin-2-ylmethylene)amino]phenyl}mercury(II); *J. Chem. Crystallogr.* 45: 383-390.
- Basu Baul, T. S.; Chaurasiya, A.; Tiekink, E.R.T. (2016). 3-[(2-Hydroxybenzyl)azaniumyl]propanoate monohydrate, *IUCrData*, 1: x152453.
- Basu Baul, T. S.; Serb, M.-Diana; Englert, U. (2016). Synthesis and characterization of archetypal ladder-like dibutyloxotin cluster derived from sterically encumbered 4-[(E)-2-(4-hydroxy-5-methylphenyl)-1-diazenyl]benzoate; *J. Clust. Sci.*, 27: 95-103.
- Linden, A.; Basu Baul, T. S. (2016). π - π stacking motifs in dialkylbis{5-[(E)-2-aryldiazen-1-yl]-2-hydroxybenzoato}tin(IV) complexes; *Acta Crystallogr.*, C72: 313-325.
- Basu Baul, T. S.; Dutta, D.; Duthie, A.; Guedes da Silva, M. F. C. (2016). Perceptive variation of carboxylate ligand and probing the influence of substitution pattern on the structure of mono- and di-butylstannoxane complexes. *Inorg. Chim. Acta*, doi.org/10.1016/j.ica.2016.05.008.
- Basu Baul, T. S.; Kehie, P.; Höpfl, H.; Duthie, A.; Eng, G.; Linden, A. (2016). Organotin(IV) complexes derived from proteinogenic amino acid: Synthesis, structure and evaluation of the larvicidal efficacy on *Anopheles stephensi* mosquito larvae, *Appl. Organomet. Chem.* (in press).
- Sahoo M. K., Sinha B., Sharan R.N. (2015). Metal ion-catalyzed mineralization and biodegradation studies of Calconcarboxylic acid in aqueous solution: effect of -COOH group. *Desalin. Water Treat.* 56: 1955-1963.

- Islam, M. M.; Aguan, K.; Mitra, S. (2016). Fluorescence properties and sequestration of peripheral anionic site specific ligands in bile acid hosts: Effect on acetylcholinesterase inhibition activity. *J. Photochem. Photobiol. B. Biology*, 158: 192–201.
- Gashnga, P. M.; Singh, T. S.; Mitra, S. (2016). Modulation of ESIPT fluorescence in o-hydroxy acetophenone derivatives: A comparative study in different biomimicking aqueous interfaces. *J. Mol. Liq.*, 218, 549–557.
- Islam, M. M.; Gurung, A. B.; Bhattacharjee, A.; Aguan, K.; Mitra, S. (2016). Human serum albumin reduces the potency of acetylcholinesterase inhibitor based drugs for Alzheimer's disease. *Chem.-Biol. Interact.*, 249: 1–9.
- Islam, M. M.; Sonu, V. K.; Gashnga, P. M.; Moyon, N. S.; Mitra, S. (2016). Caffeine and sulfadiazine interact differently with human serum albumin: A combined fluorescence and molecular docking study. *Spectrochim. Acta A: Mol. Biomol. Spectroscopy*, 152: 23–33.
- Singh, N. G.; Lily, M.; Devi, S. P.; Rahman, N.; Ahmed, A.; Chandra, A. K.; Nongkhlaw, R. (2015). Synthetic, mechanistic and kinetic studies on the organo-nanocatalysed synthesis of oxygen and nitrogen containing spiro compounds under ultrasonic conditions. *Green Chemistry*, DOI: 10.1039/C6GC00724D.
- Tumtin, S.; Kathing, C.; Phucho, I. T.; Nongrum, R.; Myrboh, B.; Nongkhlaw, R. (2015). Triethylbenzylammonium chloride as a useful and efficient catalyst for the alkylation of indole/substituted indoles in water: A comparative study between conventional and microwave irradiation. *J. Chinese. Chem. Soc.*, 62: 321–327.
- Deb, D. K.; Sarkar, B. (2016). Impact of deformation energy in the hydrogen bonding interactions in 3-X catechol...H₂O complexes (X = H, F, Cl, Br): The effect of approach of a water molecule. *Chem. Phys.*, 472: 95–104.
- Gupta, A.; Jamatia, R.; Pal, A. K. (2015). Ferrite-supported glutathione: an efficient, green, nano-organocatalyst for the synthesis of pyran derivatives. *New J. Chem.*, 39: 5636–5642.
- Dam, B.; Saha, M.; Pal, A.K. (2015). Magnetically recyclable nano-FDP: a novel, efficient nano-organocatalyst for the one-pot multi-component synthesis of pyran derivatives in water under ultrasound irradiation. *Catal Lett.*, 145: 1808–1816.
- Dam, B.; Pal, A. K.; Gupta, A. (2016). Nano-Fe₃O₄@silica sulfuric acid as a reusable and magnetically separable potent solid acid catalyst in Biginelli-type reaction for the one-pot multicomponent synthesis of fused dihydropyrimidine derivatives: A greener NOSE and SFRC approach. *Synth. Commun.*, 46: 275–286.
- Jamatia, R.; Gupta, A.; Pal, A. K. (2016). Nano-FGT: A green and sustainable catalyst for the synthesis of spirooxindoles in aqueous medium. *RSC Adv.*, 6: 20994–21000.
- Jamatia, R.; Gupta, A.; Pal, A. K. (2016). Superparamagnetic copper ferrite nanoparticles catalyzed one-step regioselective synthesis of dibenzodiazepines via ligand and base free Ulmann type coupling reaction. *Chemistry Select.*, 4: 852–860.
- Chowdhury, B.; Dutta, R.; Khatua, S.; Ghosh, P. (2016). A cyanuric acid platform based

tripodal bis-heteroleptic Ru(II) complex of click generated ligand for selective sensing of phosphates via C-H...anion interaction. *Inorg. Chem.*, 55: 259-271.

Funds Received from Agencies including NEHU/UGC

(i) National Conference : Rs 2,50,000/-

(ii) DST-FIST : Rs 41,42,803/-

Research Projects

New Research Projects

Sl. No	Title of Project	PI/Co-PI	Funding Agency	Amount
1	Theoretical Investigations of Hydrogen Bond Interactions Involved in the Reactions of Volatile Organic Compounds present in the Atmosphere	Dr. Biplab Sarkar	SERB, DST	Rs.25,00,000

Ongoing Projects

Sl. No	Title of Project	PI/Co-PI	Funding Agency	Amount
1.	Synthetic Studies of Selenium dioxide (SeO ₂), Selenous acid (H ₂ SeO ₃) and Selenic Acid (H ₂ SeO ₄) in Organic Reactions: Synthesis of important Organo-Selenium Intermediates and attempt at Asymmetric Synthesis of α -substituted Propiophenones and related Reactions	Prof. B. Myrboh	SERB, DST, New Delhi.	Rs. 49,06,000
2	Study of redox potential of novel 1,2,4-trioxane nanoparticles and assessment of their compatibility to radiotherapy	Prof. G. Bez	DAE-BRNS, Mumbai	Rs. 27,44,276
3	Mineralization and biotoxicity assessment studies of selected surfactant formulations by some advanced oxidation processes	Dr. M. K. Sahoo.	DAE-BRNS, Mumbai	Rs. 31,18,750
4	Development of "lab-on-a-molecule" chemosensor for cation and anion sensing	Dr. S. Khatua	SERB-DST, New Delhi.	Rs. 27,60,000 lakhs

School of Physical Sciences

5	Synthetic and structural studies projected towards self-assemblies of extended Schiff base and reduced Schiff base amino acetate skeletons incorporating organotin(IV) moieties and evaluation of their cytotoxic potential	Dr. T. S. Basu Baul	CSIR, New Delhi.	20,90,000
6	Synthesis and Characterization of Organotitanium(IV) carboxylates and Evaluation of their Antitumour Properties	Dr. T. S. Basu Baul	UGC, New Delhi	15,30,300/-
7	Rational design, synthetic strategies for developing organometallic anticancer compounds based on organotin and organoiron	Dr. T. S. Basu Baul.	DBT, New Delhi.	52,00,000/-
8	Development of AChE-inhibitor for Alzheimer's disease: screening, designing, synthesis and biological validation using chemical library & traditional North-East Indian plants	Dr. S. Mitra (Co-PI)	DBT, New Delhi.	100.00.Lakh
11	Phosphorescent Iridium Dendrimers Based on Imidazole Containing Conjugated Dendrons	Dr. M. Velusamy PI	UGC, New Delhi	14,48,600/-

Completed during the year

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1	Studies on the Synthetic Utility of Selenium Compounds: Development of New Methodologies for C-C, C-X and C-Se Coupling in Organic Synthesis and Preparation of Novel Organo-selenium Intermediates".	Prof. B. Myrboh	CSIR, New Delhi.	11,25,000/-
2	UV light and transition metal-catalyzed degradation and mineralization studies of some azo dyes by hydrogen peroxide	Dr. M. K. Sahoo	UGC, New Delhi	5,00,000/-
3	Traceless synthesis of coumarin, pyrrole and polyhydroquinoline annulated benzodiazepine, benzazepine and 5, 11-dihydro-benzo-[e]pyrido[3,2-b][1,4] diazepine-6-one derivatives	Dr. A. K. Pal.	SERB-DST, New Delhi	26,00,000/-

Academic Collaborations

Prof. K. Ismail has academic collaborations with (i) Dr. V. K. Aswal, Solid State Physics Division, Bhabha Atomic Research Center, Mumbai; (ii) Dr. P. A. Hassan, Chemistry Division, Bhabha Atomic Research Center, Mumbai; (iii) Dr. S. Mahiuddin, Materials Science Division, CSIR-North East Institute of Science and Technology, Jorhat; (iv) Dr. R. Biswas, Chemical, Biological and Macromolecular Sciences, S. N. Bose National Centre for Basic Sciences, Salt Lake, Kolkata.

Prof. R. A. Lal has academic collaborations with Dr. Arvind Kumar, Department of Chemistry, Faculty of Science and Agriculture, the University of West Indies, St. Augustine, Trinidad and Tobago.

Prof. K. M. Rao has academic collaborations with (i) Prof. Yuriy Mozharivskyj, Department of Chemistry and Chemical Biology, McMaster University, Canada; (ii) Prof. Roger M Phillips, Department of Cancer Pharmacology, Institute of Cancer Therapeutics, University of Bradford, Bradford, UK; (iii) Prof. Dr. Habil Werner Kaminsky, Department of Chemistry, University of Washington, Seattle, WA 98195, USA.

Prof. A. K. Chandra has academic collaboration with Quantum Chemistry Group, University of Leuven, Belgium.

Dr. T. S. Basu Baul has academic collaborations with (i) Prof. A. Linden, University of Zurich, Switzerland; Prof. H. K. Fun, University of Malaya, Malaysia; Prof. G. Eng, University of the District of Columbia,

USA; Prof. E. R. T. Tiekink, Universiti Sains Malaysia, Malaysia, Prof. U. Englert, Institut für Anorganische Chemie, RWTH Aachen University, Germany, Prof. M. Fátima C. Guedes da Silva, University of Lisbon, Portugal, Prof. A. Duthie, School of Life & Environmental Science, Deakin University, Australia, Prof. P. Singh, *Guru Nanak Dev University, Amritsar*, Dr. S. K. Manna, Centre for DNA Fingerprinting and Diagnostics, Hyderabad.

Dr. M. K. Sahoo has academic collaborations with Prof. R.N. Sharan, Dept. of Biochemistry, NEHU, Shillong; Dr. D. B. Naik, Radiation and Photochemistry Division, BARC, Trombay, Mumbai; Dr. C. Srinivas, Process Development Division, BARC, Trombay, Mumbai.

Dr. S. Mitra has academic collaborations with Prof. K. Aguan, Department of Biotechnology & Bioinformatics, NEHU, Shillong; Prof. D. Kumar, BITS, Pilani; Dr. A. Bhasikuttan, BARC, Mumbai.

Dr. A. K. Pal has academic collaborations with Dr. T. Tripathi, Department of Biochemistry; Dr. A. Bhattacharya, Department of Biotechnology & Bioinformatics; Dr. S. Mitra, Department of Chemistry; Prof K. Ismail, Department of Chemistry; Prof K. Aguan, Department of Biotechnology & Bioinformatics, NEHU, Shillong.

Other Activities

Prof. R. H. Duncan Lyngdoh completed his term as Member, Board of Governors, Central Institute of Technology, Kokrajhar, BTDC, Assam in April, 2016.

DEPARTMENT OF MATHEMATICS

Head: Prof. K. K. Singh
Telephone: 2722709 (O), 09436732769 (M)
E-mail: kaukumar@yahoo.com

Faculty

Designation	Name and Qualification	Specialization
Professor	H. K. Mukerjee, D.Phil. (Allahabad Univ.)	Algebraic & Differential Topology
	K. K. Singh, Ph.D. (Gorakhpur Univ.)	Fluid Mechanics
Assistant Professor	A. T. Singh, Ph.D. (NEHU)	Algebraic & Differential Topology
	S. Dutta, Ph.D. (NEHU)	Rings of continuous functions
	A. M. Buhphang, Ph.D. (NEHU)	Ring Theory
	John Paul Jala Kharbhih, M.Sc. (NEHU)	Rings of continuous functions
	Ph. Chinglensana, M.Sc. (Delhi Univ.)	Algebraic Topology

Thrust Areas of Research

Thrust areas of research in alphabetical order are Algebra, Algebraic and Differential Topology, Dynamical Systems, Fluid Mechanics, Geometry.

Algebraic Topology, Differential Topology, Commutative Algebra.

Brief Statement of Academic Activities

- (i) In the year under review, the department continues to give quality and rigorous M.Sc./ M.Phil. and Pre Ph.D. courses of different subjects of Mathematics like Algebra, Analysis, Complex Function Theory, Differential Equations, Linear Algebra, Mechanics, Number Theory, Numerical Analysis and Computer Programming, Relativity and Cosmology, Topology,

- (ii) Our department conducted regular seminar and colloquia on the topics in the thrust areas of research.
- (iii) Our students continue to perform well in obtaining UGC/CSIR NET Junior Research Fellowship and NET Lecturer ship.
- (iv) Our department continues to follow the culture of all the good universities of the world in pursuing fundamental research of original nature and refraining from repetitive and marginal research. It continues to emphasize on the quality of research output rather than quantity.

Students' Profile

Enrolment Capacity: M.Sc. – 36; Ph.D. – Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc.	1	33	2	21	15	32	4	36
M.Phil.	0	1	0	1	0	1	0	1
Ph.D.	0	0	1	1	0	0	1	1

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc.	-	13	-	5	7	10	3	3
M.Phil.	-	-	-	-	-	-	-	-
Ph.D.	0	0	1	1	0	0	1	1

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name(s) of Supervisor(s)/ Joint Supervisor
Mr. Bharat Borah	Holographic Dark Energy and the Accelerating Universe	Prof. M. Ansari

Placement of Students

Some of our students were appointed as Lecturers in the affiliated colleges of NEHU.

Research Fellowships

UGC-Junior Research Fellowship – 2

UGC Non-NET Fellowship – 7

National Fellowship for ST - 2

Courses Conducted

Postgraduate

Semester-I:

Analysis I, A.M.E.S., Linear Algebra, ODE, Classical Mechanics.

Semester-II:

Elementary Graph Theory, Algebra, Topology, PDE, Analysis II.

Semester-III:

CFT, Tensor Analysis & Riemannian Geometry, Theory of Field Extensions, ENT, Programming in C and Applications, Computer programming practical.

Semester-IV:

Computer Practical, Numerical Analysis, Algebraic Topology, Ring Theory, Theory of Relativity.

M.Phil/Ph.D. Courses

Compulsory Course

MTHMPC-1: Research Methodology in Mathematics

Optional Courses

MTHMPO-1 :Galois Theory

MTHMPO-2 :Rings of Continuous Functions

MTHMPO-3 :Algebraic Geometry

- MTHMPO-4 : Commutative Algebra
 MTHMPO-5 : Advanced Ring Theory
 MTHMPO-6 : Magneto Fluid Dynamics
 MTHMPO-7 : Fluid Mechanics
 MTHMPO-8 : Advanced Algebraic Topology
 MTHMPO-9 : Differential Topology
 MTHMPO-10 : Cosmology
 MTHMPO-11 : Tensor Analysis and Theory of Relativity
 MTHMPO-12 : Analytic Number Theory
 MTHMPO-13 : Algebraic Number Theory
 MTHMPO-14 : Topics in Algebraic Topology
 MTHMPO-15 : Topics in Differential Manifolds
 MTHMPO-16 : Topics in Riemannian Geometry
 MTHMPO-17 : Homological Algebra
 MTHMPO-18 : Advanced Group Theory
 MTHMPO-19 : Theory of Characters
 MTHMPO-20 : Topological Graph Theory
 MTHMPO-21 : Application of Linear Algebra
 MTHMPO-22 : Advanced Topics in Discrete Mathematics
 MTHMPO-23 : Computational Homology
 MTHMPO-24 : Relativistic Mechanics

Seminars/Conferences/Symposia/ Extension Programmes etc.

Organized

The Department organised an Advanced Instructional School in Differential Topology during June 15-July 04, 2015, at NEHU, Shillong.

The Department conducted a Mathematical Olympiad Orientation Camp at the department of Mathematics, NEHU, Shillong, during December 9-14, 2015.

Attended and Participated

Dr. A. T. Singh

- (i) delivered an invited lecture at the Advanced Instructional School in Differential Topo-

logy held during June 15 to July 04, 2015, NEHU, Shillong; (ii) delivered an invited lecture at the Annual foundation School –I during Nov 30 to Dec 26, 2015, JECRC University, Jaipur; (iii) delivered an invited lecture at the Mathematical Olympiad Training Camp on Dec 26, 2015, Manipur University, Imphal (iv) delivered an invited lecture at a two-day training programme at the National Mathematics Olympiad, held during Feb. 27-28, 2016, NERIST, Nirjuli.

Dr. A. M. Buhphang

- (i) attended and presented a paper “Some properties of n -Armendariz rings” in the *International Conference on Non-commutative Rings and their Applications – IV* held on June 8 -11, 2015 at the Universite d’Artois, Lens, France; (ii) delivered an invited talk at the College level seminar on *Basic Concepts and Applications of Mathematics* held at St. Anthony’s College, Shillong on Aug. 1, 2015; (iii) delivered an invited talk titled “Lattices and Boolean Algebra” at the College level Seminar on Discrete Mathematics held at Lady Keane College, Shillong, on Sept. 23, 2015 ; (iv) delivered an invited talk at the College level *Mathematical Enrichment Programme* titled “Arrangements in certain algebraic objects” held at Union Christian College, Shillong, on Nov. 24, 2015; (v) delivered an invited lecture at the Mathematical Olympiad Training Camp on Dec 26, 2015, Manipur University, Imphal; (vi) delivered an invited lecture at a two-day training programme at the National Mathematics Olympiad, held on Feb. 27-28, 2016, NERIST, Nirjuli.

Dr. S. Dutta

- (i) presented a paper titled "On some subrings of $C(X)$ " in the *International Conference on Mathematical Sciences for Advancement of Science and Technology* organized by IMBIC International Research Institute held in Dec. 21-23, Kolkata;
- (ii) presented a paper titled "On some properties of annihilator graph" in the *National Conference on Emerging Trends in Mathematical Sciences* organized by Calcutta Mathematical Society held on Dec.17-19, Kolkata; (iii) delivered an invited talk titled "An Introduction to Graph Theory" at the College level Seminar on Discrete Mathematics held at Lady Keane College, Shillong, on Sept. 23, 2015.

Mr. John Paul Jala Kharbhih

Delivered an invited talk at the College level Seminar on *Basic Concepts and Applications of Mathematics* in St. Anthony's College, Shillong on Aug. 1, 2015.

Mr. Ph. Chinglensana

- (i) attended a CIMPA-NIMS Research School on "Dynamical systems: Examples, billiards, and the 3-body problem" organised by CIMPA and NIMS, Daejeon, South Korea from 25th May - 3rd June 2015

Publications

Research Papers

Published in India

Singh K. H.; Buhphang A. M. (2015). Semi-commutative and duo rings, *Advances in Algebra*, 8(1): 1-12.

Published Abroad

Mawiong, S.M., Mukerjee H.K. (2015). Strong shift equivalence and strong Conley index. *Dynamical Systems: An International Journal*. <http://dx.doi.org/10.1080/14689367.2015.1111864>

Kharbhih J.P.J., Dutta S. (2015). Supercontinuous maps, feebly-regular and completely feebly-regular spaces. *MATEMATIKA*, 31: 1-5.

Dutta, S. (2015). A note on primal ideals and decomposition. *Proceedings of ICFM 2015*, pp. 194-195.

Funds Received from Agencies including NEHU/UGC

1. NBHM LIBRARY GRANT – 13,90,000/-.

Academic Collaborations

With the International Centre for Pure and Applied Mathematics (CIMPA)

Other Activities

Prof. H. K. Mukerjee visited Tata Institute of Fundamental Research, Mumbai, during Jan. 25-31, 2016.

DEPARTMENT OF PHYSICS

Head: Prof. Y. N. Tiwari
Telephone: (0364) 272-2815/ 272-2801
E-mail: yntiwari@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	Dr. P. Shukla, M.Sc. (IIT, Delhi); Ph.D. (Temple)	Condensed Matter Physics
	Dr. B.M. Jyrwa, M.Sc. & Ph.D. (NEHU)	Nuclear Physics Theory
	Dr. P. Nongkynrih, M.Sc. & Ph.D. (NEHU)	Nuclear Physics Experiment
	Dr. Y.N. Tiwari M.Sc.(Patna), Ph.D.(Patna), LL.B.(Patna)	Atomic & Molecular Physics Theory (Theoretical)
	Dr. S. Saxena, M.Phil (Meerut); Ph.D. (NEHU)	Nuclear Physics Experiment
	Dr. M.C. Mahato, M.Sc.(Ranchi); Ph.D.(IISc. Bangalore)	Solid State Physics Theory
Associate Professor	Dr. S. S. Khatri, M.Sc. & Ph.D.(NEHU)	Laser Physics
	Dr. A. K. Biswas, M.Sc.(IIT, Kharagpur), Ph.D.(IP, Bhubaneswar)	High Energy Physics Theory
Assistant Professor	Dr. S. S. Pohlong, M.Sc. & Ph.D. (NEHU)	Solid State Physics Theoretical

Thrust Areas of Research

Covariance matrix of nuclear data needed for nuclear reactors, measurement of high energy photon and neutron nuclear reaction cross-sections in structural materials; Study of pre-equilibrium processes. EXFOR Compilations; Solid State Physics (Theory), High Energy Physics (Theory), Laser Physics (Experiment), Nuclear Physics (Experiment and Theory), Atomic and Molecular Physics (Theory).

Brief Statement of Academic Activities

The main academic activity of the Department has been the teaching of M.Sc. (Physics) courses to a class of 33 students each in M.Sc. (Physics) First and Second years. The Department started Ph.D. Course Work in 2012. In addition to teaching M.Sc. and Ph.D. courses, members of the Faculty have been engaged in guiding research for Ph.D. scholars as well as carrying out their own research works. Faculty members visited various reputed national and international institutions to carry out research collaborations and gave talks on their research contributions.

Students' Profile

Enrolment Capacity: M.Sc. – 34; Ph.D. - Variable

Actual Admissions

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	Total
M.Sc.	-	30	04	25	09	27	07	34
Ph.D.	-	-	-	-	-	-	-	-

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non Meghalaya	Total
M.Sc.	-	19	07	18	08	19	07	26
Ph.D.	-	-	01	-	-	01	-	01

Student(s) Awarded Ph.D. Degree

Name of Student	Title of Thesis	Supervisor
Mr. Jeeban Prasad Gewali	Studies on heavy ion electronic stopping power and thermal fading characteristics of nuclear tracks in solid state nuclear detectors"	Prof. A. Saxena

Research Fellowships

UGC-CSIR-NET : 05

Courses Conducted

Post-graduate M.Sc.

Semester I :

Classical Mechanics, Quantum Mechanics I, Mathematical Physics, Laboratory-I.

Semester II:

Electrodynamics, Electronics, Quantum Mechanics II, Laboratory-II.

Semester III:

Nuclear Physics I, Solid State Physics I, Atomic and Molecular Physics, Environmental Physics, Laboratory-III.

Semester IV:

Thermal Physics, Computational Techniques & Numerical Methods, Computational Techniques, Laboratory-IV

Optional Papers: Solid State Physics II, High Energy Physics, Laser Physics, Nuclear Physics II.

Ph.D. Courses

Research Methodologies in Physics, Advanced Statistical Mechanics, Advanced Nuclear Physics

Seminars/Conferences/Symposia/Extension Programmes, etc.

Attended and Participated :

Prof. P. Nongkynrih

Invited lecture on "Biography of Madam Marie Curie" at "Commemoration of Birth Anniversary of Madam Marie Curie and Sir C.V. Raman" organized by the School of Physical Sciences, School of Technology and Centre for Science Education (7 November 2015).

Prof. M. C. Mahato

Gave an invited lecture on 'Stochastic resonance and ratchet effect in sinusoidal potentials: Numerical and some experimental results' at the 3rd Indian Statistical Physics Community Meeting, ICTS, Bangalore, 12-14 February 2016.

Jyrwa, B. (2016). *Radioanal. Nucl. Chem.* 307: 1285-1390

Reenbohn W.L. & Mahato M.C. (2015). Dynamical states, stochastic resonance and ratchet effect in a biharmonically driven sinusoidal potential. *Physical Review E* 91: 052151-1-052151-12.

Prof. Y. N. Tiwari

Presented a paper on "Momentum space close coupling for positronium formation in positron-hydrogen 2s state collisions" at the 18th International Conference of International Academy of Physical Sciences on *Recent Trends in Physical Sciences* (December 22-24, 2015)

Published in India

Ghosh, R. & Jyrwa, B. et al (2016). Determination of $^{110}\text{Cd}(n,g)$, ^{111m}Cd and $^{111}\text{Cd}(n,n')$ ^{11m}Cd reaction cross-sections at the neutron energies of 1.12-4.12 MeV.

Badwar, S. & Jyrwa, B. et al (2016). $^{151}\text{Eu}(n,g)$ ^{152m}Eu reaction cross-section measurement at the neutron energies of 1.12, 2.12, 3.12 and 4.12 MeV.

Prof. A. Saxena

Presented papers (as co-author) on "Structural, electronic properties of LaMnO_3 compound: A first principle study using Density Functional Theory" and on "Measurement of radon activity in Nongkhlaw Town of West Khasi Hills District" in CPP-IPR Silver Jubilee Symposium at Guwahati, Assam (21–22 April, 2016).

Swer S., Syiemiong A., Jha A.K. and Saxena, A. (2015). A computational study of stability of several low lying electronic states of the CO. *Journal of Applied and Fundamental Sciences*, Vol. 1(1): 63-66.

Gewali J.P. & Saxena, A. (2015). Isotropic Etching Characteristics of Makrofol-E. *Journal of Applied and Fundamental Sciences*, Vol. 1(1): 81-84.

Publications

Research Papers

Published Abroad

Kurbah L., Thongjaomayum D. & Shukla P. (2015) Non-equilibrium random-field Ising model on a diluted triangular lattice. *Physical Review E* 91: 012131

Sharma Y., Maibam D., Ram P.P., Saxena A. & Walia, D. (2015). A Study on the Indoor Radon Concentration in Hospitals in the Shillong Region, Meghalaya. *Journal of Applied and Fundamental Sciences*, Vol. 1(1): 93-97.

Shukla, P. & Thongjaomayum, D. (2016). Hysteresis in random-field Ising model on a Bethe lattice with a mixed coordination number. *J. Phys. A: Math. Theor.* 49: 235001-235011.

Maibam D., Sharma Y., Dewasaw A.K., Kenye A., Walia D. & Saxena, A. (2015) Assessment of Soil-Radium Content, Indoor Radon Activity and the Associated Radiation Risks in Kohima Town, Nagaland. *Journal of Applied and Fundamental Sciences*, Vol. 1(1): 130-135.

- Swier S., Syiemiong A., Jha A.K. & Saxena, A. (2015). A time-dependent study of electronic spectroscopy of 1,3,5 trans-hexatriene molecule. *Journal of Applied and Fundamental Sciences*, 1(2): 157-159.
- Syiemiong A., Swier S., Jha A.K. & Saxena A. (2015) A theoretical study of potential energy curves and transition dipole moment of the CO^+ ion. *Journal of Applied and Fundamental Sciences*, 1(2): 165-168.
- Syiemiong A., Swier S., Jha A.K. & Saxena A. (2015) Theoretical modeling of nuclear resonance vibration spectra of $\text{Fe}(\text{SH})_4^{-1}$ complex molecules, *Journal of Applied & Fundamental Sciences*, 1(2): 179-181.
- Gewali J.P. & Saxena A. (2015) Ranges of Energetic ^{40}Ar ions in Anp-Glass. *Journal of Applied & Fundamental Sciences*, 1(2): 187-190.
- Dewsaw A.K., Maibam D., Sharma, Y. & Saxena A. (2015). Indoor Radon Activity Concentrations in Nongstoin Town, West Khasi Hills District, Meghalaya. *Journal of Applied & Fundamental Sciences*, 1(2): 193-196.
- Maibam D., Sharma, Y., Dewsaw A.K., Lalventluanga, E., Walia D & Saxena A. (2015). Measurements of Radon activity Concentrations in The Environs of Aizawl City, Mizoram. *Journal of Applied & Fundamental Sciences*, 1(2): 207-212.
- Dewsaw A.K., Maibam D., Sharma, Y. and Saxena A.. (2015) Radon Measurements in the Soils of Nongstoin and Mairang Regions of West Khasi Hills District, Meghalaya. *Journal of Applied & Fundamental Sciences*, 1(2): 228-232
- Khatri, S.S. (2016) Modes Due to Clusters of Impurities in Alkali Halide Crystals. *Asian Resonance* 5(1): 46-48.

Research Projects

Ongoing Project

No.	Title of the Project	PI	Funding Agency	Amount in Rs
1	EXFOR Compilations and participation in the measurement of high energy photon and neutron nuclear reaction cross-sections in structural materials (e.g, Fe, Co, Ni, Cr, Zr etc.) and materials related to medical isotopes (e.g.) Mo	Prof. B. Jyrwa	BRNS-DAE	24,00,000/-

Project Completed (2015-16)

No.	Title of the Project	PI	Funding Agency	Amount in Rs
1	EXFOR Compilation of Nuclear Data	Prof. B. Jyrwa	BRNS-DAE	8,16,150/-

Academic Collaborations

Prof. B. Jyrwa

Collaboration between Nuclear Physics Division) and RCD (Radio Chemistry Division) of BARC (Trombay, Mumbai) regarding experimental studies of nuclear reactions involving photon and neutron cross-sections from structural materials and the theoretical interpretation of the data obtain hereby.

Collaboration with IAEA (Vienna) regarding compilation of Nuclear Data and their evaluation by calculating the covariance matrices and studying the error propagation of experimental results

Prof. P. Nongkynrih

Collaboration with Atomic Mineral Division, North-Eastern Region, Shillong and BARC, Trombay, Mumbai.

Other Activities

Prof. B. Jyrwa delivered a talk on "*Applications of Nuclear Data Science*" during an interaction programme held at Synod College, Shillong, on 10th June, 2016.

Dr. S. S. Khatri (a) Gave an invited lecture on the celebration of the International Year of Light and Light-Based Technologies organized by Students' Science Club Synod College in collaboration with Departments of Physics and Chemistry, Synod College, Shillong on 06.10.2015; (b) Attended event on "Sir C.V. Raman and Commemoration of Birth Anniversary of Madam Marie Curie and Sir C.V. Raman" on 07.11.2015, organized jointly by the School of Physical Sciences, School of Technology and Centre for Science Education, NEHU, Shillong..

Dr. S. S. Pohlong (a) was Organising Committee Member in the Seminar on "Commemoration of Birth Anniversary of Madam Marie Curie and Sir C.V. Raman" on 07.11.2015.

DEPARTMENT OF STATISTICS

Head: Dr. R. Singh
Telephone: (0364) 272-2901,2902
E-mail: hodsta@nehu.ac.in, statisticsnehu@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	G. Das, M.A. (Delhi Univ.); Ph.D. (NEHU).	Sample Survey
Associate Professor	M. K. Das, M.Sc. & Ph.D (Dibrugarh (Univ.).	Bayesian Inference
	B. K. Gupta, M.Sc (Stat) (AMU); Ph.D. (Gauhati Univ.)	Survey Sampling
	R. Singh, M.Sc. & Ph.D. (Patna Univ.)	Econometrics, Demography, Poverty & Human Development
	T. K. Chakrabarty, M.Stat. (Agra Univ); Ph.D (Manipur Univ.).	Statistical Demography
Assistant Professor	S. K. Jha, M.Sc. & Ph.D. (Patna Univ)	Spatial Statistics
	B. Das, M.Sc. & Ph.D (Gauhati Univ)	Distribution Theory, Environmental Statistics.

Thrust Areas of Research

Statistical Inference, Design of Experiments, Sample Survey, Statistical Ecology, Demography, Econometrics, Spatial Statistics.

Brief Statement of Academic Activities

The Department conducts the M.Sc., M.Phil. and Ph.D. programmes. Faculty are engaged in teaching and research.

Students' Profile

Enrolment Capacity: M.Sc. – 22; M.Phil./Ph.D. – Variable

Actual Admissions

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc.	-	18	4	16	6	12	10	22*
M.Phil.	-	-	-	-	-	-	-	-
Ph.D.	-	-	-	-	-	-	-	-

* Admitted in 2015-16

School of Physical Sciences

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc.	-	6	2	2	6	4	4	8*
M.Phil.	-	-	2	2	-	1	1	2
Ph.D.	-	-	-	-	-	-	-	-

* For session 2013-14, degree awarded in 2015

Students Awarded M.Phil. Degree

Name of Student	Title of Thesis	Name of Supervisor
Ashok Kumar	A Study of Hierarchical Statistical Models in Disease Mapping	Dr. S. K. Jha
Jayanta Deb	A Study of Multistate Models for Event History Analysis	Dr. T. K. Chakrabarty

Research Fellowships

Rajiv Gandhi Fellowship : 1

DST Inspire Fellowship : 2

UGC Non-NET : 7

Courses Conducted

Postgraduate M.Sc.

Semester-I:

Mathematical Analysis, Linear Algebra, Probability Theory, Distribution Theory I, Distribution Theory II, Distribution, Computing & Programming (Practical)

Semester-II:

Sample Survey, Statistical Inference I, Linear Models & Regression Analysis, Sample Survey (Practical), Statistical Inference I & Regression Analysis (Practical), Introduction To probability Theory and Distributions, Introduction to Sample Survey, Linear Programming.

Semester-III:

Design of Experiments, Statistical Inference II, Statistics for National Development &

Environmental Statistics, Design of Experiments (Practical), Statistical Inference II (Practical), Introduction to Design and Analysis of Experiments, Introduction to Econometrics/ Survival Analysis.

Semester-IV:

Applied Multivariate Analysis, Time Series Analysis & Forecasting, Stochastic Processes, Applied Multivariate Analysis (Practical), Time Series Analysis and Forecasting (practical), Project Work, Statistical Computing, Population Dynamics and Demography, Population Dynamics and Demography (practical). Project work.

M.Phil/Ph.D Courses

Research Methodology in statistics, Applied Survival Analysis, Statistical Modeling.

Seminars/Conferences/Symposia/ Extension Programmes etc.

Attended and Participated

Dr. S. K. Jha

Presented papers on (i) "Computation on maximum Likelihood estimates in Three

parameter Weibull for censored Data”, and (ii) “Estimation of risk surfaces and identification of district boundaries for Tuberculosis in North Eastern India States” at International Conference on *Recent Advances in Mathematics, Statistics and Computer Science* held 29-31 May, 2015, organised by School of Mathematics, Statistics and Computer Science, Central University of South Bihar, Patna.

Presented paper on “Assessing burden of Infant Mortality on Socio-economic Classes in North-Eastern India” at National Conference on *Poverty, Inequality and Health in India with special reference to North-Eastern India* (8-10 October 2015) organized by Department of Economics, NEHU, Shillong, in collaboration with Indian Statistical Institute, Kolkata.

Dr. T. K. Chakrabarty

Oral presentation on “Nutritional deficit among children in developing countries: A model based improved estimation” at *3rd International Conference of Asian Population Association* held 27 to 30 July, 2015 at Kuala Lumpur, Malaysia.

Oral presentation on “Growing inequalities in child under nutrition in India: Explaining differences using distribution of nutritional outcomes” at National Conference on *Poverty, Inequality and Health in India with special reference to North-East India* (8-10 October 2015) organized by Department of Economics, NEHU in collaboration with ISI, Kolkata and NABARD.

Oral presentation on “Estimating tail probability for anthropometric Z-scores: measuring under nutrition prevalence among children under age five” at *9th International Triennial Calcutta Symposium on Probability and Statistics* held 28-31 December, 2015 in Department of Statistics, University of Calcutta.

Publications

Research Papers

Published Abroad

Ralte, Z., Das, G. (2015). Ratio-to-regression estimator in successive sampling using one auxiliary variable. *Statistics in Transition (New Series)* 16(2): 183-202.

VII

SCHOOL OF SOCIAL SCIENCES

Dean: Prof. C. L. Imchen
Phone: 0364-2723001
E-mail: climchen@yahoo.com

The School of Social Sciences consists of the Departments of Cultural and Creative Studies, History, Law, Political Science, Sociology, and History and Archaeology (the last in Tura). The Departments of History, Law, Political Science, Sociology, History and Archaeology offer postgraduate courses and doctoral research Programmes in their respective disciplines. The Department of Cultural and Creative Studies offer P.G. Diploma courses in Music, Painting and M.A. in Folkloristics. The Department of Law runs a Five-Year Integrated Programme of B.A. LLB (Honours).

Some of the Departments are also conducting research under the UGC-SAP scheme. The

Department of History is at the DSA-II stage; while the Department of Sociology has been upgraded from DRS III to DSA-I; The Department of Political Science is now at the DRS-II stage. The faculty members of the School have produced a good numbers of books and articles emanating from their engagements in archival and field based research works. The constituent Departments have organized Lectures, Symposiums, and Seminars at which eminent and renowned scholars were also engaged. Besides most of the Departments have outreach programmes including academic bodies and networking with NGOs.

DEPARTMENT OF CULTURAL AND CREATIVE STUDIES

Head: Subrat Kumar Nanda
Telephone: 2723374, 2723371 and 2723372 (O) 09436702498 (M)
Email: nanda_subrat2@yahoo.com

Faculty

Designation	Name and Qualification	Specialization
Professor	Desmond L. Kharmawphlang, Ph. D. (NEHU)	English
	Subrat Kumar Nanda, Ph. D. (JNU)	Sociology
Associate Professor	Lapynshai Syiem, Ph. D. (NEHU)	Music
Assistant Professor	Bedanta Kalita, M. F. A. (M. S. University of Baroda)	Painting
Visiting Professor/ Fellow/Scholars in the Department	G. Badaiasuklang L. Nonglait, Ph. D. (NEHU)	Folkloristics
	Roplyneda Lyngdoh, Ph. D. (NEHU)	Folkloristics
	Benedict S. Hynniewta, M. F. A. (Viswa Bharati)	Painting

Thrust Area of Research

The major thrust area of research in the department is studying various theoretical, conceptual and contextual issues relating to different aspects of folklore, performing arts and visual arts.

Brief Statement of Academic Activities

The department runs a regular M.A. course in folkloristics and P.G. Diploma courses in music and painting. In addition, the department offers Ph.D. programme in folkloristics which covers

studies primarily related to folklore and other related areas such as folk music, traditional performing arts, folk theatre, etc. Candidates desirous of pursuing research work in these areas are provided necessary facilities, technical and professional guidance. Both theoretical knowledge and practical training are provided to the students admitted to the postgraduate course in folkloristics and the diploma courses in music and painting. Besides teaching and research, the department regularly engages in extension activities as part of its academic programmes.

Students' Profile

Enrolment Capacity:	PG Diploma Music	-	20
	PG Diploma Painting	-	10
	M.A. Folkloristics	-	30
	Ph. D.	-	Variable

Actual Admission

Degree/ Diploma	SC	ST	GEN	OBC	Male	Female	Meghalaya	Non- Meghalaya	Total
M.A. (Folk- loristics)		28			7	21	24	4	24
P.G. Diploma (Painting)		6			4	2	6		6
P.G. Diploma (Music)		14			11	3	13	1	14
Ph.D.		2	1		1	2	3		3

Degrees/Diplomas Awarded

Degree/ Diploma	SC	ST	GEN	OBC	Male	Female	Meghalaya	Non- Meghalaya	Total
M.A. (Folk- loristics)		24	1		12	13	24	1	25
P.G. Diploma (Painting)		2			2		2		2
P.G. Diploma (Music)		3			3		3		3

Students Awarded Ph.D. Degree

- Ms. Chitrani Sonowal; "Haidang De Performance: Text, Content and Cultural Symbolism" under the supervision of Professor S. K. Nanda
- Ms. Natalie Jo-Anne Diengdoh; "Representation of Ka Niam Khasi in Mass Media" under the supervision of Professor D. L. Kharmawphlang
- Ms. Etawanda Saiborne; "Folk Narratives Adapted as Films" under the supervision of Professor D. L. Kharmawphlang

Educational Tours of Students

Teachers-in-Charge: Mr. Kelleney Kitbok Suting, Research Scholar & Mr. Venybirthseng Ch. Marak, Research Scholar

Places/Institutions visited: Mumbai and Goa

Duration of Tour: 15 days

Purpose of Tour: To enable the students to acquaint themselves with the folklore and other oral traditions and literature of different communities in this part of India.

On 14th November 2015, a field trip for the students of M.A. Folkloristics was conducted at Raid Tyrso, Ri-Bhoi District to study the folk material culture of the region, under the supervision of Prof. D. L. Kharmawphlang.

Courses Conducted

M.A. (Folkloristics)

Semester-I:

CCS(C)-101: Introduction to Folkloristics;
CCS(C)-102: History of Folklore Studies;
CCS(C)-103: Introduction to Semiotics;
CCS(C)-104: Folklore Theories-I; CCS(C)-105: Field Methods and Studies.

Semester-II:

CCS(C)-106: Folklore Theories-II; CCS(O)-108: Folk Literature-I; CCS(O)-109: Public Sector Folklore; CCS(C)-110: Introduction to Visual Arts; CCS(C)-111: Urban Folklore.

Semester-III:

CCS(O)-112: Ethnomusicology; CCS(C)-113: Folk Literature-II; CCS(C)-114: Introduction to Performing Arts; CCS(C)-115: Folklore of Northeast India-I; CCS(O)-116: Social Folk Custom.

Semester-IV:

CCS(C)-118: Material Culture; CCS(C)-119: Language, Culture and Society; CCS(C)-120: Narratology; CCS(C)-121: Folklore of Northeast India-II, CCS(C)-122: Dissertation.

P.G. Diploma (Painting)

Semester-I:

CCSC-106: Fundamentals of Visual Arts (Theory), CCSC-107: Introduction to Indian and Chinese Art (Theory), CCSC-108: Drawing and Colour Application (Practical), CCSC-109: Sculpture (Practical), CCSO-110: Introduction to Folk Art and Craft of Northeast India (Theory).

Semester-II:

CCSC-206: Introduction to Western Art (Theory), CCSC-207: Print Making (Practical), CCSC-208: Creative Painting (Practical), CCSC-209: Enamel Painting in Glazing Technique (Practical), CCSO-210: Introduction to Indian and Western Aesthetics (Theory).

P.G. Diploma (Music)

Semester-I:

Brief History of Indian Classical Music (Theory), Introduction to General Musical Terms (Theory), Introduction to Indian Classical music (Practical), Practical Training in Indian Classical music (Practical), Introduction to Western Musical (Staff) Notation (Practical).

Semester-II:

Study of Selected Musical Instruments (Theory), Songs of Meghalaya (Practical), Rhythmic Pattern of Music of Meghalaya (Practical), Concept of Rhythmic Pattern of music of Meghalaya (Theory), Proficiency Western Musical Instruments (Practical).

Ph. D. Course Work

Semester-I:

CCS(C)-501: Research Methodology; CCS(C)-502: Recent Trends in Folkloristics; CCS(C)-504: Advanced Course in Performing Arts.

Seminars/Conferences/Symposia/ Extension Programmes, etc

Organised

Regional Workshop-cum-Symposium on *Songs of Meghalaya: Retrospect and Prospect* on 8th March 2016 at NEHU, Shillong, with Dr (Mrs) Lapyngshai Syiem as Coordinator.

National Symposium-cum-Workshop on *Significance of Bamboo in Socio-Cultural & Economic Development of North East India and Celebration of Bamboo Culture* at NEHU, Shillong from 10th to 16th March 2016 in collaboration with Indira Gandhi National Centre for the Arts, New Delhi and Riti Academy of Visual Arts, Shillong. Professor D. L. Kharmawphlang and Professor S. K. Nanda were the coordinators.

National Seminar on Gender and Folklore in North East India: Beliefs and Practices was organized in collaboration with Central Institute of Indian Languages, Mysore on 30-31 March 2016, with Prof. S. K. Nanda and Prof. D. L. Kharmawphlang as the Coordinators..

Attended and Participated

Professor S. K. Nanda

Presented a paper on Bamboo, Culture and Society: A Critical Appreciation of their Inter-relationship" at the Symposium-cum-Workshop on *Significance of Bamboo in Socio-Cultural and Economic Development of Northeast India* organised by the Department in collaboration with Indira Gandhi National Centre for the Arts, New Delhi, and Riti Academy of Visual Arts, Shillong, (10-12 March 2016 at NEHU campus, Shillong).

Presented a paper on "Gender and Folklore: Some Reflections on Feminist and Non-Feminist Perspectives" at the National Seminar on *Gender and Folklore in Northeast India: Beliefs and Practices* organised by the Department in collaboration with Central Institute of Indian Languages, Mysore, during 30-31 March 2016.

Professor D. L. Kharmawphlang

Resource Person in the session on "Singing your own Songs" in the Two-day National Workshop on *Creative Writing in English* organized by Department of English, Shillong College on 21st and 22nd May 2015.

Presented a paper on "Selfhood and Exceptionality: Cultural History Scripting and the Missionary Project" in the National Seminar on *Understanding North East India: Exception and Beyond* organized by North East India Studies Programme, School of Social Sciences, Jawaharlal Nehru University, New Delhi, 16-18 November, 2015

Presented a paper on "Ritual Text and Translation" at the International Conference on *La Representation de l'Autre en traduction (The Other in Translation)* organized by the Departments of French and English, University of Mumbai on 18th & 19th January 2016.

Delivered the Keynote Address at a Symposium and Poets' Meet as part of *Octave 2015* organized by Sahitya Akademi in Vadodara, Gujarat on February 12, 2016.

Delivered the Keynote Address at the Interdisciplinary Seminar on *The Crisis of Multiple Identities in Contemporary World* organized by the Department of Humanities and Social Sciences, IIT Guwahati on 15th February 2016.

Department of Cultural and Creative Studies

Presented a paper on “Bamboo in Khasi Imagination: Phenomenological Positionings” in the National Symposium-cum-Workshop on *Significance of Bamboo in Socio-Cultural & Economic Development of North East India and Celebration of Bamboo Culture* organized by the Department in collaboration with Indira Gandhi National Centre for the Arts, New Delhi and Riti Academy of Visual Arts, Shillong at NEHU, Shillong on 12.03.2016.

Professor D. L. Kharmawphlang was Resource Person in (a) Workshop on Material Development and Orientation of Teacher Educators for Local/Cultural Art Forms and Traditions of North East States organized by North East Regional Institute for Education on June 3-4, 2015.

Resource Person in the National Seminar on *Re-interpretations of the Past: The Discourse of Cultural Identity in South Asia* organized by the Department of English, NEHU, Shillong held on 17th & 18th March 2016.

Dr. (Mrs) Lapynshai Syiem

Coordinator of the Regional Workshop cum Symposium on Songs of Meghalaya: Retrospect and Prospect organized by the Department on 8th March 2016.

Presented a paper on “Representation of Gender in the Traditional Music of Meghalaya: The Case of the Khasis” in the National Seminar on *Gender and Folklore in Northeast India: Beliefs and Practices* organized by the Department on 30th & 31st March 2016.

Publications

Nanda, S. K. (2016). Changing Trajectory of Ethnicity and Nationalism in Northeast India: Toward a Conceptual Clarification and an Empirical Explication. In: *Ethnicity and Political Economy in Northeast India*. H. Srikanth & R. Borgohain (eds.) Guwahati: DVS Publications, pp. 44-64.

Kharmawphlang, D. L. (2015). Strategizing Narratology: A Case of Select Oral Epics of North East India. *Anthropology Today (DBCIC)*, I(1): 147.

Research Projects

Ongoing

Sl. No.	Title of Project	Investigators	Funding Agency	Amount
1	Rice Myths of North East India Area Study	Prof. D. L. Kharmawphlang; Prof. S. K. Nanda; Dr. Lapynshai Syiem	UGC – (under UPE Scheme)	Rs. 30 Lakhs

Funds Received from Agencies including NEHU/UGC

Received Rs. 75,000/- from North-Eastern Hill University, Shillong, for organizing the

National Seminar on *Gender and Folklore in North East India: Beliefs and Practices* (30-31st March 2016).

Other Activities

Prof. D. L. Kharmawphlang was Resource Person in the "Participatory Video Project" organized by English and Foreign Languages University (EFLU), Shillong on 7th October 2015.

Prof. S. K. Nanda presented lectures on "Structuralism, Poststructuralism and Folkloristics"; on "Globalisation, Folk Culture and Popular Culture"; on "Tribal Society

and Folklore with Special Reference to Northeast India" in the Refresher Course in Folkloristics and Semiotics organized by UGC-HRDC, NEHU, Shillong from 18.04.2016 to 8.05.2016.

Dr. Lapynshai Syiem delivered a lecture on "Scope of Music in Higher Education" at the Special Summer School for College and University teachers, organized by the HRDC, NEHU, Shillong. On 21st July 2015.

DEPARTMENT OF HISTORY

Head: Prof. Amrendra Kr Thakur

Telephone: 0364-2723019

E-mail: akthakur13@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	M. Momin, M.Phil./Ph.D. (JNU)	Ancient Indian History & Early Northeast India
	F.A. Qadri, M.Phil./Ph.D. (Alig)	Medieval Indian History & Northeast India.
	A.K. Thakur, M.A./Ph.D. (BU, Muzaffarpur)	Medieval Indian History & Northeast India.
	V.R. Rengsi, M.Phil./Ph.D. (NEHU)	History of Sciences & Non-Indian History
	C.A. Mawlong, M.A. (NEHU), PG Dip. in Archaeology (IoA, Delhi), Ph.D. (NEHU)	Archaeology & Early Northeast India
	A.N. Passah, M.Phil./Ph.D. (NEHU))	History of South East Asia & Modern Northeast India
Associate Professor	T. Gurung Nag, M.Phil./Ph.D. (NEHU)	Modern Indian History & Northeast India
	Ś.N. Lamare, M.A/M.Phil./Ph.D. (NEHU)	Modern Indian History & Modern Northeast India
	A. Mathur, M.A./Ph.D.(Rohilkhand Univ.)	Ancient Indian History, Culture& Archaeology.
Assistant Professor	M.S.N. Rahman, M.A./Ph.D. (Calcutta)	Medieval Indian History & Islamic History & Culture
	B. Dutta, M.A./Ph.D. (NEHU)	Modern Indian History

Thrust Area of Research

The Department's thrust area is Northeast India.

Brief Statement of Academic Activities

During the period under report the faculty members of the Department were involved in

several academic programmes like attending seminars, field and study tours, and holding dialogues with colleagues engaged in undergraduate teaching within the region.

Students' Profile

Enrolment Capacity: M.A. - 50; M.Phil./Ph.D. – Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.A.	1	47	02	24	26	16	34	50
M.Phil.			01		01		01	01
Ph.D.		08		02	06	06	02	08

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Sc.		44		20	24	18	26	44
M.Phil.								
Ph.D.		01	02	01	02		03	03

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name of Supervisor
Ms. Suparna Chakraborty	Murshidabad under the Nawabs of Bengal (1704-1757)	Dr. M.S.N. Rahman
Mr. Amiruzzaman Sheikh	Koch Behar in the Sixteenth Century: A Socio-Cultural Study	Dr. M.S.N. Rahman
Ms. Laithangpuii	Society and Economy in Mizoram: A Study in Tradition and Transition	Prof. A.K. Thakur

Research Fellowships

Non-NET Fellowship	: 17
ICSSR Fellowship	: 02
NET JRF	: 01

Courses Conducted

Postgraduate

Semester I:

Historical Methods-I; Prehistoric to Ancient Societies; Modern Indian Society; Economy and Society in Ancient India; British Expansion and Imperial Policy in India; Technology in the Making of Early China; Social Movement in USA; The Rise of Islam and the Early Caliphate; Economy and Society in Medieval India.

Semester-II:

Historical Methods-II; Feudalism; Ancient Indian Polity and Society; Colonialism, Imperialism and Economic Change in India; History of the Graeco-Roman Civilization; Colonialism in South East Asia; (Open Course): Society, Technology and History: Prehistoric Age to Industrial Revolution; Polity and Society in Medieval India; The Umayyad and Abbasid Empires.

Semester-III:

Capitalism and Imperialism - I; Religion and Society in Ancient India; Indian Nationalism; Political Ideas and Institutions during the Sultanate Period; Ancient Indian Art and Architecture; History of Ideas in Modern India;

Department of History

Religion and Society in Medieval India; (Open Courses) Social Forces and Social Mobilization; Introduction to Gender History;

Semester-IV:

Capitalism and Imperialism – II; Social and State Formations; Archaeology: Methods and Approaches; Colonialism, Communalism and Secularism; Political History of the Mughal Empire; Political History of the Delhi Sultanate; Contemporary India; Socio-Economic History of N.E.I. – The Early Period; The Rise of South Indian Civilization; Monarchies in Medieval North East India; Christianity in North East India.

M.Phil/Ph.D. Courses

Research Methodology, History and Theory, Oral Tradition.

Seminars/Conferences/Symposia/ Extension Programmes etc.

Attended and Participated

Prof. A. K. Thakur

Delivered Inaugural Address and was Guest of Honour during the UGC-sponsored National Seminar on Writings of Regional History of North East India with Special Reference to Polity, Society and Economy at Mayong College, Mayong, Assam (26-27 June 2015).

Delivered a lecture on "Gender and Social Structure", during the "Orientation Programme for Teacher Educators from DIETs and SCERTs on Gender Issues in Education with Focus on Educational Development of Girls belonging to Scheduled Tribe in the North East Region" at SCERT, NERIE, Shillong (28th September - 2nd October 2015).

Addressed the Inaugural Session and was Resource Person for the UGC-sponsored National Seminar on *Inter-State Border Disputes in North-East India* organised by Khagarijan College, Nagaon, Assam (28-29 October 2015).

Addressed the Inaugural Function as Guest of Honour and chaired a technical session at the National Seminar organized by the Department of Economics, Sonapur College, Sonapur, Assam on *Panchayati Raj and its Functioning in North East India* (13th November 2015).

Presented a paper on "Ethnographic Accounts and the Reconstruction of Historical Past of Northeast India", in the 36th *Annual Conference of North East India History Association* organised by the Department of History and Ethnography, Mizoram University, Aizawl (18 -20 November 2015).

Prof. C. A. Mawlong

Presented a paper on "Gender and democracy: The Khasi-Jaintia experience" in the National Seminar on *Interrogating Democracy and Development in Northeast India* organised by the Dept. of Political Science, NEHU, Shillong (17 -18 March 2016).

Presented a paper on "Gender roles among the matrilineal Khasi-Jaintia: A re-reading of folk tradition" in the National Seminar on *Gender and Folklore in Northeast India: Beliefs and Practices* organized by the Dept. of Cultural And Creative Studies, NEHU, Shillong 30 -31 March, 2016).

Prof A. N. Passah

Chairperson of Technical Session in National Seminar on *Women and Religion in India:*

Status and Quest for Liberation organised by Synod College, Shillong (13 -14 November 2015).

Presented a paper on "Shillong and the IInd World War" in 36th Session, North East India History Association, Mizoram University, Aizawl (18-20 November 2015).

As Resource Person, presented a paper on "Freedom Struggle, Socio-Cultural Values of India enshrined in the Constitution of India" in the Workshop on Social Harmony and National Unity for NSS Program Officers, organised by the NSS Cell, NEHU (7th January 2016).

Presented a paper on "A Relook at the Khasi-Jaintia Society with Special Reference to Ethno-Medical Practices" in the National Seminar on *Gender and Folklore in North-East India: Beliefs and Practices* organized by the Dept. of Cultural and Creative Studies, NEHU, Shillong (30 -31 March, 2016).

Dr. T. Gurung Nag

Presented a paper on "Healing bodies and Saving Souls: Medical work of the American Baptist Mission in Colonial Assam" at the 76th session of the Indian History Congress, University of Gaur Banga, Malda, 27 -29 December 2015.

Presented a paper on "Politics of Changing Identity: The Gurungs' (Tamu) experimentation with 'cultural revivalism' in Sikkim and Darjeeling" in the UGC-SAP National Seminar on Interrogating Democracy and Development in North-East India organized by the Dept. of Political Science, NEHU, Shillong (17 -18 March, 2016).

Presented a paper on "The *Rodhi* Tradition of the Gurung (Tamu) Community: A Relook from a Gender Perspective" at a National Seminar on Gender and Folklore in Northeast India: Beliefs and Practices organized by the Dept of Cultural and Creative Studies, NEHU, Shillong (30-31 March, 2016).

Dr M. S. N. Rahman

Delivered an invited lecture on 'Remembering Sardar Ballav Bhai Patel' organized by North-Eastern Regional Centre, IGNOU, Shillong (31st October, 2015).

Presented a paper on 'The Mughals as Reflected in Medieval Bengali Literature' in Section II: Medieval India at the 76th Session of Indian History Congress held at Gaur Banga University, Malda, on 27 -29 December, 2015.

Publications

Research Papers

Thakur, A. K. (2016), Technology and History of Arunachal Pradesh: A Probe. *Resarun*, 38: 2014, pp. 1-9 (Journal of Directorate of Research, Govt of Arunachal Pradesh).

Rahman, M.S.N. (2015) 'Saddhoshato janmobarshae Asuthosh Smaran', *Karmoshala*, 4:30-34 (Bangiya Sahitya Parishad, Shillong)

Dutta, B. (2015). Invented Tradition and Partition Mobilization in Colonial Assam, 1947. *Journal of History and Culture*, 2: 102-112.

Dutta, B. (2016). All For Neighbour's Sake: Cachar, Partition of India and Politics of Refugee Rehabilitation, 1947-53. *North East Researches*, 7: 74-87.

Books/Book Chapters/Proceedings

- Thakur, A. K. (2015) State, Society and Trade: Issues in Historiography of Northeast India, *Proceedings of North East India History Association*, 35th session, Gargaon, 2014 (published Shillong, 2015), pp. 12-25.
- Mawlong, C. A., (2016). Exploring the issue of the "Khasi" identity: Some observations. In: *Ethnicity and Political Economy in Northeast India*. H. Srikanth & R. Borgohain (Eds). DVS Publishers, Guwahati: Chapter 11, p. 209-232.
- Passah, A. (2015). Unwritten Law: Environmental Concern during the Pre-Colonial Period in the Khasi-Jaintia Hills of Meghalaya. In: *Forest and Environment in India: Law, History, Culture and Modern Approaches*, N. Kumar, (Ed), EBH Publishers, pp. 231-238.
- Passah, A. (2015). The Two World Wars and the Christian Missions in Khasi-Jaintia Hills. *Proceedings of North East India History Association*, 35th session, Gargaon, pp. 458-68.
- Gurung, T., (2015), The Making of Gurkhas as a 'martial race' in Colonial India: Theory and Practice, in *Proceedings of the Indian History Congress*, Aligarh, p 520-529.
- Gurung, T. (2016). Autonomy Demand of the Gorkhas in Assam: A Preliminary Note. In: *Ethnicity and Political Economy in North-east India*, H. Srikanth & R. Borgohain (Eds.), DVS Publishers, Guwahati: p.233-256.
- Gurung, T. (2016). Gurkha Displacement from Burma in 1942: A Historical Perspective. In: *Nepali Diaspora in a Globalised Era*, T. B. Subba & A. C. Sinha (eds.), Routledge India, New Delhi, pp.203-220.
- Lamare, S. N. (2016). *Jaintia Oral Narratives*, Regency Publications, Astral International, New Delhi (ISBN 978-93-5222-009-0).
- Mathur, A. (2015). Environmental Consciousness and Historical Enquiry in the Context of Early India. In: *Forest and Environment in India, Law, History, Culture and Modern Approach*. Naveen Kumar (Ed.). EBH Publishers, Guwahati: p.190-201.

Funds Received from Agencies including NEHU/UGC:

Received from NEHU Rs 1,80,000/-.

Research Projects

Ongoing

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1	"Religion and Society in Northeast India"	Prof. F. A. Qadri	UGC under UGC-SAP-DSA II	Nil

Other Activities

Prof A. K. Thakur

Delivered two lectures on “Relevance of Gandhiji and National Harmony” and “National Integration” at the training programme for trainers on *Social Harmony and National Unity for NSS Programme Officers* organised by NSS Cell NEHU at NEHU (5-9 January, 2016).

Resource person for Orientation Courses conducted by UGC-Human Resource Development Center, NEHU, Shillong on Nationalism and National Integration and Secularism (February-March 2016).

Dr. Binayak Dutta

Was Resource Person for 35th Orientation Programme (General) organized by UGC-HRDC, NEHU, Shillong, held from 8th February - 6th March, 2016.

DEPARTMENT OF HISTORY AND ARCHAEOLOGY (TURA CAMPUS)

Teacher-In-Charge: Dr. Tilok Thakuria
Telephone : 08575133962
E-mail : tilokthakuria@rediffmail.com

Faculty

Designation	Name and Qualification	Specialization
Assistant Professor	Amit Kumar Upadhyaya (<i>on lien</i>) M.A. (BHU); Ph.D. (BHU)	Ancient Indian History, History of Early Northeast, Epigraphy and Numismatics
	Tilok Thakuria MA & Ph.D. (Deccan College PGRI)	Archaeology, Ethno-Archaeology, Archaeology and Culture of Northeast India
	Doneti Sivaji M.Phil & Ph.D.(HCU)	Business History, Studies on Entrepreneurship, Studies on Caste.

Visiting Professors:

Dr. P. P. Joglekar, Professor in Bio-Archaeology, Deccan College Post Graduate and Research Institute, Pune.

Dr. S. B. Ota, Additional Director, Archaeological Survey of India, New Delhi.

Thrust Areas of Research

The foremost concentration of the department is on research in history and archaeology. The goal is to promote research in history of ancient India and archaeology of India and Southeast Asia. The department gives particular interest to encourage research in history, archaeology, ethno-archaeology and culture studies of Northeast India. Beside these, it also aims to explore the research areas like Business

History, Studies on entrepreneurship, Studies on intellectual history, Caste system of India in general and North-East India in particular.

Brief Statement of Academic Activities

The department provides both theoretical and practical training to Post Graduate students as part of teaching and training within the stipulated time. Exposure to students in areas related to field archaeology is also provided. In addition to these, the department also arranges field trips to archaeological and historical sites for training in documentation of archaeological and historical records along with other field based studies. Beside these, the faculty members often make visits to local historical and archaeological places to gather information on related areas.

Students' Profile

Enrolment Capacity: MA – 25; MPhil & PhD - Variable

Actual Admissions

Degree	SC	ST	GEN/ OBC	Male	Female	Meghalaya	Non-Meghalaya	Total
M.A 1 st Sem	Nil	24	Nil	12	12	22	2	24
M.A. 3 rd Sem	Nil	19	Nil	09	10	17	2	19
M.Phil.	Nil	1	1	1	1	1	1	2
Ph.D.	Nil	3	1	2	2	3	1	4

Placement of Students

Some students are working as temporary subject teachers in schools and colleges in Garo Hills.

Educational Tour of Students

The Department organised a Study Tour for the 3th semester students under the leadership of Dr. Tilok Thakuria. The tour was from 3th to 14th February 2016. This was planned to provide information on heritage, history and archaeology. Students visited archaeological sites like Sisuplagarh, Manikpattana, Hatigumpha belonging to Early History, Buddhist sites like Lalitgiri, Ratnagiri, Khandagiri (temples of Odisha) to have glimpse on temple architecture.

Field Trip

Dr. Tilok Thakuria took the 1st and 2nd semester students to the Neolithic sites of Selbalgree, Chibagree, historical site at Ambari, State Museum of Assam in June 2016 as partial requirement of the course on Archaeology.

Course Conducted

Postgraduate M.A Program

Semester I:

Historical Methods.-1, Pre-Historic Society, Ancient Society, Archaeology: An Introduction, Social and Polity Formation in North-East India.

Semester II:

Historical Methods-II, pre-Industrial Society, Polity and Society in Early North-East India, The Neolithic Age in India.

Semester III:

Capitalism and Colonialism – 1, Practical's in Archaeology, Economy and Society in Early India, Making of Modern India Society.

Semester IV:

Capitalism and Colonialism – II, The Chalcolithic Age in India, Christianity in North-East India, Economy and Society in Early North-East India, Perspectives in History and Culture of North-East India.

Classes were also taken for UGC-NET examination in History and Archaeology. Provision for tutorial classes and presentation and creativity classes is also available for benefit of the students.

M.Phil/Ph.D. Courses

Research Methodology; Text, Tool and Technique; History and Theory

**Seminars/Conferences/Symposia/
Extension Programmes etc.**

Attended and Participated

Dr. Tilok Thakuria

Presented a paper on "Archaeology of the Stone Jars: Recent Archaeological Research in North Cachar District of Assam, India" in an International Seminar organized by European Association for South Asian Archaeology and Art, Cardiff University, Wales, UK (4-8 July 2016).

Presented a paper on "Archaeology of North Cachar: Recent Archaeological Exploration in Assam" in 3rd Biennial Conference of the International Association for Asian Heritage organised by Centre for Asian Studies, University of Kelaniya, Sri Lanka (27-28 December 2015).

Presented a paper on "Recent Archaeological Research in Assam" in the International Seminar on *Environment and Rice in Prehistory* held at the Institute of Archaeology, University College, London (15-18 September 2015).

Presented a paper on "Rock Art of Assam" in the National Seminar on *Prehistory and Ethnoarchaeological Background of Rock Art with Emphasis on Assam and Adjoining States* organised by IGNCA, Gauwahti University and Tripura University (26-27 November 2015).

Presented a paper on "The stone jars, the Zemi Nagas and hunt for DeoMoni" in the National Seminar on *Naga Cultural Heritage* organised by IGRMS and Kohima Science College at Kohima (September 2015).

Publications

Research Papers

Published in India

Thakuria, T., Jamir, T., & Chauley, M. (2016). Stone Jar Burials in North Cachar District, Assam. *Manand Environment* 41(1): 24-51.

Sivaji, D. (2016). The Essence of the Business History for Entrepreneurs, Managers and to Management Students. *Social Vision: International Journal of Social Sciences, Humanities, Commerce and Management* 3:1(1).

Sivaji, D. (2015). Business History: Redefining Entrepreneurship in Indian Context. *International Journal of Applied Management Research* 2:2.

Sivaji, D. (2015). Discourse on the Sanction of Constitutional Safe Guards and Sustenance of Caste Dominance in Colonial Andhra. *DeshVikas* 2: 3.

Books/Book Chapter/Proceedings

Mohanty, R. K. & Thakuria, T. (2016). *Indian Beads: History and Technology*, Pentagon Press and Indus-Infinity Foundation, Pune.

Thakuria, T. (2015). Stone Jars of North Cachar: Archaeology of a Lost Folk. In: *Reflections on Science and Technology of Ancient India*. O. C. Handa (Ed.) Indus-Infinity and Pentagon Publication, New Delhi. Chapter 3.

Thakuria, T., Mohanty, R. K. & Joglaker, P. P. (2015). Craft Specialization and Socio-economic Behaviour of the Megalithic People of Vidarbha. In: *Megalithic traditions in Ethnography and Archaeology in India*. K. K. Basa, R. K. Mohanty & S. B. Ota (Eds.). IGRMS and Aryan Books International: Vol. I.:pp. 188-203.

Ismail, K, Gupta, C.S. Meshram, P.S., Khobragade, P.M., Mohanty, R.K. & Thakuria, T. (2015). Recent Development in the Megalithic Research in Vidarbha: A Review. In: *Megalithic Traditions in Ethnography and Archaeology in India*. K. K. Basa, R. K. Mohanty & S. B. Ota (Eds.). IGRMS and Aryan Books International. Vol I: pp. 204-225.

Sivaji, D (2016). *Reformation Nationalism and Hegemony in India with Reference to Colonial Andhra*. DeshVikas Publications, Visakapatnam.

Sivaji, D (2016). History: Apprehensions in promoting Entrepreneurship with reference to North East India- a Historical Analysis. In: *Entrepreneurship, A drive towards Socio Economic Development*. K. D. Singh (Ed.). Manas Publishers and Distributors, Jaipur. pp. 25-30.

Sivaji, D (2015). Post Liberalization: Entrepreneurship in Pharmaceutical Businessbook. In: *Entrepreneurship Deve-lopment issues and Perspectives*. J. U. D. Ahmad & K. D. Singh (Eds.). New Century Publications, New Delhi. pp. 33-41.

Research Projects

Ongoing

Sl. No.	Title of Project	PI	Funding Agency	Amount (in Rs)
1.	Automatic recognition of Patterns in Numismatic Data	Dr. A. K. Upadhyay	UGC, New Delhi	11.25 lakhs
2	Tribal Entrepreneurship: Self Employment, Promotion of Livelihood of educated unemployed youth with special reference to agency areas of West Godavary and Khammam Districts from Andhra, Telangana regions.	Dr. D. Sivaji	ICSSR, New Delhi	5.00 lakhs

Other Activities

Dr. Tilok Thakuria

Life member of (a) Indian Society of Quaternary and Prehistoric Studies, Pune; (b) Indian Society for Prehistory and Quaternary Studies, Deccan College, Pune; (b) North East India History Association, NEHU, Shillong; (c) International Association for Asian Heritage, University of Kelaniya, Sri Lanka; (d) European Association for South Asian Archaeology and Art, Cardiff University, Wales, UK

Reviewer for Nagaland University Research Journal.

Visited Institute of Archaeology, London, Cardiff University; Kelaniya University, Sri Lanka; and Laos PDR for academic purposes.

Dr. Doneti Sivaji

Participated in Faculty Development Programme on Modern Teaching Pedagogies in Management Education (1-7 Dec 2015) organised by Dept. of Management, NEHU, Tura.

DEPARTMENT OF LAW

Head: Dr. Chintamani Rout
Telephone: Office 0362-2723801; Mobile - 94363-36103
E-mail: drchintamanirout@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Associate Professor	Dr. J. J. Mozika, Ph.D (Law), University of North Bengal	Constitutional Law; Administrative Law
	Dr. Chintamani Rout, M.A., LL.M, Ph.D. (Law) Utkal University	Constitutional Law; Commercial Law
Assistant Professor	Dr. R.K. Mishra, LL.M (BHU); P.G. Diploma in Criminology (Lucknow Univ.)	Intellectual Property Rights; Law of Crimes
	Dr. A.K. Singh, LL.M. (BHU); Ph.D. (Law)	Criminal Law & Human Rights
	Dr. Naveen Kumar, LL.M (Jamia Milia Islamia); Ph.D. (Law)	Corporate Law
	Dr. Ranjit Sil, LL.M & Ph.D. (Law) (Univ. of Burdwan)	Labour Law & Environmental Law
	Mr. Shishir Tiwari, LL.M (BHU); M.Phil. (JNU)	International Law
	Dr. Preeti Gupta, LL.M. (Indian Law Institute); Ph.D. (Law)	Environmental Law & Health Law

Thrust Areas of Research and Study

1. To advance and disseminate knowledge of law and legal processes in the overall context of national and global developments;
2. To develop a broad and holistic perspective which would help the students to understand the intricate relationship of law with society, economy, polity and history;
3. To develop the highest standards of professional skill, behavior and personal integrity.

Brief Statement of Academic Activities

The Department offers the Five year Integrated B.A. LL.B (Hons.) Programme; the Two Year LL.M Programme and the Research Programme. During 2015-16, 12 scholars were admitted to the Ph.D. course. The Department is now in its twelfth year now.

The Department has organized various competitions like debate, quiz and moot courts among the students during the academic year.

Establishment of Legal Care and Support Centre on 9th Feb, 2015.

Students' Profile

Admissions

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
B.A.LL.B (Hons)	1	57	2	30	30	57	3	60

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
B.A.LL.B (Hons)	1	46	4	23	28	46	5	51

Placement of students

Every year, passed out students are enrolled in District Courts & High Courts as practitioners and also get admitted to LL.M. courses of different Institutions in the country. Some of the students get appointment in various Law firms through the Placement Cell of NEHU.

Study Tour of Students

This January 2016, 20 Law students from the Department visited the neighboring country of Nepal for five days and observed the High Court proceedings there. Two teachers guided them to visit North India also (Dr. Ibalari Khongjoh & Dr. Ranjit Sil).

Courses Conducted

Five year Integrated BA.LL.B (Hons.) Degree Course (10 semesters)

Semester I

LLB101 English – I
LLB102 Political Science I
LLB103 Sociology – I
LLB104 Micro Economics
LLB105 Law of Tort

Semester II

LLB201 English – II

LLB202 Political Science II
LLB203 Sociology – II
LLB204 Macro Economics
LLB205 Law of Contract

Semester III

LLB301 English III
LLB302 Political Science – III
LLB303 Political Science - IV
LLB304 Sociology III
LLB305 Special Contract

Semester IV

LLB401 Indian Economy
LLB402 Political Science – V
LLB403 Political Science - VI
LLB404 Family Law – I
LLB405 Law of Crimes – I (Indian Penal Code)

Semester V

LLB501 Constitutional Law - I
LLB502 Jurisprudence
LLB503 Law of Crimes – II
LLB504 Family Law – II
LLB505 Property Law

Semester VI

LLB601 Administrative Law
LLB602 Constitutional Law – II
LLB603 Human Rights Law and Practice
LLB604 Labour Law – I
LLB605 Public International Law

Department of Law

Semester VII

LLB701 Company Law
 LLB702 Labour Law - II
 LLB703 Copyright
 LLB704 Interpretation of Statutes
 & Principles of Legislation
 LLB705 Drafting, Pleading & Conveyance

Semester VIII

LLB801 Civil Procedure Code & Limitation Act
 LLB802 Law of Evidence
 LLB803 Honours II Patent Law
 LLB804 International Environmental Law
 LLB805 Professional Ethics and Professional
 Accounting System

Semester IX

LLB901 Honours III Women & Criminal Law
 LLB902 Honours IV Trademark & Design
 LLB903 Honours V Health Law
 LLB904 Information Technology Law
 LLB905 Alternate Dispute Resolution

Semester X

LLB1001 Honours VI Forensic Science
 LLB1002 Honours VII Private International
 Law
 LLB1003 Honours VIII Offences against Child
 & Juvenile offences
 LLB1004 Legislative Drafting
 LLB1005 Banking Law
 LLB 1006 Moot Court, Exercise and Internship

Two Years LL.M Programme (4 semesters)

Semester	Course Number & Name	Marks	Credits
Semester I	Compulsory: LLMC101 Indian Constitutional Law	150	6
	Specializations: (One group comprising three courses to be offered at any given time to be decided by the Department.)		
	A) CONSTITUTIONAL LAW	100	4
	LLMC 102: Constitutionalism and Constitutional Development in India and England		
	LLMC 103: Comparative Study of Federalism	100	4
	LLMC 104: Civil and Political Rights: Comparative Study of Selected Constitutions	100	4
	B) JURISPRUDENCE	100	4
	LLMC 105: Theories of Law		
	LLMC 106: Theories of Justice	100	4
	LLMC 107 : Theories of Rights	100	4
	C) LAW OF CRIMES	100	4
	LLMC 108 : Criminology and Penology		
	LLMC 109: Criminal Law in India	100	4
	LLMC 110: Cyber Crimes	100	4
Total		450	18

School of Social Sciences

Semester	Course Number & Name	Marks	Credits
Semester II	Compulsory: LLMC 201 Legal Education and Research Methodology	150	6
	Specializations: (One course to be offered at any given time from one group to be decided by the Department.)		
	A) HUMAN RIGHTS LLMC 202: International Law of Human Rights	100	4
	B) CORPORATE LAW LLMC 203: Business Organization	100	4
	C) ALTERNATE DISPUTE RESOLUTION SYSTEM LLMC 204: Domestic and International Commercial Arbitration	100	4
	Open Courses (As per CBCS): (Any two courses to be offered during second semester.)		
	LLMO 205: Copy Right: National and International Perspective	100	4
	LLMO 206: Trade Marks, Design and Geographical Indications	100	4
	LLMO 207: International Environmental Law		
	LLMO 208: Natural Resource and the Law in India		
	LLMO 209: Development and Regulation of International Trade		
	LLMO 210: Legal Regulation of Economic Enterprises		
Total		450	18

Semester	Course Number & Name	Marks	Credits
Semester III	Compulsory: LLMC 301 LAW AND SOCIAL TRANSFORMATION IN INDIA	150	6
	Specializations: (Two courses to be offered from the group selected during second semester)		
	A) HUMAN RIGHTS LLMC 302: Human Rights and the Refugees	100	4
	LLMC 303: Human Rights in India	100	4
	B) CORPORATE LAW LLMC 304: Business Management (Company Management & Administration)	100	4
	LLMC 305: Law Relating to Multinational Corporation	100	4
	C) ALTERNATE DISPUTE RESOLUTION LLMC 306: Enforcement of Foreign Award and Conciliation in India	100	4
	LLMC 307: Mediation, Lok Adalats and Consumer Forums etc.	100	4

Department of Law

Open Courses (Any one course to be offered during the third semester)		
LLMO 308: Patents and Protection of Plant Varieties and Farmers' Rights	100	4
LLMO 309: Pollution Control Laws in India		
LLMO 310: Legal Regulation of International Trade.		
Total	450	18

Semester	Course Number & Name	Marks	Credits
Semester IV	Compulsory:		
	LLMC 401 Judicial Process	150	6
	LLMC 402 Dissertation	150	6
	LLMC 403 General Proficiency	50	2
	LLMC 404 Viva voce	100	4
Total		450	18
Grand Total of four semesters		1800	72

Ph.D. Course Work

Law 101 Legal Research Methodology

Law 102 Judicial Process

Law 103 Comparative Constitution

East India organized by the Department of Economics, NEHU in collaboration with Indian Statistical Institute, Kolkata and NABARD (8-10 October, 2015).

Seminars and Conferences

Attended

Dr. Chintamani Rout

Presented a paper on "Child Trafficking in North East India and its Measures" in the *National Seminar on Child Trafficking: A Crime Against the Nation* organized by the Royal Academy of Law in collaboration with Thumal Marik College, Oinam Bishnumar, Manipur, sponsored by the University Grants Commission (8-9 May, 2015).

Presented a paper on "Poverty, Inequality and Right to Food: An Analysis of the Constitutional Provision and Right to Food Security Act, 2013" in the *National Seminar on Poverty, Inequality and Health in India with Special Reference to North*

Presented a paper titled "Rule of Law: Emerging Trends for Good Governance" and also Chaired a Session entitled 'Concept of Sovereignty and Shifting Horizons: Impact of SEZ and Rule of Law' (Session II) at the UGC sponsored National Seminar on *Changing Dimension of Concept of Legal System and Rule of Law: Emerging Trends in Constitutionalism* organized by the Dept. of Law, University of North Bengal, Darjeeling, West Bengal (19-20 December, 2016).

Delivered Keynote Address at *National Seminar on Child and Woman Labour: Issues and Challenges* sponsored by ICSSR, New Delhi, and organized by Barpeta Law College, Barpeta, Assam, and also chaired a Technical Session (29-30 January, 2016).

Presented a paper on "Right to Education: Historical Background and Constitutional Mandate" in UGC sponsored *National Seminar on Right to Education: A Constitutional Mandate* organized by University Law College, Utkal University, Bhubaneswar (20-21 February, 2016).

Presented a paper on "Right to Information and Good Governance" in the National Conference on "Right to Information Act - Implementation and Challenges," at Madhusudan Law College Utkal University, Cuttack, and also chaired a technical session (27-28 February, 2016).

Presented a paper on "The Role of Media, Right to Information under the Constitution of India" in the National Seminar organized by Institute of Law, Jiwaji University, Gwalior, on Mass Media Laws in India: A Time to Review and sponsored by University Grants Commission, New Delhi, and also chaired a Technical Session (5-6 March 2016).

Presented a paper entitled "Indigenous People and their Development: Legal and Constitutional Safeguards" in the National Seminar 2016 on Environment and Society: the context of North-East India, organized by the Department of Sociology, NEHU on 14th-15th March, 2016.

Presented a paper entitled "Gender Issues in Contemporary Laws in North East India: The Case of Meghalaya" at the National Seminar on "Gender and Folklore in North-East India: Beliefs and Practices" organized by the Department of Cultural and Creative Studies, North-Eastern Hill University, Shillong on 30th-31st March 2016.

Dr. J. J. Mozika

Presented a paper titled "Equality of Opportunity and Reservation in Education" in the *National*

Seminar cum 23rd Annual Conference and Silver Jubilee Celebration of North East India Education Society (NEIES) organised by NEIES in collaboration with the Department of Education, NEHU, Shillong (26-27 November, 2015).

Dr. R. K. Mishra

Presented a paper on "Property over ideas in ancient India: evidences from Sanskrit scripture" in the National Seminar on *ICT, Knowledge Society and Sanskrit at Department of Mass Communications, Assam University* (11-12 March 2016).

Dr. A. K. Singh

Presented a paper on "Human Rights and Democracy: A Critical Analysis" in National Seminar on *Emerging Paradigm of Human Rights: Issues, Challenges and Prospects* organised by Dhubri Law College, Assam (16th March, 2016).

Presented a paper on "Environment and Sustainable Development: An Analysis with Special Reference Indigenous People in India" in National Seminar on *Natural Resource Management: Technological Options* conducted by NIRDPR-NERC (18-19 March 2016).

Mr. Shishir Tiwari

Presented a paper on "Protecting Cultural Heritage during Armed Conflicts: Reflections on the Contemporary Challenges and Way Forward" at *The Fifth Biennial Conference of the Asian Society of International Law*, Bangkok, Thailand (26-27 November 2015).

Presented a paper on "Outsourcing Sovereignty: Examining Implications of the Increased Involvement of PMCs & PSCs in Modern

Warfare” at the *National Seminar on Changing Dimensions of Concept of Legal Systems and Rule of Law: Emerging Trends in Constitutionalism* at Department of Law, University of North Bengal (19-20 December 2015).

Dr. Preeti Gupta

Guest speaker in *Workshop on Gender Policy for Open Schooling in India* (Integrating Principles of Gender Equity, Equality, Justice and Empowerment) held 13th-14th June 2015.

Delivered a lecture on ‘Principles of Natural Justice in the Context of Quasi-judicial Functions’ for Induction Training Programme at V.V. Giri National Labour Institute, Noida (10th November 2015).

Publications

Research Papers

Mozika, J.J., (2015). Elimination of gender-based discrimination: Legislative and judicial initiatives. *Indian Human Rights Law Review*. 6(1): 34-53.

Rout, C. (2015). Position of Governor under the Constitution and Justice as Governor. *Dibrugarh University Law Journal* 2(2): 157-168 (ISSN 2348-6597)

Rout, C. (2015). Impeachment Procedure: Removal of Judges of the Supreme Court and High Courts. *Indian Journal of Law and Justice*, 6(1): 17-24 (ISSN: 0976-3570).

Mishra, R. K. (2015). Piracy in the era of globalization in India: problems of curtailment. *Dibrugarh University Law Journal* 2: 203-214.

Singh, A. K. (2015). Case Analysis of Kolla Veera Raghav Rao and Ors v Gorantia

Venketeswara Rao, AIR 2011 SC 641, *Law Review*, 34: 101-109.

Singh, A. K. (2015) Higher Education in India : A Critical Analysis, *Law Review*, 35: 133-143.

Gupta, Preeti (2015) The ‘Other’ Mother. *Women’s Link*, 21(2): 3-9 (ISSN 2229-6409).

Kumar, Naveen (2015). Implementing Right to Education in India: Some Issues. *Vitasta Law Journal*, 5(5): 68-83.

Book/Book Chapters/Proceedings

Singh, A. K. (2016) *Human Rights in India* (Author), Aayu Publications, New Delhi, ISBN 978-93-85161-21-6

Mozika J. J. (2016) “Higher education and private universities” In: C. Nongbri and B. B. Kharbiryimbai (Eds.) *Education in North East India*. EBH Publishers, Guwahati: Chapter 12, pp. 99-108.

Rout, C. (2015) “Death Sentence: Burning issue” In: S. R. Mohapatra (Ed) *Capital Punishment in India*, Adhyayan Publisher and Distributors, New Delhi: Chapter 17, pp. 183-196.

Rout, C. (2015) “Provisions for Environmental Protection under Constitution of India: An Overview” In: N. Kumar (Ed.), *Forest and Environment in India: Law, History, Culture and Modern Approaches*, EBH Publishers, Guwahati, Chapter 13, pp 182-189.

Mishra, R. K. (2015) “Protection of biological diversity and environmental concerns in India” In: N. Kumar (Ed.), *Forest and Environment in India: History, Culture and Modern Approaches.* EBH Publishers, Guwahati: Chapter 2, p. 19-30.

Tiwari, Shishir (2015). "International Legal Framework for the Protection of Cultural Diversity," In: S. Mukherjee & C. Stückelberger (Eds.) *Sustainability Ethic: Ecology, Economy & Ethics*, Globethics.net, Geneva: Chapter 14, pp. 255-276

Sil, R. (2015) Does Urbanization Seeks New Definition of the Pattern of Land Use? In: N. Kumar (Ed.), *Forest & Environment in India Law, History, Culture and Modern Approaches*, EBH Publishers (India), Guwahati, pp. 58-73.

Any Other Activities

Dr. Chintamani Rout actively participated in the two day Global Conference and one day Mock Drill on "Disaster Risk Reduction – Major Initiative in North-Eastern Region" organized by the North-Eastern Council, Govt. of India, Shillong, held on-23-25 November, 2015.

Mr. Shishir Tiwari was appointed as Member of the IUCN World Commission of Environmental Law, Gland, Switzerland.

DEPARTMENT OF POLITICAL SCIENCE

Head: Prof. K. Debbarma

Telephone: (M) 9436102359, (O) 0364 2723035 & 2723036

E-mail: kdebbarma@rediffmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	R. Borgohain, M.A. & M.Phil. (JNU); Ph.D. (Gauhati Univ)	Gender Studies, Indian Government & Politics
	L.S. Gassah, M.A., M.Phil & Ph.D. (NEHU)	Government & Politics in North East India
	K. Debbarma, M.A., M.Phil & Ph.D. (NEHU)	Human Rights, Development Administration & Politics of Migration in NE India.
	H. Srikanth, M.A. & Ph.D (Univ of Hyderabad)	Political Theory, Political Economy, Social Movements
	R. K. Satapathy, M.A. & M.Phil. (Sambalpur Univ); Ph.D (NEHU)	International Politics, Political Theory & Electoral Politics.
	T. T. Haokip, M.A., M.Phil & Ph.D (NEHU)	Foreign Policy, Public Administration, State Politics in North East India.
Associate Professor	Susmita Sen Gupta, M.A., M.Phil & Ph.D (NEHU)	Politics of North East India
	Munmun Majumdar, M.A., M.Phil & Ph.D. (JNU)	South East Asian Studies
Assistant Professor	Biswajit Mohapatra, M.A. (Delhi Univ); M.Phil. & Ph.D. (JNU)	India South and South East Asia, Look/Act East Policy, North East Politics.
	Dr. S. Bhattacharjee, M.A., M.Phil. & Ph.D. (JNU)	International Politics and Trade

Thrust Areas of Research

Contemporary Issues in Indian Politics and Politics of North East India

Brief Statement of Academic Activities

The Department of Political Science, established in 1974, aims at building an academic community

School of Social Sciences

of students, researchers and teachers devoted to an open, critical and analytical study of the discipline with an emphasis on inter-disciplinary approach. It also aims at making courses and research work socially relevant and developing in the students an awareness of the basic issues and problems in the discipline so as to equip them intellectually to fulfill these needs.

With the strength of 10 faculty members, the department has 104 students on its roll at the

M.A. level. The department admits M.Phil and Ph.D scholars who undergo course work for one semester followed by dissertation/thesis writing on proposals approved by the School Board of Social Sciences. At present there are 63 research scholars who are engaged in M.Phil and Ph.D programmes of the Department. The Department is in DRS Phase II of SAP. The thrust area of SAP is "Political Economy of North East India.

Students' Profile

Enrolment Capacity: MA – 52; MPhil/PhD – Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.A.	-	51	1	18	34	24	28	52
M.Phil.	-	-	-	-	-	-	-	-
Ph.D.	OBC 2	8	-	4	6	2	8	10

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.A.	-	43	-	20	23	15	28	43
*M.Phil.	-	1	5	2	4	-	6	6
*Ph.D.	-	3	1	3	1	3	1	4

* M.Phil & *Ph.D : Course Work Examination Result.

Students Awarded Ph.D. Degree

Name of Student	Title of Thesis	Name of Supervisor
Dhiraj Kumar Borkotoky	Khasi Hills Autonomous District Council and Process of Governance in Meghalaya.	Prof. L. S. Gassah

Research Fellowships

NET SRF	: 6
UGC Non-NET	: 24
Rajiv Gandhi SC/ST	: 13
ICSSR Fellowship	: 12
Maulana Azad Minorities	: 1

Educational Tour of Students

Teacher-in-Charge: Dr. Biswajit Mohapatra
Institutions visited: Mumbai University and Goa University
Duration of tour: 12th to 24th January, 2016
Purpose of Tour: Educational Study Tour

Courses Conducted

Postgraduate M.A.

Semester-I : All Core Courses are Compulsory
Course Number and Name Credit

1. POL-C.101: Liberal Political Theory – 4
2. POL-C.102: Theory of International Politics – 4
3. POL-C.103: Major Concepts and Issues in Public Administration – 4
4. POL-C.104: Indian Political System – 4
5. POL-C.105: State Politics in India special reference to North-East Politics (I) – 2

Semester-II: Three Compulsory, one Optional Core Course and one Open Course

Compulsory Core Courses:

1. POL-C.201: Marxist Political Theory – 4
2. POL-C.202: Problems of International Politics – 4
3. POL-C.203: State Politics in India special reference to North-East Politics (II) – 2

Optional Core Courses: (Students to choose any one from below) – 4

1. POL-C.204: Third World Political Theory
2. POL-C.205: Administrative Theory
3. POL-C.206: East and South-East Asian Political Systems
4. POL-C.207: West Asian Political Systems

Open Courses: (Students to choose any one from below) – 4

1. POL-O 208: Government and Politics in N. E. India
2. POL-O 209: Democracy in India
3. POL-O 210: Modern Indian Political Ideas.

Semester-III: Compulsory Core Courses:

1. POL-C 301: Contemporary Political Theory – 4
2. POL-C 302: Research Methodology (I) – 2

Optional Core Courses: (Students to choose any one from below) – 4

1. POL-C 303: Issues in Women's Studies
2. POL-C 304: International Law and International Organisation
3. POL-C 305: South Asian Political Systems
4. POL-C 306: African Political Systems

Open Courses: (Students to choose any two from the below) – 4

1. POL-O 307: Globalisation
2. POL-O 308: Politics of Social Movements
3. POL-O 309: Women and Political Theory
4. POL-O 310: Development Administration
5. POL-O 311: Issues in Environmental Politics

Semester-IV: Three Compulsory and Two Optional Core Courses

Compulsory Core Courses:

1. POL-C 401: Major Debates in Political Theory – 4
2. POL-C 402: Comparative Politics – 4
3. POL-C 403: Research Methodology (II) – 2

Optional Core Courses: (Students to choose any two from the below) – 4

1. POL-C 404: Political Ideology
2. POL-C 405: Political Sociology
3. POL-C 406: Foreign Policy of Major Powers
4. POL-C 407: Indian Political Economy
5. POL-C 408: Human Rights

M.Phil/Ph.D. Courses (Total Credits: 12)

First Semester

Compulsory:

1. PSc. M/P – I (c) - Research Methodology – 4
2. PSc. M/P – II (c) - Issues and Processes in the Politics of North East India – 4

Optional: Any One from the following: 4

1. PSc. M/P – III (o) : Issues in Indian Politics
2. PSc. M/P – IV (o) : Women and Politics in North East India
3. PSc. M/P – V (o) : Critical Perspectives on Knowledge and Power
4. PSc. M/P – VI (o) : Advanced Studies in International Politics
5. PSc. M/P – VII (o) : Environmental Politics.

Second Semester: Dissertation Work

Seminars/Conferences/Symposia/Extension Programmes etc.

Organized

Prof. R. K. Satapathy organised the SAP National Seminar on Interrogating Democracy and Development in North-East India (17-18 March, 2016).

Attended and Participated

Prof. K. Debbarma

Presented a paper on “Constraints of Development in North East India” in a National Seminar on *Interrogating Democracy and Development in North East India* organized by this Department at NEHU, Shillong (17-18 March 2016).

Presented a paper on “Challenges of Representation of Women in Meghalaya”, in the

Round Table Consultation organized by Centre for Development and Peace Studies, Guwahati, 16th February 2016.

Prof. H. Srikanth

Presented a paper on “Countering Transnational Crimes: Need for a Comprehensive and Humane Approach” in 4th Roundtable of ASEAN Indian Network of Think Tanks, Kuala Lumpur (7 and 8 August, 2015).

Presented a paper on “Interrogating the Look East Policy” in the International Conference on *Look East Policy and Northeast India* organized by OKD, Guwahati (25-26 September 2015).

Presented a paper on “What Democracy and What Development?: Theory and Practice” in UGC-SAP National Seminar organized by this Department at NEHU, Shillong (17-18 March 2016).

Prof. R. K. Satapathy

Presented a paper on “Deliberative Democracy and Inclusive Development: A Perspective” in the SAP National Seminar on *Interrogating Democracy and Development In North-East India* (Dept of Political Science, NEHU) on 7th March, 2016).

Prof. T. T. Haokip

Presented a paper on “Terrorism, State and Human Rights” in a National Seminar on Global Thinking and Human Rights: A Dialogue organised by National Human Rights Commission in collaboration with Gauhati University, at Gauhati University (21-22 January 2016).

Presented a paper on “Working of District Councils in Manipur” in a Consultative Meeting on ‘Local Democracy in North-East India’ organised by Tata Institute of Social

Sciences (TISS), Guwahati in collaboration with the Ministry of Panchayati Raj, Govt. of India at Uzanbazar, Guwahati (29-30 January, 2016).

Presented a paper on "Traditional Institutions and Development in the Hills of Manipur" in a UGC-SAP Seminar on *Interrogating Democracy and Development in Northeast India*, Dept of Political Science, NEHU, Shillong (17-18 March, 2016).

Dr. Susmita Sen Gupta

Presented a paper on "Language as a catalyst to identity assertion among the tribes of North East India" at the International Conference on *Language, Power and Identity in Asia- Creating and Crossing Language Boundaries* held at Leiden, Netherlands organized by the International Institute for Asian Studies (14-16 March 2016).

Presented a paper on "Ethnicity and development: a civil society perspective from Meghalaya" at the International Conference on *Ethnicity and Development in South Asia* held at New Delhi and organized by IGNOU (21-22 2016).

Presented a paper, "Regional agenda and assembly elections in Meghalaya- an analysis" at the National Seminar *Electoral politics*, Guwahati organized by the Department of Political Science, Guwahati University, Guwahati, 19th August 2015.

Dr. Munmun Majumdar

Presented a paper on "India's Act East Policy begins in Myanmar" at the *International Silver Jubilee Conference on Look/Act East Policy and Northeast India* at the Omeo Kumar Das Institute of Social Change and Development, Guwahati, India (25-26 September 2015).

Presented a paper on "Australia's interest in the South China Sea" at the International Conference on *India-Australia Relations and Evolving Polycentric World Order*, Australian Studies Programme, School of Social Sciences, IGNOU, New Delhi (26-27 November 2015).

Dr. Biswajit Mohapatra

Presented a paper on Democracy and Institution Building: Recent Developments Concerning Traditional Democratic Institutions in Meghalaya in the UGC-SAP Seminar on *Interrogating Democracy & Development in North-East India* organized by this Department at NEHU, Shillong (17 -18 March 2016).

Presented a paper on "Multilateralism and the Emerging World Order: Challenges and Perspectives" in International Conference on *Multilateral Cooperation: Emerging Global Scenario*, held at CSEAP, S. V. University, Tirupati (22-24 February 2016).

Presented a paper on "The Rise of China and India-Australia Relations" in the International Conference on *India-Australia Relations and Evolving Poly-centric World Order* held in New Delhi, organized by Australian Studies Prog, IGNOU, New Delhi; Macquarie University, Australia and Central University of Kerala, Kasaragod (26-27 November 2015).

Presented a paper on "India-Myanmar Relations and India's Act East Policy - Challenges and Perspectives of Securing the Sub region" in the International Conference on *India-Myanmar Relations: Looking from the Border* held at Institute of Social Sciences, New Delhi (28-29 September 2015).

Presented a paper on "India's Look East Policy, ASEAN and the Challenges of Strengthening

BIMSTEC" in the International Conference on ASEAN Studies at Chulalongkorn University, Bangkok, hosted by ASEAN Studies Center, Chulalongkorn University, ASEAN Studies Center Universitas Gadjah Mada (August 3-5 2015).

Presented a paper on "Good Governance for Inclusive Development and Peace in Assam - Peace Accords and the Challenges" in the Seminar on *Peace, Security and Development* in Rangiya, Assam, organized by Red Horns Division (6th July 2015).

Presented a paper on "India in the ASEAN Neighbourhood : India - Thailand Relations and the ASEAN Strategic Partnership" in International Conference on India's Look East Policy - Act East and South-East Asia: Beyond Borders held in Imphal, Manipur, organized by CRRID, Manipur Univ and Ministry of External Affairs, Govt of India (23-24 May, 2015).

Presented a paper on "Peace Education and the Challenges of Sustainable Peace and Reconciliation in North Eastern India" in the *SAARC Regional Seminar on Cultural Dynamics in National Harmony in South Asia* at Kandy, Sri Lanka (15-16 May 2015).

Gave a lecture on "Border Haat: A Way Forward" at *India at the Crossroads: The Tenth SASA Conference* organised by the South Asian Studies Association in collaboration with TERI University, New Delhi (18 -20 March 2016).

Publications

Research Papers

Published in India

Mohapatra, B. (2016). Globalisation and Folklore – Contesting Forces in the Tribal

Diaspora. *International Journal of Tribal Studies*, 3(1): 78-85.

Mohapatra, B. (2015) Issues Of Global Governance : Prospects and Challenges. *SPECTRUM*, 2: 85-90.

Mohapatra, B. (2015). China, North-Eastern India and India's Look East Policy- Need for Synergy, *OUCIP Journal of International Studies*, 3(1&2): 17-27.

Mohapatra, B. (2015). Pluralism and the Inclusiveness- Emerging Challenges for Governance in North East India. *KILA Journal of Local Governance*, 3(1): 28-36.

Bhattacharjee, S. (2016). 'Meant to be good but going to be chaotic ': The corporate social responsibility in India. *The Heritage*. 7(1): 48-70.

Bhattacharjee, S. & Nongkynrih, D. (2016). Geography as an Opportunity: North-East Connecting India with ASEAN. *Man and Society*, 13: 37-52.

Published Abroad

Sen Gupta, S. (2015). Transformation and consolidation of ethnic identity in Arunachal Pradesh: Exploring the role of the educated elite." *Journal of Political Sciences and Public Affairs* 3(2): 1-5.

Books/Book Chapters/Proceedings

Srikanth, H., Borgohain, R. (2016). Editors: *Ethnicity and Political Economy in North-east India*. DVS Publishers, Guwahati.

Mohapatra, B. (2015) India's Look East Policy: Stemming the Drift. In: *India's North-East and Asiatic South-East: Beyond Borders*, Malhotra & Gill (Ed.), CRRID, Chandigarh. pp. 25-36.

- Srikanth, H. (2016) *Agrarian Relations in Khasi Villages: A Study of Select Villages in West Khasi Hills*, Political Economy in Northeast India, DVS Publishers, Guwahati.
- Srikanth, H. (2015). Ethnic Politics and Capitalist Development in Urban Space: Experience of Hyderabad and Shillong. In: *Saji Verghese (ed.) Culture, Identity and Development: The Global and the Local in Northeast India*, Abhijeet Publications, New Delhi: pp. 179-199.
- Srikanth, H. (2015) Resolving Sino-Indian Border Dispute: Overcoming Nationalist Myopia. G. Das, C. J. Thomas (eds). *Voices from the Border: Response to Chinese Claims over Arunachal Pradesh*, Pentagon Press, New Delhi: pp. 122-131.
- Haokip, T.T. (2015) Sub-Regional Initiatives and North East India. In: *BCIM Economic Corridor The Road Ahead*, R. K. Bhatia & R. Mishra (Eds.), Indian Council of World Affairs, New Delhi; Chapter 5, pp. 85-96.
- Haokip, T.T. (2016) Language Politics and Ethnic Relations in Mizoram. In: *Ethnicity and Political Economy in Northeast India*, H. Srikanth & R. Borgohain (Eds.), DVS Publishers, Guwahati, Chapter III, pp.255-270.
- Sen Gupta, S. (2016) Emergence of new social forces among the Khasis and the Bodos: A comparative study. In: H. Srikanth and R. Borgohain (Eds.) *Ethnicity and Political Economy in Northeast India*. D.V.S. Publishers, Guwahati: Chapter 8, p.163-182.
- Majumdar, M. (2016) China as a Factor in India-Myanmar Relations. In: G. J. Reddy (ed.), *Dynamics of India and China Relations Implications for New World Order*, UGC Centre for Southeast Asian & Pacific Studies, Sri Venkateshwar University, Tirupati.
- Majumdar, M. (2016) Indonesia-Australia relations and the Indo-Pacific Developments. In: D. Gopal & D. Ahlawat (eds.), *Indo-Pacific Emerging Powers, Evolving Regions and Challenges to Global Governance*, AAKAR Books, Delhi.
- Mohapatra, B. (2015) Maritime Security in India's Neighbourhood and Indian Ocean: Challenges & Strategies. In: *India And Her Neighbours : Towards A Proactive Partnership*, M. B. Alam (Ed.), Gyan Books. pp. 35-43.
- Mohapatra, B. (2015) Panchayati Raj Institutions and the Challenges of Promoting Financial Inclusion amongst the Rural Masses. In: *Panchayati Raj's Role in MGNREGA And Financial Inclusion*, Sangwan and Gagan Deep (Eds.), CRRID, Chandigarh. pp. 173-176.
- Mohapatra, B. 2016) PESA and People-Centric Governance. In: *Tribal Self-Governance: PESA and its Implementation*, N. Tiwary (Ed.), Rawat Publications, Jaipur & Delhi. pp 157- 164.
- Mohapatra, B. (2016) North East India and its Neighbourhood – Perspectives on India's Look East Policy. In: *Agartala Doctrine : A Proactive Northeast in India's Foreign Policy*, S. Bhaumik (Ed.), Oxford University Press, New Delhi. pp.93-100.

Research Projects

New Projects

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1.	UGC-SAP, DRC Phase II	Programme Coordinator: Prof. H. Srikanth Co-Programme Coordinator : Prof. K. Debbarma	UGC	Rs. 44 lakhs.

Completed during Year

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1.	Collaborated Project on : Tribal Women's Rights in Northeast India: Access to Representation and Justice (Meghalaya Part)	Prof. K. Debbarma	Centre Development and Peace Studies, Guwahati.	Rs 50,000/=

Academic Collaborations

Dr. Susmita Sen Gupta has a collaboration with Global Science and Technology Forum, Singapore, and also a member of the Programme Committee of the International Conference on *Political Science, Sociology and International Relations* organized by GSTF in 2015.

Other Activities

Prof. K. Debbarma

Delivered two lectures on "Human Rights Issues in Northeast India" and on "Empowerment and Political Participation of Women in Northeast India" in Central Institute of Himalayan Culture Studies, Dahung, Arunachal Pradesh, on 5 March 2016.

Attended a Research Advisory Committee Meeting in the Department of Political Science, Tripura University, Agartala, on December 2015.

Prof. H. Srikanth

Delivered a talk on "Dalit Question in India" in the Orientation Course, organized by UGC Human Resource Development Centre, NEHU, Shillong, 17th February 2016.

Delivered five lectures on Academic Writing in the Research Methodology Course organized by ICSSR-NERC, Shillong, 21st -23rd 2016.

Prof. R. K. Satapathy

Reviewed a book by C. Kakuthas on *The Liberal Archipelago: A Theory of Diversity and Freedom* published in the *NEHU Journal*.

Delivered valedictory address in the national seminar on *Participatory Democracy in India* on January 25, 2016 organised by Titilagarh Autonomous College, Odisha

Delivered one lecture on *Significance of SPSS* in the Summer School Course conducted by the Academic Staff College, NEHU, Shillong

Delivered a lecture on *Empiricism in Social Science Research* in the Research Methodology Workshop conducted by the ICSSR-NERC, Shillong.

Prof. T. T. Haokip

Delivered four lectures in a Refresher Course in Political Science, Mizoram University from 17-18 September, 2015

Delivered four lectures in a Refresher Course in Political Science, Gauhati University from 4-5 January 2016.

Member of Board of Studies, Department of Political Science, Mizoram University.

Member of Board of Studies, Department of Political Science, Sikkim University.

Dr. Susmita Sen Gupta

Delivered 5 lectures in the following UGC-sponsored courses organized by Human Resource Development Centre, NEHU, Shillong.

Gave one lecture at 33rd Orientation Programme (General) held from 18th May to 14th June, 2015.

Gave two lectures at Refresher Course in Tribal Studies (27th July - 16th August, 2015).

Gave 2 lectures at 35th Orientation Programme (General) held from 8th February- 6th March, 2016.

Dr. S. Bhattacharjee

Research Methodology course and training programme, sponsored by ICSSR, New Delhi in collaboration with Institute of TAI studies and Research, Moran from 7-16 December, 2015.

Delivered two Lectures on "Ethics in research and research writings, Plagiarism: significance" (14/12/2015) and two lectures on "Research and data collection: various methods (15/12/2015).

Gave one lecture at the Workshop on Research Methodology Course for Ph.D students sponsored by ICSSR, New Delhi and organised by ICSSR-NERC Shillong (14-23 March, 2016)\

Gave one lecture at the Summer School organised by HRDC, NEHU, on 7th June 2015.

Gave 1 lecture at Refresher Course organised by HRDC, NEHU (Course in Tribal Studies) on 7th August 2015.

Delivered a lecture on Border Haat : From Peril to Promise on 5/12/2015 at Indian Council of World Affairs in collaboration with Asian Confluence in Shillong, and organized a national seminar on *India's North Eastern States and its Eastern Neighbours* (5-6 December 2015).

DEPARTMENT OF SOCIOLOGY

Head: Prof. I. L. Aier
Telephone: (0364) 2723040
E-mail: hodsoc@nehu.ac.in

Faculty

Designation	Name and Qualification	Specialization
Professor	C. L. Imchen, M.A., M.Phil., Ph. D. (JNU);	Political Sociology; Polity Formation and Indigenous Peoples
	Lanu Aier, M.A., M. Phil., Ph. D. (NEHU);	Political Sociology; Sociology of Religion; Ethnic Relations
	A. K. Nongkynrih, M.A., M. Phil., Ph. D. (NEHU)	Sociology of Kinship; of Organisations; of Rural Development
	D. V. Kumar, M.A., M. Phil., Ph.D. (JNU)	Modernization, Ethnicity and Social Change
Associate Professor	B. Panda, M.Phil. (Hyderabad); Ph.D. (IIT Kanpur);	Sociology of Third Sector, Sociology of Development
	Rekha M. Shangpliang, M.A., M. Phil., Ph.D. (NEHU)	Sociology of Environment; of Gender; of Family and Kinship
	Md Yusuf Khan, M.A. (AMU); M. Phil (DU)	Migration, Urbanization, Ethnicity

Thrust Areas of Research

The Department has "*Social Change*" as its main thrust area.

Brief Statement of Academic Activities

The Department concentrates on understanding the changes taking place in societies of the region. The Department of Sociology began instructions in M.A., M.Phil., and Ph.D. Levels in 1976. Besides teaching and supervising research the

faculty engages in individual research activities as well. With the existing faculty expertise, the Department has developed research excellence in studies on political dynamics and Social Movements, emerging accommodation between native systems and the Nation State, ethnic identity, Globalisation and its impact on the North-Eastern Region, land and privatization of communal lands, rural developmental schemes and policies and traditional political institutions, Modern Organizations. Moreover, faculty

Department of Sociology

members are involved in their own capacities in community extension programmes, development of evaluation tools, documentation of Khasi

indigenous forest management with reference to environment, evaluative research on community approach to handicap in development.

Students' Profile

Enrolment Capacity: M.A. – 46; Ph.D. – variable

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.A.	Nil	46	Nil	06	40	15	31	46
M.Phil.								Nil
Ph.D.								Nil

Educational Tour of Students

Teacher-in-Charge: Md. Yusuf Khan

Places/Institutions visited: Mumbai and Goa

Duration of tour: 13 days

Purpose of Tour: To get exposure to different heritage sites and places.

Research Fellowships

Type of Research Fellowship Scholars

1. ICSSR : 4 Nos
2. RGNF : 2 Nos
3. UGC JRF/SRF : 4 Nos
4. UGC NET : 1 No
5. Non-NET : 1 No
6. Maulana Azad Minority : 1 No

Courses Conducted

Postgraduate M.A.

Semester-I :

- i. Sociological Theories – I
- ii. Methodology of Social Research – I

iii. Sociology of Family and Kinship

iv. Indian Society – I

v. Indian Society – II

Semester-II:

i. Sociological Theories – II

ii. Methodology of Social Research – II

iii. Sociology of Religion

iv. Indian Society – III

v. Open Course

Semester-III:

i. Economy and Society

ii. Political Sociology

iii. Sociology of Development

iv. Tribal Movements in India

v. Open Course

vi. Open Course

Semester-IV:

i. Social Change

ii. Sociology of Environment

iii. Anthropological Theories

iv. Industrial Sociology

M.Phil./Ph.D. Courses

1. SOC P 01: Designing Sociological Research
2. SOC P 02: Sociological Concepts
3. SOC P 03: Advanced Sociological Theory

**Seminars/Conferences/Symposia/
Extension Programmes etc.**

Organized

A National Seminar on *Environment and Society: The Context of North East India* on 14th and 15th March, 2016 at the Department of Sociology, NEHU, Shillong.

Attended and Participated

Prof. A. K. Nongkynrih

Presented a paper on "Words and Social Institutions: A Sociological View in the National Seminar on *Interpreting Tribal Literature: A Multidisciplinary Approach* organised by Khasi Department, NEHU, Shillong, on 18th February 2015.

Presented a paper on 'Sacred things' and sacred forests in Tribal Society" in the National Seminar on *Environment and Society: The Context of North-East India* organised by the Department of Sociology, NEHU, Shillong, on 14th March 2015.

Dr. B. Panda

Presented a paper entitled "Nature, Culture and Environmental Crisis: The Context of North-East India" at a National Seminar on *Social Ecology & Environmental Movements in India* held at Lucknow University, 13-14 October, 2015.

Presented a paper entitled "Role of Non-Governmental Organisations towards Promoting Sustainable Rural Livelihoods: An Exploration" at the 41st All India

Sociological Conference held at KIIT University, Bhubaneswar, 27-29 December, 2015.

Presented a paper on "The Elderly in Meghalaya: Issues and Concerns" at a National Seminar on State Level Public Policy for Senior Citizens in the North-Eastern States organized by Department of Adult and Continuing Education and All India Senior Citizens Confederation, Navi Mumbai, held at NEHU, Shillong, 25-26 February, 2016.

Presented a paper on "Development-Induced Displacement, Identity Assertion and Resistance Movements: A Sociological Exploration" at the International Seminar on *Governance, Development and the State in Contemporary Times* held at Tezpur University, Napaam, 9-12 March, 2016.

Presented a paper on "Environmental Movements in North- East India" at a National Seminar on *Environment and Society: The Context of North-East India* organized by Department of Sociology, NEHU, 14-15 March, 2016.

Presented a paper on "Sustained Growth and Human Development in North-East India with Special Reference to Meghalaya", at a National Seminar on *Interrogating Democracy and Development in North-East India* organized by Department of Political Science, NEHU, 17-18 March, 2016.

Dr. Rekha M. Shangpliang

Presented a paper on "Gender Studies: Some Reflections on its Relevance in Higher Education" at a National Seminar on *Innovative Strategies: A Roadmap for Upliftment of Teaching Learning and Evaluation in Higher Education* held in St. Mary's College, Shillong, 22-23, 2015.

Department of Sociology

Presented a paper on "Forest and Tribal Life with special reference to the Khasi of Meghalaya" at the 13th International Conference on Social Science Research held at Asian Institute of Technology (AIT), Bangkok, Thailand (18-19 December 2015).

Publications

Research Articles/Book Chapters

Nongkynrih, A.K and A. Q. Lyngdoh (2015). The Mother's Brother in Matrilineal Societies: A Study of Khasi Matriliney. *The NEHU Journal*. 13(1): 33-46.

Panda, B. (2015). Review of Ishwar Modi (ed.): *Polity, civil society and development: Essays in honour of Professor Yogendra Singh* (Vol. 3). *Sociological Bulletin*, 64(2): 262-265.

Shangpliang, R. M. (2016). Matriliney: The cultural cradle of Khasi kinship system. *Anthropology Today (NEIRA)* 2(1).

Shangpliang, Rekha (2015). Forest Livelihood and Gender: Livelihood Strategies of Khasi Rural Women. In: *Dynamics of Gender Disparity: North East Lens*. S. Sengupta, Saifun Nessa et al (Eds). EBH Publishers: Chapter 25, p.297-305.

Research Projects

Ongoing

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1	The Father's Mother in a Matrilineal Society	Prof. A. K. Nongkynrih	UGC-DSA-SAP-Phase I, New Delhi	71,000/-
2.	Forest Produce Rural Livelihood among the Khasi women: A case study of Lawbyrwa village	Dr. Rekha M. Shangpliang	UGC-DSA-SAP-Phase I, New Delhi	54,000/-

Completed during Year

Sl. No.	Title of Project	Investigator	Funding Agency	Amount
1.	The Naga Political Movement from a People's Perspective	Prof. C. L. Imchen	SAP-DSA-I	64,000/-
2.	The Yahoi Religious Cult as Anti Thesis to ongoing Christian Practice	Prof. I. L. Aier	SAP-DSA-I	70,000/-
3.	Negotiating the Other: The context of Mizos in Bengaluru	Prof D. V. Kumar	SAP DSA I	89,000/-
4.	Socio-Economic Importance of Village Markets: An Empirical Exploration	Dr. B. Panda	SAP DSA I	84,000/-
5.	Migrants and Self-employment in Imphal	Md. Yusuf Khan	SAP DSA I	88,000/-

Other Activities

Prof. A. K. Nongkynrih

Presented a talk on: Sociological aspects of Suicide, organised by Sanker, Shillong. 10th September, 2015.

Lecture on "Sixth Schedule in Meghalaya – An overview with Focus on Interface with the District Administration" in the Orientation Programme for IAS Probationers of 2014 Batch (Assam–Meghalaya Cadre) organised by Meghalaya Administrative Training Institute, Govt of Meghalaya, on 26th October 2015.

Participatory lecture on "Food Security, Land and Forest Collective Rights" organised by Faith Foundation, Shillong, 7th March, 2015.

Panelist in the CALM Festival on the topic "Are We Racist" organised by Sahaki Society and Department of Arts and Culture, Govt of Meghalaya, Shillong, 13–16 May 2015.

Participatory lecture on "Campaigns and Role Play" organised by Voluntary Health Asscn. of Meghalaya, Shillong, 16th May, 2015..

Panelist in a Panel Discussion on "Life Skills- A step toward change" organised by Meghalaya Aids Control Society, Shillong, 12th August, 2015.

Lecture on "Corporeal Punishment for Secondary School Teachers" organised by Directorate of Educational Research and Training, Govt of Meghalaya, Siloam, Meghalaya, 17th September, 2015.

Panelist in the International Indigenous Terra Madre 2015 Thematic Sessions "Are Today's Patriarchal Communities Societies of Peace" and "Women's Role in the

Future of Food and Nutritional Security" organised by International Indigenous Terra Madre and North-East Slow Food and Agrobiodiversity, Shillong, 5th November 2015.

Panelist in Panel Discussion on "Life and Works of Don Bosco - His Educational Philosophy and Method: Relevance, Applications and Challenges" organised by St. Anthony's College, Shillong, 19th November 2015.

Delivered a talk on " Seng Samla Shnong – Ki Atiar ban Tei" organised by Synjuk ki Seng Samla Shnong, Nongpoh, Meghalaya, 12th December, 2015.

Delivered a talk on "Inclusion and participation are the pillars of Democracy" on National Voter's Day organised by the Deputy Commissioner of West Khasi Hills District (Election), Nongstoin, 25th January, 2016.

Lecture on "Present Context of NEI and Scope of Development in North East India" organised by Church's Auxiliary for Social Action, Mawkhan, Ri Bhoi District Mawlien, 29th March 2016.

Member of State ASHA Mentoring Group, Department of Health Services, Government of Meghalaya, (2015 -).

Member of the Advisory Committee on Codification of Customary Laws, Khasi Hills Autonomous District Council, Shillong, (2015-)

Member of the Khasi Traditional Medicine Commission, Khasi Hills Autonomous District Council, Shillong, (2016-).

Member of State Advisory Group on Community Action of National Rural Health Mission, Department of Health and Family Welfare, Government of Meghalaya, (2011-).

Department of Sociology

Member of Ethics Committee, NEIGRIMS, Shillong, Meghalaya.

Lectures on "Concepts in Research Design" at events organised by UGC-Human Resource Development Centre, NEHU, Shillong, on 17th August and 15th October 2015, and on 1st February, 11th February and 14th March 2016.

Lecture on "Influence of Western Culture on the life style of young people" organised by Shillong Commerce College, Shillong, 11th December, 2015.

Lecture on "Field Work – Meaning, Planning and Managing" organised by ICSSR, North Eastern Regional Centre, Shillong, 10th March 2015.

Lecture on "Research Design" organised by ICSSR, North Eastern Regional Centre, Shillong, 17th March 2015.

Resource Person in a Career Guidance Programme organised by Sohra Government College, Sohra, 19th September, 2015.

Dr. B. Panda

Chaired a session at the 41st All India Sociological Conference at KIIT, Bhubaneswar, 27-29 December, 2015.

Moderated a technical session at a National Seminar on *State Level Public Policy for Senior Citizens in the North-Eastern States* organized by Department of Adult and Continuing Education and All India Senior Citizens Confederation, Navi Mumbai, held at NEHU, Shillong, on 25-26 February, 2016.

Chaired an academic session at the International Seminar on *Governance, Development and the State in Contemporary Times* organized by Department of Sociology, Tezpur University in partnership with UNICEF, Guwahati, and MACRONEI-MAKAIAS, Kolkata held at Tezpur University, Napaam, 9 -12 March, 2016.

Delivered a lecture "On Interview" at a workshop on "Research Methodology Course for Ph.D. Students in Social Sciences" at ICSSR- NERC Complex, NEHU Campus, Shillong, 17th March 2016.

Dr. Rekha M. Shangpliang

Presented a lecture on "Forest in the Life of the Khasis" on 3rd of August 2015, in a Refresher Course organised by Human Resource Development Centre, NEHU, on the theme 'Tribal Studies' (27th July-16th August 2015).

VIII

SCHOOL OF TECHNOLOGY

Dean: Prof. P. V. Koparkar
Telephone: 2723601(O); 2723603(O) ; 2723606 (Fax)
Email: deanst@nehu.ac.in; chimanee@gmail.com

The School of Technology was established in 2006. At present it consists of eight departments, namely Electronics and Communication Engineering, Information Technology, Basic Sciences and Social Sciences, Energy Engineering, Biomedical Engineering, Architecture and Nanotechnology. The eighth department, namely the Department of Computer Applications (MCA) is functioning in NEHU's Tura Campus since 2013. During the year of review, the departments of Energy Engineering, Biomedical Engineering and MCA departments

have started the Ph.D. Programme. Electronics and Communication Engineering, Information Technology and Nanotechnology departments have started M.Tech and Ph.D. Programme in the year 2014.

The department of Nanotechnology started its M. Tech programme in 2015.

During the year 2015 – 16, the faculty members of all the departments were actively involved in collaborative research along with the teaching activities in the departments.

DEPARTMENT OF ARCHITECTURE

Head: Ar. Banbhalang Swer (from 2013 onwards)

Telephone: 0364-2724101/8794741771

E-mail: banbha13@gmail.com/bswer@nehu.ac.in

Faculty

Designation	Name and Qualification	Specialization
Assistant Professor & Teacher In Charge	Ar. Banbhalang Swer, M.Arch	Architecture (Urban Design)
Assistant Professor	Ar. Ibynta. B. Tiewsoh, Master in Design	Design (Product Design)
Assistant Professor	Ar. Rameez Gazi, Master in Landscape Design	Landscape Design

Thrust Areas of Research

Urban Geography, Urban Studies and Planning.

Product Design and Landscaping.

Brief Statement of Academic Activities

The 5 year B Arch Programme started its 1st batch in the Academic Session 2014-15.

Students' Profile

Intake Capacity: B.Arch. - 40 students

Admissions

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
Barch 1 st Year	2	12	19	19	14	09	24	33
Barch 2 nd Year	-	11	17	16	12	09	19	28

Educational Tour of Students

Under the super vision of Ar. Banbhalang Swer, Teacher-in-Charge, 2nd year students of Architecture visited Delhi, Agra and Fatehpur Sikri from 15th to 23th February 2016 as a part of their study tour curriculum. The main purpose of tour was *Measured Drawing and Analysis*

of Historical Structures and Monuments as per curriculum.

The focus of the tour was mainly on the documentation study, measured drawings and analysis of the structures and materials which were used in the ancient structures. Finally, the students had to prepare a presentation on the

historical monuments and structures of the three places visited which was then presented to the Faculty of Architecture and also displayed in one day seminar organised by the Department on 24th May 2016.

Courses Offered

B Arch Programme

Semester-I:

AR-101 Structural Design - I (Applied Mechanics); AR-102 Building Materials – I; AR-103 Introduction to Architecture; AR-104 Communication Skills; AR-115 Architectural Design; AR-116 Building Construction and Technology - I; AR-117 Architectural Graphics - I; AR-118 Workshop – I.

Semester-II:

AR-201 Structural Design-II; AR-202 Building Materials – II; AR-203 History of Architecture - I ; AR-204 Communication Skills - II ; AR-215 Architectural Design-II; AR-216 Building Construction & Technology - II AR-217 Architectural Graphics – II; AR-218 Workshop – II.

Semester-III:

AR-301 Structural Design-III; AR-302 Building Materials – III; AR-303 History of Architecture – II; AR-304 Climatology – I; AR-305 Surveying and Leveling ; AR-316 Architectural Design-II; AR-317 Building Construction & Technology – III.

Semester-IV:

AR-401 Structural Design-IV; AR-402 Theory of Design – I; AR-403 History of Architecture – III; AR-404 Building Services -I; AR-405 Climatology – I; AR-416 Architectural Design-III; AR-417 Building Construction and Technology - II; AR-418 Computer Application-I

Semester-V to Semester-X:

Not Yet Applicable

Seminars/Conferences/Symposia/ Extension Programmes etc.

Organized

Interactive Session between the University (Vice-Chancellor, Pro Vice-Chancellor and Heads of Departments) and the Indian Green Building Council for the Green Rating system and the introduction of a student chapter of the council in the relevant Departments.

One day Seminar on *Historical Architecture of Shillong and the Constancy of Khasi House Forms* in active participation with Bharati Vidyapeeth College of Architecture, Navi Mumbai on 24th May 2016.

Attended and Participated

Ar. Banbhalang Swer

Attended NPTEL Workshop on 29-30 April 2013 organised by IIT Guwahati in collaboration with Royal Group of Institution in Royal Group of Institution, Betkuchi, Guwahati.

Attended the Symposium “Shillong Next” by organized by the Meghalaya Architects Forum (22-23 August 2014) at State Central Library, Shillong.

Invited as an External Jury on 12-13 June 2014 in Royal School of Architecture, Royal Group of Institution, Betkuchi, Guwahati.

Ar. Ibynta B Tiewsoh

Ar. Ibynta B Tiewsoh attended the Symposium “Shillong Next” organised by Meghalaya Architects Forum on 22-23 August 2014 at State Central Library, Shillong.

Ar. Rameez Gazi

Ar. Rameez Gazi attended the Symposium "Shillong Next" organized by the Meghalaya Architects Forum, on 22nd and 23rd August 2014, State Central Library, Shillong.

Other Activities

The Department is involved in the Preparation of the Detailed Master Plan of the Proposed Jowai Campus which is an Annex Campus of the North-eastern Hill University, Shillong.

The Department of Architecture, NEHU Shillong, has set up a Test Centre in May 2015, for conducting the NATIONAL APPTITUDE TEST IN ARCHITECTURE (N.A.T.A) with the Approval of the Council of Architecture for admission into the 5 years B Arch Programme.

Ar. Banbhalang Swer was invited as an external Jury on the 9th December 2013 in Royal School of Architecture, Royal Group of Institution, Betkuchi, Guwahati. He is

a member of a committee in Preparing a Proposal and Curriculum for setting up a Design Innovation Centre (DIC), Open Design School and National Design Innovation Network during the XII Five Year Plan, NEHU Shillong. He is a member of the Extra Co Curricular activities committee constituted by the University involving in designing interactive spaces for the University. He is also a member of a committee to suggest suitable items of furnishing to be adopted for the Newly Constructed NEHU Guest House near Borjhar Airport, Guwahati and Tender Bid Committee, Campus Development Department. NEHU, Shillong.

Ar. Ibynta B Tiewsoh attended the 32nd Orientation Programme conducted by NEHU UGC-ASC from 20th April 2015 to 17th May 2015.

Ar. Rameez Gazi attended the 33rd Orientation Programme conducted by NEHU UGC-ASC from 18th May 2015 to 14th June 2015.

DEPARTMENT OF BIOMEDICAL ENGINEERING

Head: Dr. Dinesh Bhatia
Telephone: 0364-2723851 (H), 0364-2723852 (O)
E-mail: hodbme@nehu.ac.in, bhatiadinesh@rediffmail.com

Faculty

Designation	Name and Qualification	Specialization
Associate Professor	Dr. Dinesh Bhatia , PDF (USA); PDF (UK), Ph.D. (MNNIT Allahabad); MBA (IMT Ghaziabad)	Biomechanics and Rehabilitation Engineering, Biomedical devices and signal processing, Medical Informatics and Telemedicine
Assistant Professor	Mr. Nitin Sahai , M.Tech (MNNIT Allahabad)	Computer Aided Tissue Engineering, Biomechanics and Biomaterials
	Dr. Sudip Paul , M.Tech. & Ph.D. (IIT-BHU)	Electrophysiology, Biomedical Instrumentation, Artificial Organ and Rehabilitation system, Biomedical Signal Processing
	Dr. Manashjit Gogoi , M.Tech. (Tezpur Univ); Ph.D. (IIT Bombay)	Bio nanotechnology, Nano medicine, Cancer drug delivery
	Mr. Gajendra Kumar Mourya , M. Tech (IIT-BHU); MBA (MARKETING)	Medical Image Processing , Signal Processing and Biomedical Instrumentation
	Mr. Shyamal Mandal , M.Tech. (IIT Kharagpur)	Medical Image Processing, Nanotechnology, Biomaterials

Thrust Areas of Research

Biomechanics and Rehabilitation Engineering;
 Biomedical devices and signal processing;
 Electrophysiology and medical Instrumentation;
 Bio-nanotechnology, Nano medicine and Cancer drug delivery;
 Medical Image analysis and processing;
 Biomaterials and Artificial Organs;
 Medical Informatics and Telemedicine

Brief Statement of Academic Activities

Establishment of U.G. course B.Tech in Biomedical Engineering effective July 2013.

Establishment of P.G. course Ph.D in Biomedical Engineering effective July 2015.

Department of Biomedical Engineering

Students' Profile

Enrolment Capacity: B.Tech. – 60 seats Vertical and 6 seats Lateral Entry

Admissions

Degree	SC	ST	Gen	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
B.Tech (I st year)		12	25	20	17	6	31	37
B.Tech (II nd year)	04	34	18	39	17	02	54	61
B.Tech (III rd year)	03	39	15	38	19	07	50	57

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
Ph.D.	1	1	2+1*	3	2	1	4	5

* Mr. Sateesh A. Reddy, Visvesvaraya Fellowship, March, 2016 onwards Ministry of DeitY, MHRD, GoI.

Courses Conducted

Undergraduate: B.Tech. (Biomedical Engineering)

Semester-III:

Biomaterials, Human Anatomy & Physiology-I, Human Anatomy & Physiology Laboratory-I, Biomedical signals and systems Laboratory, Data Structures and Algorithms, Data Structure using C Laboratory, Biomedical signals and systems Laboratory.

Semester-IV:

Biomedical Instrumentation –I, Biomechanics, Medical Biochemistry, Human Anatomy & Physiology-II, Biomedical Instrumentation Laboratory –I, Medical Biochemistry Laboratory, Human Anatomy & Physiology Laboratory-II, General Proficiency – II.

Semester-V:

Bio-Transport Process, Microprocessor, Biomedical Signal Processing, Biomedical

Instrumentations-II, Tissue Engineering, Microprocessor Laboratory, Biomedical Signal Processing Lab, Biomedical Instrumentation Lab-II.

Semester-VI:

Medical Imaging Techniques, Modelling of Physiological Systems, Artificial Organ and Rehabilitation Engineering, Professional Ethics and IPR, fundamental of bio-mems; nuclear medicine; radiation and safety , Modelling of Physiological Systems Lab, Hardware Design Project, Seminar & Group Discussion, General Proficiency –III.

Ph.D. Courses

Semester-I:

Research Methodology; Advance Biomedical Instrumentation; Advances in Nanomedicine.

Seminars/Conferences/Symposia/ Extension Programmes etc.

Organized

The Department organized the 29th Annual Meeting of Society for Neurochemistry, India: National Workshop and Conference on *Advances in Computational Neurochemistry and Neurobiology* together with the Computer Centre, NEHU, Shillong (December 16–21, 2015) having Dr Dinesh Bhatia as Chairperson and Dr Sudip Paul as Organizing Secretary.

The Department organized the National Conference on *Recent Advancements in Biomedical Engineering* (28-29 August, 2015) with Dr Dinesh Bhatia as Chairperson.

The Department organized “Virtual Laboratory” (Nodal Centre for North Eastern Region) under NMEICT Initiative MHRD, GoI (30-31 October 2015) in collaboration with IIT, Roorkee, with Dr Dinesh Bhatia as Convener and Mr G. K. Mourya as Organizing Secretary.

Dr. Dinesh Bhatia

Coordinator, Workshop on *Interactive Knowledge Session* organized by Career and Counselling Cell, NEHU, Shillong sponsored by Institute of Technology and Management, Mumbai, on 23rd September, 2015 at NEHU, Shillong.

Coordinator, Workshop on *Finishing School* organized by Career and Counselling Cell, NEHU, Shillong in collaboration with Nettrack Systems and Services, Guwahati on 14-15 October, 2015 at NEHU, Shillong.

Coordinator, Gandhi Fellowship Seminar on *Leadership and Entrepreneurship* by Piramal Foundation in collaboration with

Career and Counselling Cell, NEHU (21st March, 2016).

Invited as Member, International Program Committee and to chair a Session at the 11th Conference on *PhD Research in Microelectronics and Electronics*, 2015, at the University of Glasgow, Scotland, UK (29th June to 2nd July, 2015).

Mr. Nitin Sahai

Organized a special session on “Biomedical Signal Processing and its Applications” held in IEEE International Conference on *Signal Processing and Integrated Networks* (11-12 February 2016) in Amity University, India

Dr. Sudip Paul

Editor-in-Chief for Proceedings of (a) Conference on *Recent Advances in Biomedical Engineering* (August 28-29, 2015) and (b) 29th Annual Meeting of Society for Neurochemistry, India, and National Workshop and Conference on *Advances in Computational Neurochemistry and Neurobiology* (December 16-21, 2015), both hosted by this Department.

Organizer (Media Committee) for Programme on “Commemoration of Birth Anniversary of Madam Marie Curie and Sir. C. V. Raman”, at NEHU, 7th November, 2015, by School of Physical Science, School of Technology and Centre for Science Education, NEHU, Shillong.

Mr. Gajendra Kumar Mourya

Organizing Secretary, Workshop on “Virtual Laboratory” (Nodal Centre for North Eastern Region) under NMEICT initiative MHRD, GoI (30-31 October, 2015) at NEHU Shillong in collaboration with IIT, Roorkee. More than 370 participants attended this two day Workshop.

Attended and Participated

Dr. Dinesh Bhatia

International Presentations

With various co-authors, had following papers presented/accepted at *25th Congress of the International Society of Biomechanics* held at SECC, Glasgow, UK from 12–16 July, 2015: “Efficacy of pharmacological and non-pharmacological strategies towards cerebral palsy induced spasticity”; “Muscle mechanics of upper limb involved in the designing of prosthetic hand with moving fingers” and “Gender differences among males and females while performing routine tasks - A precursor to Osteoarthritis risk”

With co-authors has the paper “EMG Analysis for identifying walking patterns in healthy males” accepted for oral presentation at *11th Conference on PhD Research in Microelectronics and Electronics (IEEE)* organized by the University of Glasgow, Scotland, UK (29 June to 2 July, 2015).

With co-authors, orally presented “Influence of gender on coactivation ratio of agonist-antagonist muscle pair during maximum knee contraction” at *1st International IEEE Next Generation Computing Technologies* organized by UPES Dehradun (4-5 September, 2015).

With co-authors, had two papers on “Comparison between high and low performance group in regard to selected EMG Asymetricity of selected knee extensors in sustained yogic posture of female sportsperson” accepted for oral presentation at *7th Asia Pacific Conference on Exercise and Sports Sciences* organized by Manav Rachna Group (14-16 October, 2015).

With co-authors, had paper on “Upper limb Prosthetic Control Using Toe Gesture Sensors” in *Proceedings of IEEE Sensors, 2015, 1- 4 November, 2015, Busan, South Korea*, pp. 767-770.

With co-authors, had paper on “Comparative study and feature extraction of muscle activity patterns in healthy subjects” accepted for the *International Conference on Signal Processing and Integrated Networks* at Amity University, Delhi from 11-12 February, 2016.

National Presentations

Gave the Keynote Address on “Advancements in non-pharmacological strategies towards CP induced spasticity” at the *National Conference on Recent Advancements in Biomedical Engineering* organized by this Department (28-29 August, 2015).

Gave an Invited talk on “Neurofeedback: Brain training to improve cognition, attention and concentration” at the *29th Annual Meeting of Society for Neurochemistry, India: National Workshop and Conference on Advances in Computational Neurochemistry and Neurobiology* organized by this Department with Computer Center, NEHU (16-21 December, 2015).

Guest Speaker for *Industry Institute Conference on Challenges in Product Development of Medical Implants and Devices* at IEST Shibpur, Kolkata (18-19 December, 2015).

With co-authors, presented three papers on “Microcontrollers in Prosthetics: An Overview”, “Comparative study between r-TMS and standard therapy in spastic CP kids” and “Co-contraction of Tibialis and Soleus muscles during maximum ankle

contraction" at the National Conference on *Recent Advancements in Biomedical Engineering* organized by this Department (28-29 August, 2015).

With co-authors, presented three oral presentations on (1) "Assessment of muscle activity in spinal cord injured subjects during knee and ankle contractions"; (2) "FFT based analysis provide a new dimension for spastic Cerebral Palsy children - Post rTMS therapy"; (3) "Cultural and genetic influence on EEG waves among alcohol consumers and non consumers among young adults from Shillong, Meghalaya"; (4) "Brain Computer interfaced controlled prosthetic hand using EMG signal"; and 2 Posters on (1) "Advances in brain computer interface technology" and (2) "Development of smart GUI for neuro-rehabilitation of knee OA patient" at the 29th Annual Meeting of Society for Neurochemistry, India, National Workshop and Conference on *Advances in Computational Neurochemistry and Neurobiology* organized by this Department with Computer Centre, NEHU (16-21 December, 2015).

With co-authors had a paper on "Effect of r-TMS on motor cortex in spastic Cerebral Palsy" accepted for oral presentation at 4th International Conference & Workshop on Physiotherapy, AIIMS, New Delhi (26-30 November, 2015).

Mr. Nitin Sahai

Presented a paper on "Development of healthcare devices in North East region of India" at a Seminar on *Make in India and Rural North East India: The Challenges* (25-26 February, 2016) organized by NIRD and PR-NERC, Guwahati, Assam

Dr. Sudip Paul

International Presentations

Presented a poster with co-authors on "Wavelet based analysis as a tool to evaluate the degree of neuronal insult in animal model of ischemic stroke" at the *Society for Neuroscience 2015 Conference*, Chicago, USA (October 17-21, 2015).

With co-author presented two posters on "Gender differences among males and females while performing routine tasks: A precursor to Osteoarthritis risk" and "Muscle mechanics of upper limb involved in the designing of prosthetic hand with moving fingers" at 25th Congress of the International Society of Biomechanics, Glasgow.

National Presentations

With co-authors, presented three oral papers on (1) "FFT Based Analysis Provide a New Dimension for Spastic Cerebral Palsy Children- Post rTMS Therapy" (won Best Oral Presentation Award); (2) "Cultural and genetic influence on EEG waves among alcohol consumers and non consumers among young adults from Shillong, Meghalaya"; and (3) "Brain computer interfaced controlled prosthetic hand using EMG Signal"; at the 29th Annual Meeting of the Society for Neurochemistry, India: National Workshop and Conference on *Advances in Computational Neurochemistry and Neurobiology* at NEHU (16-21 Dec 2015).

With co-authors. presented two oral papers on (1) "Design of ECG Amplifier with QRS Component Detector Module; Micro-controllers in Prosthetics: An Overview" which won the Best Oral Presentation

Award; and (2) "1/f noise in EEG signals" at the National Conference on *Recent Advances in Biomedical Engineering*, at NEHU, India (28-29 August 2015)

Dr. Manashjit Gogoi

Invited lecture on "Drug release from liposomes" at Hands-on Training Workshop on *Synthesis and Characterization of Nanomaterials for Biotechnological Applications* (29th March, 2016) organized by Dept. of BSSS, NEHU, Shillong.

Invited lecture on "Protein Studies through Scientific Equipments" at National Workshop on *Advances in Computational Neurosciences*, organized by this Department at NEHU (16-21 December, 2015).

Invited lecture on "Biomedical Signals: ECG and Acquisition" at Workshop on Medical Electronics and Technology, on 8th March, 2016, organized by NIELIT, Shillong.

Mr Shyamal Mandal

Delivered invited talks on "Advanced Medical Imaging Techniques" and "Fundamentals of Brain Imaging and Image Processing" in National Workshop and Conference on *Advances in Computational Neurochemistry and Neurobiology* (16-21 December, 2015) organized by this Department with Computer Centre, NEHU, Shillong.

With co-authors presented on "Synthesis and characterization of uniform size biocompatible gold nanoparticle by using egg albumin for in-vivo" and "Magnetic liposomes containing a biphasic nanoparticles suspension for chemotherapy and self-controlled hyperthermia" at National Conference on *Recent Advances in Biomedical Engineering* (28-29 August,

2015) organized by this Department at NEHU, Shillong.

G. K. Mourya

Presented a paper on "A Review on Segmentation Techniques of Abdominal Organs In 3D Medical Data" at the National Conference on *Recent Advances in Biomedical Engineering* (28- 29 August, 2015) organized by this Department at NEHU, Shillong.

Publications

Research Articles in Journals

Published in India

D. Shrivastava, D. Bhatia, N. Sahai, S. Paul (2015). A Computational approach for early stage identification of lower limb muscle abnormalities in Humans. *International Journal of Biomedical Engineering and Science*, 2(4): 13-20.

M. Kaur, S. Mathur, D. Bhatia (2015). Comparison of muscle activation patterns during walking in healthy males and paraplegic subject. *International Journal of Electronics, Electrical and Computational System*, 4(4): 39-46.

Published abroad

A. Saikia, S. Mazumdar, N. Sahai, S. Paul, D. Bhatia, S. Verma and P. K. Rohilla (2016). Recent advancements in prosthetic hand technology. *Journal of Medical Engineering & Technology*, 40(5): 255-264

M. Gupta, B. L. Rajak, D. Bhatia, A. Mukherjee (2016). Effect of r-TMS and standard therapy in decreasing muscle tone of Spastic Cerebral Palsy patients. *Journal of Medical Engineering & Technology*, 40(3-4): 210-216.

- M. Kaur, S. Mathur, D. Bhatia, D. Joshi (2016). Influence of Gender on the Activity of Agonist-Antagonist Muscles during Maximum Knee and Ankle Contractions. *Journal of Biomedical Engineering and Technology*, 4(1): 1-6.
- S. Mathur, M. Kaur, D. Bhatia, S. Verma (2016). Comparison of muscle activation patterns among healthy males and females during different lower limb movements. *International Journal of Medical Engineering and Informatics*, 8(4): 301-316.
- B. Rajak, M. Gupta, D. Bhatia (2015). Neural Control of Limb. *Journal of Biomedical Science and Engineering*, 3(3): 46-64.
- D. Bhatia, B. L. Rajak, M. Gupta, A. Mukherjee (2015). Applications of Micro-Electro-Mechanical Systems as Neural Interface. *Journal of Advances Biomedical Engineering and Technology*, 2(2): 1-10
- S. Mathur, M. Kaur, D. Bhatia, S. Verma (2015). Advancements in Functional Electrical Stimulator Technology. *International Journal of Biomechatronics and Biomedical Robotics* (Manuscript Ref No. 94556 ISSN online: 1757-6806 ISSN print: 1757-6792).
- Paul S., Sinha T. K., Patnaik R. (2015). EEG Time Series data analysis in Focal Cerebral ischemic rat model. *International Journal of Biomedical Engineering and Science*. 2(1): 1-10.
- Bhattacharya P., Pandey A. K., Paul S., Patnaik R. (2015). Piroxicam-mediated modulatory action of 5-hydroxytryptamine serves as a brake on neuronal excitability in ischemic stroke. *Neural Regeneration Research*. 10(9):1418-1420.
- Gupta A., Paul S., Mukhopadhyay R., Bhattacharya P., Patnaik R. (2015). Direct Current Electromagnetic radiation in low dose promotes recovery in rodent model of depression. *International Journal of Advanced Information Science and Technology*. 33(33): 70-78.
- Pandey A. K., Bhattacharya P., Shukla S. C., Paul S., Patnaik R. (2015). Resveratrol inhibits matrix metalloproteinase to attenuate neuronal damage in cerebral ischemia: a molecular docking study exploring possible neuroprotection. *Neural Regeneration Research*. 10(4):568-575.
- Mukhopadhyay R., Paul S., Bhattacharya P., Patnaik R. (2015). Ischemic Stroke and its Rehabilitation by low dose Direct Current Electromagneto Therapy. *International Journal of Advanced Information Science and Technology*. 35(35):1-7.
- Books**
- Dinesh Bhatia (2015). *Medical Informatics*. PHI Learning, Delhi. ISBN No. 978-203-5075-5.
- Dinesh Bhatia (2016). *Stroke Rehabilitation*. ABS publishers, Delhi, ISBN -978-93-86088-05-05
- Book Chapter/Proceedings**
- W.T. Navaraj, H. Heidari, A. Polishchuk, D. Shakthivel, D. Bhatia, R. Dahiya (2015). Upper Limb Prosthetic Control Using Toe Gesture Sensors. *Proceedings of IEEE Sensors* (1-4 November, 2015, at Busan, South Korea). pp. 767-770.
- M. Kaur, S. Mathur, D. Bhatia, S. Verma (2016). EMG Analysis for identifying walking patterns in healthy males. In: *Proceedings*

of 11th Conference on PhD Research in Microelectronics and Electronics organized by the University of Glasgow, Scotland, UK (29 June to 2nd July, 2015). pp. 65-68.

Gogoi, M., Sahai, N. (2016), Scaffolds for Biomedical Applications. In: *Trends in Experimental Biology-II*. L. Kma (Ed.). Excel Publisher, New Delhi. Chapter 8, pp. 74-94.

Patent/Copyright

Dr. Dinesh Bhatia filed Copyright (Application 3920/2015 Ref. No.: T.I. (55) /TIFA/2014 dated 25.02.15) for software on Patient Classifier Algorithm (PCA) developed under the Project "Design of Smart FES for Physically Challenged Persons" funded by IDP Division, Department of Science and Technology, Delhi, registered by TIFAC, Delhi.

Research Projects

New Projects

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1.	Design of Neural Network based Pacemaker	Dr. Dinesh Bhatia, PI Mr. Nitin Sahai, Co-PI Dr. Sudip Paul, Co-PI	DBT, Delhi	Rs. 52,00,000/- (approx.) Under sanctioning

Ongoing

Sl. No	Title	PI/Co-PI	Funding Agency	Amount (Rs.)
1.	To study relief of muscle spasticity in CP kids by employing r-TMS (in collaboration with NGO UDAAN)	Dr. Dinesh Bhatia, PI	DST, GOI, Delhi	Major (56.84 Lakhs)
2.	Design of Artificial hand with artificial fingers	Mr. N. Sahai, PI Dr. D. Bhatia, Co-PI Dr. S. Paul, Co-PI	Twinning DBT, GOI, Delhi	Major (32.78 Lakhs)
3.	Design of pulsed electrical knee stimulator for osteoarthritis (OA) patients	Dr. D. Bhatia, PI Dr. S. Paul, Co-PI	DST, GOI, Delhi	Major (39.07 Lakhs)
4.	Analyzing Brain Activity in Understanding Cultural Interaction with Substance use and Stress	Dr. D. Bhatia, PI	UGC Kothari Fellowship, GOI	Major (15.27 Lakhs)

Completed during Year

Sl. No	Title	PI/Co-PI	Funding Agency	Amount (Rs.)
1	Design of Smart FES for Physically challenged	Dr. D. Bhatia, PI	DST, Delhi	Major (42.91 Lakhs)
2.	Development of an interactive interface for early identification of abnormalities in lower limb muscles of humans	Dr. D. Bhatia, Mentor PI	NASI, DST, Delhi, GOI	Minor (3.25 Lakhs)

Academic Collaborations

Dr. Dinesh Bhatia has collaborations with (a) University of Glasgow, Glasgow, UK; (b) All India Institute of Medical Sciences, New Delhi; (c) Indian Institute of Technology, Delhi; (d) North Eastern Indira Gandhi Institute of Regional Health Medical Sciences, Shillong.; (e) Indian Institute of Technology, Guwahati; (f) Maharashi Dayanand University, Rohtak, Haryana; (g) Bundelkhand University, Jhansi; (h) Rajasthan Technical University, Kota; (i) Guru Jambheshwar University of Science & Technology, Hisar, Haryana.

Dr. Sudip Paul has collaboration with North Eastern Indira Gandhi Institute of Regional Health Medical Sciences, Shillong.

Dr. Manashjit Gogoi has collaboration with IIT-Guwahati and NEIGRIHMS, Shillong.

Mr. G. K. Mourya has collaboration with NEIGRIHMS, Shillong.

Mr. Shyamal Mandal has collaboration with (1) IIT-Kharagpur, (2) NEIGRIHMS, Shillong; and (3) NIT Meghalaya.

Honours/Awards/Recognitions

Dr. Dinesh Bhatia was selected for the prestigious Young Biomedical Scientist award by the

Indian Council of Medical Research, 2014-15, awarded by the Government of India to pursue research activities in Biomechanics and Rehabilitation Engineering at School of Engineering, University of Glasgow, Glasgow, Scotland, UK for 6 months w.e.f January, 2015- July, 2015.

Other Activities**Dr. Dinesh Bhatia**

Coordinator, Virtual Laboratory Nodal Centre for North Eastern Region under NMEICT initiative MHRD, GoI since September 2015.

Convener, Local Chapter, Eastern Region, Indian Society of Biomechanics, since February, 2016 onwards.

Invited Reviewer on the Technical Program Committee of *International Journal of Electrical and Computer Engineering*, Scopus Indexed Journal ISSN: 2088-8708, since 2015.

Invited to Technical Program Committee for (1) 4th International Conference on *Advances in Computing, Communications and Informatics* in Aluva, Kochi, India (August 10-13, 2015); (2) *IC Engineering and Computational Innovative Sciences* (20-23 April, 2015) in Casablanca, Morocco; (3) *IEEE Global Summit on Computer and*

Information Technology (11-13 June 2015) in Sousse, Tunisia; (4) IEEE Computer Graphics, Vision and Information Security, 2015, organized by KIIT University, Bhubaneswar, Odisha (2-3 November, 2015).

Invited Advisory Board member, HSJ Publishers (www.hsjpub.com) since January, 2015.

Invited Reviewer/ Editorial Board member for the American Association for Science and Technology, Newcastle, USA, since 2015.

Invited Reviewer for (1) IEEE Transactions on Neural Systems and Rehabilitation Engineering since May 2015; (2) IEEE Sensors Journal (May, 2015); (3) African Journal of Environmental Science and Technology, Academic Journals, since May, 2015; (4) Academic Science Journals Group, India, since 2015; (5) American Journal of Electrical and Electronic Engineering, SciEP Journals, December, 2015.

Invited Reviewer and Technical Program Committee (TPC) Member for (1) 11th Conference on PhD Research in Microelectronics and Electronics (IEEE) PRIME, 2015 at University of Glasgow, Scotland, UK (29 June to 2nd July 2015); (2) for International Conference on Computing in Mechanical Engineering (10-13 August, 2015), Aluva, Kochi; (3) 3rd International Conference on Image Information Processing (December 10-13, 2015) at Jaypee University of Information Technology, Shimla, Himachal Pradesh; (4) 7th IEEE International Conference on Engineering Education at Kanazawa, Japan (17-18 November 2015); (5) 12th IEEE India International Conference on Electronics, Energy, Environment, Communication, Computer, Control organized by Faculty of

Engineering and Technology, Jamia Milia Islamia, New Delhi (17-20 December, 2015); (6) IEEE International Conference on Teaching and Learning in Education organized by Universiti Tenaga Nasional and co-organized by IEEE Education Society Malaysia Chapter and Yayasan Canselor (1-2 March, 2016), Kuala Lumpur, Malaysia.

Invited as Member International Program Committee for (1) International Conference on *Instrumentation Control, Cognitive Science, Optics, Micro Electro-mechanical Systems and Information Technology* organized by Research Group of Technical Implementation Unit for Instrumentation Development, Indonesian Institute of Sciences (October 28-30 2015) at Bandung, Indonesia; (2) 9th International Conference on *Biomedical Electronics and Devices* at Rome (21-23 February, 2016); (3) 11th Conference on *PhD Research in Microelectronics and Electronics* (2015) at University of Glasgow, Scotland, UK (29th June to 2nd July, 2015).

Invited as Editorial Board Member, *Journal of Advanced Scientific Research* since 2015.

Invited Reviewer and Editorial Board Member of *American Journal of Biomedical Research*, *Journal of Biomedical Engineering and Technology* and *Biomedical Science and Engineering*, SciEP Journals November, 2015.

Invited TPC for IEEE sponsored International Conference on *Computer Vision & Image Analysis* (11-13 January 2016) at Sousse, Tunisia.

Invited Member Research Advisory Committee for PhD program at NIT, Jalandhar, Punjab, 2014 onwards.

Life Member: Indian Science Congress Association, Kolkata since 2014; Indian Association for Medical Informatics since October, 2015; Society of Biomaterials and Artificial Organs since March 2006; Biomedical Engineering Society of India since Nov 2006; Indian Society for Technical Education since Jan 2007; Indian Society of Biomechanics since August 2009.

Member, Society for Neuroscience (SfN), USA since March, 2016.

Graduate life member of Institution of Engineers, India, since January 2005.

Resource person for UGC Special Winter School on "ICT in Higher Education: Opportunities and Challenges" held at UGC-Human Resource Development Centre, NEHU, Shillong (26 October-15 November, 2015).

Invited Talk on "Functional Electrical Stimulation (FES) for Physically Challenged" at the Department of Instrumentation and Control Engineering, National Institute of Technology (NIT), Jalandhar, Punjab on 04th February, 2016.

Dr. Sudip Paul

Editorial Board Member of *International Journal of Biomedical Engineering and Science*.

Invited resource person for Student Seminar at JIS College of Engineering, Kolkata, 2016.

Coordinator for the North-East Chapter of Society for Neurochemistry, India (SNCI), 2015.

Convener of the NEHU-NAAC's Committee for compilation of information for the Department of Biomedical Engineering, 2015.

Coordinator for B.Tech Lateral Entry Admission in Biomedical Engineering, NEHU, Shillong, 2015.

Laboratory In charge (Bioinstrumentation and Signal Processing Laboratory), NEHU, Shillong since 2013.

Member of International Brain Research Organization (IBRO).

Life member of Biomedical Engineering Society of India; Society for Neurochemistry, India; Society for Biomaterials and Artificial Organs (India); Society for Biotechnologists, India; Indian Science Congress Association.

Member of Society for Neuroscience (SfN) (No: 210155996).

Participated in Workshop on "Virtual Laboratory", NEHU, October 30-31, 2015.

Participated in Seminar on "MATLAB for Data Analytics and Computer Vision", Kolkata, September 15, 2015.

Dr. Manashjit Gogoi

Life member of Indian Science Congress Association; Society of Biomedical Engineering India; Biomaterials and Artificial Organs; II-Bombay Alumni Association.

Mr. G. K. Mourya

Participated in inter office & corporate cricket tournament organized by Shillong Cricket Association, Shillong (12-22 March 2015).

Polling Officer for the NEHUNSU election at NEHU Shillong (5-6 November 2015).

Laboratory In charge (Medical Image Processing and simulation Laboratory), NEHU, Shillong since 2013.

Mr. Shyamal Mandal

Participate in Plantation Program at NEHU Campus on World Environment Day organized by NEHU Student's Union and NEHU Alumni Association.

Life member of Indian Science Congress Association; Society for Neurochemistry, India; IIT-Kharagpur Alumni Association.

Attended TEQIP Sponsored *International Winter School and Hands-on Training Program on Nano-Bio Techniques* (9-14 February, 2016) organized by Indian Institute of Technology, Roorkee.

DEPARTMENT OF BASIC SCIENCES & SOCIAL SCIENCES

Head: M. M. Singh
Telephone: 0364-2723641/42
E-mail: hodbsss@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	P.V. Koparkar; M. Sc., Ph. D.(N.U.)	Physics (Instrumentation Atmospheric Sciences/ Nanomaterials)
Associate Professor	M.M. Singh; M.Sc. (BHU), Ph.D. (PU)	Mathematics
	A. Sinha; M.Sc. (LU), Ph.D. (NEHU)	Chemistry (Physical)
Assistant Professor	M.D. Kushwaha; M.A. (BHU), Ph.D. (BHU)	Mathematics
	Hiranjit Choudhury; M.Sc. & Ph.D. (NEHU)	Botany (Plant Biotechnology)
	Regenel S. Kharwanlang; M.Sc. & Ph.D. (NEHU)	Physics (Theoretical Physics)
	Phrangstone Khongjee; M.Sc. & Ph.D. (NEHU)	Statistics (Sampling Theory and Demography)
	Krishna Upadhaya; M.Sc. & Ph.D. (NEHU)	Botany (Plant Ecology)
	Jyoti Narayan; M.Sc. (KU), M. Phil. (KU), Ph.D. (KU)	Chemistry (Analytical/ Nanoscience & Nanomaterials)
	Jibitesh Dutta; M.Sc. & Ph.D. (NEHU)	Mathematics
	Sainkumar M.N. Mawiong; M.Sc. & M. Phil. (NEHU)	Mathematics
	Evapynhun Giri; M.A. & M.Phil. (NEHU)	English
	R.S. Singh; M.Sc. (Jadavpur), Ph. D. (CSIR-IICT, Osmania)	Chemistry (Organic/Bio-organic/ Soft materials)
Assistant Professor	M. Mahato; M.Sc. (Burdwan), Ph.D. (Calcutta)	Physics (Thin film/ Molecular Spectroscopy/ Nanobiotechnology)
	Munshi Ram; M.Com. (VBSPU), Ph.D. (BHU)	Commerce (Human Resource Management)

Thrust Areas of Research

The thrust areas of research of the Department of Basic Sciences & Social Sciences are in the fields of Basic & Applied Mathematics, Basic & Applied Physics, Atmospheric Sciences, Chemical Sciences, Nanoscience and Nanotechnology, Basic & Applied Environmental Sciences, Biotechnology, Basic & Applied Economics, Applied Statistics, and Communicative English, with emphasis on interdisciplinary and multidisciplinary studies.

Brief Statement of Academic Activities

The Department is actively involved in teaching core courses of Basic Sciences, Humanities and Social Sciences which are a component of the B.Tech curricula of ECE, IT, BME and EE of the School of Technology. Faculty members are involved in research activities in their respective fields of interest as well as in interdisciplinary and multidisciplinary areas.

Students' Profile

Enrolment Capacity: Ph.D. 60

Actual Admissions: Ph.D. 19 (12 in other departments; 7 directly in BSSS)

Courses Conducted

The core courses pertaining to basic sciences, humanities and commerce are taught for the B. Tech programme of the departments/ disciplines of Electronics & Communication Engineering, Information Technology, Bio-medical Engineering, and Energy Engineering, in the School of Technology. The details of the courses are as below:

Semester I & II:

Professional Communication Skills, Digital English Language Laboratory, Engineering

Mathematics I, Engineering Physics, Engineering Physics Laboratory, Engineering Mechanics, Basic Electrical Engineering, Basic Electrical Laboratory, Workshop Practice, Electronics Laboratory, Elements of Environmental Sciences, Engineering Mathematics II, Engineering Chemistry, Engineering Chemistry Laboratory, Computer Systems and Programming, Computer Programming Laboratory, Basic Electronics, Basic Electronics Laboratory and Engineering Graphics for ECE, IT BME and EE.

Semester III:

Engineering Mathematics III, both for ECE & IT, Engineering Economics and Financial Accounting (for IT only), Discrete mathematics (for IT only).

Semester IV:

Statistics and Random Processes, for both ECE & IT.

Semester V:

Industrial Economics and Management, for ECE only.

Management Information System (for IT only)

Research Fellowships

UGC Non-Net: 05; Rajiv Gandhi SC/ST: 02

Seminars/ Conferences/ Symposia Extension Programmes etc.

Organized

Five Day Hands-on Training Workshop on *Synthesis and Characterization of Nanomaterials for Biotechnological Applications* during March 28 - April 1, 2016, sponsored by the Department of Biotechnology, New Delhi, under the DBT Programme on Empowerment of Human Resources of North East for Biotechnology Activities.

Attended and Participated

Prof. Koparkar

Presented a paper on "ICT and Empowerment of Women in India's North East" during the National Seminar on *Poverty, Inequality & Health in India with Special Reference to North-East* organized by the Department of Economics, NEHU in collaboration with Indian Statistical Institute, Kolkata, from 8th to 10th October 2015.

Presented a poster on "Studies in atmospheric electric field and point discharge current variations in the North East of India" in National Space Science Symposium organised by Department of Space, Govt. of India at Vikram Sarabhai Space Centre, Trivandrum from 9th to 12th January 2016.

Dr. H. Choudhury

Presented a paper on "*In vitro* polyembryo rescue in Khasi pine (*Pinus kesiya* Royle ex. Gord.)" in the National Symposium on *Bioresources and Sustainable Development and 2nd National Bioresources and Sustainable Development Summit* held at NEHU, Shillong during October 28-29, 2015, organised jointly by the Department of Botany, NEHU, Shillong, and Institute of Bioresources and Sustainable Development, Imphal, Manipur.

Presented an invited paper on 'Introduction to plant tissue culture' in a 7-day training program on Techniques in Plant tissue Culture held March 15-21, 2016, organized by the Department of Botany, NEHU, Shillong under the DBT State Level Biotech Hub Project, sponsored by the Department of Biotechnology (DBT).

Dr. P. Khongji

Presented a paper on 'An investigation into Socio economic and demographic variation of Cancer incidences: A study among the Khasi Tribe in Meghalaya' at the Global Cancer Summit, an International Collaborative Conference held during 18-20 November, 2015 at Indian Institute of Sciences (IISc), Bangalore, India.

Dr. J. Narayan

Presented papers on (i) "Preparation and Structural Characterization of Template Assisted Electrochemically Deposited Arrays of Nickel Nanowires" in the International Symposium on *Recent Advances in Chemistry* held March 03-05, 2015, organized by Department of Chemistry, NEHU; (ii) "Synthesis, Characterization and Mechanistic Studies of Silver Nanoparticles Related to Their Antibacterial Efficacy" in the National Conference on *Recent Advances in Biomedical Engineering* held August 28-29, 2015, organized by Department of Biomedical Engineering, NEHU, Shillong, (iii) "Nanofluids: Synthesis, Physico-Chemical Properties and Applications" in the National Conference on *Recent Innovations in Applied Sciences and Humanity* on 10th October, 2015, organized by Department of Applied Sciences and Humanities, Rawal Institute of Engineering and Technology, Faridabad; (iv) "Synthesis of Highly Stable Zinc Selenide (ZnSe) Quantum Dots and Its Characterization: A Green Approach" in the International Conference on *Nanomaterials and Nanotechnology* held 07-10 December, 2015, organized by Centre for Nanoscience and Technology, K. S. Rangasamy College of Technology, Tiruchengode, Tamil Nadu,

in association with World Class University, South Korea, and won first prize for Best Paper presentation; (v) "Biocompatible Nanomaterials: Smart Method for Drug Transportation through the Blood Brain Barriers" in the National Workshop and Conference on *Advances in Computational Neurochemistry and Neurobiology* held on 16-21 December, 2015, organized by Dept of Biomedical Engineering, NEHU, and Computer Centre, NEHU, Shillong.

Dr. J. Dutta

Presented a paper on (i) 'A cosmological study of a coupled scalar field: A dynamical system perspective' in *81st Annual Conference of the Indian Mathematical Society*, VNIT, Nagpur, held on December 27-30, 2015, organized by Department of Mathematics and Department of Computer Science and Engineering, Visvesvaraya National Institute of Technology, Nagpur, sponsored by Indian Mathematical Society and VNIT, (ii) 'Geometric and Software Tools for Mathematical Applications' at a one-day seminar on *Basic Concept and Application of Mathematics* held at St. Anthony's College, Shillong on 1st August, 2015; and (iii) presented an invited talk on 'Travelling Salesman Problem' at the Department of Management, National Institute of Fashion Technology, Shillong on 13th November, 2015.

Dr. R. S. Singh

Presented a paper on "Triphenylmethyl derivatives of simple primary alcohols are good organogelators" in the National Symposium on Emerging Trends in Chemistry (ETC-2016), organized by Department of Chemistry, NEHU, Shillong on 28th-29th March, 2016.

Dr. M. Mahato

Presented a paper on "Preparation and characterization of proteins monolayer by LB technique" in National Conference on *Recent Advances in Biomedical Engineering* held at NEHU Shillong, organized by Department of Biomedical Engineering (28-29 August, 2015).

Publications

Published in India

Khongji, P. (2015). An investigation into socioeconomic and demographic variation of cancer incidences: A study among the Khasi tribe in Meghalaya. *Tribal Health Bulletin* 22 (1&2): 1-14.

Iralu, V., Upadhaya, K. (2015). *Magnolia punduana*: A threatened Magnolia of northeast India. *Magnolia: The Journal of the Magnolia Society International*. 50(98): 6-11

Upadhaya, K. (2015). Structure and floristic composition of subtropical broad-leaved humid forest of Cherapunjee in Meghalaya, Northeast India. *Journal of Biodiversity Management and Forestry*. 4(4): 2-8.

Mahato, M., Sarkar, R., Pal, P., Talapatra, G. B. (2015). Formation of silver nanoparticle at phospholipid template using Langmuir-Blodgett technique and its surface-enhanced Raman Spectroscopy application. *Indian J. Phys.* 89(10): 997-1005.

Published Abroad

Sawkmie, A., Singh, M. M. (2015). On the tree structure of the power digraphs modulon. *Czechoslovak Math. J.* 65(140) 4: 923-945.

Goswami, P., Singh, M. M. (2015). On the number of semi-primitive roots modulon.

- Notes on Number Theory and Discrete Mathematics*. 21(4): 48-55.
- Goswami, P., Singh, M. M., Bhuyan, B. (2015). A new public key encryption scheme based on two cryptographic assumptions. *Malaya Journal of Matematik*. 3(4): 419-422.
- Shailajan, S., Kumaria, S., Pednekar, S., Menon, S., Choudhury, H., Matani, A. (2016). Estrogenic potential of *Flemingia vestita* Benth tubers in ovariectomized rat model. *Pharmacognosy Journal*. 8(1): 44-49.
- Bose, B., Kumaria, S., Choudhury, H., Tandon, P. (2015). Assessment of genetic homogeneity and analysis of phytomedicinal potential in micropropagated plants of *Nardostachys jatamansi*, a critically endangered, medicinal plant of alpine Himalayas. *Plant Cell Tissue and Organ Culture*. 124(2): 331-349.
- Khongji, P., Nongbsap, W. (2015). Some innovations in teaching of Mathematics (at Under Graduate level). *International Journal of Sciences and Research*. 4(7): 1345-1349.
- Upadhaya, K., Thapa, N., Barik, S. K. (2015). Tree diversity and biomass of tropical forests under two management regimes in Garo hills of north-eastern India. *Tropical Ecology*. 56(2): 257-268.
- Iralu, V., Upadhaya, K. (2015). Notes on *Magnolia punduana* Hk. f. & Th. (Magnoliopsida: Magnoliales: Magnoliaceae): an endemic and threatened tree species of northeastern India *Journal of Threatened Taxa*. 7(9): 7573-7576.
- Mir, A. H., Iralu, V., Pao, N. T., Chaudhury, G., Khonglah, C. G., Chaudhary, K. L., Tiwari, B. K., Upadhaya, K. (2016). *Magnolia lanuginosa* (Wall.) Figlar & Noot. in West Khasi Hills of Meghalaya, Northeastern India: Re-collection and implications for conservation. *Journal of Threatened Taxa*. 8(1): 8398-8402.
- Narayan, J., Warjri, M. (2015). Nanofluids: Synthesis, Physico-Chemical Properties and Applications. *International Journal of Scientific Research*. 4(10): 46-49.
- Dutta, J., Khyllep, W., Syiemlieh, E. (2016). Late time accelerated scaling attractors in DGP (Dvali-Gabadadze-Porrati) braneworld. *Eur. Phys. J. Plus*. 131(33).
- Dutta, J., Zonunmawia, H. (2015). Complete cosmic scenario in the Randall-Sundrum braneworld from the dynamical systems perspective. *Eur. Phys. J. Plus*. 130(11).
- Dutta, J., Halder, S., Chakraborty, S. (2016). Formation of Emergent Universe in Brane Scenario as a Consequence of Particle Creation. *Astrophys. Space Sci*. 361(1): 21.
- Dutta, J., Khyllep, W., Tamanini, N. (2016). Cosmological dynamics of scalar fields with kinetic corrections: Beyond the exponential potential. *Phys. Rev. D* 93(6): 063004.
- Books**
- Kumaria, S., Choudhury H., Das, M. C. (2015). Editors: *Biotechnological Approaches in Ex Situ Conservation of Plant Genetic Resources of Northeast India*. Excel India Publishers, New Delhi, pp. 232. 1st Ed. ISBN: 978-93-84869-79-3.
- Choudhury, H. (2015). Editor: *Biology, Biotechnology and Sustainable Development*, Research India Publications, Delhi, India. pp. 274. 1st Ed. ISBN: 978-93-84443-19-1.

Upadhaya, K. (2016). Editor: *Biodiversity and Environmental Conservation*. Discovery Publishing House, New Delhi. ISBN:978-93-5056-775-3

Book Chapter

Choudhury, H. (2016). *Illicium griffithii*, Hook. F. & Thoms. A medicinally important threatened plant of Northeast India: Need for inventorization, characterization and propagation for improving economic and conservation status. In: *Biodiversity and Environmental Conservation*. K. Upadhaya (Ed.). Discovery Publishing House, New Delhi. Chapter 16, p. 217-227. ISBN: 978-93-5056-775-3.

Choudhury, H. (2015). Somatic embryogenesis in pines and its progress towards commercialization. In: *Biotechnological Approaches in Ex Situ Conservation of Plant Genetic Resources of Northeast India*. S. Kumaria, H. Choudhury and M. C. Das (Eds.). Excel India Publishers, New Delhi. Chapter 2, p. 17-41. (ISBN: 978-93-84869-79-3).

Choudhury, H. (2015). Biology and Biotechnology Applications: Probable Solutions for Sustainable Development. In: *Biology, Biotechnology and Sustainable Development*. H. Choudhury (Ed.).

Research India Publications, Delhi. Chapter 12, p. 217-252. ISBN: 978-93-84443-19-1.

Upadhaya, K. (2016) Ecological Analysis of Sacred Groves and its Conservation. In: *Biodiversity and Environmental Conservation*. K. Upadhaya (Ed.). Discovery Publishing House. New Delhi. Chapter 4, p. 38-58. (ISBN:978-93-5056-775-3).

Mir, A. H., Upadhaya, K. (2016). Community Based Forest Management in India. In: *Biodiversity and Environmental Conservation*. K. Upadhaya (Ed.). Discovery Publishing House. New Delhi. Chapter 13, p. 167-184. (ISBN:978-93-5056-775-3).

Upadhaya, K., Tiwari, B. K. (2015). Community Reserves: Challenges and its Significance. In: *Forest and Environment in India*. Naveen Kumar (Ed.). EBH Publishers, Guwahati. Chapter 16, p. 213-223. (ISBN:978-93-83252-85-5).

Baruah, J. M., Narayan, J. (2015). Synthesis of Highly Stable Zinc Selenide (ZnSe) Quantum Dots and Its Characterization: A Green Approach. In: *Synthesis and Fabrication of Nanomaterials*. V. Rajendran, P. Paramasivam and K. E. Geckeler (Eds.). Bloomsbury Publishing India, New Delhi. Chapter 91, p. 385-388. (ISBN: 978-93-85436-76-5).

Research Projects

New Projects

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount (Rs)
1	Orchid Bioresources of the North-East India Conservation, Database Development and Information Networking	PI: Dr H. Choudhury CI: Dr K. Upadhaya and Dr A. Bhattacharjee	Department of Biotechnology, GoI, New Delhi.	29,38,000/-

Ongoing Projects

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount (Rs)
1	Fragmentation of Humid Subtropical Broad-Leaved Forest and its Impact on Plant Diversity and Ecosystem Function in Meghalaya, Northeast India.	PI: Dr. K. Upadhaya	Ministry of Environment, Forest and Climate Change, Govt of India, New Delhi	35,57,500/-
2	Phytodiversity and Phytosociological Characterization of Sacred Groves in Meghalaya.	PI: Prof. B.K. Tiwari Co-PI: Dr. K. Upadhaya	Department of Environment and Forests, Govt of Meghalaya.	20,00,000/-
3	Molecular Characterization and Chemoprofiling of Two Pharmacologically Relevant Species of <i>Dendrobium</i> Found in Northeast India	PIs: Prof. S. Kumaria & Dr. S. Sailajan Co-PIs: Dr. H. Choudhury, Dr. S. Pednekar and Dr. S. Menon	Department of Biotechnology, Ministry of Science and Technology, Gov of India.	26,25,000/-
4	Preventing Extinction and Improving Conservation Status of Threatened Plants Through Application of Biotechnological Tools	PI: Prof. S. K. Barik <i>et al.</i> Co-PIs: Dr. H. Choudhury, Prof. N. Venugopal and Dr. M: C. Das	Department of Biotechnology, Ministry of Science and Technology, Govt of India.	1,03,29,850/-
5	Preventing Extinction and Improving Conservation Status of Threatened Plants Through Application of Biotechnological Tools	PI: Prof. N. K. Chrungoo Co-PIs: Dr. K. Upadhaya and Prof. S. Kumaria	Department of Biotechnology, Ministry of Science and Technology, Govt of India.	82,57,800/-

Academic Collaborations

Dr. M. M. Singh has collaborative research with Dr. B. Bhuyan, Department of Information Technology, NEHU, Shillong.

Dr. H. Choudhury has collaborative research with (1) Dr. Sunil S. Thorat, Regional Centre of Institute of Bioresources and Sustainable Development, Gangtok, Sikkim; Dr. Chittaranjan Deb, Department of Botany, Nagaland University; Dr. Rajiv Kumar Singh, Rajiv Gandhi University, Itanagar, Arunachal Pradesh; Mr. Bharat G. Somkuwar, Institute of Bioresources and Sustainable Development, Imphal, Manipur; Dr. Swapan Kumar Sinha, TERI-North-Eastern Regional Centre, Guwahati, Assam; Prof. B. K. Datta, Tripura University, Tripura, Dr. Kalidas Upadhyaya, Mizoram University; and Dr. Dhanaraj Singh Thokchom, Centre for Orchid Gene Conservation of Eastern Himalayan Region, Krishi Vigyan Kendra Sylvan, Manipur, on *Orchid Bioresources of the North-east India – Conservation, database development and information networking*, (2) Prof. S.K. Barik, Prof. N. Venugopal and Dr. M. C. Das, Department of Botany, NEHU, Shillong, and Dr. A. Chettri, Sikkim University, Gangtok, Sikkim and Dr. K. K. Singh, GBPIHED (Sikkim Unit) Sikkim, on *Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools*, and (3) Dr. S. Kumaria of Department of Botany, NEHU, Shillong and Dr. S. Shailajan, Dr. S. Pednekar and Dr. S. Menon of Herbal Research Lab., Ramnarain Ruia College, Mumbai, on *Molecular characterization and chemoprofiling of two pharmacologically relevant species of Dendrobium found in Northeast India*.

Dr. K. Upadhaya has collaborative research with

- (i) Prof. S.K. Barik, Prof. N. K. Chrungoo and Dr. S. Kumaria of Department of Botany, NEHU, Shillong, and Dr. P. Kumari of BSI, Howrah, West Bengal on *Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools*, and
- (ii) Prof. B. K. Tiwari of Department of Environmental Studies, NEHU, Shillong on *Phytodiversity and phytosociological characterization of sacred groves in Meghalaya*.

Honours/Awards/Recognitions

Dr. J. Dutta

Selected as Associate of Inter University Centre for Astronomy and Astrophysics, Pune, India with effect from August 1, 2015 till July 31, 2018.

Other Activities

Prof. P. V. Koparkar

Gave invited talks on (i) "Make in India and rural North East: The challenges" organised by the National Institute of Rural Development and Panchayati Raj Khanapara, Guwahati in collaboration with Indian Institute of Entrepreneurship, Guwahati during 25–26 February 2016, (ii) "Need for vocational education towards empowerment of tribal youth" at Nongstoin College on 5th March 2016 during a two day Seminar organised by Nongstoin College, West Khasi hills district, Nongstoin from 4-5 March 2016.

Appointed as an executive member on the National Committee constituted to advise on the training in repairs and maintenance of Instruments in North Eastern Region.

Coordinator of the Remedial Coaching Scheme for SC/ST/OBC and Minority students at UG level in the School of Technology, on behalf of the University pertaining to the XIIth Plan.

Chairperson of the: BVOC and Community College Programme (UGC's Scheme under XIIth Plan) of the University.

Coordinator of the EDUSAT facility provided by CEC, New Delhi, from its installation in the premises of School of Technology, NEHU, Shillong.

Organised a one day Awareness Workshop for Principals and senior faculty from colleges affiliated to NEHU on "UGC's flagship programme: BVOC and Community College under XII Plan period" in different areas relevant to their local needs on 28th August 2015 in the conference room of New Guest House, NEHU.

Joint Coordinator of one day program on 'Commemoration of Birth Anniversary of Madam Curie and Sir C. V. Raman' organized jointly by the School of Technology, School of Physical Sciences and Centre for Science Education, NEHU, on November 07, 2015.

Dr. M. M. Singh

- (i) Invited as Guest Faculty for M. Sc. in the Department of Mathematics, NEHU, Shillong (1st to 31st March, 2016); (ii) Organizing member of one day program on 'Commemoration of Birth Anniversary of Madam Curie and Sir C. V. Raman' organized jointly by the School of Technology, School of Physical Sciences and Centre for Science Education, NEHU, Shillong on November 07, 2015; (iii) Resource Person in the UGC-Sponsored service level coaching classes

for Civil Services/ Banking/ SSS held at Women's' College, Shillong from July 01 to November 30, 2015.

Dr. H. Choudhury

- (i) Invited as Guest Faculty for M. Sc. in (a) Botany and (b) Plant Molecular Biology Courses of Department of Botany, NEHU, Shillong (February to July, 2016), and (iii) was a course coordinator of a five day Hands-on Training Workshop on "Synthesis and Characterization of Nanomaterials for Biotechnological Applications" held March 28 - April 1, 2016, sponsored by the Department of Biotechnology under the DBT programme on Empowerment of Human Resources of North East for Biotechnology Activities. (Venue: Department of Basic Sciences & Social Sciences, NEHU, Shillong).

Dr. P. Khongji

Attended (i) Special Winter School on Research Methodology at Gauhati University from 29 January to 18 February 2016, conducted by Human Resource Development Centre, Gauhati University, Guwahati, Assam, and (ii) Training programme on 'Research Methodology: Techniques of data analysis and impact evaluation held at State Institute of Rural Development Meghalaya from 26-30 October, 2015, organise jointly by the National Council of Rural Institutes Hyderabad under MHRD, Govt. of India and State Institute of Rural Development sponsor by NCRI and SIRD.

Dr. J. Narayan

- (i) attended a National Workshop on *Advances in Computational Neurochemistry and Neurobiology* held December 16-21, 2015, organized by Department of Biomedical

Engineering, and Computer Centre, NEHU, Shillong, and (ii) Course Coordinator of a five day Hands on Training Workshop on *Synthesis and Characterization of Nanomaterials for Biotechnological Applications* held from March 28-April 1, 2016, sponsored by the Department of Biotechnology under the DBT programme on Empowerment of Human Resources of North East for Biotechnology Activities. (Venue: Department of Basic Sciences & Social Sciences, NEHU, Shillong).

Ms. E. Giri

Attended (i) a workshop on "Value Proposition -Personality Development and Communication Skills" held on 11-12 September 2014 at the Institute of Technology & Management (ITM), Mumbai (ITM), (ii) two day workshop on "Interactive Knowledge Session" held at Institute of Technology & Management (ITM), Mumbai on 23rd September, 2015, (iii) two day workshop by Nettrack Systems and Services on "Communication Skills, Personality Development and Interview Techniques" held at Guwahati on 14-15 October, 2015.

Dr. R. S. Singh

(i) Attended Special Summer School organized by UGC-Human Resource Development Centre, NEHU, Shillong during 6th-26th July, 2015, (ii) Organizing member of one-day program on "Commemoration of Birth Anniversary of Madam Curie and Sir C.V. Raman" organized jointly by the School of Physical Sciences, School of Technology & Centre for Science Education, NEHU, Shillong on 7th November, 2015.

Dr. M. Mahato

Attended (i) short term course in 'Research Methodology (with special reference to SPSS)' held at and organized by UGC-HRDC, NEHU, Shillong, on 14-19th March, 2016, (ii) Symposium cum workshop on Advances in Computational Biology and Computer Aided Drug Design held on 24-26 June, 2015 at IIT Guwahati, organized by Bioinformatics Infrastructure Facility, Department of Bioscience and Bioengineering, IIT, Guwahati.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Head: Dr. Rupaban Subadar

Telephone: 0364-272-3661

E-mail: hodece@nehu.ac.in

Faculty

Designation	Name and Qualification	Specialization
Associate Professor	Dr. Lairenlakpam Joyprakash Singh, Ph. D. (Jadavpur University)	Signal Processing
	Mr. Sushanta Kabir Dutta, M. Tech. (Manipal Institute of Technology)	Speech Signal Processing, Image Processing
	Dr. Subhash C. Arya, Ph. D. (ISM)	Opto-Electronics Devices, Silicon Photonics, Optical modulators and Amplifiers, Optical Communication
	Dr. Rupaban Subadar, Ph. D. (IITG)	Theory of Wireless Communication
Assistant Professor	Mr. Juwesh Binong, M.Sc.(IT) (Sikkim Manipal University)	Robotics and context-aware systems.
	Mr. Rajkishur Mudoi, M. Tech. (Tezpur University)	Wireless Communication, Embedded System
	Mr. Jaydeep Swarnakar, M.E. (Jadavpur University)	Control System
	Ms. Fidalizia Pyrtuh, M.Tech. (IIIT, Allahabad)	Speech Processing
	Mr. Asif Ahmed, M.Tech (NIT Durgapur)	Mixed Signal CAD tool Development
	Mr. Pankaj Sarkar, M.Tech (Burdwan University)	RF/Microwave filters, Antenna.
	Mr. Nipanka Bora, M. Tech.(Tezpur University)	Nano electronics Device Modelling, VLSI Design

Thrust Areas of Research

Signal Processing: Speech, Language, and Speaker Recognition, Digital Image Processing, Quantized Semiconductor Structures, Micro-wave passive and active circuit design, Telecommunication Engineering, Optical Fibre Communication and Opto-Electronics Devices, Theory of Wireless communication, Mixed Signal CAD tool and VLSI Design, Qualitative Reasoning and Context Awareness.

Brief Statement of Academic Activities

The department currently runs three programmes i.e. B.Tech, M.Tech and PhD in ECE Engineering. In B.Tech Electronics & Communication Engg department admitted 60 students in vertical entry and 6 in lateral entry, respectively. In M.Tech, 18 students were admitted and four candidates got admission in PhD programme. fifty students successfully completed their B.Tech in Electronics & Communication Engineering degree.

Students' Profile

Enrolment Capacity: B.Tech: 66 (60 seats Vertical and six seats Lateral Entry); M.Tech: 20 (18 seats + two seats supernumerary); PhD: Variable

Placement of Students

Company Name	Name of Students	Interview Date
Wipro Technologies	Ms. Neetushree Konwar Ms. Bidisha Barman Mr. Manoj Chettri Mr. Paulal John	14.09.2015 & 15.09.2015
Ericsson India Pvt. Ltd	Ms. Arpana Medhi	16.09.2015
TNS World (Co Cubes)	Mr. Dhrubajyoti Das Mr. Rupam Choudhury Mr. Gunin Basumatary Mr. Deepjyoti Das Mr. Ankuj Pegu Mr. Nabajit Sonowal	13.10.2015
Gandhi Fellowship, Piramal Foundation	Mr. Dipankar Doley	21.03.2016

Courses Conducted

B.Tech (Electronics and Communication Engineering)

Semester II:

EC-205: Basic Electronics, EC-215: Basic Electronics Laboratory

Semester III:

EC-302: Electronic Devices and Circuits, EC-303: Signals and Systems, EE-304: Electrical Network Theory, EC-312: Electronic Devices and Circuits Laboratory, EC-316: PCB Design Laboratory

Semester IV:

EC-402: Electromagnetic Theory, EC-403: Digital Electronics, EC-404 Linear Integrated Circuits and Systems, EC-405: Electronics Measurements and Instrumentation, EC-413: Digital Electronics Laboratory, EC-414: Linear Integrated Circuits Laboratory, EC-415 Electronics Measurements and Instrumentation Laboratory

Semester V:

EC-502: Microprocessor, EC-503: Principles of Communication Systems, EC-504: Power Electronics, EC-505: Basic Control Engineering, EC-512: Microprocessor Laboratory, EC-513: Communication Systems Laboratory, EC-516: Simulation using MATLAB

Semester VI:

EC-601: Embedded Systems and Micro-controllers, EC-602: Digital Signal Processing, EC-603: Microwave Engineering, EC-604: Computer Communications and Networks, EC-605: Antenna, EC-611: Embedded Systems and Microcontrollers Laboratory, EC-612: Digital Signal Processing Laboratory, EC-613: Microwave Engineering Laboratory

Semester VII:

EC-702: Introduction VLSI Design, EC-703: Digital Communication, EC-70523: Data Communication Systems, EC-70522: Information Theory and Coding, EC-712: VLSI Design Laboratory, EC-713: Digital Communication Laboratory

Semester VIII

EC – 816: Major Project.

M.Tech. Courses

Semester I:

MA – 901: Advanced Engineering Mathematics, ECV – 902 : VLSI Device & Modelling, ECV

– 903: Digital IC Design, ECV – 904: Micro-electronics Technology and IC Fabrication, ECV-90513: Lightwave Communication Systems, ECV – 916: CAD Tools for VLSI Design Laboratory, ECV – 917: Circuit Simulation Laboratory, ECV – 918:Seminar-I

Semester II:

ECV – 1001: Processor Architecture for VLSI, ECV-1002: Advanced Digital Signal Processing, ECV-1003: Analog IC Design, ECV:1004: Advanced Communication, ECV-100524: Low Power VLSI Design, ECV-1016: ADSP Lab., ECV- 1017: Seminar-II

Semester III / Semester IV:

ECV – 1116: Dissertation

Ph.D. Courses

Semester I:

EC-1202: Mathematical Modelling, EC – 12033: Speech Processing, EC-12032: Advanced Optical Communication and Sensors

Seminars / Conferences/ Symposium/ Extension Programmes etc.

Attended and Participated

Mr. R. Mudoi presented a research paper titled, "ABER of multiuser TAS/MRC-MIMO systems over Nakagami- m fading channels with equal correlation," in the International Conference on Computing and Communication Systems on 9-10 April, 2015 organised by Department of IT, NEHU, Shillong, Meghalaya.

Mr. S. K. Dutta presented a paper on "Development of Language Identification System using Phonetic Engine" at the International Conference on Computing and Communication Systems held on 9-10 April 2015 at NEHU, Shillong

Publications

Research Papers

Published in India

Dutta, S. K., Nandakishor, S., Singh, L. J. (2015). Development of Manipuri Phonetic Engine and its Application in Language Identification. *International Journal of Engineering and Technical Research*, 3(8): 200-203.

R. Pegu and R. Mudoi (2015). Design and Analysis of Mux-based Physical Unclonable Functions. *International Journal of Engineering Research & Technology*, 4(5): 1505-1512.

Proceedings

Mullah, H.U., Pyrtuh, F., Singh, L.J. (2015). Development of an HMM-based speech synthesis system for Indian English language. *Proc. International Symposium on Advanced Computing and Communication*. 124-127.

Nandakishor, S., Dutta, S. K., Singh, L. J. (2015). An HMM based Semi-Automatic Syllable Labelling System for Manipuri Language. *Proc. International Conference on Computing, Communication & Automation*. 1047

Jelil, J., Das, R.K., Amitab, K., Pyrtuh, F., Singh, L. J., Prasanna, S.R.M. (2015). Exploring Speaker Modelling Techniques for Short Pass-Phrase Based Person Authentication System. *Proc. International Conference on Computing and Communication Systems*. 165-171

Dutta, S. K., Nandakishor, S., Singh, L. J. (2015). Development of Language Identification System using Phonetic Engine. *Proc.*

International Conference on Computing and Communication Systems. 182-186.

Kachari, G., Pyrtuh, F., Singh, L. J. (2015). Continuous Speech digit Recognition system using HMM. *Proc. International Conference on Computing and Communication Systems*. 187-190.

Medhi, S., Arya, S. C., Synrem, S., Sary, B. (2015). Mathematical modeling of silicon based optical modulator for high speed fiber optic communication. *Proc. International Conference on Computing and Communication Systems*, 171-175

Das, H. R., Arya, S. C. (2015). Characterization of MEMS electrostatic comb drive with six movable comb fingers using different structural parameters. *Proc. International Conference on Electronic Devices, Circuits, Applied Electronics and Communication Technology*, 41-45

A. D. Singh and R. Subadar (2015). Capacity Analysis of MRC Receiver with Adaptive Transmitters over TWDP Fading Channels. *IEEE ISACC 2015, Assam University, Silchar* 14 Sep - 15 Sep 2015.

B. Saikia, R. Subadar (2015). Effect of perfect & imperfect CSI on OPRA Technique for M-QAM over Nakagami-m fading channel. *Proc. International Conference on Communication Shillong*, 9-10th April 2015

R. Mudoi, R. Subadar (2015). ABER of multiuser TAS/MRC-MIMO systems over Nakagami-m fading channels with equal correlation. *Proc. International Conference on Communication Shillong*, 9-10th April 2015

N. Bora, P. Das, R. Subadar (2015). An Analytic potential based Model for Symmetric

- Double Gate Junction less FETs. *Proc. IIT Guwahati*, 8-11 Dec, 2015.
- S. Dey, S. Tamang, P. Sarkar, M. Pal, R. Ghatak (2015). An ultra-wideband bandpass filter using multi stub resonator with notch band functionality. *IEEE International Conference on Signal Processing And Communication Engineering Systems* 314-317.
- N. Bora, N. Deka, P. Das (2015). Drain Current Analytical Model for Undoped Symmetric DG MOSFETs with small Asymmetry in Gate-Oxide-Thickness. *Proc I3CS'15*, Shillong 2015.
- N. Bora, P. Das, N. Deka (2015). Analytical modelling for the drain current of SDG FinFETs including Quantum Mechanical Effects. *Proc. I3CS'15*, Shillong 2015.
- Published Abroad**
- Singh, L. J. (2015), Quantized Semiconductor Structures: Theoretical Analysis of Few Electronic Properties. *Lambert Academic Publishing*.
- N. S., Dutta, S. K., Singh, L. J. (2016), Study and Development of an Acoustic-Phonetic Feature Based LID System. *Lambert Academic Publishing*.
- K. G., Singh, L. J. (2016). Assamese Speech Recognition using hybrid HMM and ANN. *Lambert Academic Publishing*.
- A. D. Singh and R. Subadar (2016). Performance of Dual-EGC receivers over TWDP fading channels “ *Springer Journal of Telecommunication Systems*, pp. 1-7.
- M. Pal, R. Ghatak and P. Sarkar (2015). Compact dual-band bandpass filter using asymmetric stepped impedance stub loaded multimode resonator,” *International Journal of Microwave and Wireless Technologies*, pp. 1-6.
- P. Sarkar, M. Pal and R. Ghatak (2016). A Compact Dual Stop band Band stop Filter Using Defected SIR and Hilbert Shape Fractal Structure. *Microwave & Optical Technology Letters*, 58(6): 1345-1347. .
- M. Pal, R. Ghatak and P. Sarkar (2016). Perturbed Sierpinski Carpet Resonator and Its Usage in Compact Dual and Triple Band Bandpass Filters. *International Journal of RF and Microwave Computer-Aided Engineering*, 26 (5): 418-425.

Research Projects

Completed during Year

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount (in Rs)
1	Development of Prosaically Guided Phonetic Engine for Searching Speech Databases in Indian Languages	Dr. L. J. Singh/ Mr. S. K. Dutta	Dept of Electronics & Information Technology (DeitY), Ministry of Communication & Infor-mation Technology, GoI	30,01,500/=

Department of Electronics and Communication Engineering

2	Development and Deployment of Speech based Multi-Level Person Authentication System	Dr. L. J. Singh/ Ms. F. Pyrtuh	DeitY, Ministry of Communication & Information Technology, Gol	57,03,000/=
---	---	-----------------------------------	--	-------------

Academic Collaborations

The Department has academic collaboration with the Centre for Linguistic Science and Technology, IIT, Guwahati.

Any other Information

Dr. L. J. Singh has been a Member of Board of Management of North-Eastern Regional Institute of Science and Technology (NERIST), Nirjuli, Arunachal Pradesh - 791 109 for a period of three years(MOA: Rule of the Institute 5(c)) (vide NERIST Registrar's letter: No. RR/13/2006 dated January 24, 2014).

Dr. S. C. Arya attended workshop on Future Challenges in Wireless Communication and Signal Processing on August 7-8, 2015 at NIT Meghalaya.

Dr. S. C. Arya attended short term course on Advances in Photonics on February 25-26, 2016 at IIT Guwahati.

Dr. S. C. Arya was selected as an external expert committee member by UGC-NERO for the evaluation of MRP/Sem /Conf/Workshop proposal on 20th December, 2015

Dr. S. C. Arya worked as Selection Committee Member for the post of Assistant Professor of St. Edmund's College, Shillong on 6th July, 2015.

Dr. S. C. Arya worked as a member of Academic Committee AICTE-NEQIP Project, Shillong Polytechnic.

Dr. S. C. Arya wrote four series of popular article on Paradigm shift from Electronics Domain to Optical Domain Device Development: for the newsletter the Fibre Optika published in July, August, September and October 2015 issues.

P. Sarkar attended the 103rd Orientation Programme held at UGC-HRDC, The University of Burdwan from 01/03/2016 to 28/03/2016.

P. Sarkar was invited to deliver a talk during the training programme on "Printed Circuit Board (PCB) Design & Fabrication" at NIT-Meghalaya on 27/11/2015.

P. Sarkar attended the 103rd Orientation Programme held at UGC-HRDC, The University of Burdwan from 01/03/2016 to 28/03/2016.

DEPARTMENT OF ENERGY ENGINEERING

Head: Dr. Samrat Paul
Telephone: + 91 9485043421
E-mail: paulsamrat17@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Assistant Professor	Dr. Samrat Paul	Solar Energy, Energy Nanomaterials
	Mr. Manmit Saikia	Bio Energy
	Mr. Sanat Das	Propulsion
	Mr. Samar Jyoti Hazarika	Energy Management

Thrust Areas of Research

Solar PV Technology

Engineering. The Department started functioning from the academic year 2013-14. This year the fourth batch of students will be admitted in the first semester.

Brief Statement of Academic Activities

The Department is currently offering B.Tech in Energy Engineering and PhD in Energy

Students' Profile

Enrolment Capacity: B. Tech. – 60; Ph.D. – Variable

Admissions

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
B.Tech								
2013	11	20	29	52	08	06	54	60
2014	07	26	26	51	08	12	48	60
2015	02	11	23	32	04	03	33	36

Courses Conducted

B.Tech.

Semester-I:

Elements of Environment Science, Engineering Mathematics –I; Engineering Chemistry,

Computer Systems and Programming, Basic Electronics, Engineering Chemistry Laboratory, Computer Programming, Basic Electronics Laboratory, Engineering Graphics.

Department of Energy Engineering

Semester-II:

Professional Communication Skills, Engineering Mathematics-II, Engineering Physics, Engineering Mechanics, Basic Electrical Engineering, Digital English Language Laboratory, Engineering Physics Laboratory, Basic Electrical Laboratory, Workshop Practice, General Proficiency-I

Semester-III:

Energy Resources, Electrical Systems and Automatic Control, Elements of Nanoscience, Engineering Thermodynamics, Fluid Mechanics, Fluid Mechanics Laboratory, Thermal Laboratory, Electrical Measurement and Instrumentation Laboratory.

Semester-IV:

Basics of Renewable Energy Technology, Measurement and Control; Instrumentation, Heat and Mass Transfer, Fuel and Combustion Technology, Basics of Solar Energy Technology, Heat and Mass Transfer Laboratory, Fuel and Combustion Laboratory, Solar Energy Laboratory, General Proficiency-II

Semester-V:

Solar Thermal Technology, Biomass and Bio-fuel Technology, Energy Economics and Planning, Energy Auditing, Nuclear Energy, Solar Thermal Laboratory, Biomass and Bio-fuel Laboratory, Energy Auditing Laboratory, Seminar.

Semester-VI:

Photovoltaic Conversion Technology, Internal Combustion Engine and Gas Turbine, Hydro,

Wind, Ocean and Tidal Energy Technology, Industrial Economics and Energy Management, Climate Change and Carbon Trade, Photovoltaic Conversion Laboratory, Internal Combustion Engine Laboratory, Hydro, Wind and Ocean Technology Laboratory, General Proficiency-III.

Ph.D. Courses

Research Methodology, Energy Resources and Technology, Nanomaterials in Energy Devices and Systems.

Seminars/Conferences/Symposia/Extension Programmes etc.

Organized

The Department organised one day seminar on "Akshya Urja Dewas" on 20th August 2015.

The Department organised an Entrepreneurship Awareness Camp, 12-14 December, 2015.

For both these events, Dr. Samrat Paul was the Convener.

Publications

Published Abroad

R Verma, SK Samdarshi, S Bojja, S Paul, B Choudhury.,(2015), A novel thermo photo catalyst of mixed-phase cerium oxide ($\text{CeO}_2/\text{Ce}_2\text{O}_3$) homocomposite nanostructure: role of interface and oxygen vacancies, *Solar Energy Materials and Solar Cells*, 141,414-422

Research Projects

Ongoing

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1	Titanium Dioxide/ Carbon nanotube nano composite dyed sensitized solar cells	Dr. Samrat Paul	DST-SERB	Rs 21,92,000

DEPARTMENT OF INFORMATION TECHNOLOGY

Head: Dr. Hemanta Kumar Kalita
Prof. Goutam Saha
Telephone: 0364-2723611(O)
E-mail: hodit@nehu.ac.in

Faculty

Designation	Name and Qualification	Specialization
Professor	Goutam Saha, PhD	Bioinformatics and image Processing
Associate Professor	Md. Iftexhar Hussain, PhD	Internet of Things (IoT), Rural Wireless Networks, QoS in Computer Networks, Wireless Mesh Networks
	Bubu Bhuyan, PhD	Information Security
	Hemanta Kumar Kalita, PhD	Computer and Network Security
	Debdattta Kandar, PhD	Wireless Mobile Communication, Soft Computing, Artificial Intelligence, RADAR Imaging.
Assistant Professor	Swarup Roy, PhD	Data mining, Computational Biology
	Arnab Kumar Maji, PhD	Image Processing, Algorithm of NP Complete Puzzles
	Sangita Neog, MTech	Information Theory and Coding
	Sufal Das, MTech	Big Data Analysis, Data Mining, Soft Computing
	Subhas Chandra Sahana, MTech	Cryptography and Network Security
	K. Amitab, MTech	Image Processing, Soft computing
	Amitabha Nath, MTech	Remote Sensing and GIS

Thrust Areas of Research

Bioinformatics, Data Mining, Soft Computing, Rural Wireless Networks, QoS in Computer Networks, Wireless Sensor and Mesh Networks, Internet of Things (IoT), Image Processing,

Computer and Network Security, Spatial Data Mining, Expert Systems

Brief Statement of Academic Activities

The Department conducts B.Tech., M.Tech, and Ph.D. courses in Information Technology.

Department of Information Technology

M.Tech and Ph.D. courses were included in the academic session 2013-14. All faculty members are actively involved in research

work and published various papers in reputed journals. Department is currently running with one projects from DeitY, Government of India.

Students' Profile

Enrolment Capacity: BTech – 60/6 Vertical/Lateral; MTech – 18; Ph.D. – Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
B.Tech.	19	81	92	154	38	48	144	192
M.Tech	1	8	9	13	5	3	15	18
Ph.D.	4	4	15	16	7	3	20	23

Degrees Awarded

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
B.Tech.	4	6	20	23	7	2	28	30
M.Tech.	2	7	8	13	4	8	9	17

Placement of Students

Undergraduate

Wipro Technologies - 1

Gandhi Fellowship, Piramal Foundation – 2

TNS World (Co Cubes) - 1

Postgraduate

Wipro Technologies - 1

Courses Conducted

Undergraduate (BTech)

Semester-I:

Professional Communication Skills, Engineering Mathematics-I, Engineering Physics, Engineering Mechanics, Basic Electrical Engineering, Digital English Language Laboratory, Engineering Physics Laboratory, Basic Electrical Laboratory, Workshop Practice

Semester-II:

Elements of Environmental Science, Engineering Mathematics II, Engineering Chemistry,

Computer Systems and Programming, Basic Electronics, Engineering Chemistry Laboratory, Computer Programming Laboratory, Basic Electronic Laboratory, Engineering Graphics, General Proficiency-I

Semester-III:

Engineering Economics and Financial Accounting, Engineering Mathematics III, Signals and Systems, Computer Graphics and Multimedia, Data Structures and Algorithms, Discrete Mathematics, Computer Graphics and Multimedia Lab, Data Structure Laboratory, Numerical Programming laboratory

Semester-IV:

Statistics and Random Processes, Data Communication, Digital Electronics, Formal Language and Automata Theory, System Programming, Computer Organization and Architecture, Digital Electronics laboratory, Systems Programming Laboratory, General Proficiency-II

Semester-V:

Management Information System, Micro-processor, Information Theory and Coding, Object Oriented Programming and Methodology, Algorithm Analysis and Design, Computer Networks, Microprocessor Laboratory, Object Oriented Programming Laboratory, Computer Networks Laboratory

Semester-VI:

Operating System, Software Engineering, Relational Database Management System, Compiler Design, Elective-I (Mobile Computing, Data Mining, Data Compression, Embedded System, Human Computer Interaction), Elective-II (Cryptography and Network Security, Artificial Intelligence, E-Commerce, Simulation and Modeling, Distributed Systems), Operating System Laboratory, Database Management System Laboratory, Compiler Design Laboratory, General Proficiency –III

Semester-VII:

Professional Ethics and IPR, System Administration, Web Technology, Elective-III (Bioinformatics, Natural Language Processing, Internet and Its Application Technologies, Fuzzy Logic & Neural Networks, Computer Vision), Elective-IV (Pattern Recognition, Wireless Communication, Digital Image Processing, Robotics, Advance Computer Architecture), System Administration Laboratory, Visual Programming Laboratory, Web Technology Laboratory, Minor Project

Semester-VIII:

Major Project, General Proficiency-IV (Grand Viva)

Postgraduate (MTech)

Semester-I :

Mathematical Foundations of Information Science, Theory of Computer Science, Computer

Architecture and Operating System, Advanced Database System, Elective, Software System Laboratory

Semester-II:

Algorithms & Complexity, Advanced Computer Networks, *Electives*, Seminar on Advanced Topics, Internet Technology Lab

Semester-III:

MTech thesis, Elective

Semester-IV:

MTech thesis

List of Elective Subjects: Compiler Design, Topics in Programming Languages, Logic and Computation, Topics in Algorithms, Game Theory, Quantum Computation, Distributed Computing, Object Oriented Modeling and Design, Embedded Systems and Applications, Natural Language Processing, Computational Intelligence, Soft Computing, Image Processing, Pattern Recognition, Computational Biology, Cryptography, Formal Methods in Secure Computing, Network Security, Information Theory and Coding, Perimeter Security, Data Compression, Multimedia Systems, Computer Laws and Ethics, Security Policies and Assurance, Fuzzy Set Theory and Applications, Advanced Topics in Graph Theory, Advanced Topics in Information Security, Robotics, Data mining and Data warehousing, Advanced Wireless Networks

Ph.D. Courses

Course Work: Research Methodology; Algorithm Analysis and Design; *Electives*

List of Elective Subjects: Compiler Design, Topics in Programming Languages, Logic and Computation, Topics in Algorithms, Game Theory, Quantum Computation, Distributed Computing, Object Oriented Modeling and Design, Embedded Systems and Applications,

Natural Language Processing, Computational Intelligence, Soft Computing, Image Processing, Pattern Recognition, Computational Biology, Cryptography, Formal Methods in Secure Computing, Network Security, Information Theory and Coding, Perimeter Security, Data Compression, Multimedia Systems, Computer Laws and Ethics, Security Policies and Assurance, Fuzzy Set Theory and Applications, Advanced Topics in Graph Theory, Advanced Topics in Information Security, Robotics, Data mining and Data warehousing, Advanced Wireless Networks

Seminars / Conferences/Symposia/ Extension Programmes etc.

Organized

For the first time an *International Conference on Computing & Communication Systems* (I3CS 2015) was organized by the department on April 9-10, 2015, at the Department of Information Technology, NEHU, Shillong to exchange and share research findings in the area of computation and communication systems.

Attended and Participated

B. Bhuyan

Delivered an invited lecture in the *Departmental Research Summit* organized by the Department of Computer Science & Engineering, NIT, Arunachal on 10th October '2015.

Hemanta Kumar Kalita

Delivered a lecture on "Pointer Variables and C Programming" in "*One-day Workshop on Outcome Based Learning for Introduction to Computing*" organized by Google and IIT Guwahati at NEHU, Shillong on 28/11/2015.

Delivered a lecture on "Cyber Security Practice & Ethical Hacking" in *Training on Cyber Crime* organized by Govt. of Meghalaya, Shillong (6-10 July 2015).

Delivered a lecture on "Cyber Security Practice & Ethical Hacking" in *Awareness Programme on Cyber Crime* organized by Govt. of Meghalaya, Shillong (18-22 May 2015).

Delivered a lecture on "Performance Evaluation of Hacking Tools" in *National Seminar on Computing, Communication and Control* organized by University of Technology and Management, Shillong, on 25/04/2015.

Swarup Roy

Delivered a talk as resource person on "Soft Data mining-Introduction" at *One-Week Workshop on NLP and its Application* in Manipur Institute of Technology, Manipur.

Delivered a talk on "Soft Computing and Data Mining" at Mizoram University on 1st April 2015.

Sufal Das

Delivered a lecture entitled "Social Network Analysis" in "*Training on Cyber Crime*" organized by the Govt. of Meghalaya, Shillong from 06/07/2015 – 10/07/2015

Delivered a lecture entitled "Introduction to Data Mining" in "*Awareness Programme on Cyber Crime*" organized by the Govt. of Meghalaya, Shillong during 18/05/2015 – 22/05/2015.

K. Amitab

With S. Sonwal and D. Kandar presented a paper on "Synthetic Aperture Radar Image Processing Using MLP and RBF" at the *2nd International Conference on Microelectronics, Circuits and Systems*, held Kolkata, July 11 -12, 2015.

A. K. Maji

Co-author of "A Novel Sudoku Solving Technique using Column based Permutation" presented at *International Symposium on Advanced Computing and Communication (ISACC-2015)*, Assam University Silchar (Sep. 14-15, 2015).

Publications

Research Papers

Published in India

- I Hussain, SK Dutta, N Ahmed, I Hussain (2015). A WiFi-based Reliable Network Architecture for Rural Regions. *ADBU Journal of Engineering Technology*, 3(1).
- R. Sarma, B. Bhuyan (2015). Security of E-Voting System in Case of Malicious Users. *International Journal of Computer Applications* 122(5).
- J. Lyngdoh, H. K. Kalita (2016). A Study Of Bio-inspired Self Organizing Networks. *ADBU-Journal of Engineering Technology*, 4(1): 90-93.
- N. Chhetry, H. K. Kalita (2016). Interest Flooding Attack in Named Data Networking: A Survey. *ADBU-Journal of Engineering Technology*, 4(1): 45-49.
- S. Goswami, H. K. Kalita, M. Upadhyay, B. S. Rajkumar, and K. Thakur (2015). Network Modeling and Emulation: A New Architecture of Next Generation WANem. *ADBU-Journal of Engineering Technology*, 3(1): 1-6.
- S. Debnath, S. C. Sahana and B. Bhuyan. A Distributed Fine-grained Access Control Mechanism over Cloud Data Outsourcing" *Science and Technology Journal*, 3(2)

ISSN: 2321-3388, Mizoram University, Aizawl, India.

Published Abroad

- Mandal, S.; A. Khan, G. Saha & R. K. Pal (2016). Reverse Engineering of Gene Regulatory Networks based on S-Systems and Bat Algorithm. *J. Bioinform. Comput. Biol.* 14: 1650010. doi: <http://dx.doi.org/10.1142/S0219720016500104>.
- Mandal, S.; A. Khan, G. Saha, and R. K. Pal (2016). Large-Scale Recurrent Neural Network Based Modelling of Gene Regulatory Network Using Cuckoo Search-Flower Pollination Algorithm. *Advances in Bioinformatics*, 2016: 5283937. doi:10.1155/2016/5283937.
- Khan, A.; S. Mandal, R. K. Pal & Goutam Saha (2016). Construction of Gene Regulatory Networks Using Recurrent Neural Networks and Swarm Intelligence. *Scientifica*, 2016: 1060843. doi:10.1155/2016/1060843.
- I. Hussain, Z. I. Ahmed, D. K. Saikia & N. Sarma (2015). A QoS-aware dynamic bandwidth allocation scheme for multi-hop WiFi-based long distance networks. *EURASIP Journal on Wireless Communications and Networking*, 2015:160.
- I. Hussain, Z. I. Ahmed, N. Sarma & D. K. Saikia (2016). An Efficient TDMA MAC Protocol for Multi-hop Wi-Fi Based Long Distance Networks. *Wireless Personal Communications*, 86(4): 1971-1994.
- P. Goswami, M. M. Singh & B. Bhuyan (2015). A new public key encryption scheme based on two cryptographic assumptions, *Malaya Journal of Matematik*: 3(4): 419-422.
- R. K. Sharma, H. K. Kalita & B. Issac (2016). Plant based Biologically Inspired Intrusion

- Response Mechanism: An insight into the proposed model PIRIDS. *Journal of Information Assurance and Security* 11(6): 340-347.
- D. Kandar, V. Dhillip Kumar, and S. Das (2015). Convergence of LTE-A and DSRC Infrastructure for Intelligent Transportation System", *International Journal of Electrical, Electronics and Computer Systems*, 2(11): 49-52.
- V. D. Kumar, P. Chyane, D. Kandar & B. S. Paul (2016). Performance Analysis of Hybrid WiMAX/DSRC Scenarios for Vehicular Communication Environment. *Microsystem Technologies, Micro- and Nanosystems Information Storage and Processing Systems*. doi 10.1007/s00542-016-2927-y.
- S. Roy, D. K. Bhattacharyya & J. K. Kalita (2015). Analysis of Gene Expression Patterns using Biclustering. *Methods in Molecular Biology* 1375: 91-103.
- S. Roy & P. H. Guzzi (2015). Biological Network Inference from Microarray Data, Current Solutions and Assessments. *Methods in Molecular Biology* 1375: 155-167.
- P. Sharma, H. A. Ahmed, S. Roy and D. K. Bhattacharyya (2015). Detecting protein complexes using connectivity among nodes in a PPI Network. *Network Modeling Analysis in Health Informatics and Bioinformatics*, 4(35): 1-17. doi: 10.1007/s13721-015-0107-0.
- P. Sharma, H. A. Ahmed, S. Roy & D. K. Bhattacharyya (2015). Unsupervised Methods for Finding Protein Complexes from PPI Networks. *Network Modeling Analysis in Health Informatics and Bioinformatics*, 4(1): 1-15. doi: 10.1007/s13721-015-0080-7.
- B. Choudhury & S. Neog (2015). Particle Swarm Optimization Algorithm for Integer Factorization Problem (IFP). *International Journal of Computer Applications* 117(13).
- Sahana, S. C.; S. Debnath & B. Bhuyan (2015). A New Short Signature Scheme from Weil Pairing. *International Journal of Computer Applications* 126.14.
- Books/Book Chapter/Proceedings**
- Saha, G.; A. Barua & S. Sinha (2015). *Bioreactor: Animal cell culture control for bioprocess engineering*. Taylor & Francis LLC.
- Saha, G.; A. Barua & S. Sinha (2015). Time Delay Control for Bioprocess and its Application to a Newly Developed 'SEE-SAW' Bioreactor for Animal Cell-Line Culture for the Production of Valuable Drugs. In: *Biology, Biotechnology and Sustainable Development*, pp. 128-166 (Research India Publication).
- Khan, A.; G. Saha & R. K. Pal. (2016). A Novel Technique for Reduction of False Positives in Predicted Gene Regulatory Networks. In: *Computational Intelligence Methods for Bioinformatics and Biostatistics: 12th International Meeting, CIBB 2015* (Naples, Italy, September 10-12, 2015). pp 71-83. Springer International, 2016. Eds: C. Angelini, P.M.V Rancoita, S. Rovetta. ISBN: 978-3-319-44331-7 (Print) 978-3-319-44332-4 (Online).
- Mandal, S.; G. Saha & R. K. Pal (2015). S-system based gene regulatory network reconstruction using Firefly algorithm. *Proceedings of Third International Conference on Computer, Communication, Control & Information Technology*. 7-8 Feb 2015. doi: 10.1109/C3IT.2015.7060217.

- Mandal, S.; G. Saha & R. K. Pal (2015). Neural network based gene regulatory network reconstruction. *Proceedings of 3rd International Conference on Computer, Communication, Control and Information Technology*. 7-8 Feb 2015. doi: 10.1109/C3IT.2015.7060112.
- Dasgupta, S.; G. Saha, R. Mondal, R. K. Pal & A. Chanda. A comparison between methods for generating differentially expressed genes from microarray data for prediction of disease. *Proceedings of 3rd International Conference on Computer, Communication, Control and Information Technology*. 7-8 Feb. 2015. doi: 10.1109/C3IT.2015.7060148.
- Chowdhury, S.; R. K. Pal & G. Saha (2015). A Novel Double Fault Diagnosis and Detection Technique in Digital Microfluidic Biochips. In: *Computer Information Systems and Industrial Management*, pp. 181-192. Springer International.
- Pokhrel, P.; T. Das & G. Saha (2015). Characterization of any species observing their Codon Biasing effect. *Proceedings of International Symposium on Advanced Computing and Communication*, pp. 21-27, IEEE, 2015.
- Barman, R.; C.J. Baishya, B. Kharmalki, A. Syiemlieh, K.B. Pegu, T. Das & G. Saha (2015). Automated Train Scheduling System using Genetic Algorithm. *Proceedings of International Symposium on Advanced Computing and Communication*, pp. 28-33, IEEE, 2015.
- War, D. K.; G. Saha (2015). Computational Approach to Detect the Culprit Genes Responsible for a Disease. *Proceedings of International Symposium on Advanced Computing and Communication*, pp. 34-40, IEEE, 2015.
- Mandal, S.; G. Saha & R.K. Pal (2016). Inference of Gene Regulatory Networks with Neural-Cuckoo Hybrid. In: *Advanced Computing and Systems for Security*, pp. 87-99. Springer India, 2016.
- Khan, A.; G. Saha & R. K. Pal (2016). A swarm intelligence based scheme for reduction of false positives in inferred gene regulatory networks. *Proceedings of IEEE World Congress on Computational Intelligence*.
- Khan, A.; P. Datta, R. K. Pal & G. Saha (2015). Gene regulatory networks using bat algorithm inspired particle swarm optimization. *Proceedings of IEEE International WIE Conference on Electrical and Computer Engineering*, pp. 387-390. IEEE (Bangladesh).
- Khan, A.; R. K. Pal & G. Saha (2015). A Novel Technique for Reduction of False Positives in Predicted Gene Regulatory Networks. *Proceedings of 12th International Meeting on Computational Intelligence Methods for Bioinformatics & Biostatistics*, pp. 212-217 (Italy).
- H. Rahman, N. Ahmed & I. Hussain (2015). Internet of Things: Advances and Research Challenges. *Proceedings of International Conference on Computing & Communication Systems*, Shillong, India, pp. 89-96.
- B. Wanswett & H. K. Kalita (2015). The Threat of Obfuscated Zero Day Polymorphic Malwares: An Analysis. *Proceeding of IEEE International Conference on Computational Intelligence and Communication Networks*, pp. 1188-1192.

- P. P. Dey & H. K. Kalita (2015). End User Response to Web-server Access - Calibration Method. *Proceedings of 5th International Conference on Communication Systems & Network Technologies*, IEEE, pp. 1020-1024.
- H. K. Kalita, P. K. Mallick, I. Hussain, B. Bhuyan & S. Roy (Eds) (2015) *Proceedings of International Conference on Computing & Communication Systems*, Vols I & II, IGI Global, USA, ISBN: 978-1-4799-5857-01.
- R. K. Sharma, H. K. Kalita (2016). PIRIDS: A Model on Intrusion Response System Based on Biologically Inspired Response Mechanism in Plants. In: *Innovations in Bio-Inspired Computing and Applications, Advances in Intelligent Systems and Computing* 424. V. Snasel et al. (eds.). Springer International. pp. 105-116.
- R. K. Sharma, H. K. Kalita & P. Borah (2016). Analysis of Machine Learning Techniques Based Intrusion Detection Systems. *Proceedings of 3rd International Conference on Advanced Computing, Networking and Informatics, Smart Innovation, Systems and Technologies* 44. A. Nagar et al. (eds.). Springer India. pp. 485-493.
- S. Das, H. K. Kalita (2016). Semantic Model for Web Based Big Data using Ontology and Fuzzy Rule Mining. *Proceedings of First International Conference on Information and Communication Technology for Intelligent Systems: Vol. 2. Smart Innovation, Systems and Technologies* 51. S. C. Satapathy & S. Das (eds.). Springer International Publishing. pp. 431-438.
- S. Das & H. K. Kalita (2016). Advanced Dimensionality Reduction Method for Big Data. In: *Research Advances in the Integration of Big Data and Smart Computing*. P. K. Mallick (ed.). IGI Global, USA. pp.198-210.
- S. Das & H. K. Kalita (2016). Efficient Classification Rule Mining for Breast Cancer Detection. In: *Research Advances in the Integration of Big Data and Smart Computing*, P. K. Mallick (ed.), IGI Global, USA. pp.50-63, 2016
- S. Das, J. R. Pohrmen & H. K. Kalita (2015). Prediction in Stock Market using Association Rule Mining: A Big Data Analysis. *Proceedings of International Conference on Computing and Communication Systems* Vol. I. H. K. Kalita et. al. (eds.), IGI Global, USA. pp. 82-86.
- P. P. Dey & H. K. Kalita (2015). Modeling End User Response to Web-server Access. *Proceedings of International Conference on Computing and Communication Systems* Vol. II, H K Kalita et al.(eds.), IGI Global, USA. pp. 51-56.
- M. Kalita, R. K. Sharma & H. K. Kalita (2015). Vulnerabilities and attacks in 3G services. *Proceedings of International Conference on Computing and Communication Systems* Vol. II, H. K. Kalita et al. (eds.), IGI Global, USA. pp. 110-113.
- J. Lyngdoh & H. K. Kalita (2015). A Study on Distributed Denial of Service Attack in Manet and its Existing Solutions. *Proceedings of International Conference on Computing and Communication Systems* Vol. II, H. K. Kalita et al.(eds.), IGI Global, USA. pp. 123-128.
- A. K. Maji, B. Rymbai & D. Kandar (2015). A Study on Different Facial Features Extraction Techniques. In: *Research Advances in the Integration of Big Data and Smart Computing*, IGI Global Book Chapter 13, pp. 224-249.

- K. Amitab, D. Kandar & A. K. Maji (2015). Speckle Noise Filtering Using Back-Propagation MultiLayer Perceptron Network in Synthetic Aperture Radar Image. In: *Research Advances in Integration of Big Data and Smart Computing*, IGI Global Book Chapter 16, pp. 280-296.
- V. D. Kumar, D. Kandar & P. Chyne (2015). OFDM Simulation in Combined WiMAX/ DSRC Infrastructure for Efficient Vehicular Networking. *Proceedings of Third International Conference on Emerging Research in Computing, Information, Communication and Applications*, Vol. 3, pp. 495–502. Springer Proceedings.
- K. Amitab, D. Kandar & A.K. Maji (2015). Comparative Evaluation of Radial Basis Function Network Transfer Function for Filtering Speckle Noise in Synthetic Aperture Radar Images. *Proceedings of Third International conference on Emerging Research in Computing, Information, Communication and Applications* Vol. 3, pp. 243 – 252. Springer Proceedings.
- B. Rymbai, D. Kandar & A. K. Maji (2015). A Hybrid Face Recognition Scheme Using Contour and Gabor Wavelet. *Proceedings of International Conference on ICT for Sustainable Development* Vol. 1, pp.377-386 (Ahmedabad, India 3–4 July 2015). Springer.
- K. Amitab, A. K. Maji, D. Kandar (2015). Speckle Noise Reduction in Synthetic Aperture Radar Image using Multi-Layered Perception. *Proceedings of International Conference on Electrical, Electronics, Computing & Communication Systems* Vol. 1, pp. 96-99 (Bangalore, India, 9-10th January 2015).
- P. Chyne, D. Kandar, V. D. Kumar (2015). Performance Evaluation of Hybrid WiMAX/ DSRC Scenarios for Vehicular Communication Environment. *Proceedings of 2nd International Conference on Microelectronics, Circuits and Systems*, Vol. 1, pp. 114-117, (Kolkata, July 11-12, 2015).
- V. D. Kumar & D. Kandar (2015). Efficient Broadcasting mechanism on Vehicular cloud computing. *Proceedings of International Conference on Computing and Communication Systems* Vol. 2, pp. 57- 60 (9-10 April 2015, NEHU, Shillong).
- D. Adhikary & S. Roy (2015). Issues in Quantitative Association Rule Mining: A Big Data Perspective. *Proceedings of ICT for Sustainable Development: Advances in Intelligent Systems and Computing*, pp. 377—385. Springer, India.
- P. H. Guzzi, P. Veltri, S. Roy & J. K. Kalita (2015). MODULA: A Network Module Based Local Protein Interaction Network Alignment Method. *Proceedings of IEEE International Conference on Bioinformatics & Biomedicine*, pp. 1620-1623 (Washington D.C. USA).
- P. H. Guzzi, M. Milano & S. Roy (2015). Towards the Assessment of GRN Algorithms based on (Disease) Ontology. *Proceedings of 6th ACM Conf. on Bioinformatics, Computational Biology and Health Informatics*, pp. 561-567 (Atlanta, GA, USA).
- S. Roy & D. K. Bhattacharyya (2015). Segmentation of Cortical Gray and White Matters from MRI using Density based Clustering Approach. *Proceedings of IEEE International Symposium on Advanced Computing and Communication*, pp. 184-188 (India, 2015).

- D. Adhikary & S. Roy (2015). A New Equivalence Class based Approach for Discretizing Quantitative Data using Point Shift Mechanism. *Proceedings of IEEE International Symposium on Advanced Computing and Communication*, pp. 174-180 (India, 2015).
- D. Adhikary & S. Roy (2015). Trends in Quantitative Association Rule Mining Techniques. *Proceedings of 2nd IEEE International Conference on Recent Trends in Information Systems*, pp.126-131 (India, 2015).
- G. Kharumnuid & S. Roy (2015). Tools for in-silico Reconstruction and Visualization of Gene Regulatory Networks (GRN). *Proceedings of 2nd IEEE Intl. Conf. on Adv. Computing and Communication Engg*, pp. 421-426 (India, 2015).
- D. Adhikary & S. Roy (2015). Mining Quantitative Association Rules in Real-World Databases: A Review. *Proceedings of Intl Conf. Computing. & Communication Vol. I*, (IGI Global, USA), pp.87—92 (India, 2015).
- G. Kharumnuid & S. Roy (2015). Effectiveness of JavaScript Graph Visualization Libraries in Visualizing Gene Regulatory Networks (GRN). *Proceedings of Intl Conf. on Computing & Communication Vol: II*, (IGI Global, USA), pp. 73-78
- A. K. Maji (2015). A Study on Few Soft Computing Techniques to Solve Sudoku Puzzle. *Proc. International Conference on Computing and Communication Systems*, Vol. I, pp. 48-55 (NEHU, Shillong, April 9-10th, 2015).
- A. K. Maji, G. Sarma, S.C. Sahana & K.S. Roy (2015), An Exhaustive Study on Different Audio Watermarking Technique. *Proceedings of International Conference on Computing and Communication Systems*, Vol. II, pp. 143-148 (NEHU, Shillong, April 9-10, 2015).
- A. K. Maji (2015). A Novel Technique for securing E-Commerce Transaction. In: *Strategic Infrastructure development for Economic Growth and Social Change*. Ch. 9, pp. 120-138 (IGI Global Publication, USA, 2015).
- A. K. Maji et al. (2015). A Study on Different Facial Features Extraction Scheme. In: *Research Advances in the Integration of Big Data and Smart Computing*, pp. 224-249 (IGI Global, USA).
- S. Debnath, S. Neog, S. C. Sahana & B. Bhuyan (2015). Study on Secrecy and Privacy Preserving Approaches over Cloud Data Outsourcing. *Proc. International Conference on Computing and Communication Systems*, Vol. II, pp. 135-141 (NEHU, Shillong, April 2015).
- A. K. Gogoi, S. C. Sahana & B. Bhuyan (2015). Review of Stream Cipher Based on Elliptic Curve. *Proc. International Conference on Computing and Communication Systems*, Vol. II, pp. 118-122 (NEHU, Shillong, April 2015).
- S. C. Sahana, S. K. Das & B. Bhuyan (2015). ID Based Aggregate Signature Schemes from pairing: Survey. *Proc. 4th International Conference on Computing, Communication and Sensor Network*, Vol. I, pp. 157-160 (Kolkata, December 2015).
- S. C. Sahana , A. K. Gogoi & B. Bhuyan (2015). A New Short Signature Scheme From Bilinear Pairing. *Proceedings of 4th International Conference on Computing*,

- Communication and Sensor Network*, Vol.- II, pp. 130-132 (Kolkata, December 2015).
- K. Amitab, G. Saha, A. Nath & D. Kandar (2015). Detection of Lung Cancer based on Observing Nodule size variation in CT scan Images. *Proc. International Conference on Computing & Communication Systems*, Vol. 1, pp. 114-117 (NEHU, April 9-10, 2015).
- S. Jelil, K. Amitab, R. K. Das, F. Pyrtuh, L. J. Singh, S.R.M. Prasanna (2015). Exploring Speaker Modeling Techniques for Short-Phrase Based Person Authentication System. *Proc. International Conference on Computing & Communication Systems*, Vol. 1, pp. 165-170 (NEHU Shillong, April 9-10, 2015).
- K. Amitab, D. Kandar, A. K. Maji, V. D. Kumar, Radial Basis Function Based Synthetic Aperture Radar Imaging System. *Proceedings of International Conference on Technological Convergence for Information, Food, Health & Energy Security*, Vol. 1, p. 72 (Chennai, May 1-2, 2015).
- K. Amitab, D. Kandar & A.K. Maji (2015). Comparative evaluation of Radial Basis Function Network transfer function for filtering Speckle noise in Synthetic Aperture Radar images. In: *Emerging Research in Computing, Information, Communication and Applications*, Vol. 3, pp. 243-252 (Springer).
- B. Das & A. Nath (2015). Sentiment Classification Using Bayesian Classification. *Proc. International Conference on Computing & Communication Systems* (NEHU, Shillong, 9-10 April 2015). ISBN: 978-1-4799-5857-0/15.

Research Projects

Ongoing

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1	QoS Provisioning in Internet of Things (IoT)	Md. I. Hussain H. K. Kalita (Co-PI)	Department of Electronics & Information Technology, Govt of India	Rs. 82.4 Lakhs
2	QoS Provisioning in WiFi based Long-Distance Wireless Networks for Hilly Terrain Rural Areas	Md. I. Hussain	Department of Electronics & Information Technology, Govt of India	Rs. 67.08 Lakhs

Academic Collaborations

Swarup Roy

Had collaborative research with the following Universities and Institutions (a) University

of Cantanzaro, Italy; (b) University of Trieste and ICAR-CNR, Trieste, Italy; (c) University of Colorado at Colorado Spring, USA; (d) Indian Institute of Technology, Guwahati.

Other Activities

I Hussain

Served as a member of Project Review and Steering Group for DeitY-funded Research projects on "MAC Protocols Design for Cognitive Radio Networks" implemented by Tezpur University, Assam.

Served as a member of Project Review and Steering Group for DeitY-funded Research projects on "Multiuser MIMO in 3GPP Long Term Evolution (LTE) standard using Soft-Computing Tools" implemented by Dibrugarh University, Assam.

Participated the International Conference on Communication and Networks (COMNET 2016), Feb 20-21, 2016, Ahmedabad, India (IEEE).

Attended One Week Workshop on Emerging Trends and Technologies in Computer Science held from January 4-10, 2016, Gauhati University.

B Bhuyan

Served as a member of Board of Studies in Computer Science & Engineering and Board of Research in NIT, Arunachal.

Hemanta Kumar Kalita

Served as external examiner of thesis for Ph.D. degree of Jadavpur University, Guwahati University and Assam Don Bosco University during the period April, 2015 – Mar, 2016.

Swarup Roy

Acted as a resource person at workshop on "IT and its applicability on other fields" on 26th May 2015, organized by ICFAI, Shillong.

Attended TEQIP national course on Algorithms in Engineering at IIT Guwahati from 15-19 February 2016.

Participated a conference on Bioinformatics and Computer Aided Drug Design (CBCADD 2015) at IIT Guwahati on 7th December 2015.

Selected as reviewer for some of the prestigious international journals, IEEE/ACM Trans. on Computational Biology & Bioinformatics, Elsevier-Computer Methods and Programs in Biomedicine, Springer- Network Modeling Analysis in Health Informatics and Bioinformatics, PLOS Computational Biology, BMC- Systems Biology, BMC- Bioinformatics, Springer Plus etc.

Arnab K. Maji

Participated the International Doctoral Symposium on Applied Computation and Security System (ACSS-2015), May 3-5, 2015, Kolkata, India.

Attended International Symposium on Advanced Computing and Communication (ISACC-2015), September 14-15, 2015, Assam University, Silchar.

Sufal Das

Was invited as a guest faculty to teach Data Mining and Design and Analysis of Algorithms at National Institute of Technology, Arunachal Pradesh in September 2015.

Subhash C. Sahana

Attended the North East workshop on Cryptology, January 21-27, 2016, organized by Applied Statistics Unit, ISI Kolkata.

DEPARTMENT OF COMPUTER APPLICATIONS (TURA CAMPUS)

Head: Mr. Ansuman Kumar
Telephone: 03651-221407 (O)/ +919089458911(M)
E-mail: computerapplication.nehu@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Assistant Professor	Ansuman Kumar, MTech	Web Services, Computer Networks
	Anindya Halder, PhD	Pattern Recognition, Soft Computing
	Rubul Kumar Bania, MTech	Datamining, Artificial Intelligence

Thrust Areas of Research

Machine Learning, Pattern Recognition, Data mining, Bioinformatics and Remote Sensing Image Analysis, Soft computing.

Students' Profile

Enrolment Capacity: MCA – 20

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
MCA	1	22	13	24	12	28	8	36

Placement of Students

Aspirant Software in Guwahati, Assam – 2 (*Software Trainee*)

Nuage Device Management Pvt. Ltd in Noida, India – 2 (*System Trainee Internship*)

Educational Tour of Students

The Department of Computer Application organised an Industrial study tour for the students of MCA 5th semester guided by Assistant Professor Mr. Rubul Kumar Bania. The tour started on 4th of January 2016 and ended on 14th of January 2016. The places visited were Delhi, Noida and Jaipur. This study tour aimed to inspire and motivate the students through industrial visits and also to create an

opportunity for the students to visit new places and get to spend some good times together. This tour has been a boost to the students in their zest for knowledge and their future endeavours. It is hoped that the experiences will contribute to the mental growth and development of the participants and the industrial visit was carried out for both academic and future carrier perspective.

Courses Conducted

Postgraduate (MCA)

Semester I:

Digital Logic Design, Programming & Problem Solving through C, Organisational Behaviour, Accounting and Financial Management, Discrete Mathematics and Probability Theory.

Semester II:

Theory of Computation, Data Structures Using C++, Object Oriented Programming and Design, Computer Graphics, Computer Organisation and Architecture.

Semester III:

Database Management System – I, Data Communication and Networks – I, Operating System, Design and Analysis of Algorithms, GUI Programming Using VB.NET.

Semester IV:

Software Engineering, Data Communication and Networks – II & Network Programming using Linux, Oracle, Database Management System - II, Internet Technology and Applications, Artificial Intelligence.

Semester V:

Compiler Design, Programming through Java, System Programming, Data Mining, Minor Project.

Semester VI:

Major Project.

Seminars/Conferences/Symposia/ Extension Programmes etc.

Organized

The Department organized NNSC-2016, a National Workshop on Networking, in association with E-Cell IIT Kanpur, along

with Department of Computer Applications, NEHU, Tura Campus, from 26-27 May, 2016.

Attended

Anindya Halder

Delivered an invited talk “Semi-supervised and Active Learning using Fuzzy k-NN for Cancer Classification from Microarray Gene Expression Data” in “*National Seminar on Advances of Bioinformatics and Computational Biology in Applied Biotechnology*” organized by Bioinformatics Center, Department of R.D.A.P, North-Eastern Hill University, Tura Campus on 5th Oct, 2015.

Delivered an invited talk “Computational Approaches for Microarray Gene Expression Data Analysis” on the workshop entitled “*Hand on Training Workshop on PCR techniques Applications*” organized by Department of Horticulture, North-Eastern Hill University, Tura Campus from 28.09.2015 -01.10.2015.

Rubul Kumar Bania

Presented a poster work on topic: “Fuzzy rough set gene selection from Microarray Gene Expression Data” in National Seminar on Advances of Bioinformatics and Computational Biology in Applied Biotechnology” organized by Bioinformatics Center, Department of R.D.A.P, North-Eastern Hill University, Tura Campus on 5th Oct, 2015.

Publications

Research Papers

Published Abroad

A. Halder (2015). Kernel based Rough Fuzzy c-Means Clustering Optimized using

Particle Swarm Optimization. *Proceedings of the IEEE International Symposium on Advance Computing and Communication*, IEEE Computer Society Press.

R. K. Bania, J. Kalita (2015). A comprehensive review study on Big Data. *International Journal of Computer Engineering and Applications* 9(12): 83-91

Research Projects

Ongoing

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount
1	Automatic Recognition of Patterns in Numismatic Data	Anindya Halder	UGC	Rs 11,50,000/-

Academic Collaborations

Conducted workshop in collaboration with E-Cell IIT, Kanpur, and Networks Bull.

Collaboration with Department of History and Archaeology to bag a Major Research Project from UGC, New Delhi.

to be organized by Indian Institute of Technology, Roorkee and Indian Institute of Technology, Kharagpur.

Acted as reviewer in (a) *International Journal of Bioinformatics Research and Applications* (Interscience); the journal *Swarm Intelligence* (Springer).

Other Activities

Anindya Halder

Attended and was Program Committee Member in the *IEEE International Symposium on Advance Computing and Communication* organized by Department of Computer Science & Engineering, Assam University, Silchar, 14-15 September 2015.

Member of Computer Science Teachers Association (CSTA), New York, founded by Association for Computing Machinery (ACM). Membership No: 1343757.

Member of International Association of Engineers (IAENG), Hong Kong, Membership No: 141351.

Reviewer and Program Committee Member in *International Conference on Computer Vision and Image Processing (CVIP-2016)*

Ansuman Kumar

Participated in the Refresher Course (Information Technology) organized by UGC-Human Resource Development Centre, Ranchi University, from 2 to 22 December, 2015 at Ranchi, Jharkhand.

Member of International Association of Engineers, Hong Kong. Membership No: 145000.

Member of Computer Science Teachers Association (CSTA), New York, founded by Association for Computing Machinery (ACM). Membership No: 9691771.

Reviewer and Program Committee Member in *IEEE International Symposium on Advance Computing and Communication* organized by Department of Computer Science & Engineering, Assam University, Silchar, 14-15 September, 2015.

Department of Computer Applications (Tura Campus)

Rubul Kumar Bania

Participated in *ADMAT 2015-2nd IEEE Workshop on Advanced MATLAB Applications* from 11-12 April 2015 at IIT Guwahati.

Member of Computer Science Teachers Association (CSTA), New York, founded by Association for Computing Machinery (ACM). Membership No: 4995512.

DEPARTMENT OF NANOTECHNOLOGY

Head: Dr. L. Robindro Singh

Telephone: 0364 – 2723903 (O)/ 9863331127 (M)

E-mail: robidnro001@yahoo.co.in/officenanonehu@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Assistant Professor	L. Robindro Singh, Ph.D.	Nanomaterials, CNT, Nanoceramics
	D. Pyngrope, M.Tech.	Nanomaterials and Nanoelectronics

Thrust Areas of Research

Inorganic Nanomaterials, Nanomedicine, CNT

Brief Statement of Academic Activities

The department came into existence in the year 2012. Since then, the department has been working hard in the field of Nanotechnology and allied fields. The department presently runs two courses namely M.Tech. and Ph.D. in Nanotechnology.

The Ph.D. course started in the year 2013 with two research scholars. At present, there are four

scholars doing research in different fields of Nanotechnology and Nanoscience. The M.Tech course started in 2015 with eighteen students coming from different fields of study.

The course is interdisciplinary, so students come from varied fields of science and engineering viz., Electronics and Communication Engineering, Mechanical Engineering, Biotechnology, Nanoscience, Physics, Chemistry, Biochemistry, Biomedical Instrumentation etc.

Students' Profile

Enrolment Capacity: M.Tech. – 18; Ph.D. – Variable

Degree	SC	ST	GEN	Male	Female	Meghalaya	Non-Meghalaya	TOTAL
M.Tech.	1	8	9	10	8	11	7	18
Ph.D.	2	1	1	3	1	1	3	4

Research Fellowships

UGC Meritorious - 2

Rajiv Gandhi Fellowship - 2

Department of Nanotechnology

Courses Conducted

M. Tech. in Nanotechnology

1 st Semester		2 nd Semester	
Paper Code	Name of paper	Paper Code	Name of paper
NT-101	Quantum Mechanics of Nanostructured System	NT-201	Synthesis and Characterization of Nanomaterials
NT-102	Material Science and Nanoelectronics	NT-202	Polymer and Nanocomposite
NT-103	Mathematical Methods and Modelling	NT-203	Nanophotonics
NT-104	Nanobiotechnology	NT-2041x	Elective I (Open)
NT-114	Nanobiotechnology Laboratory	NT-211	Synthesis and Characterization of Nanomaterials Laboratory
NT-115	Simulation Laboratory	NT-213	Nanophotonics Laboratory
3 rd Semester		4 th Semester	
NT-301	Electric and magnetic properties of nanostructures	NT-415	Project Phase II
NT-3022x	Elective II		
NT-315	Project Phase I		

Ph.D. in Nanotechnology

Paper Code	Name of Paper
ST-1201	Research Methodology
NT-1202	Mathematical Method and Simulation
NT-1203x	Elective

M. Tech. and Ph.D. in Nanotechnology

Seminars/Conferences/Symposia/ Extension Programmes etc.

Attended

L. Robindro Singh

Presented a paper entitled "Luminescence characteristics of $\text{YVO}_4:\text{Dy}$ nanoparticles"

in the 4th International Conference on Advanced Nanomaterials and Nanotechnology organised by IIT Guwahati from 08-11 December, 2015.

Research Projects

Ongoing

Sl. No.	Title of Project	PI/Co-PI	Funding Agency	Amount in Rs
1	Characterization and investigation of luminescence properties of Zn^{2+} and sulphate based nanophosphors doped with lanthanide and metal ions for the feasibility on luminescence dosimetry application.	L. R. Singh	BRNS	23.00 lakhs
2	Preparation and study on effect/role of sensitizers on the photoluminescence properties of lanthanide doped Gd_2O_3 and Y_2O_3 nanocrystals: dispersion in organic solvents.	L. R. Singh	DST	22.00 lakhs

Academic Collaborations

L. R. Singh has collaborative research with BARC, Mumbai and Manipur University.

Other Activities

L. R. Singh

Participated the National workshop on *Advanced Probing Techniques in TEM*

(APPTM-2016) organized by Department of Physics, IIT Guwahati from 15th -16th Feb, 2016.

Attended a national course on *Advances in Nanophotonics* conducted under the Technical Educational Quality Improvement Programme (TEQIP), Department of EEE, IIT Guwahati, held from 25th -26th February, 2016.

IX

ADMINISTRATIVE DEPARTMENT

COLLEGE DEVELOPMENT COUNCIL

Director: Dr. C. R. Diengdoh upto 30th November, 2015;
In Charge: Dr. C. R. Diengdoh from 1st December, 2015 onwards
Telephone: 0364-2721201, 1202, 1203, 1204 (O)
E-mail: dircdc@nehu.ac.in/cdcnehu@gmail.com

The College Development Council is an intermediary between the University and the affiliated colleges admitted to its privileges. It plans for the integrated development of the affiliated colleges and provides them with the required help, guidance and advice. Serving as an academic guide to the college system it ensures availability and use of facilities in the University departments to the teachers in the colleges. It provides a forum for taking necessary steps for the continuous promotion, coordination and raising the standards of education in colleges.

The Council is the Principal Advisory Body to the Executive Council and the Academic Council in all matters relating to affiliation. It is constituted every two years and has representatives comprising university officials, faculty members, a representative of the State Government, principals and teachers of affiliated colleges.

The University has 65 affiliated Colleges, of which 32 are permanently affiliated and 33

are provisionally affiliated. The University also considers affiliating Minority Educational Institutions located anywhere in the country as per the provisions of the National Commission for Minority Educational Institutions (NCMEI) Act.

The Council is the liaising body for the UGC in guiding the affiliated colleges recognized under Section 2(f) and 12(B) of UGC Act, 1956 with all the procedural formalities to send proposals to the UGC for obtaining funds under the different schemes for the overall development of colleges, including minor/major research projects, faculty development programme for college teachers for pursuing M. Phil./Ph.D. etc.

Some of the official transactions of the College Development Council include:

- ☛ Processing of applications of affiliated colleges for grant of affiliation
- ☛ Constitution of Inspection Teams for inspecting the colleges

Administrative Department

- ☛ Convening of Affiliation Committee
- ☛ Placing of recommendations of Affiliation Committee as agenda to Academic Council/ Executive Council for consideration and approval
- ☛ Appointing Subject Experts/Vice Chancellor's Nominees as members of Selection/ Screening Committees for appointing/ placement of Assistant Professors (lecturers) in affiliated Colleges as per University/ UGC norms.
- ☛ Nominating NEHU representatives from among the academicians, to represent the University on the Governing Bodies/ Advisory Committees of the affiliated colleges.
- ☛ Circulation of information/guidelines/ regulations of NEHU,UGC,MHRD and other agencies to affiliated colleges
- ☛ Forwarding of proposals submitted by the colleges to the UGC for funding purposes under its various schemes
- ☛ Legal matters of affiliated colleges
- ☛ General/Miscellaneous correspondences with affiliated colleges/State Govt./ University academicians/University Administration/UGC,New Delhi and Guwahati/MHRD, New Delhi

The Colleges visited by various Inspection Teams during the year 2015-16 for purposes of affiliation include:

1. Buddha Bhanu Saraswati College, Mawprem, East Khasi Hills
2. Khad-Ar-Doloi Law College, Jowai, West Jaintia Hills
3. Morning Star College, Shillong, East Khasi Hills
4. Greater Mawlai College, Shillong, East Khasi Hills
5. Nongtalang College, Nongtalang, West Jaintia Hills
6. Sankardev College, Shillong, East Khasi Hills
7. Tura Law College, Tura, West Garo Hills
8. Acheng Rangmanpa College, Mahendraganj, West Garo Hills
9. Nabon Women's Synod College, Shillong, East Khasi Hills
10. St. Anthony's College Extension, Byndihati, East Jaintia Hills
11. Shangpung College, Shangpung, P.O. Jowai, West Jaintia Hills
12. Six Sigma Educom College, Shillong
13. College of Nursing, Dr. H. Gordon Roberts Hospital, Shillong
14. Iai Kyntiew College, Shillong, East Khasi Hills
15. Khrawsing Christian College, Mawngap, Mawphlang, East Khasi Hills
16. Goodwill College, Shillong, East Khasi Hills
17. Sohra Govt. College, Sohra, East Khasi Hills
18. Nongstoin College, Nongstion, West Khasi Hills
19. Mawlai Presbyterian College, Shillong, East Khasi Hills
20. Shillong College, Shillong, East Khasi Hills
21. Women's College, Shillong, East Khasi Hills

22. North East Regional Institute of Education (NERIE), Umiam, Ri-Bhoi District
23. K.L. Bajoria College, Shillong, East Khasi Hills

Actions taken on Affiliation Matters during the year 2015-16:

- I. *Provisional Affiliation to New Subject(s)/ Course(s) of study in an Affiliated College/ Institution:* 6 Colleges
- II. *Renewal of Provisional Affiliation:* 15 Colleges
- III. *Permission to start new subject(s)/ course(s) of study in an affiliated Colleges/ Institute:* 13 Colleges.
- IV. *Applications received from Colleges for Permission to start New College/ Institution:* 5 Colleges: [1. Khadsawphra College, Mairang, West Khasi Hills District for B.A. (Hons) & B.Com. (Hons) 2. Meribon K. H. Memorial College, Sohiong, East Khasi Hills for B.A. (Hons) 3. Mawkyllai College, Mawkyllai, Mairang, West Khasi Hills for B.A. (Hons) 4. Woodland Institute of Nursing, Laitkor, Shillong for Basic and Post Basic B.Sc. Nursing (Professional courses) 5. IAEER's PIBM College, (Indian Academy of Empowerment & Educational Research), Nongrim Hills, Shillong for BBA (Bachelor of Business Administration) & B. Com (Hons)]
- V. *Permission or Provisional Affiliation to start PG Department in an existing College/ Institution:* 2 Colleges [1. Synod College, Shillong, East Khasi Hills for M.A. Political Science 2. College of Nursing, NEIGRIHMS, Shillong, East Khasi Hills for M.Sc. Nursing]

Three Colleges were assessed and accredited by NAAC, Bangalore:

1. Sngap Syiem College, Mawkyrwat, South West Khasi Hills with Grade 'C'
2. Nongstoin College, Nongstoin, West Khasi Hills with Grade 'B+'
3. College of Teacher Education (PGT), Shillong with Grade 'B'

One College was reassessed and reaccruited by NAAC, Bangalore:

1. Sankardev College, Shillong with Grade 'B'

College Extension Campus

St. Anthony's College, Shillong, Extension Campus at Byndihati, East Jaintia Hills was granted affiliation for B.A. (Hons) and B.Com. (Hons) courses. Another Extension Campus of St. Anthony's College, Shillong was granted permission at Umjyrshi, Ri-Bhoi District.

In February 2016, an All India Survey on Higher Education (AISHE), conducted by the MHRD, Department of Higher Education, providing a data base on higher learning for the year 2014-15 was successfully uploaded for the University on the AISHE portal. The CDC also monitors the uploading of All India Survey on Higher Education (AISHE) data of the affiliated colleges.

In the year under report, the College Development Council has been instrumental:

- i. In convening of Meetings of the Working Committee constituted to undertake the task of working out relevant issues pertaining to the Undergraduate level Semester System in the affiliated colleges,
- ii. In coordinating matters related to co-curricular activities, in particular, sports with the affiliated colleges under NEHU,

- iii. As Nodal office in coordinating UGC 'Expert Committee' re-visits to 10(ten) affiliated Colleges in East Khasi Hills, for on-the-spot evaluation of ongoing project of construction of Women's Hostels under UGC Special Scheme funding to Colleges,
- iv. In organizing a one-day Principals' Conference in collaboration with UGC

Human Resource Development Centre (formerly Academic Staff College) on the theme "Implementation of Semester System at U.G. Level- Perspectives on Quality Management" and

- v. In preparing the Report of the CDG which is incorporated in the NAAC Self Study Report of the University.

EXAMINATION DEPARTMENT

Controller of Examinations : Dr. L. Cajee
Telephone : 0364 2721211 / 1212, 9774026782 (mob)
Email : offcoe@nehu.ac.in

During the Academic Year under review, the Examination Department had effectively declared all Under Graduate results within a stipulated timeframe which have facilitated students seeking admission to Post Graduate Programme of the University and outside as well. The Department also took special measures towards timely declaration of all Postgraduate results to enable students aspiring for higher academic pursuit in various Universities of the Country and abroad.

The Examination Department is mandated to operate round the year on matters pertaining to a variety of Under Graduate, Post Graduate and Professional Courses examinations including award of M. Phil and PhD Degrees under multidisciplinary courses are offered by the University. With the increase in numbers of affiliated colleges and Academic Departments vis-à-vis implementation of semester system of examinations at undergraduate level from the academic session 2015, the Examination Department is progressively envisaging to equip with imperative logistic support to cope up with the enormous augmentation of time bound assignments within limited manpower support. In this context, the Department has introduced online system of filling up of examination forms by students of affiliated colleges of the University and as a result of which Registration Cards and Admit Cards of students are being auto generated.

As a continual process, the Examination Department is conducting coursework examinations for M. Phil and PhD programme in accordance with the UGC guidelines and all results of course work examinations under the UGC's 7 Point Scale have been declared within stipulated timeframe.

The Examination Department has successfully declared the results of final year MS & MD Degrees offered by NEIGHRIMS.

The Examination Department is in receipt of a substantial numbers of requests from external agencies for verification and authentication of certificates / documents issued by this University for the purpose of employment. The Department has made special provision to respond to these requests expeditiously. The Examination Department also taking adequate steps to digitize all confidential records maintained since its inception.

In deference to the austerity measures undertaken by the Government of India, Examination Department has initiated necessary steps to curtail expenditure on conduct of UG and PG Examinations.

The Twenty Third Convocation of the University was held on 29th March 2016. Beside other dignitaries, the former Hon'ble Minister of Human Resource Development Govt. of India Smti. Smriti Irani graced the occasion as Chief

Administrative Department

Guest. Eminent personalities such as former Chairperson of UPSC Smt. Rose Millian Bathew (Kharbuli) and distinguished sports personality Smti M. C. Mary Kom were conferred with

the Degree of Doctor of Letters (*Honoris Causa*) during the Twenty Third Convocation Ceremony.

The numbers of degrees awarded during the year 2014-15 is reproduced below:

Course	In Person	In Absentia	Total
PhD	100	33	133
M.Phil	15	24	39
PG Degrees	533	524	1057
Bachelor's Degrees	1922	7143	9065
Total	2570	7724	10294

The enrolment of students and results during the year 2015-16 are given at Annexures A, B, C & D respectively.

FINANCE DEPARTMENT

Finance Officer-in-charge : Smti N. G. Marwein
Telephone : 0364-272 1021
Email : fo@nehu.ac.in

The following are the receipts and payments account for the period ending 31.03.2016

RECEIPTS	Current Year 2015-16	PAYMENTS	Current Year 2015-16
I. Opening Balances	1072499748	I. Expenses	
a) Cash balances		a) Establishment Expenses	1177620897
b) Bank balances		b) Academic Expenses	99047167
i) In current accounts		c) Administrative Expenses	108653994
ii) In deposit accounts		d) Transportation Expenses	16658149
iii) Savings accounts		e) Repairs and Maintenance Expenses	49121111
iv) In Fixed Deposits/ Investments	821952560	f) Prior period expenses	
II. Grants Received		II. Payments against Earmarked/Endowment Funds	22468566
a) From Govt. of India	1870779979	III. Payments against Sponsored Project/Schemes	60208365
b) From State Government		IV. Payments against Sponsored Fellowships/ Scholarships	67310096
c) From other sources	32420833	V. Investments and Deposits made	
III. Academic Receipts	119473	a) Out of Earmarked/ Endowments	
IV. Receipts against Earmarked, Endowment Funds	36168829	b) Out of own funds	
V. Receipt against Sponsored Projects/Schemes		VI. Term Deposits with Scheduled Banks	

Administrative Department

VI. Receipts against sponsored Fellowships and Scholarships		VII. Expenditure on Fixed Assets and Capital Work in Progress	
VII. Income on Investments from		a) Fixed Assets	124683900
a) Earmarked/ Endowment funds	10658418	b) Capital Works in Progress	37077200
b) Main account investments	33479249	c) Statutory payments and release of security and caution deposits	262936663
VIII. Interest received on		IX. Refund of grants	
a) Bank deposits		X. Deposits & Advances/ Interest bearing advances	
b) Loans & Advances	6644750	XI. Other Payments/Bank charges	1805000
c) Savings Bank accounts	27262773	Closing balances	
IX. Investment encashed		a) Cash in Hand	
IX. Term Deposits with Scheduled Banks encashed	6789292	b) Bank balances	
XI. Other income (including Prior Period Income)	34747863	In Current Accounts	587524853
XII. Deposits and Advances		In Savings Accounts	283285829
XIII. Statutory Receipts including Security, Caution, Earnest Deposits etc	127898311	In Statutory recoveries, Security, Caution Deposits	-14303740
XIV. Any other Receipts/ Loan recovery	9864971	In Fixed Deposits/ Investments	1207188999
TOTAL	4091287049	TOTAL	4091287049

PLANNING DEPARTMENT

Assistant Registrar : Shri A.Sohtun.
Telephone : 0364-2721059
E-mail : asohtun123@gmail.com.

In the year 1978, the North-Eastern Hill University created the Planning Department with the objectives for designing and implementing as well as the vision plan for the development of the University in the field of Academic, Infrastructure welfare.

It is the Central Unit for budgetary planning of the University. On receipt of budgetary plan proposals from different Schools, Departments, Centres, etc., it scrutinizes and finalizes the fund allocation to be made to the individual

School, Department, Centres in specific and the University in General.

Out of the proposal for XII five year PLAN (2012-17) amounting to Rs. 405,44 lakhs submitted to University Grants Commission, New Delhi, an amount of Rs. 154.00 lakhs has been approved by the Commission under the current plan period.

For the year 2015-16 the UGC has granted an amount of Rs. 2086.87 lakh as next installment towards General Development Assistance under the XII plan period as per the details below:

(Rupees In Lakh)

XII Plan allocation	Name of the Item	Head of Account	Grant already Sanctioned	Grant Now being sanctioned	Total Grant
2700.00	Grants-in-aid General (Recurring) (31)	1 (D) 2552.00.131.02.02.31 CU (NER)	2019.36	52.70	2082.06
		1 (E) 2552.00.789..02.04.31 CU (NER) SC	379.64	10.20	389.84
		1 (F) 2552.00.796.05.04.31 CU (NER) ST	223.00	5.10	28.10
		Total	2632.00	68.00	2700.00

Administrative Department

2350.00	Grant in aid Salary (36)	1 (D) 2552.00.131.02.02.36 CU (NER)	319.38	99.82	419.20
		1 (E) 2552.00.789..02.04.36 CU (NER) SC	92.19	0.00	92.19
		1 (F) 2552.00.796.05.04.36 CU (NER) ST	88.43	0.00	88.43
		Total	500.00	99.82	599.82
10350	Grant of Capital Assets (Non- recurring) (35)	1 (D) 2552.00.131.02.02.35 CU (NER)	2362.12	1575.58	3937.70
		1 (E) 2552.00.789..02.04.35 CU (NER) SC	506.44	343.47	849.91
		1 (F) 2552.00.796.05.04.35 CU (NER) ST	331.44	0.00	331.44
		Total	3200.00	1919.05	5119.05
15400.00		Grand Total	6332.00	2086.87	8418.87

It may be noted that the total Budget of the University for the XII Plan period has been reduced from the proposed budget. This has impacted adversely on the General Development of the University, especially the

newly established departments in the School of Technology. For this reason, the University requests the UGC for sanction of additional grant specifically for the new Departments under the School of Technology.

X

CENTRAL SERVICES

BIOINFORMATICS CENTRE

Name of the Coordinator : Prof. Suman Kumaria (In-charge)
Co – Coordinator
& Information Officer : Dr. Devendra K. Biswal
Telephone : 0364-2550150/ 0364-2550300 (O)
Website : <http://bicnehu.ac.in>
Email : nehuniv.btisnet@nic.in;
bicnehu@gmail.com;
sumankhatrikumaria@gmail.com.

Staff

Sl. No.	Name of the Staff	Designation	Working Since
1.	Mr. Manish Debnath	Senior Technical Assistant	November 1999
2.	Mrs. Nirmala Dayanandan	Computer Operator	April 2014
3.	Mr. Welfrank Thongnibah	Computer Operator	March 2007
4.	Mr. Graciously Kharumniud	Technical Assistant	March 2007
5.	Mr. Santosh Kumar Vishwakarma	Technical Assistant	March 2007
6.	Mr. Pradeep Kumar Kar	Data Entry Operator	November 2005
Department of Biotechnology, Govt. of India sponsored manpower on contract basis			
	Mr. Gary Victor Ropmay	Technical Assistant	April 2012
	Mr. Nirmal Das	Data Entry Operator	April 2012

Thrust Area of Research in the Centre

The Bioinformatics Centre (BIC) at NEHU is set up and funded by the Department of Biotechnology (DBT), Ministry of Science & Technology under the Biotechnology Information System Network (BTIS) program since November 1999 to cater to the needs of the scientific community in the North-Eastern region of the country and to augment their research activities through information inputs. Rich in variety of flora and fauna, the North-Eastern region has been identified as a biodiversity 'hotspot'. As a part of the National Bioinformatics Network the Centre's mandate is Biodiversity Informatics, serving as an information base in various areas of Biosciences. Some important areas of research are molecular characterization, genome organization and expression in plants, animals and microbes, oncology, parasitology, crop improvement, microbial genetics etc. The most important area of research relevant to the North-Eastern region being Biodiversity, the facilities of the Centre are extensively used to prepare databases. Extensive work on parasite genomics, proteomics and metabolomics, evolutionary bioinformatics and phylogeny has also been initiated, apart from providing support to all disciplines of research in biotechnology.

Brief Statement of Academic Activities

- (a) *Information node of BTISnet*: The Centre is part of the National Bio-information Network and functions as an information base in various areas of Biosciences and Biodiversity for the North-East ever since its inception.
- (b) *Nodal centre of North East Bioinformatics Network (NEBINet)*: The BIC serves as a nodal centre for the newly constituted NEBINet by DBT, GOI, comprising 3 Sub-DIC's and 26 Bioinformatics Facilities through Biology teaching (BIF-BTBI) Centre's since 2008 spanning 8 states of North-East.
- (c) *Nodal centre for operating DBT-sponsored Online Access Facility of Library Resources (OAFRL)* for 36 Secondary and Senior Secondary Schools in North Eastern States of India through 8 BIF-BTBI Coordinators.
- (d) Identified as one of the 18 nodal Centre in the Region to operate and monitor the *DBT e-Library Consortium (DeLCON)* facility (that comprises a total of 917 selective Journals and a Database (SCOPUS) for NEHU).
- (e) *DBT-sponsored Bioinformatics National Certification Examination Exam Centre (BINC)*: The BIC NEHU is one of seven Examination Centres for conducting BINC Exam (the year 2008 onwards).
- (f) *Dissertation Training*: Students pursuing post-graduation in any branch of biosciences are trained in Bioinformatics for 3-6 months towards their dissertations as partial fulfillment of their M.Sc. degree (Completed – 15 nos.).
- (g) *Research & Database Development*: Molecular characterization, functional and comparative genomics, proteomics, metabolomics, and evolutionary bioinformatics of pathogenic worm infections.
- (h) *Bioinformatics Training Programmes*: have always been an integral part of the Centre's activity, for which connoisseurs in the field are always invited to act as resource persons.
- (i) *Identified and completed the first phase of Bio-Resource Information Centre (BRICs)*

and portal development under Indian Biodiversity Information Network (IBIN), DBT, Govt. of India.

Course Organized

A 3-day Training Program on *High Throughput Sequencing: Bioinformatics and Data Analysis* was organized during April 25 - 27, 2016.

Publications

International Publications

Biswal, D.K., Debnath, M., Kharumnuid, G., Thongnibah, W. and Tandon, V. (2016). Northeast India Helminth Parasite Information Database (NEIHPID): Knowledge Base for Helminth Parasites. *PloS one* 11(6): p.e0157459.

Bhattacharya, P., S. Kumaria and P. Tandon (2015). Applicability of ISSR and DAMD markers for phyto-molecular characterization and association with some important biochemical traits of *Dendrobium nobile*, an endangered medicinal orchid. *Phytochemistry* 117: 306-316

Bhattacharya, P., S. Kumaria, N. Job and P. Tandon (2015). Phyto-molecular profiling and assessment of antioxidant activity within micropropagated plants of *Dendrobium thyrsiflorum* -a threatened, medicinal orchid. *Plant Cell Tiss Organ Cult* DOI 10.1007/s11240-015-0783-6

Devi, S.P., S. Kumaria, S.R. Rao and P. Tandon (2015). Genetic fidelity assessment in micropropagated plants using cytogenetical analysis and heterochromatin distribution: a case study with *Nepenthes khasiana* Hook f. *Protoplasma* DOI 10.1007/s00709-015-0763-z

Raomai, S., S. Kumaria and P. Tandon (2015). Plantlet regeneration of *Paris polyphylla* Sm. via thin cell layer culture and enhancement of steroidal saponins in mini-rhizome cultures using elicitors. *Plant Growth Regul* 75: 341-353. DOI 10.1007/s10725-014-9957-1

Sahu R, Biswal DK, Roy B, and Tandon V (2015). Molecular characterization of *Opisthorchis neverca* (Digenea: Opisthorchiidae) based on nuclear ribosomal ITS2 and mitochondrial COI genes. *J Helminthol.* 15:1-8

Infrastructure Facilities

A. Computer & Communication facility

- Implementation of LAN on a Structured CAT 5 UTP Cabling Network using Switches and Hubs
- Servers (3 nos.)
- PCs (20 nos.) & Workstations (3 nos.)
- Printers (3 nos.)
- Scanner (1 no.)
- UPS (5 nos.)
- LCD Projector (2 nos.)

B. Scientific Software packages

- Accelrys Gene 2.5 (Sequence Analysis Work Bench)
- Matlab 7.0
- Winspirc ver 4.1 for Biotechnological Abstracts
- Reference Manager
- CLC Genomics workbench
- PAUP
- DNASTAR

C. Databases & other information resources

- Derwent Biotechnological Abstracts (July 1987 - March 2006)
- Reference Update Deluxe Edition (July 2002 - June 2004)
- Parasitology Database (obtained through MOE&F)
- Application Softwares from Microsoft, RHEL, SQL, Adobe and Apple etc.

D. Facility procured through DIT sanctioned NEPIAC project:

- Apple Work Group 13 node Cluster (HPCC)
- Apple iMAC (7 nos.)
- 40 kva UPS (1 no.)
- SPSS
- iWork, iNquiry softwares

E. DeLCON facility through DBT, GOI – free access to 917 selected journals available to the potential users through University LAN.

F. Facility procured through NER Twinning Next-Gen Sequencing Project:

- Apple Mac Pro (1 no.)
- 10 kva UPS (1 no.)
- Apple iMAC 21" (6 nos.)

G. Facility procured through DBT, GOI sanctioned IBIN-BRIC Project:

- Backup Device (1 no.)
- Workstation (1 no.)
- HP Procurve Switch (1 no.)
- Cisco 1841 Router (1 no.)
- Server (2 nos.)

- Red Hat Enterprise Linux 6 Advance Platform (1 user)
- Microsoft SQL Server 2008 R2 Enterprise Edition (1 user)

Research Activities

NEHU BRIC IBIN

Dr. Ganeshaiah paid a visit to the BIC, NEHU and overviewed the inhouse databases suggesting to take up 2 databases primarily the Helminth Parasite Spectrum in North-East India (Database developed using MS-Access and VB6.0). The mosquito database of North East India (web enabled) with front-end: MS-Visual Studio 2005/2008 and Back-End: MS-SQL was to be also incorporated in the IBIN portal. The BIC technical team visited UAS, GKV for furthering and fine tuning the database with Dr. Ganeshaiah's team and enhanced the searchability of the database by including Search by scientific name, Search By host and Search by Locality. Currently, we are working on the 'Helminth parasite database', of which 121 species have been formatted and entered into the system. The project has been extended for two more years.

NER Twinning

In the first phase of the NER Twinning project, we have identified three food-borne trematodes (two gastrointestinal and one lung fluke) of zoonotic importance, namely, *Fasciolopsis buski*, *Artefechinostomum surfratylfex* and *Paragonimus westermani* for the next generation sequencing using Illumina platform. De novo whole genome sequencing and assembly and sequence informatics for all the three parasites and transcriptome sequencing for *Fasciolopsis*

buski only were carried out owing to budgetary constraints. Scholars from NEHU had frequent visits to Prof. A. Bhattacharya's (PI from JNU) lab for getting the requisite training on DNA and RNA Poly A+ preparation and total isolation. JNU scholars also made a visit to Prof. V. Tandon's (PI from BIC, NEHU) lab and imparted hands on training to NEHU scholars. There were several in silico meetings arranged at JNU for design of the Bioinformatics pipeline initially for nematodes as the data was available. Two meetings of PIs in the twinning programme were held at JNU, in which the research group from ICAR, PUSA, New Delhi participated and shared their experiences and expertise on plant nematode projects. After adequate processing of the parasite samples they were sent to M/s. Genotypic Technologies for NGS sequencing and analysis. The short and long library constructs for all the three samples were subjected to bioanalyzer profiling for whole genome sequencing and is under progress. The Bioanalyzer profile for transcriptome sequencing for *Fasciolopsis buski* was perfect and is completed.

Research Projects

Completed

1. Collaborative project with JNU, New Delhi on *Next Generation Sequencing and Genome Information of Parasite Biodiversity of medico-veterinary significance in North-East India* to Prof. V. Tandon (PI), D. K. Biswal (Co-PI) and A. Bhattacharjee (PI) under DBT NER Twinning Programme (2011-14) vide Sanction No. BT/48/NE/TBP/2010 dated March 14, 2011.

Ongoing

1. *Establishment of Portal for Indian Bioresource Information Network (IBIN)* under National Bioresources Development Board (NBDB, DBT) (2011-2014) vide sanction No. BT/PR14571/NDB/52/187/2010 (March 04, 2011).
2. DBT-sponsored NER Twinning project on *Next Generation Sequencing (NGS)-based de novo assembly of expressed transcripts and genome information of Orchids in North-East India* (PI: Prof. P. Tandon, D. K. Biswal (CO-PI) and Dr. S. Sundar (PI), IIT, Delhi).

CAMPUS DEVELOPMENT DEPARTMENT

University Engineer : Shri A. M. Kharmawphlang
Telephone : 0364-2722061 (O)
Email : amkharmawphlang@gmail.com

SHILLONG CAMPUS				
Sl no	Name of the works	Allocated Amount	Status	Remarks
1	Remaining works of construction of glass dome for butterfly park at Permanent Campus, NEHU, Shillong	2,23,72,856.00	Work in progress	
2	Exhaustive renovation to Saramati Hostel at Permanent Campus, NEHU, Shillong	1,46,96,960.00	Work completed	Final bill is under preparation
3	Construction of Guest House building near airport at Guwahati.	90000000.00	Work in progress	
4	Construction of First Floor above Animal House at Permanent campus, NEHU, Shillong	5212430.00	Work completed	Completion cost Rs.42,78,434.00
5	Providing laboratory furnishing to Cluster of Class rooms for Sciences at permanent campus, NEHU, Shillong	19483594.00	Work completed	Completion cost Rs.1,26,45,898.00
6	Renovation of old residential quarters at permanent campus, NEHU, Shillong	10000000.00	Tenders invited, award of work pending before Executive Council	
7	Providing parking facilities at permanent campus, NEHU, Shillong	10000000.00	Work in progress	

Campus Development Department

TURA CAMPUS				
1	Construction of 60 seated hostel for MBA students with Warden's residence at Tura Campus, Tura.	42000000.00	Work completed	Final bill is under preparation
2	Construction of 20 bedded Guest House at Tura campus, Tura	31994000.00	Work in progress	
3	Construction of Service Building at Tura Campus, Tura.	15313000.00	Work in progress	

COMPUTER CENTRE

Head : Professor Asit Kumar Chandra
Telephone : 0364-2723751/ 2722622
Email : hodcc @nehu.ac.in / akchandra@nehu.ac.in

Faculty/Staff

Designation	Name and Qualification	Specialization
Professor	Prof. A. K. Chandra, PhD (Burdwan Univ.)	Computational Chemistry
Associate Professor	Dr. T. K. Sinha, Ph.D. (NEHU)	Computational Physics
Senior Systems Analyst	Mr. P. P. Dey, B.Tech (REC Warangal); M.Tech (NEHU)	Electronics & Communication Engineering, Information Technology
Systems Analyst	Mr. H. Kharshiing, B.Tech (Jawaharlal Nehru Engg College)	Computer Science & Engineering
	Mr. M. Kharjana, B.E. (Sardar Patel College of Engg. Mumbai)	Computer Science & Engineering
Computer Operator	Mr. P. Kharlukhi, BCA	Computer Hardware & Networking

Main Areas of Service

Providing computational facility to faculty members, research scholars and students of the University

Assisting Examination Department in Automation Activities

Conducting training programs in computer related subjects.

Providing Computational Access to HPCC Cluster (SULEKOR) 24x7.

Supporting ICT/ UMS related automation activities of the University

Brief Statement of Academic/Other Activities

Research Scholars, Teachers & non-teaching staff from various Departments/Centres utilize the facilities of the Centre for computational work, documentation and internet browsing.

Several Short Term Courses are conducted throughout the year in the following :

1. SPSS
2. MATLAB
3. C Programming
4. Windows & MS-Office.
5. Webpage Designing

6. Computer Hardware & Networking

The Centre has been assisting Finance, Examination and Administration Departments

of NEHU. Systems Analyst and Data Entry Operators of the Centre are involved in the Examination Department's work.

Student Intake (Short Term Courses)

Enrolment capacity: 80 nos.

	OBC	SC	ST	Gen	Male	Female	From Meghalaya	From Outside
Windows & MS-Office	-	-	23	-	9	14	23	Nil
C-Programming	2	-	2	2	1	4	5	Nil
Statistical Analysis	-	-	3	2*	1	4	3	2*
MatLab	-	-	6	-	5	1	6	Nil
Java Programming	1	-	4	4	4	5	9	-

* Foreign Nationals

Short Term Courses Taught

- C programming by Mr. P. P. Dey
- Java Programming by Mr. M. Kharjana
- MS-Windows & MS-Office by Mr. H. Kharshiing
- Statistical Analysis by Dr.T.K.Sinha
- MATLAB by Dr. T. K. Sinha

Publications

Dey, P. P., Kalita, H. K. (2015) End User Response to Web-server Access Calibration Method, *Fifth International Conference on Communication Systems and Network Technologies*, IEEE Computer Society, p. 1020-1024.

Dey, P. P., Kalita, H. K. (2015) Modeling End User Response to Web-server Access, *I3CS'15: International Conference on Computing and Communication Systems*, 9-10 April 2015, Shillong.

Publications using Computational Facilities (Sulekor) of Centre

B. K. Mishra, M. Lily, R. C. Deka, A. K. Chandra (2016) *New J. Chem.* DOI:10.1039/C5NJ02752G.

D. Sutradhar, A.K. Chandra, Th. Zeegers-Huyskens (2016). *Int. J. Quantum Chem.* 116: 670.

S. Sangilipandi, D. Sutradhar, K. Bhattacharjee, W. Kaminsky, S. R. Joshi, A. K. Chandra, K. Mohan Rao (2016) *Inorganica Chimica Acta*, 441: 95.

S. Sangilipandi, D. Sutradhar, W. Kaminsky, A. K. Chandra, K. Mohan Rao (2016) *Journal of Molecular Structure*, 1115: 8.

A. B. Punna Rao, N. Rao Palepau, D. K. Deb, A. Uma, T. Chiranjeevi, B. Sarkar, Werner Manisky, K. Mohan Rao (2016) *Inorganica Chimica Acta* 443: 126-135.

D. K. Deb, Biplab Sarkar (2016) *Chemical Physics*, 472: 95-104

S. Sangilipandi, R. Nagarajaprakash, D. Sutradhar, W. Kaminsky, A. K. Chandra, K. Mohan Rao (2015) *Inorganica Chimica Acta*, 437: 177.

community primarily by Research Scholars from the Department of Chemistry, Physics, Biochemistry, Biotechnology and BSSS. The system is in use for 24x7. The SULEKOR has primarily users for Fortran, Gromacs and Gaussian.

Infrastructure Facilities

SULEKOR High Performance Cluster Computer

SULEKOR Cluster was installed in March'2015.

It has been in use by the University

Configuration

1	Master Nodes (2 U Rack Server) Dell, Model:R720, 2 Processor min 16 Cores	1
2	Compute Nodes Enclosures (Blade Chasis) Make : Dell Model : C8000	1
3	Compute Node Make : Dell Model : C8220	7
4	24-Port Gigabit Switch with 2 Combo Mini-GBIC ports Make : Cisco, Model : SG 9224	1
5	1 U Rack Console Make : Aten, Model : CL1000	1
6	42 u Rack Make : Valtrack	1
7	Cluster Management Open Source (Cent OS)	-
8	4TB 7.2K RPM Near-Line SAS 6Gbps 3.5in Hot-Plug	4
9	InfiniScale IV QDR InfiniBand Switch, 8 QSFP ports Make : Mellanox, Model : Inifini Scale IV QDR	1
10	InfiniBand Cards for the servers Make : Mellanox	7

40 Desktop PCs (All connected on a LAN with NEHU internet facility)

Other Activities

The Centre organized LaTeX Workshops under SPOKEN Tutorial Project of IIT Bombay. 48 participants attended on 19th November 2015 and 16 participants attended on 16th March 2016.

Computer Centre generated an amount of Rs.71,259/- during the period through its various activities.

Three PhD students were guided by Dr. T. K. Sinha.

Dr. T. K. Sinha and Mr. P. P. Dey taught computer related courses to students of M.Sc. (Statistics) and B.Tech. (Biomedical & Energy Engineering).

Dr. T. K. Sinha and Mr. P. P. Dey carried out examination work for NEHU as external

Computer Centre

practical examiner in various affiliated colleges.

Mr. P. P. Dey gave lectures in Orientation Programmes and Workshop organized by Academic Staff College, NEHU.

Prof. A. K. Chandra and Mr. P. P. Dey are deputed by the University as Project Manager and Associate Project Manager respectively for the ongoing UMS implementation.

Mr. P. Khalukhi repaired desktop computers from various Departments/ Centres of NEHU.

Mr. P. Kharlukhi provided assistance to Examination Section, Administration Section and Finance Section of NEHU in Computer Related work.

Staff of Computer Centre are engaged by Examination Section, NEHU and College Development Council, NEHU as and when required.

Centre provides assistance to Finance Section, NEHU in Computer related work.

NEHU DATA AND VOICE NETWORK (NDVN)

Administrative in-charge	: Professor P. Nongkynrih
Address	: SAIF Building, NEHU campus, Umshing, Shillong 793022
Telephone number	: (0364) 272-2831
NDVN Facility numbers	: 272-6195, 272-6196, 272-6197 and 255-1297
E-mail	: admin@nehu.ac.in
Technical Officer	: Mr. Ivan Lyngdoh
System Analyst	: Mr. S. Nongkhlaw
Technical Assistant	: Mr. S. N. Sharma
Field Assistant (Technical)	: Mr. Kapoorchand Chaudhury (On contract)

The NEHU Data and Voice Network (NDVN) Facility, commissioned in 2003 as VSAT Facility, continues to provide data (Internet) and voice (telephony) access to all academic and administrative departments.

Existing Components providing Continual Services

1. Data Network

- a. The National Knowledge Network (NKN) of 1 Gbps link commissioned on 19th May 2010 provides Internet access and other related applications (Internet, IP authenticated e-journals from UGC-Infonet E-journal consortium, mail and web etc.) to all Academic and Administrative departments.
- b. Data Network for usage of Internet & University Management Software (UMS) is available in all Departments, Centres and Administrative building with a capacity of over 3000 connections.
- c. NEHU Mail Server with nehu.ac.in domain, provides email facility to all faculty and officers of NEHU. The Mail Server is also functioning as an authentication server for WI-FI with LDAP service.
- d. All servers and applications which include DNS, DHCP Web Servers, Mail Servers, Proxy Servers, Gateway filtering for Viruses and Spams, Network Monitoring software and DHCP, run on HP Blade Chassis C7000 with 9 active Blade Servers. The other older Tower servers (IBM) are being utilized for voice IP-PBX management and backup.
- e. The Extreme Summit Black Diamond 8806 core switch provides connectivity, routing, vlans access to and from all layers 2 (L2) switches in all departments which was upgraded with 24 ports 1/10 GbpsFibre connectivity and latest MSM and OS.
- f. All Departments are connected to the core switch with the Layer 2 Switches namely Extreme Summit X150-24t, Extreme Summit X150-48t, HP Procurve 1920 Cisco SG500 with gigabit uplinks.
- g. Data/Internet connections to most departments having computer laboratory

- facilities are available with 30 numbers of 48 port L2 HP Procurve Switches.
- h. The Intranet and Internet access of the Digital Repository under the Library Digitalization Project of UPE is being provided through the network infrastructure of NDVN.
 - i. The e-governance project with the University Management Software (UMS) runs on the Intranet network infrastructure of NDVN. At present the Finance and On-Line Admission modules are running.
 - j. The New NextGen DELL SonicWall SuperMassive9200 Firewall with Analyzer is in place for better security and performance.
 - k. The DELL SonicWall Email Appliance Security (ESA) is also in place for enhanced security and spam filter in the mail server.
 - l. Limited WI-FI access is provided to each department of the University including Multi-Use Convention Centre and Guest House.
 - m. WI-FI connection with LAN-Controller based Access Points (APs) has been commissioned to all hostels.
 - n. Six nos of IPDSLAM has been commissioned enabling Broadband connectivity over the telephone lines to all P- Type, L- Type, Type V, Type IV and Type III residential quarters.
- 2. Voice Network**
- a. Voice Network is extended to all Departments, Centres, Administrative building and most residences quarters with a capacity of over 1500 telephone extensions.
 - b. The Avaya S8730 server with two G650 Media-gateways located in NDVN, Administrative Building and Political Science Department and four G450 Media-gateways located in the School of Technology (SOT), Old Guest House, Type II and New SOT provide TDM backbone and IP enable switch architecture for the voice/telephony network. All the Media-gateways are connected to the server over IP and registered to the Server-over-IP-Back-Bone.
 - c. The 2 Mbps PRI and 2 Mbps Level-DID leased lines from BSNL integrated with the IP-PBX Server provides incoming and outgoing telephone calls facilities to/from the network

3. Website Data.

Usage Statistics for www.nehu.ac.in

Summary by Month										
Month	Daily Avg				Monthly Totals					
	Hits	Files	Pages	Visits	Sites	KBytes	Visits	Pages	Files	Hits
Mar 2016	35154	26265	10493	1846	41373	40564044	57252	325301	814245	1089777
Feb 2016	34625	25412	10118	1957	40182	43898792	56772	293432	736952	1004127
Jan 2016	35584	25656	9065	1996	44454	46647255	61882	281023	795346	1103110
Dec 2015	49923	35455	11017	2709	53837	65761347	83981	341540	1099109	1547636
Nov 2015	38144	26348	10182	1957	42201	51457987	58725	305466	790460	1144341
Oct 2015	65668	44405	20098	3053	63385	61933194	94723	623054	1376576	2035726
Sep 2015	41488	29388	10713	2103	49762	57744145	63103	321411	881642	1244660
Aug 2015	61776	44542	16576	3050	54778	101345212	94553	513857	1380803	1915069
Jul 2015	84419	57210	22602	3959	65222	132909416	122741	700686	1773515	2617010
Jun 2015	125736	85158	28278	6517	98075	95896156	195538	848353	2554747	3772107
May 2015	47297	33927	10470	2582	52090	246717362	80060	324593	1051742	1466209
Apr 2015	34407	23799	8515	2012	42506	43184685	60361	255470	713982	10322235
Totals						988059595	1029691	5134186	13969119	29262007

DATA AND VOICE NETWORK (TURA CAMPUS)

System Analyst (contract) : Mr. Deramun Ch Momin

Email Id : deramunmomin@gmail.com

The NEHU Tura Data and Voice Network (NDVN) Facility commissioned in 2012 and continues to provide data (Internet) and voice (telephony) access to all academic and administrative departments.

New Implementations for 2015 - 2016

- Extension of LAN and internet facility to Bio Informatics centre at RDAP LAB in permanent campus.
- Installation of overhead projectors in each classroom in permanent class room.
- Construction of General computer lab. in Chandmari campus for students and faculty.
- Installation of Cisco Router (1941) in Chandmari campus for better internet service.
- Upgradation to 10 Mbps Internet leased line from 4 Mbps in Chandmari Campus in progress.

Existing Components providing Continual Services

1. Data Network

- a. The Extreme Summit Black Diamond 8810 core switch provides connectivity with

VLAN tagging to all the Departments layers 2 switches.

- b. All Departments are connected to the core switch with the Extreme Summit X150-24t L2 switches to corresponding VLAN with gigabit uplinks.
- c. Data network is secured with Firewall Unified Threat Management Cyberoam300i which provides Web and Application Filter, Intrusion Prevention System(IPS), Gateway Anti-virus and Gateway Anti-Spam.
- d. 16 Mbps Internet leased line for Chasingre campus and 4 Mbps for Chandmari campus
- e. Installation of IBM Server X3500M4 for Library Management System

2. Voice Network

- a. The Avaya server 8300 with G450 Media gateways provide core IP Base PBX Voice network
- b. IP Phones is installed in all the Departments.

STUDENTS' WELFARE CELL

Dean Students' Welfare : Prof. H. Kayang
Telephone : 0364-2721181
Provost : Dr. L. J. Singh
Telephone : 0364-2721183
E-mail : dsw@nehu.ac.in

The office of the Dean Students' Welfare continued to serve as the nodal agency for student services and their welfare. The major concerns of the office have been the management of the Halls of Residences of the Post- Graduate, Under-Graduate and Research Students, organizing academic study tours through the Departments, Co-ordination of students' sports and cultural activities, conduct of elections to the Students Union, award of Ph.D.

/M.Phil / Non-Net fellowships and Post-graduate scholarships, grant to outstanding students, and grant of Students' Aid to economically weak students. This office also facilitates admission of Foreign Students.

Residence in Hostels: In Shillong Campus, the number of students who were given hostel accommodation during the year 2015-2016 is as follows:

		ST	SC	GEN	OBC	Total
R.S.	MEN	24	13	25	5	67
	WOMEN	29	2	23	8	62
P.G.	MEN	126	5	19	6	156
	WOMEN	204	5	33	8	250
U.G.	MEN	75	10	35	10	130
	WOMEN	24	3	12	5	44
Foreign Students	MEN	-	-	14	-	14
	WOMEN	-	-	8	-	8
Total		482	38	169	42	731

Study Tour: The office coordinated the study tours of the following ten Academic Departments from Shillong Campus for the year 2015-2016:

(1) Adult and Continuing Education, (2) Biochemistry, (3) Chemistry, (4) Economics, (5) Hindi, (6) Law, (7) Linguistics, (8) Philosophy, (9) Political Science, and (10) Sociology.

The DSW Office supported conduct of following additional students' activities:

In order that the term of the NEHUSU and of the Academic Calendar coincides, the Elections to the Union Executive Committee were held on 05th November, 2015 and the counting of votes of the election results were held on 06th November, 2015 and the charge for handing and taking over of the outgoing and the new office-bearers of NEHUSU took place on 17th November 2015. DSW office supported the Annual Event of NEHUSU to showcase talents of students of the University. During 2015-16 the Varsity Fests was held from 01st April 2016 that ended

with students' sports and cultural activities and celebrations on 23rd April 2016.

Student Aid Fund: During the year 2015-16, 28 – Undergraduates were awarded the Student Aid Fund @ Rs. 4000/- per student per annum and 1 (one) Post-graduate student was awarded the Student Aid Fund @ Rs. 3000/- per student per annum.

NEHU P.G. Merit Scholarship: During the year 2015-16, 83 students (including ST/SC) were awarded NEHU P.G. Merit Scholarship @ Rs.3000/- per student per annum. Out of which 17 (seventeen) awardees were the RENEWAL and 66 (Sixty-six) were the Fresh Allotees.

U.G. Non-NET Fellowship: During the year 2015-16, a total number of 303 Ph.D Scholars and 72 nos. of M.Phil Research Scholars were awarded the U.G. Non-NET Fellowship. And 32 nos. of Ph.D Scholars surrendered the Fellowship.

STUDENTS' WELFARE CELL (TURA CAMPUS)

Teacher-in-Charge, Student's Welfare : Dr. Deepak Bhagat
Telephone : +91-9436733357
E-mail : dip19bhagat@gmail.com
Teacher-in-Charge, Sports : Mr. Gino A Sangma
Telephone : +91-9612155002
E-mail : ginosangma@gmail.com

The Office of the Teacher-in-Charge Students' Welfare, NEHU, Tura campus continued to provide ample scope, opportunities and facilities for the all round development of the students. The major activities of the office have been coordination of students admission in various hostels of the university; management of post- graduate

student's (along with Ph.D. students) hostels; conduct of elections of the office bearers and other representatives of students union; supervision and coordination of co- curricular, cultural and sports activities of the students; issuing of travel concession to the students for educational/industrial tours; organising special lectures by eminent personalities etc.

Student Strength of NEHU, Tura Campus

In the Tura campus, the numbers of students studying in nine departments during the year 2015-2016 are as follows:

Total PG Students	Ph.D. Students	M.Phil. Students
431 (with 2 foreign students)	118 (with one foreign student)	5

Residence in Hostels

In the Tura campus, the numbers of students residing in the hostels during the year 2015-2016 are as follows:

Particulars		ST	SC	GEN	OBC	Foriegn Students	TOTAL
P.G.	Men	70	0	11	7	2	90
	Women	80	2	9	3	0	94
Ph.D.	Men	6	0	4	0	0	10
	Women	5	0	5	1	0	11
Total		161	2	29	11	2	205

Study Tours/Industrial Tours

The Office of the Teacher in- Charge Students' Welfare, NEHU, Tura campus facilitated the study tours/industrial tours of the following nine academic departments of the Tura campus: (a) Department of Management; (b) Department of Education; (c) Department of English; (d) Department of Garo; (e) Department of Rural Development and Agricultural Production; (f) Department of History and Archaeology; (g) Department of Agribusiness Management and Food Technology; (h) Department of Horticulture and (i) Department of Computer Applications.

Additional Student's Activities

- (a) **Annual Varsity Week (23rd March - 1st April, 2015):** The Office of the Teacher in- Charge Students' Welfare continued to support the Annual Varsity Week organised by PGSU, NEHU, Tura Campus. Varsity week provides students' an opportunity to showcase their talents, skills, leadership, team spirit, creativity, sociability, etc.
- (b) **World Environment Day (5th June, 2015):** In its continuous endeavour to keep the campus and environment green, World Environment Day was observed on 5th June, 2015. The programme was coordinated by Office of the Teacher in-Charge Students' Welfare and PGSU, NEHU, Tura Campus.
- (c) **Publication of "DURAMONG" Magazine:** The eight issue of the annual campus magazine "DURAMONG" was published in August, 2015. Over the years, "DURAMONG" has played the role of a mirror by reflecting the clear picture of various cultural, academic, sports and literary activities including achievements of the campus.
- (d) **BSF Golden Jubilee Celebration (9th Oct, 2015):** A cultural programme was organised in association with SHQ, BSF Tura on the occasion of "BSF Golden Jubilee Celebration" on 9th October, 2015 in NEHU, Tura Campus.
- (e) **Inter-College Cricket Tournament, NEHU, Shillong (2-5 November, 2015):** The students of NEHU, Tura Campus participated in Inter- College Cricket Tournament at NEHU, Shillong during 2nd- 5th, November, 2015. The team secured 2nd position in the league stage.
- (f) **PGSU Election (9th Nov, 2015):** Election for new office bearers of PGSU, NEHU, Tura Campus was held on 9th November, 2015.
- (g) **Legal Awareness and Human Rights Day (10th December, 2015):** In association with District Legal Services Authority, West Garo Hills, Tura, a program on "Legal Awareness and Human Rights Day" was conducted in NEHU, Tura Campus.
- (h) **National Science Day (1st March, 2016):** In association with Planning Department, Government of Meghalaya "National Science Day" was celebrated in NEHU Tura Campus on 1st March, 2016. Honourable Chief Minister of Meghalaya Dr. Mukul Sangma graced the occasion as Chief Guest.
- (i) **NEHU, Tura Campus Foundation Day (23rd Feb, 2016):** The 20th Foundation Day of NEHU, Tura Campus was organised by PGSU, NEHU, Tura Campus on 23rd February, 2016 in NEHU Tura Campus, Chasingre.
- (j) **Other Events:** Other events organised by the PGSU, NEHU, Tura campus in last one year were Parting Social, Fresher's Social, Teachers' Day etc.

HEALTH CENTRE (SHILLONG)

The NEHU Health Centre, Shillong is catering to the health needs of teaching, non-teaching staff along with their dependants and the students of NEHU in Shillong. Health Centre has the following staff members at present:

CHIEF MEDICAL OFFICER	-	Dr. M. Marwein.
SENIOR MEDICAL OFFICER	-	Dr. C. Mukhim.
SENIOR MEDICAL OFFICER	-	Dr. M. B. G. Momin.
PHARMACISTS	-	(i) Shri S. Kuki (ii) Shri R. Myllemngap.
PHARMACY ATTENDANT	-	Shri Clinton H. Pyngrope (Daily Wage).
STAFF NURSE	-	Smti. G. N. Syiem (Regular).
STAFF NURSE (Contractual basis)	-	(i) Smti. Eemonmi Khyriem (ii) Miss Marlyne Kharumnuid.
LABORATORY	-	(i) Shri S. K. Kashyap - STA (Working as Laboratory Technician).
LABORATORY ASSISTANT	-	Shri S. G. Choudhury.
OFFICE STAFF	-	(i) Shri H. M. Marak - LDC (ii) Shri Parimal Dev - UDC.
MTS (Peon)	-	Shri B. C. Momin (Regular).
MTS (Peon)	-	Shri Rohit Pradhan - (Daily Wage).
DRESSER	-	Shri Balarius Marwein.
PHYSIOTHERAPIST	-	Miss Evalari S. Skhembill (contractual).
RECEPTIONIST	-	Miss A. Mawlong assisted by Smti. T. Lyngdoh and Smti. Janailin Nongkynrih (MTS).
SAFAIWALLA (MTS)	-	(i) Smti Laxmi Kaur (ii) Shri W. Ryndong (Both Daily Wage).
CLEANER:		(i) Smti. D. Chetri (Regular) (ii) Smti. D. Pathaw (Pro-rata) (iii) Smti. B. Synnah (Daily Wage) (iv) Smti. Laxmi Thapa (Daily Wage).

Health Centre (Shillong)

The following facilities are available at the Health Centre:

CONSULTATION: The Medical Officers are available for consultation at fixed hours as well as for emergency consultation outside duty hours.

PHARMACY: The required medicines are purchased from the wholesale suppliers and stocked at the medical store. These medicines are issued to the patients based on the prescription by the Doctors.

DRESSING ROOM: Dressings, injections and minor surgical procedures are carried out in the dressing room.

LABORATORY: Bio-Chemical and Clinical Pathology tests for blood and urine analysis are performed in the Laboratory of the Health Centre.

OBSERVATION ROOM : In the observation room, moderately sick patients have been taken care off by giving IV drips etc.

IN-PATIENT TREATMENT: Patients requiring in-patient treatment are referred to the hospitals/

Specialist within Shillong and thereafter outside Shillong depending upon the necessity.

AMBULANCE : Ambulance service is provided during emergency for transporting the severely sick patients from residence to Clinic/Hospitals.

EMERGENCY DUTY: The Resident Medical Officers and Resident Nurse are doing emergency duty outside duty hours whenever needed.

CREDIT BILLING FACILITY: We have credit billing facility available for patients admitted in Nazareth and KJP Hospitals in Shillong and CMC Hospital at Vellore.

SPORTS AID: First Aid service is provided at sport tournaments organized by the University.

PHYSIOTHERAPY: After the joining of a contractual Physiotherapist in July last year, the facility have been provided to the University community.

MEDICAL CAMP: Free medical camps like Bone Mineral Density Test (BMD), Eye Check up, Diabetes and Blood Donation camps are being held at the Health Centre during the period.

HEALTH CENTRE (TURA)

Health Centre in NEHU Tura Campus is functioning from NEHU Tura, Permanent Campus, Chasingre.

The Health Centre in NEHU Tura Permanent Campus is temporarily functioning from a type III residential Quarter. It is a two bedded room where one is being utilized as doctor's chamber

and the other is meant for pharmacy. The laboratory technician is utilizing the kitchen. The living room functions as the lobby for patients and the dining room as the reception.

The Health Centre is catering to the health needs of the students, scholars, teaching and non-teaching staffs with their dependants.

The Health Centre has the following staff members.

Sl No	Staff	Nos	Type of appointment
1.	Senior Medical Officer	1(One)	Permanent
2.	Pharmacist	1(One)	Contract
3.	Laboratory Technician	1(One)	Contract
4.	Peon	1(One)	Basic plus DA
5.	Cleaner	1(One)	Outsourcing
6.	Ambulance Driver	1(One)	Contract

The following facilities are available in the Health Centre.

- 1. Consultation:** Senior Medical Officer is available for consultation in the Permanent Campus, Chasingre, Tura During the office hours, as well as for emergency consultations and advice outside duty hours. She looks after both the technical works as well as administrative functions of the Health Centre.
- 2. Pharmacy:** A pharmacist has recently joined again on 23rd May 2016 after a pharmacist who joined on 21st August 2015 left for a permanent job on the 26th of February 2016. She is now dispensing the medicines from the pharmacy of the Health Centre.

- 3. Laboratory:** Basic laboratory tests is being done now in the health Centre after a laboratory technician joined this office in the month of June 2015.
- 4. Ambulance:** One Sumo ambulance is providing transportation to patients from residence to clinics/hospitals during emergencies.
- 5. Emergency and In-patient Treatment:** For emergency treatments and for patients requiring in-patient treatments, they are referred to the hospitals/specialists within Tura and thereafter outside Tura depending upon the necessity.
- 6. Sports:** First Aid service is provided at the sports tournament organized by the Campus.

HINDI CELL

Hindi Officer : Sri Rajendra Kumar Ram
Telephone. : 0364-2721331
Email : hindiofficer@nehu.ac.in

In pursuance of the Official Language Policy of the Government of India and to promote the Progressive use of Rajbhasha Hindi, the Hindi Cell was established in this University for the purpose. An Official Language Implementation Committee is already constituted in the University for proper implementation of Rajbhasha Policy and to review the same from time to time.

During the year, a Hindi Training Programme for the employees of this University was conducted under the aegis of the Government of India, Hindi Teaching Scheme, Shillong Centre. After completion of different courses i.e. Prabodh, Praveen and Pragya, cash awards were given to the successful employees and after passing the last course i.e. Pragya, the successful employees were given a one year special increment as per the Government of India's order and guidelines.

The Departmental Official Language Implementation Committee held all the mandatory meetings in every quarter. The

quarterly report regarding the Progressive use of Hindi was forwarded to the Ministry of Human Resource Development and Ministry of Home Affairs, Govt. of India. Besides three Hindi Workshops were conducted for the employees of the University in the Shillong Campus and also convening the Quarterly Official Language Implementation Committee meeting regularly which is mandatory by the Ministry of Home, Government of India.

During the period, the Hindi Cell also conducted Hindi Divas in Shillong Campus in the month of September, 2015 in which several Hindi programmes i.e. Hindi extempore speech, Hand writing, Poem recitation, Noting & Drafting competitions were conducted. The winners of the competitions were awarded cash prizes with Certificate on the valedictory function.

The Hindi Cell is going to publish the second edition of an In House Magazine namely "NEHU JYOTI" in Hindi shortly.

INTERNAL QUALITY ASSURANCE CELL

Director : Prof. A.K.Misra – up to 21st September, 2015
Prof. N. Srivastav – since 21st September, 2015
Telephone : 0364-2721070/1080 (O)
Email : directoriqac@nehu.ac.in

The IQAC is meant for planning, guiding and monitoring Quality Assurance (QA) and Quality Enhancement (QE) activities of the institution. Accordingly, the IQAC, NEHU aims at systematization of the efforts and measures of the University towards academic excellence.

The following are the functions performed by the IQAC, NEHU during 2015-16:

1. Letters of request were written to different departments/ sections to provide information regarding for compilation and preparation of AQAR and SSR 2015.
2. The IQAC held a meeting of the Steering Committee (Self Study Report). The Director also informed the members the revised timelines and procedures for Assessment and Accreditation of HEIs w.e.f. 1st August, 2015.
3. Student's feedback from 23 Departments have been received and analyzed by IIM, Shillong.
4. The earliest revised version of SSR – 2015 had uploaded on the NEHU website on 27th April, 2015. The Finalization Self Study Report (SSR- 2015) compiled by the IQAC for the III Cycle re-accreditation is up-loaded on NEHU website.
5. Supplying details based on the information needed under the RTI Act 2005.
6. The IQAC has received a numbers of applications from the faculty members of NEHU forwarded by the Joint Registrar (Estt.II) for the consideration under Career Advancement Scheme (CAS).
7. One day Workshop of the College Principals of NE states on the theme "Quality of Higher Education in NE India: Perspective and Prospects" is proposed by the HDRC, NEHU in collaboration with IQAC towards ushering the quality of higher education by working out the intervention strategies.

CENTRAL LIBRARY (SHILLONG)

University Librarian (In-Charge) : Dr. F. R. Sumer
Telephone : 0364-2721251 (O)
Email : fsumer@nehu.ac.in

1. Introduction

The NEHU Central Library had discharged its basic duties to support teaching and research in the University. During the period in order to enhance the library services through automated mode, SMS services was introduced to generate alerts on the transaction performed related with the issue/return/renewal of books in the central library. This facility was initially activated only to the category of members viz. teachers and research scholars though alerts through emails are being generated and sent to all category of members.

The Central Library also celebrated Librarian's Day on the 12th August 2015 in the NEHU Central Library to commemorate the birth of Padmashree Dr. S. R. Ranganathan (1892-1972). As part of the celebration, the UGC sponsored Electronic Theses & Dissertations (ETD) Lab was formally inaugurated by the Honorable Vice-Chancellor, NEHU, Shillong as Chief Guest of the function in the presence of the Officers and Staff, NEHU Central Library and other invited guests.

To enhance the awareness, and optimal use, of scholarly digital content provided by JSTOR across Indian universities which are members of the UGC INFONET Digital Library Consortium, NEHU hosted the prestigious JSTOR India User's Forum 2015, a joint effort of JSTOR (New York) and INFLIBNET Centre (Gandhinagar)

and coordinated by the NEHU Central Library, was hosted by the North-Eastern Hill University, Shillong on 6th October 2015 at the Multi-Use Convention Hall. NEHU currently provides access to JSTOR (e-journals content) through the UGC INFONET Digital Library Consortium (presently e-ShodhSindhu) coordinated by INFLIBNET Centre, Gandhinagar, Gujarat. The forum was inaugurated by Prof. B. Mishra, Dean, School of Economics, Management and Information Sciences, NEHU who graced the occasion as Chief Guest. The forum saw lively interactions amongst the resource persons and 270 registered participants. Dr. Jagdish Arora, Director, INFLIBNET Centre, Gandhinagar, Gujarat and Mr. John Lenahan, Associate Vice President IPSP - JSTOR | Portico were the main speakers during the forum.

On behalf of the University, the Central Library organized a week-long book fair during 31st October 2015 to 6th November 2015 in the NEHU Central Library, Shillong to commemorate the 140th Birth Anniversary of Sardar Vallabhbhai Patel. The book fair was inaugurated by Prof. Sri Krishna Srivastava, Vice-Chancellor, NEHU on 31st October 2015 at 11:30 A.M. in a function that was held in the NEHU Central Library in the presence of library officers and staff and other invited guests. The exhibition saw huge response from the interested readers which includes students, teachers and those from the University community at large.

Central Services

2. Progress during the period

(I) Library Budget

(Total in Lacs)

1.	Books	Non-Plan	10	121
		Plan	105	
		DST/FST	6	
2.	Journals and Periodicals	Non-Plan: Sciences: (scientific journals) including Subscription to e-resources for School of Technology	90	110
		Non-Plan: Other than sciences: periodicals for Humanities, Social Sciences etc.	20	
		Other Grants Plan: NBHM	14	
3	Infrastructure and Additional Manpower	Plan	16.03	16.03
4	Allocated for Tura Campus Library	Plan	11.97	11.97
5	Library Office Equipment	Non Plan	2.00	2.00
6	Recurring Expenditures & Contingency	Non Plan	6.75	6.75
8	Digitization: Manpower	Non-Plan	0.60	0.60
10	One time grant :Library furniture	Non-Plan	7.0	7.0
Total				289.35

(II) Library Collection : 2, 84, 510 Volumes.

(III) Data Bank (Government Publications and Reports) : 225 Volumes.

(III) Books added during the Year : 8637 Volumes.

School-wise Break-Up

Soc. Sc.	Eco., Mngs. & Lib. Sc.	Hum & Env. Studies	Hum	Edu.	Phy. Sc.	Life Sc.	I.T.	Gifts & others	NBHM	DST/FIST	Thesis	Total
984	973	247	4058	650	357	211	539	284	113	42	179	8637

Central Library (Shillong)

(IV) Subscription to periodicals including scientific journals (Titles in Print)

(i) Foreign Journals	:	135
(ii) Indian Journals	:	153
Total	:	288

3. Library User's Enrollment Including Usage of E-Resources and Other Online Services

(I) Enrollment during the year 2015-16

(i) Under Graduate Students	:	294
(ii) Post Graduate Students	:	1142
(iii) Research Scholars/MPhil	:	173
(iv) University Teachers	:	1
(v) Non-Teaching Staff	:	4
(vi) Technical Staff	:	4
(vii) Visiting Lecturer/Professors	:	4
(viii) Others (Including College Teachers) :		

Total No. of Registered Members : 1534

(II) Daily Average No. of Books issued/ return/renewal (including Law Dept.): 342

(III) Daily Average No. of users who availed consultation services: 29

(IV) Average usage of Journals and Back Volumes : 1120 per month

(V) Total Usage of Theses/Dissertations
 Students : 350 per month
 Research Scholars : 220 per month
 Others : 60 per month

(VI) Photocopies of journal articles including Back Volumes made: 631 issues/month

(IV) Average internet users : 478 per month

(VIII) NEHU usage of UGC INFONET Digital Library : 2,83,462 articles

Consortium/e-ShodhSindhu e-journals depicted by total

Articles downloaded during the period from 19 publisher's website.

4. Initiatives during the period

(i) Awareness/ Orientation/Internship Programme for students and research scholars

Library Orientation Programme was conducted from 8th to 18th September 2015 in the NEHU Central Library Conference Hall for the first semester students of the different departments. The programme focused on the library's rules and guidelines, in-house/online resources, features of the Online Public Access Catalogue (OPAC) and a guided tour of the NEHU Central Library. The programme was co-ordinated by Shri M. Rana, Assistant Librarian, Acquisition Section.

The 4th Library Internship Programme was conducted by the NEHU Central Library from 19th August to 30th October 2015 for the out-going M.L.I.Sc. 4th semester students of the Department of Library & Information Science, NEHU, Shillong. The programme was co-ordinated by Dr. Lalhmachhuana, Documentation Officer.

On behalf of the University, a one week book exhibition was organized at NEHU Central Library from 31st October to 6th November 2015 to commemorate the 140th

Birth Anniversary of Sardar Valabhabhai Patel. The book exhibition was co-ordinated by Shri M. Rana, Assistant Librarian with active support from the staff of Acquisition Section.

(ii) Exposure to e-resources across the academic fraternity

Online services available on indiastat.com subscribed by the NEHU Central Library were widely publicized amongst the research community of the university. Access to the resources on indiastat.com is now provided on request through user ID and Password login.

An awareness programme was conducted during the month of April 2015 for the benefit of the students, research scholars and teachers on the use of Anti-Plagiarism software and e-resources. Through the continuous interactions with the students, research scholars and teachers the library makes best efforts to create an awareness on the availability of e-resources either those individually subscribed by the library or available through the UGC INFONET Digital Library /DelCON consortium.

(iii) Membership with other libraries viz. American Libraries in India etc.

The library was enrolled as a member of the American Libraries in India during the period. The library can borrow books etc. from the American Libraries on behalf of its readers.

iv) Subscription to e-journals, e-books and online databases

The following subscribed online databases and e-journals were renewed/subscribed during the period:

- (a) Biological Abstracts (b) IndiaStat (c) Library and Information Abstracts (d) IEL Online (f) Indian Journals.com

5. Important Activities/Steps Accomplished Towards Improvement of Library Services

The service of issue/return/renew books using the RFID equipment has saved the time of the users. During the period SMS services was activated to generate alerts to faculty and research scholars updating them on the issue/return/renew of books. Email alerts were activated for all category of library members.

The Digitization Programme in the Library was augmented with the establishment of the Electronic Theses and Dissertation (ETD) Lab with support from UGC through INFLIBNET Centre under the ShodhGanga Project and the University. The Lab was made equipped with 10 personal computers for use by the Research Scholars to access the anti-plagiarism software - Urkund and for uploading of soft copies of their PhD theses to the ShodhGanga repository. During the period a total of 1671 PhD Theses and MPhil dissertations were digitized through the project.

6. Academic Contributions

Teaching & Research:

(i) Publications during the period:

Dr. F.R. Sumer, Deputy Librarian research article entitled "Selection of a suitable open source digital library software to established ETD repositories" co-authored with Dr. P. Hangsing and Dr. A.R.D. Prasad was published in the conference proceedings of the NLTD ETD 2015 India,

18th International Symposium for Electronic Theses and Dissertations, Evolving Genre of ETDs for Knowledge Discovery that was held in New Delhi India from 4-6 November 2015.

Shri B. Sten, Information Scientist published a book chapter co-authored with Prof. Moses M. Naga entitled "Information Literacy on Indira AwasYojana (IAY) Development Programme: A literature review". The book titled "Role of Library and library professionals in the knowledge society" was edited by Dr. P. Hangsing and Prof. M. Naga, New Delhi, AAYU Publications, 2015.

(i) Invitation as Resource Persons/Expert in Orientation Programme, Refresher Course Committees etc.

Dr. F.R. Sumer, Deputy Librarian was invited as resource person and delivered two lectures on 01/5/2015 during the 32nd Orientation Programme (General) conducted by the UGC-Human Resource Development Centre, NEHU. Invited again and delivered two lectures on 22/07/2015 during the Special Summer School conducted by the UGC-HRDC, NEHU. Invited and delivered one lecture on 19/08/2015 during the Short-Term Course in Research Methodology conducted by the UGC-HRDC, NEHU during. On invitation, delivered one lecture on 16/10/2015 during the Short-Term Course in Research Methodology conducted by the UGC-HRDC, NEHU during 12th - 17th October 2015. Delivered one lecture on 12/11/2015 during the Special Winter School conducted by the UGC-HRDC, NEHU during 26th October - 15th November 2015. Delivered two lectures on 27/1/2016 during the 34th Orientation

Programme (General) conducted by the UGC-HRDC, NEHU during 25/1/2016 to 21/2/2016. Also delivered one lecture on 15/02/2016 during the 35th Orientation Programme (General) conducted by the UGC-HRDC, NEHU during 08/02/2016 to 06/03/2016. Delivered two lectures on 04/02/2016 during the 36th Orientation Programme (General) conducted by the UGC-HRDC, NEHU. Delivered one lecture on 16/03/2016 during the Short Term Course in Research Methodology conducted by the UGC-HRDC, NEHU. Attended a selection committee meeting held on 30th May 2015 as a subject expert for the post of Information Scientist in Sikkim University, Tadong, Gangtok, Sikkim. Invited by College of Home Science, Tura, Meghalaya, Central Agricultural University, Imphal, Manipur as a member-expert of the selection committee held on 21st December 2015 for the post of Library Assistant.

Dr. Lalhmachhuana, Documentation Officer was invited as resource person and delivered two lectures on 18/5/2015 during the 33rd Orientation Programme (General) conducted by the UGC-Human Resource Development Centre, NEHU held from 18/5/2015 to 14/6/2015. Again delivered two lectures on 27/1/2016 during the 34th Orientation Programme (General) conducted by the UGC-HRDC, NEHU during 25/1/2016 to 21/2/2016. Also delivered two lectures during the 35th Orientation Programme (General) conducted by the UGC-HRDC, NEHU during 08/02/2016 to 06/03/2016.

Shri Manoj Rana, Assistant Librarian was nominated as one of the member of a college inspection team constituted by the University which visited Iaikyntiew

College, Shillong on 1st December 2015. He was also invited as a Resource Person for a three day Training Programme on Library Management for Librarians organised by Administrative Training Institute, Government of Nagaland, Kohima from 2nd to 4th February 2016.

(ii) As participants in workshops, seminars, trainings, meetings etc.

Dr. F.R.Sumer, Deputy Librarian attended a meeting of University Librarians located in the North-Eastern region. The meeting was held on 27th May 2015 at INFLIBNET Centre, Gandhinagar, Gujarat. Also participated and presented a research paper entitled "Selection of a suitable open source digital library software to established ETD repositories" co-authored with Dr. P. Hangsing and Dr. A.R.D. Prasad during the NLTD ETD 2015 India, 18th International Symposium for Electronic Theses and Dissertations, Evolving Genre of ETDs for Knowledge Discovery that was held in Jawaharlal Nehru University, New Delhi, from 4-6 November 2015. Also co-ordinated the J-STOR FORUM Shillong that was held on 6th October 2015 at the Multi-Use Convention Centre, NEHU, Shillong.

Dr. Lalhmachhuana, Documentation Officer, Shri M. Rana, Shri J.P. Nongbri, Shri A. Blah, Assistant Librarians and Shri B. Sten, Information Scientist participated in the J-STOR FORUM Shillong held on 6th October 2015 at the Multi-Use Convention Centre, NEHU. The forum was organized jointly by J-STOR (New York) and INFLIBNET Centre, Gandhinagar and coordinated by the Central Library, North Eastern Hill University.

Shri B. Sten, Information Scientist participated in a two day National Workshop on "Ethical Issues & Use of Anti-Plagiarism for Research Integrity" conducted by INFLIBNET Center, Gandhinagar during 21-22 March 2016.

The staff of Central Library, NEHU, Shillong viz. professional, para professional and other supporting staff also participated in the J-STOR FORUM Shillong held on 6th October 2015 at the Multi-Use Convention Centre, NEHU. The forum was organized jointly by J-STOR (New York) and INFLIBNET Centre, Gandhinagar and coordinated by the Central Library, North Eastern Hill University.

(iii) Training and Consultation services imparted to other departments/ institutions:

Dr. F.R. Sumer, Deputy Librarian had extended free consultation services during the period to Librarians of St. Anthony's College, Shillong and Shillong College, Shillong on aspects related with implementation of library automation including introduction of online services and their management in their respective colleges.

Dr. Lalhmachhuana, Documentation Officer delivered two lectures on Library Resources (e-Books & e-Journals) as a Resource Person for the Library Resource Awareness Programme organized by Thomas Jones Synod College, Jowai on 21/5/2015. He also delivered four lectures-cum-demonstration on Scholarly Web Resources on 3/6/2016 during the "Capacity Building-cum-Training Programme for Faculty in Social Sciences" organized from 28/5/2015 to 10/6/2015 by the

Central Library (Shillong)

Department of Political Science, Rajiv Gandhi University, Dhoimukh, Arunachal Pradesh. Lastly, two lectures were delivered by him on Evaluation of Web Content and Scholarly Web Resources on 9/6/2016 during the DBT Star College Scheme Workshop for Students conducted by the Department of Biotechnology, St. Edmund's College, Shillong.

Shri B. Sten, Information Scientist had imparted training on library automation and networking using Koha an open source Integrated Library Management Software to the Librarians and other library staff of Mawsynram Border College, Mawsynram, Thomas Jones College Jowai and Shillong Law College, Shillong during the month of November 2015, January 2016 and March 2016 respectively. Training includes installation, customization, setting of parameters, learning of various library modules and data backup of the software.

Shri J.P. Nongbri, Assistant Librarian, Circulation Section had imparted training on the circulation module including registration and renewal of library members on the Koha open source Integrated Library Management Software to the Librarians and other library staff of Thomas Jones College, Jowai in March 2016 respectively.

Shri A. Blah, Assistant Librarian, Periodical Section with additional charge of the Technical Section had imparted training on the Cataloguing and Serial modules of the Koha open source Integrated Library Management Software to the Librarians and other library staff of Mawsynram Border College, Mawsynram, Thomas Jones College, Jowai and Shillong Law College, Shillong during the month of

November 2015, January 2016 and March 2016 respectively.

As part of the syllabus, Library House Keeping Programme (Job Diary) was conducted for the M.L.I.Sc. 2nd semester Students of the Department of Library Science & Information Science, NEHU during the period April 2015-June 2015. During the programme, the students were introduced to the various tasks and procedures adopted by various sections and units of the Central Library along with live demonstrations and hands on experience. The programme was co-ordinated by Dr. Lalmachhuana, Documentation Officer.

(iv) Participation in College/Institute Visiting/ Inspection Team etc.:

Dr. Lalmachhuana, Documentation Officer was nominated as a member of the Visiting Team which visited Nabon Women's Synod College, Shillong on 16/6/2015 for grant of provisional affiliation of B.A.(Hons) in English, Economics and Education courses.

Shri Manoj Rana, Assistant Librarian was nominated as a member of the Visiting Team which visited Iaikyntiew College, Shillong on 1st December 2015.

Shri Alex Blah, Assistant Librarian was nominated as a member of the Visiting Teams which visited Khadar Doloi Law College and Nongstoin College on 18th April 2015 and 16th December 2015 respectively.

Shri J.P. Nongbri, Assistant Librarian was nominated as a member of the Visiting Team which visited Tura Government College, Tura, Meghalaya and Tura Law College, Tura, Meghalaya during the period for grant of affiliation.

7. Other Information

(i) Library staff strength (Sanctioned Posts)

Librarian	=	1 (Vacant)
Deputy Librarian	=	1
Assistant Librarian	=	4 (1 vacant)
Documentation Officer	=	1
Information Scientist	=	1
Other staff	=	41

(Includes PA, SPA, JLA, Technical, secretarial)

(ii) Revenue generated by the Library during the year

Consultation fees	:	2500.00
Fines from Books overdue (including Law Library)	:	86,819.00
Total	:	89,319.00

8. Special Achievements if any.

Dr. F.R. Sumer, Deputy Librarian, was awarded the degree Doctor of Philosophy (PhD) in the subject Library & Information Science for the thesis entitled "A Comparative Study of Selected Open Source Digital Library Software" under

the supervisorship of Dr. P. Hangsing, Assistant Professor, Department of Library & Information Science, NEHU and joint supervisorship of Dr. A.R.D. Prasad, Professor & Head, Documentation Research and Training Centre (DRTC), Indian Statistical Institute (ISI), Bangalore.

CENTRAL LIBRARY (TURA CAMPUS)

North Eastern Hill University, Tura Campus was established in 1996 to impart Higher Education with the Motto "RISE UP AND BUILD". The Campus now has 9 (Nine) Post-Graduate and Research Departments. They are –English, Garo, Education, Rural Development and Agricultural Production, Management, Computer Application, Horticulture, Agri-Business Management & Food Technology and History & Archaeology.

During 2015-2016, the Campus Library achieved outstanding progress in terms of its collection. The Library continued to offer services like Reference, Circulation, Bibliography Services, OPAC, online access to e-journals & databases and internet browsing facilities to the students, research scholars, faculty members and non-teaching staff of the Campus. The Annual Report of NEHU, Tura Campus Library for the year 2015-2016 is furnished below:

1. Budget Allocation of Books & Periodicals 2015-2016 (Non-Plan):	Rs. 12.00 Lacs.
i) Book Grant	= Rs. 3.10 Lacs.
ii) Periodicals Subscription	= Rs. 7.90 Lacs
iii) Library Stationary and Others	= Rs. 1 lac.
2. Budget Allocation of Books (XII Plan):	Rs. 11.97 Lacs.
i) Book Grant	= Rs.11.00 Lacs.
ii) Library Stationary and Others	= Rs. 0.97 lacs.
3. Collection Development.	
a) Total Book collection upto 31.03.2016.	= 26,017 Vols.
i) Books on Purchase	= 25,270 Vols.
ii) Books on Gift	= 747 Vols.
b) Books Added during the year (2015-2016)	= 1,365 Vols.
i) Purchased Books	= 1,358 Vols.
ii) Gifted Books	= 7 Vols
c) No. of Journals Subscribed (2016)	= 139
i) Indian Journals	= 120
ii) Foreign Journals	= 19

Central Services

4. **Library Membership Statistics** = 548 Members
 - i) Students of 9(Nine) PG Departments = 414 Members
 - ii) M.Phil. / Ph.D. Scholars = 39Members
 - iii) Faculty Members = 46 Members
 - iv) Guest Lecturers = 22 Members
 - v) Non-Teaching Staff = 27 Members
5. **Library Circulation Statistics**
 - i) Books Issued = 13,198 Vols.
 - ii) Books Returned = 11,467Vols.
 - iii) Books Consulted = 34,120 Vols.
6. **Statistics of Technical and Library Automation Unit.**
 - i) Books Classified (2015-2016) = 1,365Vols.
 - ii) Books Added in the Database & Barcoded = 1,365Vols.
7. **Statistics of Reprography Units (2015-2016)**
 - i) Total no. of Xerox Exposure Provided = 22,509 exposures
8. **Revenue Collected During the Financial Year (2015-2016)**
 - i) Reprography Services = Rs. 9,132/-
 - ii) Overdue Fine = Rs. 5737/-
9. **Activities by Library Staff.**
 - i) The NEHU, Tura Campus Library is scattered and running in three different location such as Central Library (Chasingre Campus) Management Library (Chasingre Campus) and Chandmari Library (Chandmari Campus). resources are also available on Web-OPAC.
 - iii) Library provided orientation to the new students on the use of OPAC and introduced the library resources to them.
10. **Library Staff**
 - a) Central Library, Chasingre Campus
 - i) Mr. A.J.Singh, Assistant Librarian
 - ii) Shri R.P. Yadav, (MTS)

Central Library (Tura Campus)

- iii) Shri. Jeraltus A. Sangma, Gatekeeper (NEHU, Contract).
- iv) Smt. Shaira A. Sangma, LDC (NEHU, Contract).
- v) Shri. Jonash M. Momin, Attendant (Outsourcing).
- vi) Shri. Nengsan M. Momin, Attendant (Outsourcing).
- vii) Shri. Alexander A. Sangma, Attendant (Outsourcing).
- vii) Miss Gresilchi R. Marak, Attendant (Outsourcing).
- viii) Smt. Shima A. Sangma, Attendant (Outsourcing).
- c) Management Library
 - i) Shri. B. K. Singh, (MTS).
 - ii) Smt. Meritha M. Sangma, LDC (NEHU Contract).
 - iii) Mr. Trainithson A. Sangma, Attendant (Outsourcing).

b) Chandmari Campus Library

- i) Dr. A.K. Mondal, In-charge (Sr. Prof. Asstt.).
- ii) Shri Udai Nath Naik, (MTS).
- iii) Smt. Sita Chetri, (MTS).
- iv) Miss Dilys Biangca R. Marak, LDC (Outsourcing).
- v) Mr. Salgira S. Sangma, LDC (Outsourcing).
- vi) Mr. Bipbin M. Marak, DEO (Outsourcing).

NEHU, Tura Campus Library is not only rendering services to its academic user communities but also providing Library services to the neighbouring colleges of West Garo Hills district. NEHU Tura Campus Library always maintain its standard in regards to providing quality services to students, research scholars, faculty members and non-teaching staff members and aims to further advance the academic functioning of NEHU, Tura Campus, Tura.

NATIONAL SERVICE SCHEME CELL

Programme Coordinator : Dr. Lakhan Kma
Telephone No : 2721151, 2721152, and 2721153
Tele Fax : 2721151.
E-mail ID : nss.nehu@gmail.com
Postal Address : Programme Co-ordinator, NSS Cell, NEHU
Administrative Building, Umshing
Mawkynroh, Shillong-793022.

The National Service Scheme (NSS) of Government of India envisages to utilize the free time of Higher Secondary School/Colleges/University students for socially productive works. An important feature of the NSS is that its programmes are organized by the student volunteers themselves, under the guidance of their teachers as Programme Officers. The work undertaken by the NSS units are divided into Regular Activities and Special Camping. The volunteer strength has increased to 21819 comprising students from 37 colleges, 1 Medical Institute and 2 Post Graduate units with 72 Programme Officers.

Review Meeting :

A *Review Meeting* was held for NSS Programme Officers of various institutions from East, West Khasi Hills, Jaintia Hills, Ri Bhoi District and Garo Hills District on 29th May, 2015 at the Conference Room, Administrative Building, NEHU, Shillong. Fifty NSS Programme Officers attended the meeting.

The NSS State Advisory Committee meeting was held on 28th September 2015 at Main Secretariat Building, Shillong. Programme Coordinator attended the same.

The 35th NSS University Advisory Committee meeting was held on 8th December 2015 at NEHU, Shillong.

Blood Donation :

This year nine camps were held with 422 NSS volunteers making donations to the various blood banks in the state through *blood donation camps and emergency donations*. These camps were conducted in collaboration with the Meghalaya AIDS Control Society, (MACS) State Blood Transfusion Council (SBTC) and the blood banks of Pasteur Institute, Nazareth Hospital, NEIGRIHMS and Tura Civil Hospital.

Inter State Youth Exchange & Home Stay Programme:

Ten volunteers along with one Programme Officer of St. Anthony's College attended the *Inter State Youth exchange Programme & Home Stay* held at Youth hostel Mapusa, Madgoan, Goa from 13th – 22nd December 2015.

Ten NSS volunteers along with a Contingent leader from NSS NEHU unit, Shillong participated in the *Inter State Youth Exchange & Home Stay Programme* at Ahmedabad from 26th January- 4th February 2016.

Republic Day Parade Camp :

The NSS Cell, NEHU organized the *Selection camp* for the Pre Republic Day Parade Camp at NEHU Community Centre on 9th September 2015. Around 60 NSS volunteers participated.

Ten NSS volunteers from different colleges participated at the *Pre Republic Day Parade Camp* at Bodoland University, Kokrajhar from 7th – 16th November 2015. Mr. James Mawphniang of NSS NEHU unit and Ms. Lakhamti Kharmawphlang of Shillong College attended the Republic Day Parade Camp at New Delhi from 1st – 31st January 2015.

National Youth Festival :

4 NSS volunteers along with a Programme Officer from Sngap Syiem College, Mawkyrwat attended the *20th National Youth Festival* held at Raipur (Chattisgarh) from 12th -16th January 2016.

North East NSS Festivals :

Eleven NSS volunteers from different colleges of the State attended the *North East NSS Festival* held at USTM, Khanapara from 28th April – 2nd May, 2015.

Twenty-two NSS volunteers along with 3 NSS Programme Officers of Meghalaya attended the *North East NSS Festival* held at NERIST, Itanagar, Arunachal Pradesh from 6th – 11th June, 2015.

Twenty-two NSS volunteers and 2 Programme Officers from 3 (three) colleges participated at the North East NSS Festival held at Kohima, Nagaland from 1st – 5th March, 2016.

Adventure/Trekking Programme :

Twenty-one volunteers along with a Programme Officer of St. Anthony's college, Byndihati, West Jaintia Hills participated in the winter *adventure programme* held at Dirang Arunachal Pradesh from 9th-18th October 2015.

The NSS unit of St. Anthony's College organized *trekking* to Nongpathaw village on 11th November 2015. Forty-five volunteers participated.

The NSS unit of Seng Khasi College organized *trekking* on 7th November 2015 from Umrynjah to Mawlai Mawtawar village on the theme "Healthy Youth for Healthy India". One-hundred volunteers participated.

The NSS unit of Sngap Syiem College organized a *trekking-cum- adventure* programme to Nongkynrih peak (Highest peak in South West Khasi Hills) on 5th December 2015. Sixty-two volunteers along with the Programme Officer and two teachers participated.

The NSS unit of Tura Government College organized an *adventure programme* to *Ganol Mandali Wari (Ganol river)* on 23rd November 2015. Fifty-two NSS volunteers participated.

More than 400 NSS volunteers participated at the *Living Roots Eco Challenge trekking event* on 21st November 2015 at Wahlyngkhat Village organized by the NEHUAA and NSS Cell, NEHU.

The NSS NEHU unit organized a *trekking* to Umiam on 14th November 2015. One-hundred twenty-one volunteers participated.

Special Camps: Under the theme of “Healthy Youth for Healthy India”

Twenty-two Special Camps were held at various places as highlighted below:

Umshyrpi College, Shillong at *Kyrdemkulai village*, from 11th - 17th May 2015.

Seng Khasi College, Shillong at *Mawlai Umthlong village*, from 23rd - 30th May 2015.

Shillong College, Shillong at *Laitkseh village*, from 1st - 6th June 2015.

NSS NEHU, Unit, Shillong at *Nongkohlew village, Mawtarwar* from 17th - 23rd July 2015.

Synod College, Shillong at *Mawpdang village* from 5th - 10th October 2015.

St. Anthony's College, Shillong at *Swer village* from 19th - 25th October 2015.

St. Edmund's College, Shillong at *Mawdulop village* from 19th - 24th October 2015.

Shillong College, Shillong at *Umroh village, Mawkasiang* from 19th - 24th October 2015.

Sngap Syiem College, Mawkyrwat at *Pawphlang village* from 20th - 26th October 2015.

Durama College, Tura at *Chibrage village* from 16th - 22nd November 2015.

Thomas Jones Synod College, Jowai at *Amutong village* from 23rd - 29th November 2015.

Tura Government College, Tura at *Boldorenggre village*, from 23rd - 29th November 2015.

Nongtalang College, Nongtalang at *Lamin village* from 24th November - 1st December 2015.

Captain Williamson Memorial Government College, Baghmara at *Dabit, Nalsagihim*

village from 26th November - 2nd December 2015.

Mawsynram Border Area College, Mawsynram at *Phlangnawsyrpat village* from 30th November - 5th December, 2015.

Women's College at *Mawblang village*, from 1st - 7th December, 2015.

Jaintia Eastern College, Khliehriat at *Lumchyrimit village* from 6th - 12th December 2015.

Lady Keane College, Shillong at *Pingwait village*, from 9th - 15th December 2015.

Acheng Rangmanpa College, Mahendraganj at *Paulpara village* from 7th - 13th December 2015.

Sohra Government College, Sohra at *Mawkalang village*, from 7th - 13th December 2015.

NSS NEHU, Unit, Shillong at *Mawlyngkhung village*, from 16th - 22nd December 2015.

Bellefonte Community College, Shillong at *Saphai village* from 18th - 24th January 2016.

Major activities undertaken during these camps were:

Socio-economic survey of the village, literacy programmes, demonstration on rural technologies and low cost sanitation, disaster management, formation of SHG's, waste disposal and composting, cleaning drives, white washing of local schools, digging of water ponds/fish ponds, asset creation, quiz/debate, sports competitions, trekking, awareness on HIV/AIDS, drug abuse etc. Besides these activities, free medical and eye check-up camps have become a regular feature during these camps. We are grateful to the DMHO's of the different districts and to Bansara Eye Care Centre, Shillong for their support.

Workshops/ Trainings/Orientations/ Seminars:

Nineteen NSS volunteers from different colleges of Shillong attended a *training* programme on *Disaster Management Search & Rescue* organized by Meghalaya Administrative Training Institute in its office premises from 6th – 8th May 2015.

In observance of the *International Bio-Diversity Day*, the NSS unit of Tura Government College in collaboration with District Social Forestry Division, West garo Hills, Tura and District Administration, South West Garo Hills, Ampati organized a *drawing, painting and extempore speech competition* for school children. Six-hundred saplings were planted in and around Ampati multi-facility Centre, Ampati.

Around three-hundred NSS volunteers from different colleges attended the inaugural function of the *Regional Level Workshop* on *"Drug Abuse"* on 15th June 2015 held at the State Convention Centre, Shillong organized by the Ministry of Social Justice and Empowerment, Government of India in collaboration with Ministry of Youth Affairs and Sports.

The NSS unit of Sngap Syiem College conducted an *orientation programme* for the newly enrolled volunteers on 17th July 2015.

The NSS unit of St. Edmund's College organized a two day *workshop* on event management on 21st and 22nd July 2015 at the college campus.

The NSS unit of Shillong College in collaboration with the District Training Office, former Training Centre, Upper Shillong and the Sohryngkham Presbyterian Youth Development Committee, organized a one

day *training and awareness programme* on 31st July 2015 at Sohryngkham village.

The NSS NEHU unit, Shillong organized a *orientation programme* at Multi-Use Convention Centre, NEHU for the students on 26th September 2015. Altogether fifty students were enrolled as NSS volunteers.

Around 20 Programme Officers from different colleges of Meghalaya attended a 5 day training on TOT on Social Harmony and National unity held at NEHU New Guest House, NEHU, Shillong from 5th -9th January 2016.

More than 300 NSS Volunteers and Programme Officers from different institutions of Meghalaya participated in the two day Workshop on Disaster Management organized by the office of the NSS Cell, NEHU held at the Community Hall, NEHU Permanent Campus on 25th and 26th February 2016. The programme was conducted by the office of the Deputy Controller, Civil Defence, Shillong.

The NSS Cell, NEHU, Shillong organised a one day workshop on *"Digital India"* at the Multi Use Convention Centre, NEHU, Shillong on 3rd March 2016. More than two-hundred fifty Programme Officers, NSS volunteers and Officials participated. Resource persons were from NeGD, New Delhi and SeMT Meghalaya.

The District Disaster management Authority, West Garo Hills District, Meghalaya in collaboration with Meghalaya Administrative Training Institute along with Civil Defence and Home Guards, West Garo Hills District, Meghalaya has organized a 3(three) day programme "Search & Rescue and First Aid" for NSS volunteers of Tura Government College Unit at Circuit House,

Tura from 15th – 17th March 2016. About forty NSS volunteers participated.

NSS Day:

The NSS Cell NEHU in observance of 46th NSS Foundation Day organized a day long programme on 24th September 2015 at Community Hall, NEHU, Shillong. Around 650 volunteers along with Programme Officers from different institutions attended the programme. Shri. S. K. Jain, IPS, Special DGP (SB/CID), Meghalaya was the chief guest on the occasion in the presence of Prof. P. Shukla, Vice-Chancellor, NEHU and Dr. H. Iangrai, State NSS Officer. The University Level NSS Awards were also presented on the occasion. The best NSS Unit was awarded to *St. Edmund's College, Shillong* and the best Programme Officer was awarded to *Mr. Kerli'hok Lyngdoh Buam of Synod College, Shillong*. The best NSS Volunteer Awards were given to i) *Ms. Rida Wanbha Nongbri, Shillong College, Shillong*. ii) *Ms. Sophiana Marwein, Shillong College, Shillong*. iii) *Mr. Sahil Syngkrem, Umshyrpi College, Shillong*. iv) *Mr. John Elisa Kumar, NSS NEHU, Unit, Shillong*. v) *Mr. Balajied Banjop Wanshong, St. Edmund's College, Shillong*. vi) *Mr. Dennis Lallienzuol, St. Edmund's College, Shillong*. vii) *Mr. Chanbor Me More Dkhar, Thomas Jones Synod College, Jowai*. viii) *Ms. Karisma Tongper, Thomas Jones Synod College, Jowai*.

The awards were given on the basis of their committed and effective participation in community service. The day ended with a variety programme which comprised songs, dances, skits and multi-varied cultural items.

Environmental Programmes:

The NSS unit of St. Edmund's College, Shillong in collaboration with NOW Eco Club, Department of Environmental Science. St. Edmund's College commemorated World Environment Day at the college campus on the theme *"Seven Billion Dreams One Planet Consume with Care"* Various programmes were organized during the day which included a Mime, open quiz, poster campaign, slogan writing, photography competition, jumble sale etc. Adopt a tree programme was also organized where volunteers pledged to nurture fifty saplings in their respective spaces.

The NSS unit of Tura Government College in collaboration with Garo Student's Union, CEC, Tura and Asanang UP & Secondary School, West Garo Hills organized a *Tree Plantation* programme in and around the school premises. About three-hundred saplings were planted on that day.

The NSS unit of Umshyrpi College, Shillong organized a *Tree Plantation* at the adopted village (Kyrdemkulai) on 5th June 2015. More than forty-five saplings were planted and thirty volunteers participated.

The NSS unit of Synod College organized a *Cleaning Drive* in the college campus on 5th June 2015. Around sixty-four NSS volunteers participated.

The NSS unit of Union Christian College, Umiang organized a *drawing competition* for school children and a *tree plantation programme* on 5th June 2015 at the college campus where two-hundred saplings were planted.

The NSS unit of Seng Khasi College conducted a *cleaning drive* at the college campus in

- observance of World Environment Day on 5th June 2015. Around fifty NSS volunteers participated.
- The NSS unit of BBS college observed the World Environment Day by organizing Skit and Cultural programme on the theme **"Seven Billion Dreams One Planet Consume with Care"** at the college campus on 5th June 2015. More than fifty NSS volunteers participated.
- The NSS unit of St. Mary's College observed the World Environment Day on 5th June 2015 at the college campus. Around twenty **saplings were planted** and more than twenty NSS volunteers participated.
- The NSS unit of Tura Government College, Tura in collaboration with District Social Forestry Division organized a **drawing, painting and extempore speech** competition for school children. Around six-hundred saplings were planted in and around Ampati Multi-Facility Centre, Ampati.
- The NSS unit of Synod College organized a **tree plantation** at Mawpdang village (adopted village) on 27th June 2015. Around two-hundred saplings were planted and more than forty NSS volunteers participated.
- The NSS unit of Seng Khasi College conducted a **tree plantation** programme on 15th July 2015 at Krang village. Around fifty volunteers, teachers, PHE officials and members of the local dorbar participated.
- The NSS unit of Shillong College organized a **plantation programme** at Umtingew village, Smit on 1st August 2015. Around two-hundred saplings were planted and 60 NSS volunteers participated.
- The NSS NEHU unit, Shillong organized a **cleaning drive** of all **plastic wastes** inside the NEHU campus on 8th August 2015. Around sixty NSS volunteers participated.
- The NSS unit of St. Dominic's College organized **tree plantation** at the college campus on 7th November 2015. Six fruit saplings were planted and around ten volunteers participated.
- The NSS unit of Tura Government College organized a **cleaning drive** in the college campus on 19th September 2015. Around thirty NSS volunteers participated.
- The NSS unit of St. Dominic's College organized **cleaning drive** in and around the college campus on 12th November 2015.
- The NSS NEHU unit conducted a **post diwali cleaning drive** on 13th November 2015 at NEHU hostel areas. Around fifty-eight volunteers participated.
- The NSS NEHU unit organized a **campus cleaning drive** on 7th November 2015. Around sixty-eight volunteers participated.
- The NSS unit of Sngap Syiem College in collaboration with District Soil & Water Conservation, South West Khasi Hills organised a **cleaning drive cum awareness programme** at Tynnai Market on 4th November 2015.
- District Level NSS Meet :**
- Around one-hundred fifty volunteers and Programme Officers from different colleges of East Khasi Hills and Ri-Bhoi district participated in the **District Level NSS Meet** held at Union Christian College from 19th -21st October 2015.
- Other Activities:**
- Around thirty NSS volunteers, Programme Officers along with Programme Organiser of

NSS Cell, NEHU attended the programme on *World Blood Donor's Day* held at Pasteur Institute, Regional Blood Bank on 15th June 2015 organised by Meghalaya AIDS Control Society, Shillong. Voluntary blood donor's from NSS were felicitated on this day.

Around fifty students participated in various programmes on 20th and 21st June 2015 at various locations of Shillong in observance of *International Day of Yoga*.

In observance of the *International day Against Drug Abuse & illicit Trafficking*, the NSS unit of Sngap Syiem College organized an *awareness programme* at the college campus on 26th June 2015. Around fifty NSS volunteers attended.

The NSS unit of Seng Khasi College conducted an *awareness programme* in observance of *International Day Against Drug Abuse and Illicit Trafficking* on 26th June 2015 in the college. More than fifty NSS volunteers attended.

The NSS unit of Union Christian College, organized a *drawing and essay competition* and an awareness programme on HIV/AIDS on 2nd July 2015 at the college indoor stadium. Around three-hundred volunteers and one-hundred fifty school children participated.

The NSS unit of Sngap Syiem College visited Pawphlang (adopted village) on 11th July 2015 and *planted vegetables at the poly house* which was constructed by the unit. Around twenty NSS volunteers participated.

The NSS unit of Thomas Jones Synod College organized *awareness cum blood donation programme* in collaboration with the Blood Bank, Jowai Civil Hospital on 14th

July 2015 at Jowai Civil Hospital. Around thirteen NSS volunteers donated blood.

The NSS unit of St. Edmund's College organized a *voluntary blood donation programme cum awareness camp* in collaboration with regional Blood Bank, Pasteur Institute, Shillong on 16th July 2015 at Pasteur Institute, Shillong. Around twenty-two NSS volunteers donated blood.

The NSS unit of BBS College observed the *Campaign against Nuclear Weapons Day* by organizing an *open essay competition* at the college campus on 6th August 2015. More than forty NSS volunteers participated.

The NSS unit of BBS College in collaboration with NEIGRIHMS and Meghalaya AIDS Control Society organized a *blood donation camp* on 9th August 2015. Around thirty NSS volunteers attended and 12 units of blood were donated.

The NSS unit of St. Edmund's College in collaboration with Department of Social Work and Department of Arts and Culture, Government of Meghalaya organized a *Panur Festival* on the theme "*Igniting to Sustain our culture through the Prism of diversity*" on 15th August 2015 in observance of Independence Day at Elaka Nongjri, pynursla.

40 NSS volunteers of Sngap Syiem College, Mawkyrwat participated in the *Independence Day celebration* on 15th August 2015 at Maharam Government School ground organized by the Deputy Commissioner's office.

Around sixty NSS volunteers from different colleges attended the *Youth Fest* at Lady Keane College on 12th August 2015 in

observance of International Youth Day. The programme was organized by Meghalaya AIDS Control Society and National Rural Health Mission.

In observance of International Youth Day and Independence Day on 12th & 13th August 2015 the NSS unit of North East Adventist College conducted a *skit, essay writing competition* and a talent show on the theme "*Youth Civic Engagement*" at the college premises.

The NSS unit of Union Christian College in collaboration with Pasteur Institute and Dr. H. G. Robert Hospital, Shillong organized a *blood donation camp* at the college Auditorium on 3rd September 2015. Around eighty-six NSS volunteers donated.

In observance of International Peace Day the NSS unit of North East Adventist College organized a *Marathon* on the theme "*Run for Peace*" and a *poster, slogan and sketching competition* on "*International Peace*". Around forty NSS volunteers participated.

The NSS unit of Sngap Syiem College organized *awareness cum demonstration* on solid and liquid waste management in the college campus on 23rd September 2015. Around one-hundred fifty volunteers attended.

The NSS unit of Sngap Syiem College organized *Block Level Science & Environmental* fair on 25th September 2015. More than one-hundred twenty NSS volunteers attended and eighty students from Higher Secondary Schools attended.

On 26th September 2015 around 25 volunteers attended a programme on *World Tourism Day* organized by the office of the Deputy Commissioner, South West Khasi Hills.

Ten NSS volunteers was awarded as *Green Ambassador* of South West Khasi Hills.

The NSS unit of Synod College organized a one day *voluntary blood donation programme* in collaboration with Dr. H. G. Robert Hospital, Shillong on 22nd September 2015 in the college Conference Hall. Around thirty-seven NSS volunteers donated blood.

The NSS unit of Shillong College conducted a one day *blood donation camp* in the college campus on 22nd September 2015 in collaboration with Meghalaya AIDS Control Society and NEIGRIHMS. Around twenty-six donors donated.

Seven volunteers of NSS unit of NSS NEHU unit attended the State Level *National Blood donation Day* on 1st October 2015 at Monreau Institute of Integral Training and Research Centre, Dhanketi, Shillong.

The NSS NEHU unit in collaboration with Dr. H.G. Robert Hospital and Meghalaya AIDS Control Society organized a *blood donation camp* at NEHU Health Center on 3rd October 2015. Around thirty-eight donors donated.

The NSS unit of Sankardev College in collaboration with Co-curricular Committee of the college and the office of the Superintendent of Police, East Khasi Hills organized an *awareness programme on drug abuse and cyber crime* on 12th October 2015 in the college campus. Around two-hundred volunteers attended.

The NSS unit of North East Adventist College, Thadlaskein in collaboration with Traffic Department conducted an *awareness programme* on the theme "*Traffic Rule, Violation & Road Safety*" in the college campus on 28th October 2015.

Around fifteen NSS volunteers of Umshyrpi College attended a *National Voluntary blood Donation Day* on 1st October 2015 organised by Meghalaya AIDS Control Society. Three volunteers donated blood.

The NSS unit of Shillong College in collaboration with Bansara Eye Care Centre, conducted a *Free Eye Check Up camp* at Umroh (adopted village). Around one-hundred and ten residents were benefitted during this camp. A *tree plantation* programme was also conducted in the village where one-hundred saplings were planted. It was conducted during special camping programme which was held from 19th – 24th October 2015.

The NSS unit of North East Adventist College in collaboration with Traffic Department, Jowai organized an *awareness programme* in the college on the theme "*Traffic Rules, Violation & Road Safety*" on 28th October 2015.

The NSS unit of Sngap Syiem College organized a *Literacy programme* at Mawkhoh Upper Primary School Tynna on 4th November 2015.

Seven volunteers of NSS NEHU unit *voluntarily donated blood* at Nazareth Hospital on 11th November 2015. It was organized by Meghalaya AIDS Control Society.

The Bansara Eye Care Centre, on the occasion of *World Diabetes Day* conducted the Global Diabetes Walk on 14th November 2015. Around twenty NSS volunteers of St. Anthony's and BBS College participated.

The NSS unit of Sngap Syiem College organized a rally on "*Free Plastic Campaign*" on 14th November 2015. Around fifty NSS volunteers participated and around two-hundred students from different Schools

participated. On the same day the unit organized a debate competition on the topic "*Youth as agent of Clean & Green*" in observance of 126th Birth Anniversary of Pandit Jawaharlal Nehru. More than fifty volunteers participated.

The Lions Club of Shillong in collaboration with NSS unit of Lady Keane College, NEIGRHIMS and Meghalaya AIDS Control Society, Shillong conducted a *Free Eye screening, diabetics and medical check-up cum blood donation camp* at Lady Keane College on 17th November 2015. More than three-hundred students participated and twenty-three donors donated blood.

Various NSS units across the state observed the *First Constitution Day* on 26th November 2015. The day was marked by Preamble reading and Pledge taking.

The NSS unit of Sngap Syiem College pre-observed the *World Aids day* at the college campus on 28th November 2015. Around forty-five NSS volunteers along with four teachers attended.

Various NSS units across the state observed the *First Constitution Day* on 26th November 2015. The day was marked by Preamble reading and Pledge taking. More than three-hundred volunteers attended.

The NSS unit of Shillong College in observance of *World Aids Day* organized an awareness programme on HIV/AIDS and impact of Child Marriage at Umphymai village, East Khasi Hills on 1st December 2015.

The NSS unit of Durama College as part of the *Swachh Bharat Campaign* organized a cleaning drive at *Ganol Eco Park* on 3rd December 2015. Around eighty-eight volunteers participated. It was organized during special camping.

The **35th University Advisory Committee meeting** of the NSS Cell NEHU was held on 8th December 2015.

The NSS unit of Umshyrpi College organised a **Pre Christmas celebration** by distributing clothes to the residents of Kyrdemkulai village (adopted village) on 19th December 2015. Around fifty volunteers along with Programme Officers and teachers participated.

More than three-hundred NSS Volunteers and Programme Officers from different institutions of Meghalaya participated in the two day **Workshop on Disaster Management** organized by the office of the NSS Cell, NEHU held at the Community Hall, NEHU Permanent Campus on 25th and 26th February 2016. The programme was conducted by the office of the Deputy Controller, Civil Defence, Shillong.

The NSS Unit, NEHU, Shillong in collaboration with DMHO, Government of Meghalaya organized a **Pulse Polio Immunisation programme** at Mawryngkneng Village on 22nd February 2016. Around thirty NSS volunteers attended and one-hundred fifty children benefitted.

The NSS Unit, NEHU, Shillong in collaboration with Meghalaya AIDS Control Society, Nazareth Hospital and NEIGRIHMS organised a **blood donation camp** at the University campus on 18th March 2016. Around one-hundred fifty-four NSS volunteers donated.

Special Programme during Special Camping :

NSS units have also constructed community utilities through the labour of volunteers at the

respective adopted villages during the course of the special camping programme:

The NSS unit of Shillong College, Shillong constructed a **footpath** at Umroh village.

The NSS unit of P. G. NEHU unit constructed a **footpath** at Nongkohlew village.

The NSS unit of Tura Govt College, Tura constructed a **bus Shed** at Boldorenggre village.

The NSS unit of St. Anthony's College constructed a **footpath** at Swer village.

The unit of Shillong College constructed a **boundary wall** at Laitkseh village.

Skill Development:

The unit of Sngap Syiem College facilitated training on **rural technology**, horticulture and related activities for twenty NSS volunteers, twenty local youth and forty community residents in the adopted village of Pawphlang. Another programme for thirty-one NSS volunteers on short term **computer course, spoken English, spoken Hindi and Khasi traditional music** was also conducted.

Around thirty volunteers of St. Edmunds College underwent training on **mushroom cultivation, vermicomposting and basic electronics & PC Assembly**.

Around fifteen volunteers of St. Anthony's College underwent training on **DTP, Tally and SAP courses**.

Around forty-seven volunteers of Shillong College underwent various training courses on **dress making, food processing, candle making, fast food technology, bakery, beautician, mobile repairing, computer hardware and photography**.

Adoption of Model Village:

In the model village of Lawsohtun several programmes have been conducted for the residents. A list of activities is given below:-

Installation of Solar Lights: Around twenty-two numbers of Solar Street Lights have been installed as the first phase.

Eye Camps: Around six Eye Check-up camps during the month of September were held at six different Secondary Schools for 882 beneficiaries. These camps were held in collaboration with Bansara Eye Care Centre.

Skill Development: Two residents attended training programme on Carpentry and DTP.

Swachh Bharat Campaign: Along with the rest of the country a cleaning drive was also observed on 2nd October in collaboration with the Dorbar Shnong. Around six-hundred residents of the locality participated in the programme.

Adopted Village: *The NSS Cell has adopted three villages:*

Nongdawsaw, Ri-Bhoi District :- An Eye Check-up camp was held on 18th September 2015. Around one-hundred residents availed of the services.

Nongumlong, East Khasi Hills: An Eye Check-up camp was held on 22nd October 2015. Around one-hundred residents availed of the services.

Mawngap Mawkharshiing, East Khasi Hills: Nine residents attended training programme as skill development on tailoring, beautician, bakery and computer courses.

Swachh Bharat Abhiyan:

Under the Swachh Bharat campaign, several programmes have been conducted. These include the following:

The NSS Cell, NEHU organized a one day *workshop on Swachh Bharat Abhiyan* on 31st July 2015. More than 320 NSS volunteers from different institutions of Meghalaya attended. Resource persons from Meghalaya Pollution Control Board, Health Department, State Council of Science & Technology & Environment etc conducted the workshop.

The NSS unit of Union Christian College organized a *cleaning drive* under Swachh Bharat Abhiyan in the college campus on 13th August 2015. About nine-hundred students, teaching and non-teaching staffs participated.

The NSS unit of Shillong College in collaboration with NCC and Youth Red Cross organized a *cleaning drive* as part of the Swachh Bharat Abhiyan campaign on 8th August 2015 in the college campus. Around sixty-three NSS volunteers participated.

The NSS unit of Synod College under the flagship of Swachh Bharat Mission organized a *cleaning drive at Mawpdang village*, on 14th September 2015. More than forty-one NSS volunteers and two NSS Programme Officers participated.

The NSS unit of Synod College under the flagship of Swachh Bharat Mission organized another *cleaning drive at Umnianghyrnai village* on 18th September 2015. Around thirty-seven NSS volunteers and two Programme Officers participated.

12 volunteers of NSS NEHU unit participated in the special *cleaning drive* under the flagship of Swachh Bharat Abhiyan in areas around Shillong Commerce College, PGT College and B.K. Bajoria School organized by the office of Mott McDonald and Urban Affairs

Department, Government of Meghalaya on 2nd October 2015.

The NSS unit of Tura Government College in observance of Mahatma Gandhi Jayanti organized a *cleaning drive in the market area* on 2nd October 2015. Around forty-eight volunteers participated.

Thomas Jones Synod College, Jowai conducted a *cleaning drive* of the tourist taxi stand at lawmusiang market on 2nd October. About fifty volunteers actively participated.

Toilet constructions: *Swacch Bharat Abhiyan*

Unit of Umshyrpi College constructed *low cost sanitation* unit at Kyrdemkulai village (Adopted village)

Unit of Captain Williamson Memorial Government College, Baghmara constructed a *low cost sanitation* unit in the college campus.

Unit of Durama College, Tura constructed RCC *toilet cum urinals* at Alotgre, Songgitcham village.

Unit of Bellefonte Community College constructed four *toilets* in the college campus.

Unit of Mawsynram Border Area College constructed a *sanitation unit* at the Local LP School, Mawsynram.

Cleaning drives of tourist spots:

Around one-hundred NSS volunteers of Thomas Jones Synod College in collaboration with Kiang Nangbah Government College, Jowai conducted a *cleaning drive at Nartiang Monoliths tourist spot* on 15th October 2015.

Around thirty-eight NSS volunteers of Sohra Government College, Sohra conducted a *cleaning drive at Nohkalikai Falls, Sohra* on 15th October 2015. The activity included *cleaning of the view point area* and white washing of the walls.

Another thirty-nine NSS volunteers of Sohra Government College, Sohra conducted a *cleaning drive of the Mawsmi Cave*, on 15th October 2015. It involved cleaning of water source, footpath and the surroundings area.

Fifteen NSS volunteers of Jaintia Eastern College, Khliehriat conducted awareness *cum cleaning drive* at Lumshnong Village, on 15th October 2015. The Programme Officer along with NSS volunteers held a brief meeting with the Headman and residents of Lumshnong followed by awareness on *cleanliness and preservation of the Caves*. Volunteers visited *Krem Kotsati and Krem Labit cave*.

CAREER AND COUNSELLING CELL

Coordinator : Dr Dinesh Bhatia, Associate Professor and Head,
Department of Biomedical Engineering, NEHU, Shillong

Telephone : (0364)272-3604 (Office), 3607 (Coordinator)

Fax : (0364)272-3607

Email : placement.nehu@gmail.com; placement@nehu.ac.in

The Career & Counseling Cell (CCC) was established on 01 April 2008 as per UGC guidelines functioning from the School of Technology, NEHU. Till date it is being run by a faculty Coordinator and two office staff personnel. Being the component factor of the University, the CCC endeavors to provide the best opportunities to NEHU graduates in terms of counseling and guidance, campus placements, trainings, internship opportunities etc. The Cell regularly publicizes detailed notification on any matter related to counseling, training, and career/job opportunities, job fairs, pool campus for students' if any such information from any quarter is received or forwarded to the Cell. The Cell also interacts with reputed industries, organizations, training centers and other entities for meeting the demands of the students from time to time. To facilitate the objectives, enrollment of representatives from various departments of the University has been formulated under the guidance of Dr. Bhatia. The Committee consists of faculty and student representatives, who coordinate the different activities of the Cell. Job-oriented awareness workshops are being organized by the Cell regularly for the students of NEHU and affiliated colleges. The Cell invites experts from corporate organization for interactive sessions, lectures on soft skills and allows their participation in internship/implant training

to the students. The Cell also organizes job fairs / career related fairs, pool campuses for the job seekers in the university premises as per opportunity and requirements. Apart from hiring activities, the Cell organizes interactive sessions, special lectures and seminars so as to prepare the students for a smooth transition to their professional lives and face the challenges of the corporate world. With its interaction with company/industry on a regular basis, the students can avail the opportunity to undergo training during semester break in reputed companies, industries, hospitals and government organizations etc.

Activities carried out by the Career & Counseling Cell during 1st April 2015 - 31st March 2016 are highlighted as follows:

1. The Placement Cell, NEHU, Tura in collaboration with HDCF Bank organized a recruitment drive on 3rd April, 2015 for MBA students where three students of NEHU, Tura got selected.
2. Tech Mahindra conducted a pool campus in NIT Meghalaya, Shillong on 10th August, 2015 where 13 students from IT & ECE participated.
3. Wipro Technologies conducted a campus drive at National Institutes of Technology (NIT), Meghalaya on 14th & 15th August,

Career and Counselling Cell

- 2015 where the students of School of Technology, NEHU, Shillong participated. Six students got selected by the company.
4. An Online Test was conducted on 16th September, 2015 by Ericson Pvt. Ltd. for female engineering passed out students where one student of School of Technology (SOT) NEHU, Shillong got placed.
 5. Career and Counseling Cell, NEHU, Shillong organized a Workshop on "Interactive Knowledge Session" sponsored by industry, Institute of Technology & Management (ITM), Mumbai on 23rd September, 2015 where a total number of 160 students attended the seminar.
 6. TNS world (Cocubes) conducted a placement drive for engineering students on 13th October, 2015 in Guwahati where the students of SOT, NEHU, Shillong participated. Seven students got placed by the company.
 7. Career and Counseling Cell, NEHU, Shillong organized a two day Workshop/
- Finishing School on 14th & 15th October, 2015, in collaboration with M/s Nettrack Systems and Services at NEHU, Shillong where a total of 170 students attended.
8. Airtel (1) Pvt. Ltd conducted a recruitment drive in NEHU, Tura for MBA students on 17th & 18th November, 2015 where three students got placed.
 9. A North East Mega Job Fair was conducted on 29th & 31st January 2016 by Assam Down Town University, Guwahati along with MARCOM WAND in Khanapara Indoor Stadium where some students of NEHU attended.
 10. A seminar on Leadership & Entrepreneurship was conducted by Gandhi Fellowship, Piramal Foundation on 21st March, 2016 in NEHU, Shillong where around 330 students attended the seminar. A personal interview was also conducted by the company after the seminar for interested candidates where three students got selected.

Details of the students placed through the Career and Counseling Cell during the year 2015-2016.

Sl. No.	Name of the company	Name of selected students	Date of interview	Department/ Branch	University /College
1.	HDFC Bank*	Anju Hajong	03.04.15	MBA	School of Economics, Management & Information Sciences, NEHU, Tura.
		Armesh Frield K. Marak		MBA Final Year	
		Kasangchi K Sangma		MBA	

*NOTE: In Collaboration with Placement Cell, NEHU, Tura

Central Services

2.	Wipro Technologies	Ms. Neetushree Konwar	14.09. 15 & 15.09.15	ECE	School of Technology, NEHU, Shillong
		Ms. Jagriti Rajkhowa		IT	
		Ms. Bidisha Barman		ECE	
		Mr. Manoj Chettri		ECE	
		Mr. Paulal John		ECE	
		Ms. Raymond Star Jyrwa		M.Tech (IT)	
3.	Ericsson India Pvt. Ltd	Ms. Arpana Medhi	16. 09.15	ECE (passed out 2015)	School of Technology, NEHU, Shillong
4.	Airtel (I) Pvt. Ltd*	Stopper Bang	17.09.15	MBA	School of Economics, Management & Information Sciences, NEHU, Tura.
		Kwesaploing Heloiying		MBA	
		Sheela Roy		MBA	
5.	TNS World (Co Cubes)	Dhrubajyoti Das	13.10.15	ECE (passed out 2015)	School of Technology, NEHU, Shillong
		Rupam Choudhary		ECE (passed out 2015)	
		Gunin Basumatary		ECE (passed out 2015)	
		Deepjyoti Das		ECE (passed out 2015)	
		Ankuj Pegu		ECE (passed out 2015)	
		Pranjal Das		IT (passed out 2015)	
		Nabajit Sonowal		ECE (passed out 2015)	
		Kwesaploing Heloiying		MBA	
		Sheela Roy		MBA	
6.	Gandhi Fellowship, Piramal Foundation	Mr. Dipankar Doley	21.03.16	ECE	School of Technology, NEHU, Shillong.
		Mr. Siddharth Bhuyan		IT	
		Ms. Jagriti Rajkhowa		IT	

Career and Counselling Cell

SI No:	Names	Position	Department
1	Mr . Shivaji Roy	President	Electronics & Communication Engineering, School of Technology, NEHU, Shillong
2	Mr. Samborwell Kharjana	Vice President	Law, NEHU, Shillong
3	Ms . Mohsina Afrooz	General Secretary	Biomedical Engineering, NEHU, Shillong
4	Mr . Saurav Kr Dubey	Joint Secretary	Information Technology, NEHU, Shillong
5	Ms . Wanda L Syiem	Joint Secretary	Tourism & Hotel Management, NEHU, Shillong
6	Mr . Raymond Kharumnuid	Member	Nanotechnology, NEHU, Shillong.

Career & Counseling Cell Student Representatives running different activities of Cell for the year 2015-16.

PLACEMENT CELL (TURA CAMPUS)

Officer-in-charge : Dr. Abhigyan Bhattacharjee
Telephone : +919435017519
Email : abhigyan09@rediffmail.com

The Cell carried out the following activities during the year (2015-16) under report.

1. Airtel (I) Pvt. Ltd (NESA) conducted campus placement drive on 17th and 18th of November 2015 for the position of Territory Sales Manager (TSM). Three students from the department of Management got final placement offers as TSM.
2. PRADAN, a National level NGO conducted placement drive for the position of Development Apprentice on March 9 and 10, 2016. Altogether five students participated. One (1) student from the department of Management got final placement offer.
3. HDFC Asset Management Company Ltd conducted a selection process on 12th December, 2015 at its regional office in Guwahati. Altogether ten (10) students participated.
4. Vodafone India Pvt Ltd conducted a placement interview for the students at NIT, Shillong as a part of pooled campus drive on 18th Dec 2015. One (1) student from the department of Management, NEHU, Tura Campus got final placement offer.
5. Dabur India Ltd conducted placement drive on 25th May 2016. Altogether six students from department of Management having Marketing specialisation participated. One (1) student got placed as Rural Sales Promoter.

PUBLICATION UNIT

In-Charge	:	Prof. R. Khongsdier
E-mail	:	rkhongsdier@hotmail.com
Publication Officer	:	Mr. B. Shylla
E-mail	:	bmshylla21@gmail.com
Assistant Editor	:	Ms. G. Umdor
Telephone	:	0364-2721424 (O)

The NEHU Publication Unit is mainly concerned with the printing and promoting of publications in the various academic areas of the University. These include some undergraduate textbooks, official publications of the University like the Acts and Statutes, Ordinances, the Annual Report, the Annual Accounts, The NEHU Journal (biannually) and the e-NEHU News (quarterly), Endowment Lectures, and other supplementary reading materials.

Apart from these, NEHU Publication Unit is also functioning as the official printer of the University with the printing press attached to it. At present, the Press has been undertaking almost all printing jobs assigned to it by Examination department, Centre for Distance Education, departments and P&S.

On the distribution front, the unit has entered into contracts with the major distributors and book sellers in and around Shillong. The Unit has also flashed its publication on the website of the University for the general public to have a bird's eye view of the books available in the Unit.

The Unit is equipped with a bi-colour demy offset printing machine and hopes to acquire a digital printing machine to undertake colour

printing jobs for shorter print runs and quicker delivery period. We also hope to be able to modernize our binding section for quick binding and delivery.

Printing and Publication of Following Works were Undertaken During the Period 2015-2016

1. Printing of items relating to Examination Department, NEHU.
2. Printing of items relating to Printing & Stationery Department, NEHU.
3. Printing of items required for the 23rd Convocation of NEHU.
4. Printing of English and Hindi versions of the Annual Accounts (2014-15) of the Finance Department, NEHU.
5. Printing of items relating to NCRABME -2015, Department of Bio Medical Engineering, NEHU
6. Printing of certificates relating to the Career & Counselling Cell, NEHU on two occasions.
7. Printing of certificates, invitation cards and abstracts (SNCI-ACNN 2015) for Department of Bio Medical Engineering, NEHU.

Central Services

8. Printing of NEHU wall and table calendars for the year 2016.
9. Printing of Invitation cards and brochure (ETC 2016) for Department of Chemistry, NEHU
10. Printing of draft & final copies of the English and Hindi versions of the Annual Report (2014-15).
11. Printing of the NEHU Journal Vol.XIII No.1, Jan 2015 & Vol.XIII No.2, July 2015.
12. Printing of NEHU Syllabus for Bachelor of Commerce.

SOPHISTICATED ANALYTICAL INSTRUMENT FACILITY

Head : Professor G. Bez
Telephone : 2721801(O), 2550212 (FAX), 9436332612 (M)
E-mail : bez@nehu.ac.in, saifnehu@gmail.com, hodsaiif@nehu.ac.in

Thrust Area of the Centre

The Department of Science and Technology (DST) is providing facilities of sophisticated analytical instruments to researchers through its Sophisticated Analytical Instrument Facilities (SAIF) Programme so that the non-availability of these instruments in the user institutes may not come in the way of scientists pursuing R&D activities requiring such facilities and they are able to keep pace with developments taking place globally.

Brief Statement of Activities

SAIF carries out analysis of samples received from the scientists/institutes, and provides

facilities of sophisticated analytical instruments to scientists and other users from academic/ Research institutions, R&D laboratories and industries to enable them to carry out advanced research. It also acquires and develops capability for preventive maintenance and repair of sophisticated instruments, and organizes short-term training courses/workshops on the use and application of sophisticated instruments and analytical techniques. In addition, SAIF trains technicians for maintenance and operation of sophisticated instruments as well as undertakes design and development of instruments/ accessories of existing instruments.

Scientific Staff

Sr. Scientific Officer Taposh Chakraborty, M. Sc. /Ph. D. (Physics, NEHU)

Scientific Officer Sudip Dey, M. Sc./Ph. D. (Zoology, NEHU)

Begonia Dkhar, M. Sc. (Zoology, NEHU), Ph. D. (GU)

Debashish Dey, M. Sc. (Chemistry, NEHU), Ph. D. (RDU)

P. S. Dkhar, M. Sc. (Biochemistry, NEHU), Ph. D. (Biophysics, NEHU)

S. K. Prasad, M. Sc. (Biochemistry, NEHU), Ph.D. (Env. Sc., NEHU)

J. M. Sohtun, M. Sc. (Biochemistry, NEHU)

Seminars/Conferences/Symposia/ extension programmes/ workshops/ Training

Attended

Dr. S. K. Prasad participated in one day Seminar at Hotel Polo Tower, Shillong, on "Advances in Molecular Spectroscopy and Mass Spectroscopy Solutions", organized by M/S Agilent Technology, Kolkata on 07.10.2015

Publications

Published Abroad

L. M. Devi, C. M. Thabab, R. N. K Hooroo and S. Dey (2015). Morphological and Micro-structural changes of the oral apparatus in two anuran tadpoles in regard to pH. *Micron*, 8: 41-51.

Infrastructure Facilities

The following sophisticated analytical instruments are available for analytical services:

- i. Scanning Electron Microscope (JEOL JSM 6360) with EDS (Oxford INCA 350)
- ii. Transmission Electron Microscope (JEOL JEM 2100) with EDS (Oxford X MAX 65)
- iii. FT-NMR 400 MHz (BRUKER AVANCE II-400)

Instrument Uses:

Instrument	Total number of samples Analyzed	Total number of Users utilizing the facility
Scanning Electron Microscope (JEOL JSM 6360) / EDS(Oxford Oxford INCA 350)	841	108
Transmission Electron Microscope (JEOL JEM 2100) EDS(Oxford Oxford X MAX 65)	1045	221

- iv. LC-MS Spectrometer (Waters ZQ-4000)
- v. Graphite Furnace (Analytik Jena AG Vario 6)
- vi. Liquid Nitrogen Plant (Philips PLN 106)
- vii. Microscope with Image Analyser (LEICA DMRX)
- viii. A Seminar room (capacity: 50 seats) and a Conference room (capacity: 14 seats)

New glass knife maker for Transmission Electron Microscope and Carbon Coating unit for Scanning Electron has been installed.

An Inductively Coupled Plasma – Optical Emission Spectrometer (ICAP 7600 from M/s Thermo Fisher) is in the process of procurement.

Services Offered

Scanning and Transmission electron microscopic studies of biological and material science samples; 1-D and 2-D NMR spectra of biological and chemical samples in liquid/solution phase; Trace element analysis in biological, chemical and industrial samples; Mass spectra of compounds, and supply of liquid nitrogen to academic, research and industrial institutions.

Sophisticated Analytical Instrument Facility

FT-NMR 400 MHz (BRUKER AVANCE II-400)	2204	79
LC-MS Spectrometer (Waters ZQ-4000)	94	16
Graphite Furnace (Analytik Jena AG Vario 6)	693	37
Liquid Nitrogen Plant (Philips PLN 106)	4223 Lts.	27

Total Revenue Earned: Rs. 31,06,890.00

(External users: Rs.; 23,41,894.00 Internal users: Rs.7,64,996.00)

Other Activities

SAIF-NEHU hosted visits of (i) M. Sc. and Ph.D(Agri.) students of College of Post graduate Studies, Central Agricultural University, Umiam Campus, Barapani, Meghalaya, (ii) Participants of the Hands on training workshop on "Synthesis and Characterization of Nano-materials for Biotechnological Applications" organized

by BSSS, NEHU, Shillong, (iii) 2nd Year B. Sc. Students from St. Mary's College, Shillong, Meghalaya, (iv) Students from Botany Department, Dhing College, Dhing, Nagaon, Assam, (v) B. Sc. Students from Zoology Department of St. Anthony's College, Shillong, Meghalaya and (vi) Students from Centre for Studies in Biotechnology of Dibrugarh University, Dibrugarh – 786 004, Assam

SPORTS DEPARTMENT

Teacher In Charge : Dr S. Umdor
 Telephone : 0364-2721381/1383.
 Email : nehusports@gmail.com.

Brief Statement of Activities

The sports department of the University functions under the overall guidance of the NEHU Sport Board which is chaired by the Vice Chancellor of the University. The Sports Department is the nodal agency for the organizing of annual sporting activities for students of the university and affiliated colleges, besides organizing sporting events for other stakeholders of the university. The Department is also actively involved in providing assistance to students in conduct of sporting events during varsity fest and other such programmes organised from time to time. During 2015-16 the Department had organized and supported different activities which are reported below.

1. The Department organised the 3rd Vice Chancellor Cricket Tournament at the Shillong Cricket Association Ground, Polo from 6th to 9th April 2015. Altogether four teams took part in the tournament, namely Ministry of Human Resource Development, New Delhi, Shillong Cricket Association, St. Edmund's College and North-Eastern Hill University. Prof. B. Myrboh, Pro Vice-Chancellor of NEHU inaugurated the tournament. The final match was played between Shillong Cricket Association and St. Edmund's College. The former lifted the championship trophy. Prof P. Shukla, Acting Vice-Chancellor of NEHU distributed the prizes to the winners.
2. The Department organised the Inter College Badminton (Men & Women), Table Tennis

(Men & Women) and Chess (Combined) Tournament from 11th to 13th of August 2015 at the Indoor Stadium, NEHU. In the men's badminton section, St. Anthony's College lifted the championship while NEHU team won in the women section. In Table Tennis men's section St. Anthony's College lifted the championship trophy whereas in women section Women's College emerged as the champion. In Chess Combined Tournament St. Anthony's College won the championship.

3. The Department organized the Inter College Football (Men) Tournament 2015 from 19th August to 29th August 2015 at J. N. Sports Complex, Polo, Shillong. Altogether 20 colleges participated in the tournament. The final match was held on 29th August 2015, which is also celebrated as National Sports Day, in which Prof. P. Shukla, Acting Vice-Chancellor, NEHU, Shillong was the Chief Guest. The final match was played between St. Anthony's College, Shillong and Kiang Nangbah Govt. College, Jowai. The former emerged as the champion. The Chief Guest gave away the trophies and medals to the winners and runners-up.
4. The Department also organised the Inter College Football (Women) Tournament at the J. N. Sports Complex, Polo, Shillong from 8th to 10th September 2015. Altogether five colleges participated in the tournament. In the finals, Lady Keane College, Shillong defeated Jaintia Eastern College, Khliehriat and lifted the championship trophy. Dr. S.

Sports Department

- N. Lamare, Secretary, Sports Board, NEHU gave away the prizes.
5. The NEHU Table Tennis men and women teams participated in the East Zone Inter University Table Tennis Tournament organised by the L. N. Mithila University, Darbhanga, Bihar from 10th to 13th September, 2015. The men's team of the University reached the quarter finals but lost the match to University of Calcutta, Kolkata, West Bengal.
 6. The Department organized the Inter College Basketball (Men & Women) Tournament from 15th to 21st September 2015 at the NEHU Basketball Ground. Altogether 13 colleges in men's section and 12 colleges in women's section participated in the tournament. In men's section St. Edmund's College defeated St. Anthony's College, Shillong to lift the Championship trophy, where as in women's section St. Anthony's College defeated NEHU, Shillong.
 7. The NEHU Badminton men and women team participated in the East Zone Inter University Badminton Tournament at the KIIT University, Bhubaneswar, Odisha from 17th to 21st September 2015.
 8. The Sports Department organised the Inter College Cross Country Run on 24th September 2015 at the NEHU Permanent Campus Shillong. The event was flagged off by Dr. S. N. Lamare, the Dean of Students Welfare and Secretary, Sports Board, NEHU, Shillong. In the men's category, Sngap Syiem College, Mawkyrwat was the winner and St. Anthony's College the runners up, while in women's category Kiang Nangbah Govt. College, Jowai was the winner with Sngap Syiem College, Mawkyrwat as the runners up.
 9. The Sports Department also organised the Inter College Cricket (Men) Tournament at the Shillong Cricket Association Ground, Polo from 2nd to 16th November 2015. The tournament began with an opening ceremony which was graced by Prof. S. K. Srivastava, Vice-Chancellor, NEHU, as the Chief Guest. The closing ceremony was attended by Dr. L. Cajee, Registrar and Controller of Examination, NEHU as Chief Guest who also gave away the prizes to the winners. St. Anthony's College, Shillong lifted the championship trophy after defeating St. Edmund's College, Shillong. Altogether eight colleges participated in the tournament.
 10. The Sports Department organised the Inter College Volleyball (Men & Women) Tournament at the NEHU Kendriya Vidyalaya Ground from 19th to 20th November 2015. In the tournament St. Anthony's College, Shillong lifted the championship trophy in the men's section and Union Christian College; Umiam lifted the championship trophy in the women's section. Altogether eight colleges participated in the tournament.
 11. The University team also took part in the East Zone Inter University Chess (Men & Women) Tournament held at the T. M. Bhagalpur University, Bhagalpur, Bihar from 17th to 21st December 2015. The team put up good performance and was able to score five out of twelve points.
 12. The Department organized a four day "Yoga-cum-Fitness Camp" from 16th to 19th March 2016 for students and employees of the University and their family members. The camp was held at the Community Hall, NEHU Permanent Campus. Ms. Christine Nonghulo from Shillong imparted training to all the participants. Altogether eighty-three numbers of participants took part in the program.

UGC ACADEMIC STAFF COLLEGE

Director : Prof. Rakesh Mohan
Office : 0364-2721401/2721402 (O); 2550103 (Fax); 0364-2504319(R)
Email : hrdcnehu@gmail.com

Faculty

Designation	Name and Qualification	Specialization
Professor	Prof. Rakesh Mohan, M.Sc., Ph.D., BCKV Mohanpur	Agronomy
Associate Professor	Dr. (Mrs.) Quendarisa Kharbuli, M.Sc., Ph.D., NEHU, Shillong	Zoology (Genetics)
Assistant Professor	Dr. (Mrs.) Kuheli Biswas Das, M.Sc., Ph.D. NEHU, Shillong	Zoology (Biochemical Adaptation)

Main Areas of Service

The UGC-Human Resource Development Centre (UGC-HRDC) has been established to upgrade the knowledge and skills of faculty members of the institutions of higher education, under the Faculty Development Programme of the UGC, New Delhi. The UGC-HRDC organizes Refresher Courses (RCs) and Orientation Programmes (OPs) for the faculty of Universities and Colleges, located in the North-Eastern region as well as in other parts of the country. RCs and OPs are conducted in subjects approved by the UGC, New Delhi in order to update and acquaint the participating teachers with the latest developments and recent trends in their respective subjects. The OPs and RCs are designed to empower the teachers with depth of knowledge to enhance their teaching skills as well as capabilities. Besides, UGC-HRDC conducts Short-Term Courses and Principal Workshops for the Faculties, Research Scholars, Academic Administrators as well as Principals of affiliated Colleges.

Brief Statement of Activities

The UGC-HRDC was established at NEHU in 2006 with financial assistance from the UGC. It became fully functional in March, 2007 after appointment of non-teaching staff (7 Nos.). The UGC sanctioned three academic posts (Professor-Director: 1; Reader: 1, and Lecturer: 1), which are filled up accordingly. The UGC-ASC was allotted three rooms for the faculty members, three office rooms, two lecture rooms, one library-cum-documentation room and a computer Laboratory in the Building for Centre of Studies.

During 2015-16, the UGC-HRDC conducted a total of four OPs, one RCs, two Special Summer/ Winter School and six Short-Term Course, a Principals' Workshop and trained a total of 655 participants belonging to various universities and colleges recognized by the UGC.

Further, the UGC-HRDC established a Computer Laboratory with 24 numbers of state of the art PCs, a Server, two Network Laserjet Printers, a

DLP Projector and a Scanner etc. The Computer Lab is used for training the participants of the OPs and RCs as well as the faculty, research scholars and students of the University in information technology with special reference to teaching

and research. The UGC-HDRC has taken up a new initiative to have a one day Interactive Session of the respective departmental Refresher Course Participants with the faculty members of the concerned department on academic reforms.

Courses Conducted:

The UGC-Human Resource Development Centre conducted the following courses during the year 2015-16:

Sl. No.	Orientation Programme	Duration
1	32 nd Orientation Programme	20 th April to 17 th May 2015
2	33 rd Orientation Programme	18 th May to 14 th June 2015
3	34 th Orientation Programme	25 th January to 21 st February 2016
4	35 th Orientation Programme	8 th February to 6 th March 2016

Sl. No.	Refresher Courses	Duration
1	Refresher Course in Tribal Studies	27 th July to 1 st August 2015

Sl. No.	Short-Term Course	Duration
1	STC in Research Methodology -I	17 th to 22 nd August 2015
2	STC in Soft Skills	31 st August to 5 th September 2015
3	STC in Environmental Sciences	5 th to 10 th October 2015
4	STC in Research Methodology-II	12 th to 17 th October 2015
5	STC in SPSS	7 th to 12 th March 2016
6	STC in Research Methodology with special preference to SPSS	14 th to 19 th March 2016

Sl. No.	Special Summer/ Winter School-2015	Duration
1	Special Summer School-2015	6 th to 26 th July 2015
2	Special Winter School-2015	26 th October to 15 th November, 2015

Sl. No.	Workshop/Seminar/ Conference	Duration
1	Principals' Workshop	1 st May 2015

Study Tours/Field Trips

Name of Teacher-in Charge	Places/ Institutions Visited	Name of the Courses/ Programmes	Dates
Dr. Kuheli Biswas Das	Sohra	Orientation Programme	30/5/2015
	SILOAM Umsawkhwan	Orientation Programme	13/2/2016
Dr. Quendarisa Kharbuli	Sohra	Special Summer School	17/7/2015
	SILOAM, Umsawkhwan	Orientation Programme	13/2/2016

Purpose of visits: These field trips and visits are a regular feature since they are included in the curriculum, designed for Orientation Programmes, whose objective is Resource Awareness and knowledge Generation. Furthermore, since the Orientation Programmes provide training to the new-entrant College and University teachers participating from different states of the country; these visits expand learning beyond the classrooms and expose them to the mesmerizing scenic beauty of the State and glimpses of the cultural heritage of entire North-East India. Siloam being a Transformational Leadership Resource Centre provides an excellent environment to the participants for faculty development especially in Interpersonal Relationship and Student guidance and counseling.

Funds Received from Agencies Other than NEHU: The UGC-Human Resource Development Centre was sanctioned Rs. 73.30 Lakhs for the year 2015-16 from the University Grants Commission, New Delhi, for conducting Refresher Course and Orientation Programmes, Short-Term Courses/Workshops in approved subjects and for meeting other expenditures.

Infrastructure Added during the Period: Desktop Monitor (1 No.), DSLR Camera (1 No.), Video Camera (1 No.), UPS 6 KVA (2 Nos.), Room Heaters (8 nos.), Library books (100 Nos.), Vacuum Cleaner (1 No.), Cordless kettle (2 Nos.).

WOMEN'S CELL

Officer In-Charge : Prof. Streamlet Dkhar
Telephone : 0364-2723301/0364-2723305 (O)9436117479 (M)
Email : s.dkhar@rediffmail.com & s.kharsyntiew@gmail.com

Brief Statement of Activities

The Women's Cell carried out the following activities (June 2015- March 16) under report:

Prof. Streamlet Dkhar and Dr. Tejimala Gurung Nag represented Women's Cell NEHU in the Workshop on "Protection of Women from Domestic Violence Act (PWDVA), 2015" for

College/University teachers from 24-26 August, 2015, organized by National Institute of Public Cooperation & Child development Regional Centre, Guwahati.

Number of Complaints Reported during 2015-2016

One complaint was reported and is still pending.

EQUAL OPPORTUNITY CELL

Brief Statement of Activities

The Cell deals with matters pertaining to implementation of Government of India Orders, UGC Guidelines and other instructions issued from time to time on the subject of reservation, etc. in co-ordination with Establishment-I & II

Sections and Office of the Dean of Students' Welfare of the University.

As per the information collected by the Cell from the concerned Sections, the present position of SCs/STs at teaching, non-teaching levels and admission to various courses/degrees as on 31.03.2016, is as under:

Teaching Staff

No.	Name of the Post	Total Post		In Position out of Total Filled						
		Sanctioned	Filled	Gen.	OBC	SC	ST	PWD	Total	Vacant
1.	Assistant Professor	205	188	132	19	21	15	1	188	17
2.	Associate Professor	147	91	85	-	1	5	-	91	56
3.	Professor	93	56	54	-	1	1	-	56	37
4.	Professor/ Associate Professor	1	-	-	-	-	-	-	-	1

Non-Teaching staff

No.	Name of the Post	Total Post		In Position out of Total Filled						
		Sanctioned	Filled	Gen.	OBC	SC	ST	PWD	Total	Vacant
1.	Group-A	67	55	55	-	-	-	-	55	12
2.	Group-B	185	118	38	43	23	13	1	118	67
3.	Group-C*	765	472	207	30	7	227	1	472	293

*Including Group D Staff who are all placed in Group C as Multi-Tasking Staff

Equal Opportunity Cell

Admission to Various Courses/Degrees

No	Course/ Degree	Total Seats		In Position out of Total Filled						
		Sanctioned/ Approved	Filled	Gen.	OBC	SC	ST	PWD	Total	Vacant
1.	UG	540 +24*	1344	454	74	103	711	2	1344	-
2.	PG	1359	2555	286	26	33	2204	6	2555	-
3.	M.Phil	Unspecified	100	33	4	9	54	-	100	-
4.	Ph.D.	Unspecified	813	275	20	37	481	-	813	-
5.	Others	Unspecified	459	174	52	19	214	-	459	-

*24 seats are earmarked as Lateral Entry

Sanctioned/Approved and filled-in Seats do not tally since sanctioned/Approved Seats pertain to first year only while filled-in Seats cover all the years.

XI

APPENDIX

MEMBERS OF THE UNIVERSITY COURT

Constituted under Clause 10A of the University Statute

10A. (1) The Court shall consist of the following members, namely;

Ex-Officio members:

- | | | |
|---------------------------------------|---|---|
| (i) Chancellor, Ex-officio | - | Prof. André Betèille
Chancellor
69, Jorbag, Ground Floor
New Delhi – 110003 |
| (ii) Vice-Chancellor, Ex-officio | - | Prof. P. Shukla,
Vice-Chancellor
NEHU, Shillong

Prof. Sri Krishna Srivastava (w.e.f. 24.9.2015)
Vice-Chancellor
NEHU, Shillong |
| (iii) Pro-Vice-Chancellor, Ex-officio | - | (a) Prof. B. Myrboh (up to 23.9.2015),
Pro-Vice-Chancellor
NEHU, Shillong

(b) Prof. E.D. Thomas (up to 23.9.2015),
Pro-Vice-Chancellor
NEHU, Tura Campus |
| (iv) Dean of Students' Welfare, | - | Dr. S. N. Lamare
Prof. H. Kayang (w.e.f 24.9.2015) |
| (v) Registrar, Ex-officio | - | Dr. L. Cajee
Dr. J. N. Nayak (In-charge w.e.f 2.12.2015) |
| (vi) Librarian, Ex-officio | - | Dr. F. R. Sumer (In-Charge) |

Members of the University Court

- (vii) Proctor - Dr. H. Kayang
Dr R. L. Nongkhlaw (w.e.f. 24.9.2015)
- (viii) Finance Officer, Ex-Officio - Mrs. N. G. Marwein (In-Charge)

Representatives of Schools and Departments

- (ix) Deans of Schools of Studies, Ex-officio - All Deans of Schools
NEHU, Shillong
- (x) All Professors, Ex-officio - All Professors of NEHU Shillong/
Tura
- (xi) Heads of Departments, who are not Professors, Ex-officio - All Heads of the Department/Centre

- (xii) Two Associate Professors who are not Head of Department and two Asstt. Professors to be appointed by rotation in the manner prescribed by the Ordinances

Associate Professor

1. Dr. Pramod K. Saikia,
Department of Mathematics,
NEHU, Shillong.
2. Miss N. Ganguli,
Department of English,
NEHU, Shillong.

Assistant Professor

1. Shri. R. S. Thakur,
Department of English,
NEHU, Tura Campus.
2. Shri. J.P. Jaiswal,
Department of RDAP,
NEHU, Tura Campus.

Representatives of Affiliated Colleges

- (xiii) Seven Principals of Colleges in the State of Meghalaya

MEGHALAYA

1. Director,
MBBS College, NEIGHRIMS,
Mawdiangdiang, Shillong-793018.
2. Principal,
Nongrum College,
Zekabari, West Garo Hills District,
Meghalaya-794105.

Appendix

3. Principal,
Khrawsing Christian College,
Mawngap, East Khasi Hills District,
Mawphlang-793121, Meghalaya.
4. Director,
Regional Institute of Science & Technology,
Raid Marwet Myllem Syiemship,
P.O. Killing Road- 793101, Ri-Bhoi District,
Meghalaya.
5. Principal,
St. Edmund's College,
East Khasi Hills District,
Shillong-793003, Meghalaya.
6. Principal,
St. Anthony's College,
East Khasi Hills District,
Shillong-793003, Meghalaya.
7. Principal,
Lady Keane College,
East Khasi Hills District,
Shillong-793003, Meghalaya.

(xiv) Four teachers from affiliated Colleges nominated by the Visitor on the recommendation of the Vice-Chancellor.

1. Shri Syrpailin Lyngdoh up to 21.1.2016
Asstt. Professor,
St. Edmund's College Shillong.
2. Smti. Deilinda Mawthoh up to 21.1.2016
Asstt. Professor,
Kiang Nongbah College, Jowai.
3. Shri Kalyan C. Momin up to 21.1.2016
Asstt. Professor,
Don Bosco College,
Tura, West Garo Hills.
4. Smti. P.M.S. Diengdoh up to 21.1.2016
Tirot Singh Memorial College,
Mairang, West Khasi Hills.

Representatives of Parliament

- (xv) Six representatives of Parliament, four to be nominated by the Speaker of the Lok Sabha from among the members thereof and two to be nominated by the Chairman of the Rajya Sabha from among the members thereof. However, in the event that a member of Parliament becomes a Minister or Speaker / Deputy Speaker / Lok Sabha, or Deputy Chairman, Rajya Sabha, her/his nomination/ election on the Statutory Body shall be deemed to have been terminated.

LOK SABHA

- | | |
|--|--|
| 1. Shri Gurudas Dasgupta,
15 Canning Lane,
New Delhi – 1100 001.
OR
78, Chelta Road,
Kolkata – 700 027. | 2. Shri Biren Singh Engti,
ITI Colony,
(Rongmongwe)
P.O. Diphu – 782 460,
Distt. Karbi Anglong (Assam).
Tel. (03671) 272345 |
| 3. Smti. Bijoya Chakravarty,
House No. 39,
Srinagar Path,
Bye Lane – I,
Guwahati – 5,
Assam. | 4. Shri Sushil Kumar Singh,
27, Old Court Hostel,
New Delhi.
OR
“Singh Kjothi”,
Old GT Road,
Aurangabad – 824 101. |

RAJYA SABHA

- | | |
|--|--|
| 1. Dr. Balachandra Munekar,
901, Carnation, Dosti Acre,
Complex, Wadala(East),
Mumbai – 400037.
and
901, Brahmputra,
Dr. B.D.Marg, New Delhi - 110001. | 2. Dr. Janardhan Waghmare,
Shram Safalya Society,
Ambajogai Road, Latur.

and
179, South Avenue,
New Delhi – 110001. |
|--|--|

Persons representing learned professions and special interests

- (xvi) Ten members representing learned professions and special interests including representatives of industry, commerce, trade unions, banking and agriculture, to be nominated by the Visitor.

1. Prof.(Ms) Tapati Guha Thakurta,
Director, Centre for Studies in Social Sciences,
Kolkata-700029.

2. Dr. Chandra Shekhar Nautiyal,
Director, Centre Institute of Medical and Aromatics Plants,
CSIR Laboratory, Lucknow – 226015.
 3. Prof. Arup Kumar Raychaudhuri,
Director, S.N.Bose National Centre for Basic Sc,
Kolkata – 7900098.
 4. Shri. R. L. Sethia,
Meghalaya Chamber of Commerce,
Paltan Bazar, Shillong.
 5. Dr. Sanjoy Hazarika,
Director, Centre of North East Studies & Policy Research,
Jamia Millia Islamia, New Delhi -110025.
 6. Prof. S. N. Puri,
Vice-Chancellor, Central Agriculture University,
Iroisembha, Imphal – 785004.
 7. Prof. Dilip Kumar Saikia,
Director, NIT Sohra, Meghalaya.
 8. Prof. O. K. Medhi,
Vice-Chancellor, Gauhati University, Guwahati -781014.
 9. Shri Falguni Rajkumari,
Former Secretary, North Eastern Council &
Chairman, Board of Governors, RG IIM-Shillong,
F2486, Ansal's palam Vihar, Gurgoan,
Haryana – 122017.
 10. Dr. P. G. Rao,
CSIR Technical Consultant & Former Director,
CSIR-North East Institute of Science & Technology,
Jorhat – 785006.
- (xvii) Six representatives of the Registered Graduates of the University to be elected in the manner prescribed by Ordinances
- Vacant

Representatives of Students

- (xviii) Four students to be nominated by the Vice-Chancellor.

1. Ms. Dharitri Baishya,
Ph.D Scholar,

Members of the University Court

Department of Commerce,
NEHU, Shillong.

2. Mr. Sumit Patra,
Ph.D Scholar,
Department of Chemistry,
NEHU, Shillong.
3. Mr. Denis Roibok Majaw,
M.A, IInd Semester
Department of Cultural and Creative Studies
NEHU, Shillong.
4. Mr. Debojit Paul,
M.Sc., IInd Semester
Department of Chemistry,
NEHU, Shillong.

Other Members

(xix) (a) Not more than five persons to be nominated by the Visitor.

1. Shri Pranab Kumar Barbora,
Airmarshal (Retd)
Former Vice Chief of Air Staff C-1201,
Celebrity Home, Palam Vihar,
Gurgaon - 122017.
2. Dr. Helen Giri,
Former Professor & Head of the Centre for Creative & Cultural Studies,
NEHU, Shillong -793022.
3. Prof. Lokendra Arambam,
Sagalbal Meino Leirak, Imphal West,
P.O.Imphal -795001, Manipur.
4. Prof. Udayon Mishra,
House No.3, Bylane/3, Naricolbari,
Zoo Narangi Road, Guwahati - 781024.
5. Shri Mani Shankar Aiyar,
Hon'ble Member of Parliament (Rajya Sabha),
New Delhi- 110001.

Appendix

(xix) (b) Not more than two persons to be nominated by the Chancellor.

1. Prof. Dipankar Chakravorty,
Emeritus Professor & INSA Honorary Scientist, MLS Professor Unit,
Indian Association for the Cultivation of Science,
2A & 2B Raja S.C.Nullick Road, Kolkata – 70032.
2. Prof. Abu Nasar Saied Ahamed,
2B Krishna Plaza, Banphul Nagar Path,
Dispur Last Gate, Guwahati – 781006.

(xix) (c) Not more than two persons to be nominated by the Chief Rector.

1. Dr. (Mrs.) M. P. R. Lyngdoh w.e.f. 29.11.2013
Retd. Principal, up to 28.11.2016
Shillong College,
Shillong.
2. Prof. Caroline R. Marak w.e.f. 09/6/2014,
Retd. Ring Rey Gittim upto 8.6.2016
Near L.P. School, Tura,
West Garo Hills - 794002
Meghalaya.

Representatives of the Non-Teaching Staff

(xx) Two members of non-teaching staff to be nominated by the Vice-Chancellor

1. President,
Non-Teaching Staff Association,
NEHU, Shillong.
2. General Secretary,
Non-Teaching Staff Association,
NEHU, Shillong.

Representatives of State Governments

(xxi) Two representatives of the State of Meghalaya to be nominated by the State Government concerned

1. Shri F. R. Kharkongor, IAS
Secretary Education Department,
Government of Meghalaya, Shillong.

Members of the University Court

2. Shri. J. D. Sangma, MCS
Director of School Education & Literary,
Government of Meghalaya, Shillong.
1. Shri C. C. M. Mihsill, IAS w.e.f. 12.11.2015
Secretary Education Department,
Government of Meghalaya, Shillong.
2. Shri. A. Ch. Marak (MCS) w.e.f. 12.11.2015
Director of School Education & Literary,
Government of Meghalaya, Shillong

Remaining Members of the Executive Council

(xxii) Members of the Executive Council, who are not otherwise members of the Court.

1. Prof. Gautam Barua,
Director,
Indian Institute of Technology,
Amingaon, Guwahati -781039.
2. Prof. Keya Sengupta,
Rajiv Gandhi Indian Institute of Management
Shillong-793014
Email: director@iimshillong.in
3. Prof. M. P. Lama,
Former Vice-Chancellor,
Sikkim University, Chairperson,
Centre for South, Centre & South-East Asia Studies School of International Studies, JNU,
New Delhi – 110067
e-mail: mahendra_lama@yahoo.co.in
4. Dr. Rafiquz Zaman, IAS (Retd)
Vice-Chancellor,
Assam Rajiv Gandhi University of Co-operative Management,
Sivasagar, Assam – 785640.
Email: dr.rafiguzz@yahoo.com
v.c@anqucom.org.in
upload@anqucom.org.in
5. Shri. N. Parthasarathy (up to 31.12.2015)
Department of Philosophy
NEHU, Shillong

6. Miss. N. Ganguly (w.e.f 1.1.2016)
Department of English
NEHU, Shillong.
7. Principal,
Achong Rangmanpa College,
Mahendragang, West Garo Hills.
8. Principal,
Nongstoin College,
Nongstoin.
9. Director,
Higher & Technical Education,
Govt. of Meghalaya,
Shillong.
Fax No: 22286015
Ph: 2226015 (M) 9863028845.
e-mail: dhtemeghalaya@yahoo.com

MEMBERS OF THE EXECUTIVE COUNCIL

CONSTITUTION OF EXECUTIVE COUNCIL NORTH-EASTERN HILL UNIVERSITY SHILLONG STATUTE-12 (1) OF THE NEHU ACT 1973

Ex-Officio-Members

- (i) Vice-Chancellor
- (ii) Pro-Vice-Chancellor, if any
- (iii) Four Deans of School by rotation according to seniority to be nominated by the Vice-Chancellor,
- (iv) One Professor, other than a Dean by rotation according to seniority to be nominated by the Vice-Chancellor,
- (v) One Associate Professor by rotation according to seniority to be nominated by the Vice-Chancellor,
- (vi) Two Principals by rotation according to seniority to be determined with reference to the date of establishment of the colleges concerned to be nominated by the Vice-Chancellor,
- (vii) Director in-charge of colleges education in the state of Meghalaya,
- (viii) Two members of the Court, to be nominated by the Visitor, none of whom shall be an employee of the University or a college or an institution affiliated to or recognized by the University,
- (ix) Four persons to be nominated by the Visitor.

THE DETAILS

- | | | | |
|----|---|---|--------------------------|
| 1. | Prof. P. Shukla
Vice-Chancellor,
NEHU, Shillong. | - | Chairman up to 23.9.2015 |
| 2. | Prof. S. K. Srivastava
Vice-Chancellor,
NEHU, Shillong. | - | Chairman w.e.f 24.9.2015 |
| 3. | Prof. B. Myrboh
Pro-Vice-Chancellor
NEHU, Shillong. | - | Member (up to 23.9.2015) |

Appendix

4. Prof. E. D. Thomas – Member (up to 23.9.2015)
Pro-Vice-Chancellor
NEHU, Tura Campus.
5. Prof. C. L. Imchen – Member
Dean, School of Social Sciences
NEHU, Shillong.
6. Prof. (Mrs) B. M. Jyrwa – Member
Dean, School of Physical Sciences
NEHU, Shillong.
7. Prof. Man Mohan Singh – Member
Dean, School of Social Sciences
NEHU, Shillong.
8. Prof. (Mrs). P. V. Koparkar – Member
Dean, School of Technology
NEHU, Shillong.
9. Prof. L. K. Jha – Member
Department of Environmental Studies
NEHU, Shillong.
10. Prof. N. Parthasarathy – (up to 31.12.2015)
Department of Philosophy
NEHU, Shillong.
11. Miss. N. Ganguly – Member (w.e.f 1.1.2016)
Department of English
NEHU, Shillong.
12. Principal – Member
Achengrangmanpa College
Mahendraganj, Tura.
13. Principal – Member
Nongstoin College
Nongstoin-793119
West Khasi Hills District.
14. Director, – Member
Higher & Technical Education,
Govt. of Meghalaya,
Shillong.

Members of the Executive Council

- | | | | |
|-----|---|----|-----------------------|
| 15. | Prof. Arup Kumar Raychaudhuri
Director,
S. N. Bose National Centre for Basic Sciences
J. D. Block, Sector-II, Kolkata-700089,
West Bengal | - | Member |
| 16. | Prof. Sanjoy Hazarika
Director,
Centre for North East Studies and
Policy Research, Jamia Milia Islamia,
New Delhi-110025. | - | Member |
| 17. | Prof. Gautam Barua,
Mentor Director
Indian Institute of Information Technology,
Guwahati Ambari
GNB Road, Guwahati-781001. | - | Member |
| 18. | Prof. Keya Sengupta
Rajiv Gandhi Indian Institute of Management,
Mayurbanj Complex, Nongthymmai,
Shillong-793014.
(up to 14.2.2016) | - | Member |
| 19. | Prof. M. P. Lama,
165 Uttarankhand,
JNU, New Delhi-110067 | - | Member |
| 20. | Dr. Rafiqz Zaman, IAS (Rtd)
Vice-Chancellor,
Assam Rajiv Gandhi University of
Co-operative Management,
Sivasagar, Assam-785640. | -- | Member |
| 21. | Finance Officer, In-charge
NEHU, Shillong.
Ph. No: 2721021/2721020
Fax No: 03642551153 | - | Invitee |
| 22. | Registrar, In-charge
NEHU, Shillong.
Ph. No: 2721011/2721012/(R)2551909
Fax No: 03642551634 | - | Ex-Officio -Secretary |

(xi) Four persons, not being employees of the University or of a College or Institution by or affiliated to it, to be nominated by the Visitor for their special knowledge. (wef. 24.11.2015)

1. Prof. Bhaben Kalita, Department of Mathematics, Guwahati University, Guwahati, Assam. 781014
2. Dr. Mukul Bora, Director, Institute of Engineering & Technology, Dibrugarh University, Dibrugarh, Assam.
3. Dr. Mukunda Rajbongshi, Principal(Ret.), Lakhimpur Girls' College, MD Genius Academic (College of Arts, Science & Commerce), Assam. 787001
4. Prof. Kshiti Bhusan Das, Professor of Commerce, Utkal University, Odisha- 751004

(xii) Six teachers of the Colleges admitted to the Privileges of the University.

Vacant

(xiii) Two Post-Graduate Students of the University, one from Sciences and one from Humanities and one Research Scholar to be elected on academic merit in the manner prescribed by an Ordinance

Post-Graduate Students

1. Ms. Sangipynsuklin Kharjana, Department of Cultural & Creative Studies, NEHU, Shillong.
2. Mr. Sidharta Dev Pattanaik, Department of Physics, NEHU, Shillong

Research Scholar

3. Mr. Kelleyney Kitbok Suting, Department of Cultural and Creative Studies, NEHU, Shillong.

(xiv) Permanent Invitees(s)

1. Director, College Development Council, NEHU, Shillong.
2. Controller of Examinations, NEHU, Shillong.

(xv) Secretary (Ex-Officio)

Registrar, NEHU, Shillong.

MEMBERS OF THE BOARD OF RESEARCH STUDIES

LIST OF MEMBERS OF THE BOARD OF RESEARCH STUDIES 2015-16

Mode of appointment	Name of Members
(i) Vice-Chancellor, (Ex-Officio) Chairman	Prof. P. Shukla Vice-Chancellor, NEHU, Shillong. Prof. S. K. Srivastava (w.e.f. 24.09.2015) Vice-Chancellor, NEHU, Shillong.
(ii) Dean of Schools, (Ex-Officio) Member	1. Dean, School of Life Sciences, NEHU, Shillong. 2. Dean, School of Humanities NEHU, Shillong. 3. Dean, School of Physical Sciences, NEHU, Shillong. 4. Dean, School of Social Sciences, NEHU, Shillong. 5. Dean, School of Economics Management & Information Sciences NEHU, Shillong. 6. Dean, School of Human and Environmental Sciences NEHU, Shillong. 7. Dean, School of Education NEHU, Shillong. 8. Dean, School of Technology NEHU, Shillong.
(iii) Heads of Departments and Centres	- Ex-Officio Members
(iv) All Professors, other than Heads of Departments and Centres	- Ex-Officio- Members
(v) Six Associate Professors to be nominated by the Vice-Chancellor, three of which to be from Humanities & Social Sciences and three from Sciences – Members	1. Ms. N. Ganguli, Department of English NEHU, Shillong

(vi) **Four external experts -
Two representing Humanities and Social
Sciences and two representing Sciences to be
appointed by the Vice-Chancellor**

(vii) **Registrar**

2. Dr. H. Askari,
Department of Chemistry,
NEHU, Shillong.
3. Dr. D. K. Limbu,
Department of Anthropology,
NEHU, Shillong.
4. Dr. A. P. Pati,
Department of Commerce,
NEHU, Shillong.
5. Dr. D. R. L. Nonglait,
Department of Khasi,
NEHU, Shillong.
6. Dr. T. S. Basu Baul,
Department of Chemistry,
NEHU, Shillong.
1. Prof. Margaret Zama,
Department of English,
Mizoram University, Aizawl
2. Prof. A. K. Rai,
Department of Life Sciences,
Dibrugarh University
Dibrugarh 786004
3. Prof. Sachindra Nath Karmakar,
Condensed Matter Physics Division,
Saha Institute of Nuclear Physics,
1/A Bidhannagar, Kolkata 700064
4. Prof. S. Dorendrajit Singh,
Department of Physics,
(Director, Centre of Material Science)
Manipur University,
Canchipur 795003
- Secretary- Ex-officio
NEHU, Shillong



North-Eastern Hill University

Mawkynroh - Umshing, Shillong - 793 022

Tel: +91 -364 - 2721001 (4 lines) Fax : +91 - 364 - 2721000

Website : www.nehu.ac.in