


North-Eastern Hill University



Twenty Ninth
**Annual
Report**



2002 - 2003

North-Eastern Hill University

Visitor	: Dr. A. P. J. Abdul Kalam President of India
Chancellor	: Shri Krishan Kant (up to July 2002) Vice - President of India
Chief Rector	: Shri M. M. Jacob Governor of Meghalaya
Vice-Chancellor	: Professor Mrinal Miri
Pro-Vice-Chancellors :	
Shillong Campus	: Professor (Mrs.) K.S. Lyngdoh (up to Nov. 2002)
Tura Campus	: Professor S.S. Khare
Registrar	: Professor D.T. Khathing
Finance Officer	: Shri J. Lhungdim
Controller of Examinations	: Dr. A. Patton
Librarian	: Mrs. I. Majaw
Deans of Schools :	
School of Humanities & Education	: Professor (Mrs .) Sujata Miri
School of Life Sciences	: Professor R. Lalthantluanga
School of Physical Sciences	: Professor P. Shukla
School of Social Sciences	: Professor A. K. Baruah
School of Economics, Management and Information Sciences	: Professor E. D. Thomas
School of Human and Environmental Sciences	: Professor Surendra Singh

North-Eastern Hill University

Shillong

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Dr. A. J. Jaisankar

Dr. C. J. Jaisankar



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2002 - 2003

From the Vice-Chancellor's Desk

The year 2003 has been another busy year for NEHU. Our normal academic life continued without any interruption; distinguished academics from other universities and institutions visited the university. They gave lectures, seminars and interacted informally with our students. We organised several seminars and conferences. With increasingly better facilities available on the campus, these seminars and conferences had a visibly more professional look about them. I have no doubt at all that the organisational professionalism was matched by the high quality of the deliberations.

A new department, the Department of Rural Development and Agricultural Production, was added to the existing departments of our Tura Campus. The department will focus primarily on local and regional problems of economy and society; it will also address issues relating to creative enhancement of traditional rural economic practices and necessary changes in marketing strategies. The curriculum of this department will necessarily be of a multidisciplinary nature.

The good work on infrastructure development continued through the year under report. NEHU's Kendriya Vidyalaya – perhaps the most strikingly designed school building, not just in Shillong, but in the entire Northeast – was almost



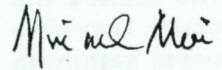
ready to be taken over by the year end. The building meant for the offices of the administration was also fast nearing completion. The Central Library of the university will also hopefully be finally located in its beautiful new building on the campus sometime in the following year.

The high points of our academic life of the year were the Twelfth Convocation held on 5 April 2002, the 72nd Annual Session of the National Academy of Sciences, India held on 25-27 October 2002 and the International Conference on Mountain Environment and Natural Hazard Management held on 27-29 March 2003. The convocation was presided by the Vice-President of India and Chancellor of the university, late Krishan Kant, who also delivered a dignified convocation address. The President of India, Dr A. P. J. Abdul Kalam, inaugurated the annual session of the Academy of Sciences with a very stimulating speech. The session included

in its programme a symposium on biodiversity, which, as many participants suggested, was a landmark event in deepening our scientific knowledge of the great natural wealth of the region. Participants in both the conferences included some of the best scientific minds of the country.

The research performance of individual members of the faculty can be glimpsed from their publications during the course of the year. There is no doubt at all that the academic life of the university has been on an upswing. The Friday Extension Lecture Series has generated much interest. The active involvement of

the North Eastern Regional Centre of the Indian Council of Social Science Research in research related activities of the university has made a very constructive difference to the intellectual atmosphere. I would like to end with a word of praise for our Publication Cell for increasing the number and improving the quality of the university's publications. All things considered, we didn't do so badly at all during the year under report.



Mrinal Miri

Campus Bloom



Cover photograph by
Kynpham Sing Nongkynrih & Amitava Deb:
Blue Vanda at Bijni Complex, Laitumkhrach

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NEHU at a Glance

North-Eastern Hill University was set up by an Act of Parliament and notified on 19 July 1973. The objects of the University, as laid down in the Act, are “to disseminate and advance knowledge by providing instructional and research facilities in such branches of learning as it may deem fit; to pay special attention to the improvement of the social and economic conditions and welfare of the people of the hill areas of the North-Eastern region, and in particular, their intellectual, academic and cultural advancement”.

The jurisdiction of the university extended originally to the states of Meghalaya and Nagaland and the erstwhile union territories of Arunachal Pradesh and Mizoram. With the establishment of the Nagaland University on 6th September 1994 the jurisdiction of NEHU over Nagaland ceased. And, with the establishment of Mizoram University in June 2001 the jurisdiction of NEHU over Mizoram also ceased. Arunachal Pradesh has its own university. However, the North-Eastern Regional Institute of Science and Technology located in Arunachal Pradesh is affiliated to NEHU.

Initially, the academic departments and the administration of NEHU at Shillong functioned from hired buildings. Very soon, however, it acquired two prime properties in the city, one belonging to the former Maharaja of Mayurbhanj and the other to the Rani of Bijni. The academic departments then moved to these two sites. Meanwhile, the Government of Meghalaya acquired, for the university, a substantial plot of land (measuring about 1225 acres) a little outside the city limits for setting up its permanent campus. This picturesque, gently undulating and thickly wooded land – a perfect location for the university — was a gift from the Government of Meghalaya. The survey of the land and the master plan for the university were completed during the VIth Five Year Plan; and construction activities began in a modest way during the VIIth Plan period. By the year 1991, with the completion of the construction of several residential quarters for the faculty, hostels for boys and girls, a ring road, a modern workshop for the University Scientific Instrumentation Centre, building for the Regional Sophisticated Instrumentation Centre,

and Guest House-cum-Seminar Complex, a complex of buildings for the science departments, and with our own electricity and water supply system in place, the campus took the visible shape of a handsome university in the making. At the moment all the science departments and the departments of History, Political Science, Sociology, Philosophy, Education, Hindi, and English are housed in buildings on the permanent campus. We now have Internet connectivity through our own VSAT to which all the departments, located on the campus, are linked. Efforts are on to enhance the range of our internet connectivity. The Telecommunication Department has set up a fully automated telephone exchange on the campus — the first of its kind in any university in the region. Much of the developmental work on the campus in the past couple of years or so has been made possible by the generous grant that the university has received from the Government of India from its “non-lapsable pool”.

It is hoped that in about another five years or so, the university would have developed sufficient infrastructural facilities for all its departments to move into their permanent locations on the campus. The university has also allowed — with the consent of the Government of Meghalaya — the Department of Tourism to set up an Institute of Hotel Management, Indira Gandhi National Open University and the Indian Council of Social Science

Research to set up their regional centres on its land. The Sports Authority of India has also been given permission to create modern sporting facilities in the university. Thus, in the very near future, the campus will grow into a suitably diverse, but coherent, university township. It has also the potential of being a university of striking scenic beauty.

In spite of serious constraints of communication and the general lack of infrastructural facilities in the region, NEHU has established itself as an institution of higher learning and research of very high quality. It has been able to attract persons of proven academic excellence from almost all parts of the country to serve on its faculty; and its student community is drawn not only from different parts of the North-East but also from other regions of the country. In February 1996, the university set up a campus at Tura with the departments of English, Garo and Education. Very recently the Department of Rural Development and Agricultural Production has been added to the existing three departments. NEHU now has 24 academic departments and 4 centres of studies under 6 schools. Seven departments of the university now receive special grant from the University Grants Commission under its Special Assistance Programme. Three of the science departments also receive grants under the UGC's COSIST Programme. The Department of Science and Technology

has extended financial help to four of our science departments as part of its scheme for funding infrastructural development in higher academic institutions. Some of the departments have also received grants under the UGC's Department Research Support Scheme. In addition, a huge number of research projects have been awarded to individual members of faculty notably by the CSIR, DST, DAE, UGC, Ford Foundation, DBT, DF & E. The university is also the recipient of a number of endowments donated by various organizations and individuals including Dr Shankar Dayal Sharma, former President of India and Justice Krishna Aier. NEHU was also chosen for the prestigious Rajiv Gandhi Chair for research on protective discrimination. Several members of the faculty have been honoured with the highest academic awards in the country. Many of our teachers are also involved in collaborative research projects with universities in Europe and Asia. One of the basic ways in which the university endeavours to fulfill its "local" responsibility, as enshrined in its Act, is by focusing its attention on the North-East in its curricular programme including research. The fulfillment of its "global" responsibility, as a member of the global academic community, is evident from the number of research publications by its teachers in journals of high international repute, and the national and international seminars and

conferences which are a regular feature of the university's academic life.

At present, there are 51 undergraduate colleges affiliated to the university including 8 professional colleges. The University Central Library whose membership includes university and college teachers, postgraduate and under-graduate honours students and members of the non-teaching staff, has a holding of close to 2,00,000 books, 38,000 bound periodicals and it subscribes to 316 foreign and 366 Indian current journals.

Our students have done well in life after leaving the university. Many have been taken into the Central Civil Services, banking services and into the university system. Several have been awarded scholarships and fellowships by both national and foreign organizations. The percentage of our students clearing the NET, GATE and other national tests is quite high. The number of students studying for their Master's degrees and research students working for their M.Phil and Ph.D degrees is close to 1700. The undergraduate colleges affiliated to the university enroll about 19,500 students. Our faculty strength is just over 300.

In a short span of about 30 years North-Eastern Hill University has matured into an institution with a serious academic and social and cultural agenda and a clear vision for its future growth.

Table - I

Number of candidates awarded Ph.D since inception

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
No. of candidates	3	14	27	29	15	20	21	31	33	40	21	35	46	20	19	45	33	34	44	29	49	42	34

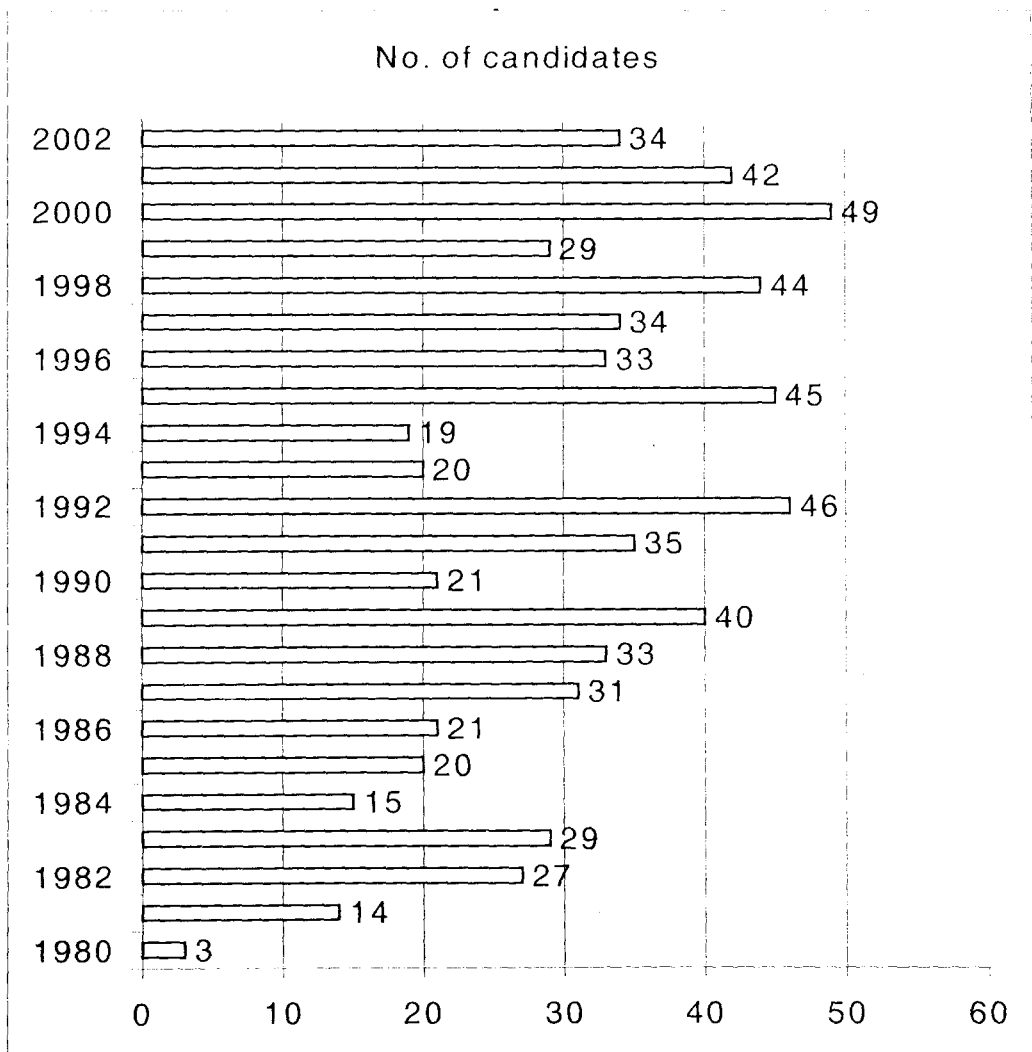


Table - II

Number of candidates awarded M.Phil since inception

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
No. of candidates	7	16	27	22	13	21	32	34	38	44	28	56	45	30	22	44	33	22	11	31	17	24	14

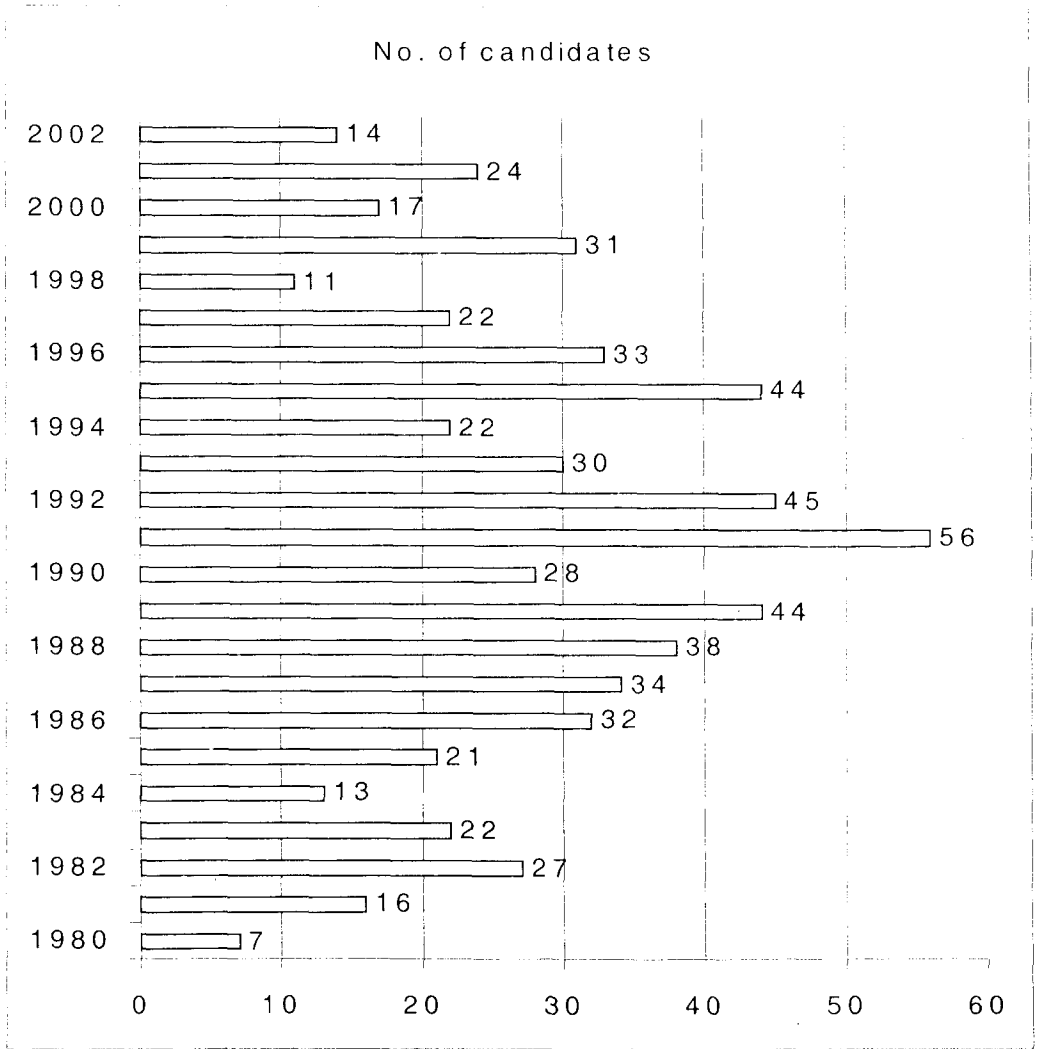
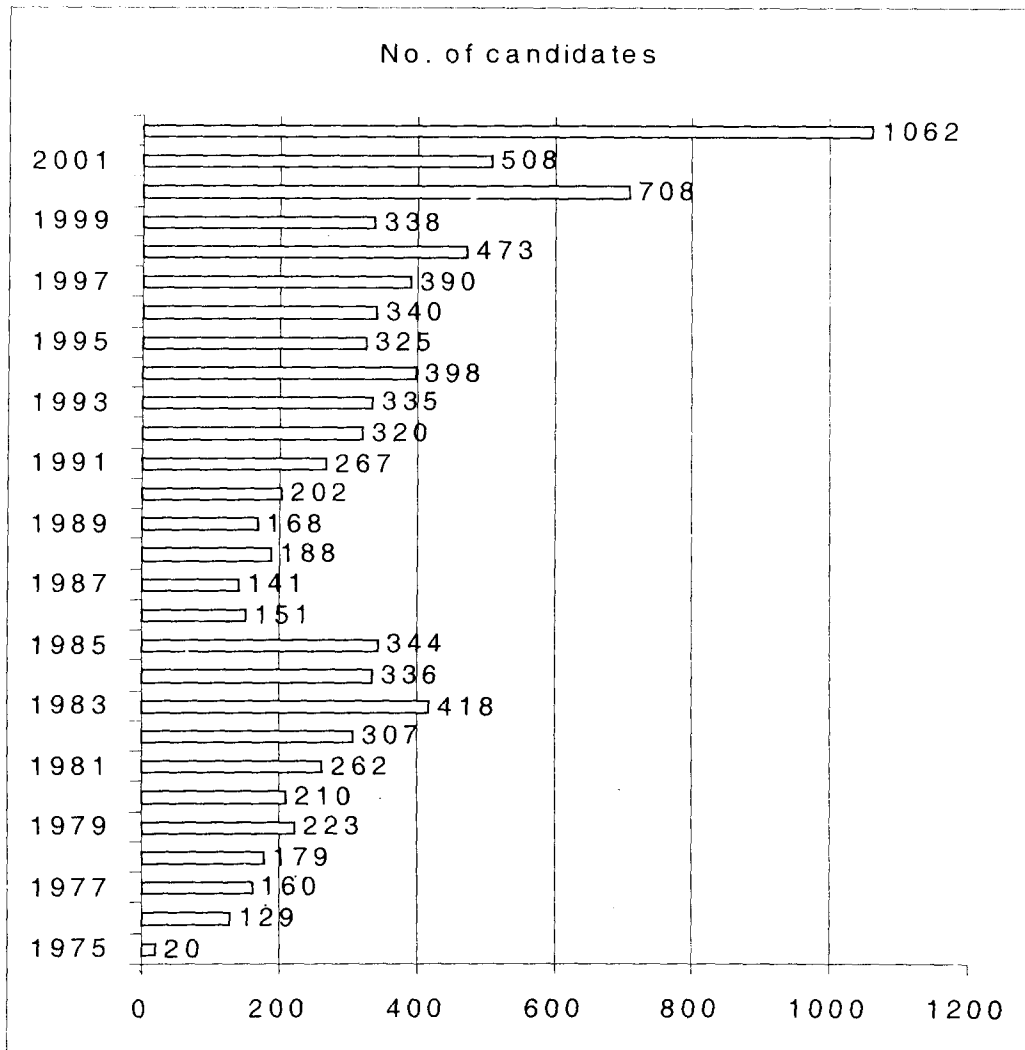


Table - III

Number of candidates awarded PG degrees since inception

Year	20	129	160	179	223	210	262	307	418	336	344	151	141	188	168	202	267	320	335	398	340	325	340	390	473	338	708	508	1062
No. of candidates	20	129	160	179	223	210	262	307	418	336	344	151	141	188	168	202	267	320	335	398	340	325	340	390	473	338	708	508	1062



School of Economics, Management & Information Sciences

The school comprises of three departments, namely Commerce, Economics, and Library and Information Science. It admits students to both master's and doctoral programmes.

One doctoral degree has been awarded in the discipline of Library & Information Science during the year under consideration. The faculty members of the school have produced a large number of research papers in professional journals. They have also presented papers in a number of regional, national and international seminars and conferences held abroad and within India. A number of faculty members have been invited as resource persons as well as to chair sessions in seminars, workshops and refresher courses outside NEHU. One research project has been completed in the Department of Commerce and a number of them are under execution in other departments.

A national seminar was organized by the Department of Economics on the theme *Globalisation, Employment, Migration and Trade: Relevance for the North-Eastern Region of India*. A workshop was organized by the Department of Commerce on *Curriculum Development for Post-graduate Diploma in Entrepreneurship* in collaboration with the IIE and CDE (NEHU). The Department of Library and Information Science also successfully conducted a refresher course.

The Department of Economics received a fresh grant of Rs. 2 lakhs from the Madras School of Economics under the World Bank Environmental Management Capacity Building Technical Assistance Project for the purchase of books, journals etc. on Environmental Economics. A professor in the department has been reappointed as a member of the Meghalaya State Planning Board.

DEPARTMENT OF COMMERCE

Consequent upon the establishment of Nagaland University, the Department of Commerce started afresh in 1996 at Mayurbhanj Complex, Shillong with the teachers who opted to stay back with NEHU. Apart from conducting regular classes for M.Com and supervising research for the doctoral programme, the department

Business Statistics, Business Economics, Financial Management-I, Principles of Marketing, Indian Financial System, Management of Small Business, Financial Management-II, Advanced Commercial Banking, Advanced Financial Accounting, Agricultural Marketing, Organizational Behaviour, Public

Head	N.M. Panda				
Faculty					
Readers	N.M. Panda, M.Com (Utkal), Ph.D (MU) A.P. Pati, M.Com, Ph.D. (Utkal) V.K. Shrotryia, M.Com./Ph.D (Rohilkhand)				
Lecturers	R.A.J. Syngkon, M.Com (NEHU) A. Dash, M.Com. /M. Phil (Utkal)				
Student Intake:					
(a) Enrolment capacity: M.Com-45					
(b) Actual admission :					
	SC/ST	Gen	Male	Female	Total
M.Com	34	10	30	14	44
Ph.D	1	7	7	1	8

has developed a new syllabus for M.Com programme and two post graduate diploma programmes for the Unit for Distance Education, NEHU.

Enterprises in India, Management Accounting, Accounting Information System.

Thrust Area of Research:

Accounting, Finance and Control, Management of Small Business.

Seminars/Conferences:

Dr. A. P. Pati presented a paper entitled "Effectiveness of EDPs in North Eastern Region: A Critical Assessment" at the UGC sponsored national seminar on *Entrepreneurship Development: Policies and Strategies*, held on 29th and 30th March 2002 in the Department of Commerce, Utkal

Courses Conducted:

Government Business & NE Economy, Principle of Management,

University, Bhubaneswar.

Dr. V. K. Shrotryia: (1) Presented a paper entitled "Disinvestment Policy in India – an overview" in the national seminar on *Disinvestment in India* held on 21st December 2002 at Bareilly College, Bareilly and organized by Faculty of Commerce and Management, Bareilly College (MJP Rohilkhand University), Bareilly, UP. (2) Presented a paper entitled "Human Factor in future – A challenge of the change" at the international conference on *Management and Technology* held on 8th January 2003 at the India International Centre, New Delhi and organized by the Delhi School of Professional Studies and Research, Delhi in collaboration with GGS Indraprastha University, Delhi, India.

R.A.J. Syngkon: (1) Presented a paper entitled "Globalisation, IPR and North Eastern Region: Some issues" jointly with Professor N. Srivastav of the Department of Economics at the national seminar on *Intellectual Property Rights* on 24th and 25th May 2002, organized by NEHU, Shillong and sponsored by the Ministry of Human Resource Development, Government of India (2) Presented a paper entitled "Indigenous Tribal Economy in the Era of Globalisation and IPR Regime" at the UGC sponsored national seminar on *Intellectual Property Rights* organized by the Department of Commerce,

Gurucharan College, Silchar on 28th to 29th September 2002. (3) Presented a paper entitled "Globalisation: Opportunities and Scope for Small Scale Units" at the national seminar on *Globalisation, Employment, Migration and Trade: Relevance for the North Eastern Region of India* Organized by the Department of Economics, NEHU, Shillong on 22nd and 23rd November 2002 and sponsored by Maulana Abul Kalam Azad Institute of Asian Studies, Kolkata.

Visiting Professors/Fellows:

Prof. D. Bhorali served the department as a visiting professor.

Publications:

Pati, A.P. 2003. DFIs in Transition: The Indian Experience. In R. D. Sharma and G. Kaur (Eds) *Marketing Effectiveness in Banking*. New Delhi: Anmol Publication.

Shrotryi, V.K. 2003. Human Factor in Future – A challenge of change. *Delhi Business Review*, 4(1): 75-81.

Syngkon, Ricky A.J. 2002 Entrepreneurship in Meghalaya: An Overview. *Journal of North Eastern Council*, 22(4).

Study Tours:

The department organized educational study tour from 11th January to 1st Feb 2003. The M.Com

Head : N. Srivastav
Faculty :
Professors : S.K. Mishra, M.A. (Bhagal), Ph.D (IIT, Kharagpur)
M.Lalwani, M.A./Ph.D (Delhi) (on lien from 1.2.03)
N. Srivastav, M.A. (Rajasthan), Ph.D (IIT, Kanpur)
E.D. Thomas, M.A./Ph.D (NEHU)
Readers : A. Dubey, M.A. (BHU), Ph.D (IIT, Bombay)
B. Mishra, M.A./Ph.D (Utkal)
Gurudas Das, M.A./Ph.D (N.Bengal)
U.K. De, M.Sc./Ph.D (Burdwan)
P. Nayak, M.A. (Utkal), Ph.D (IIT, Kharagpur)
Lecturer : Orestor J.Kharpuri, M.A. (NEHU)

Student Intake: (a) Enrolment capacity: M. A. 50
M.Phil 20
Ph.D 20

(b) Actual Admission:	SC/ST	Gen	Male/Female	Total
M.A	48	6	28 26	54

India Environmental Management Capacity Building Technical Assistance Project, for procurement of books, journals, reference materials, data base and back volumes of journals in the field of Environmental Economics.

Courses Conducted (M.A.):

Political Economy, Macro-Economic Analysis-I, Mathematics for Economists, Techniques of Statistical Analysis, Macro-Economic Analysis-II, Micro-Economic Analysis-I, Public Economics, Economics of Development and Planning, Micro-Economic Analysis-II, International Trade, Indian Economy, Economics of Environment

and North-Eastern Region.

Optional Papers: Monetary Economics-I; Monetary Economics-II; Theories of Industrial Economics; Industrial Organization in India; Econometrics-I; Econometrics-II; Computer Applications in Quantitative Economics-I; Computer Applications in Quantitative Economics-II; Economics of Agriculture-I; Economics of Agriculture-II.

Seminars/Conferences:

Organised:

The department organized a two-day national seminar on *Globalization, Employment, Migration and Trade: Relevance for the North-*

Eastern Region of India on 22nd and 23rd November 2002. The seminar was sponsored by Maulana Abul Kalam Azad Institute of Asian Studies, Kolkata.

Attended:

Prof. N. Srivastav attended:
(1) A two-day national seminar on *Intellectual Property Rights* organized by NEHU on 24th & 25th May 2002 and presented a paper (with Mr. Ricky A.J. Syngkon) entitled "Globalization, Intellectual Properties Rights and North Eastern Region of India: Some Issues".
(2) The national seminar on *Intellectual Property Rights* sponsored by the UGC, New Delhi and organized by the Department of Commerce, Gurucharan College, Silchar from 28 to 29 September 2002 and presented a paper (with Mr. Ricky A.J. Syngkon) entitled "Indigenous Tribal Economy in the Era of Globalization and Intellectual Property Rights Regime" in the third technical session of the seminar.
(3) The two-day national seminar on *Working of Targeted Public Distribution System in NE States* organized by the Department of Political Science, NEHU and sponsored by the Ministry of Consumer's Affairs, Food & Public Distribution, Government of India, New Delhi on 8th and 9th November 2002 and presented a paper (with Dr. A. Dubey) entitled "Public Distribution System,

Poverty and Food Security: An Interstate Analysis with Special Reference to NE India". (4) The regional workshop on *Integrated Approaches to Mountain Natural Resource Management* organized by NEHU from 11th to 16th November 2002 and presented a paper on "Natural Resource Accounting: A Conceptual Framework". (v) The national seminar on *Globalization, Employment, Migration and Trade: Relevance for the North Eastern Region of India* organized by the Department of Economics, NEHU, Shillong on 22-23 November 2002 and presented a paper on "Development of Service Sector: Is there any hope for the Economies of NE India". (5) Participated as a commentator in the seminar on *Structural Change and Strategy for Development: Resource-Industry Linkages in North-Eastern Region* organized by ICSSR-NERC at NEHU, Shillong during 20-21 March 2003, and presented a commentary on the paper "Structural Change and Strategy for Development: Resource-Industry Linkages in Meghalaya".

Dr. A. Dubey: (1) Visited the Department of Economics, Trieste University, Trieste, Italy and presented a paper entitled "Poverty and Fertility: An Instrumental Variables Analysis on Indian Micro Data" (with Nabanita Datta Gupta), February 26, 2003. (2) Attended the school and conference on

Mathematical Ecology and Environmental Economics organized by the Abdus Salam International Centre for Theoretical Physics, Trieste (ICTP) and Bijer Institute, Sweden during January 27 to February 28, 2003 and delivered a talk on "Poverty, Fertility and Sustainable Development : A case Study of Scheduled Tribes in Poorest Regions of India". (3) Attended the 44th annual conference of the *Indian Society of Labour Economics* and presented a paper entitled "Rural Non-Farm Employment in India: Spatial Variations and Temporal Change" (with Nirankar Srivastav) organised by the Indian Society of Labour Economics and Punjab School of Economics, Guru Nanak Dev University, Amritsar, Punjab, December 15-17, 2002. (4) Attended the national seminar on *Globalisation, Migration, Unemployment and Trade in Northeastern States* and presented four papers: (a) "The Non-Farm Sector in the Rural North-Eastern Region of India: Some Correlates and Determinants" (with Smita Das and Veronica Pala), (b) "Are Migrants Better or Worse-Off? Asking the Right Questions" (with Arjan de Haan). (c) "Migration in North-Eastern Region of India: Some Issues" (with Smita Das and Veronica Pala), and (d) "Employment Situation in the North-Eastern Region of India: A Gender Perspective" (with Smita Das and Veronica Pala). The seminar was organised by the

Department of Economics, North-Eastern Hill University, Shillong, during November 22-23, 2002. (5) Attended the national seminar on *Labour Mobility in Globalising World* and presented two papers: (a) "Socioeconomic Segmentation and Labour Mobility: The case study of Northeastern Region" (with Smita Das and Veronica Pala), and (b) "Are Migrants Better or Worse-Off? Asking the Right Questions" (with Arjan de Haan) organized by the V. V. Giri National Labour Institute, Noida, September 18-19, 2002.

Dr. B. Mishra attended and presented a paper entitled "Public Resources and Its Utilization Pattern: Implications for Development of North-Eastern Region" at the seminar on *Structural Change and Strategy of Development: Resource Industry Linkages in North East India* organized by ICSSR-NERC at NEHU, Shillong during 20-21 March 2003.

Dr. Gurudas Das attended: (1) The seminar on *Partnership for Development: India's North-East and Neighbouring Countries* organized by ICSSR-NERC at Gangtok, Sikkim, during 8-9 May 2002 and presented a paper on "Security, Engagement and Development: Development Interest of India's North-East and the Art of Conduct of India's Relations with the Neighbouring Countries". (2) The workshop on *Social Reality and Methods in Social Science Research* organized by

ICSSR-NERC at NEHU, Shillong on 9 and 11 September 2002 and made two presentations, one on "Towards Cumulative Social Science Research" and the other on "Social Reality: Research Enterprise in Economics". (3) Chaired a session in the seminar on *Impact of Insurgency on Women and Children in North-East India* organized by NIPCCD and Social Welfare Department, Government of Mizoram at Aizawl during 18-19 September 2002. (4) Presented a paper entitled "Structure of Land-Use in North-East India" in the seminar on *Land Use Planning in North-East India* organized by OKDISCD at NEHU during 30-31 October 2002. (5) Presented a paper entitled "Public Distribution System and Its Relevance for North-East India: Some Observations" at the seminar on *Working of Targeted Public Distribution System in North-Eastern States* organized by the Department of Political Science, NEHU during 8-9 November 2002. (6) Presented a paper entitled "State, Democracy and Polyethnic Society: Problems of Conflict Resolution" at the seminar on *Coming Out of Violence: Resolving Ethnic Conflicts in North East India* organized by the Department of Political Science, Gauhati University during 11-12 November 2002. (7) Presented a paper entitled "Structural Change and Resource-Industry Linkages in India's North East: Some Policy Imperatives" at the seminar on *Structural Change*

and Strategy of Development: Resource Industry Linkages in North East India organized by ICSSR-NERC at NEHU, Shillong during 20-21 March 2003. Was also the coordinator of this seminar.

Dr. U.K. De (1) presented a paper on "Economic Incentive of Environmental Management - A Study of Forestry in North-East India" at the seminar on *The Mother Earth in the Context of North East India*, organised by NERC-ICSSR sponsored by the Directorate of Soil Conservation, Government of Meghalaya and held on 5 June, 2002. (2) presented a paper on "Leadership and the Performance of Panchayats in Rural Development: An Experience from Tripura" at the UGC national seminar on *Transformation in Rural Society* held at Tufanganj Mahavidyalaya, West Bengal, on 24-25 September, 2002. He also chaired a session in this two-day seminar. (3) Presented a paper on "Economic Incentive, Peoples' Participation and the Management of Forest Land in North-East India" at the seminar on *Issues in Land Use Planning in North East India* organised by OKDISCD, Guwahati, in collaboration with the Society for Conflict Analysis and Resolution, New Delhi and North-Eastern Hill University, Shillong, on 30-31 Oct., 2002. (4) Presented a paper on "Food Security and the Related Issues: Some Reflections on the State of Tripura" at the national

seminar on *Working of Targeted Public Distribution System in North Eastern States* organised by the Department of Political Science, North-Eastern Hill University, Shillong, on 8-9 Nov., 2002. (5) Presented a paper on "The Structural change and Industrial progress in North-East India in relation to its condition of Resources" at the seminar on *Structural Change & Strategy of Development: Resource-Industry Linkages in North Eastern Region*, held on 20-21 March 2003 at North-Eastern Hill University, Shillong and organised by ICSSR-NERC, Shillong.

Dr. P. Nayak acted as a commentator in the seminar on *Structural Change and Strategy for Development: Resource-Industry Linkages in North-Eastern Region* organized by ICSSR-NERC at NEHU, Shillong during 20-21 March 2003, and presented a commentary on the paper "Structural Change and Strategy for Development: Resource-Industry Linkages in Tripura".

Publications:

Das, Gurudas. 2002. Armed Struggle in Nagaland: Tactics, Strategies and Its Ramifications for Economic Development. In C. Joshua Thomas and Gurudas Das. (Eds). *Dimensions of Development in Nagaland*. New Delhi: Regency Publications, 22-35.

_____. 2002. Geo-economy of Arunachal Pradesh: The Cross-Bor-

der Trade Dimension. In S. Dutta (Ed.) *Cross-Border Trade of North-East India: The Arunachal Perspective*. Gurgaon: Hope India Publications, 206-214.

_____. 2002. India's North-East Soft Underbelly: Strategic Vulnerability and Security. *Strategic Analysis*, 26(4): 537-549.

_____. 2002. Probable Options: Cementing the Fault lines in Assam. *Faultlines*, 11: 91-98.

_____. 2003. Cooperative Movement in Meghalaya: Its Growth, Performance and Weaknesses. *The NEHU Journal*, 1(1): 137-182.

De, U.K. 2003. Changing Croppings System in Theory and Practice: An Economic Insight into the Agrarian West Bengal. *Indian Journal of Agricultural Economics*, 58(1): 64-83.

Dubey, A. and Helena S. Nielsen. 2002. Child Labour in Rural India: A Microeconomic Perspective. *Indian Journal of Labour Economics* (Special Issue on Child Labour), 45(3): 479-96.

Mishra, B. 2002. Population on Dynamics, Environment and Quality of Life in North-East India. *Proceedings of 2002 IUSSP Regional Population Conference*, www.iussp.org/Bangkok2002/bangkok_Papers.htm.

Nayak, P. 2002. Poverty Alleviation in Silchar Development Block of South Assam. *Journal of NEICSSR*,

1(1): 158-163.

_____. 2002. Allocative Efficiency in a Traditional Orissan Agriculture: A Linear Programming Approach. In Tanmoy Som (Ed). *Proceedings of National Conference on Recent Development in Mathematics and Applications*. Silchar: Assam University, 191-199.

Srivastav, N. and A. Dubey. 2002. Elementary Education, Poverty and Gender Differentials in North-East India: Some Issues. *Journal of Educational Planning and Administration*, 16(3): 375-398.

_____. 2002. Rural Non-farm Employment in India: Spatial Variations and Temporal Change. *The Indian Journal of Labour Economics*, 45(1): 745-758.

Srivastav, N. et al. ed. 2002. *Agricultural Transition in the Hill Areas of the North-Eastern Region*. Shillong: North-Eastern Economic Association.

Research Projects:

Dr. A. Dubey completed the research project on *Status of Rural Infrastructure in North-Eastern States: A Study of Meghalaya, Mizoram and Tripura*. The report was submitted to the National Council of Applied Economic Research, New Delhi, in May 2002.

Dr. B. Mishra has currently undertaken a minor research project on "Problems of Tax Effort and Variation in Tax Responsiveness in India: Pilot

Study in respect of North-Eastern States", sponsored by North-Eastern Hill University, Shillong. The project cost is Rs.45,000/.

Other Activities:

Professor N. Srivastav attended: (1) A UGC sponsored first refresher course in Economics held in the Department of Economics, Arunachal University, Itanagar as a resource person and delivered two lectures on "Ten Years of Economic Reforms in India: An Overview" on 8th January 2003; (2) a UGC sponsored first refresher course in Economics held in the Department of Economics, Assam University, Silchar as resource person and delivered four lectures on "Input-Output Analysis: Its applications to developing Economies" and "Measurement of Poverty, Inequality and Regional Disparities: Some Recent Developments" on 21st and 22nd January 2003. Professor Srivastav visited the Department of Economics, Assam University, Silchar from 22nd to 30th September 2002 as a Visiting Fellow and delivered lectures on "Techniques of Statistics" to the post-graduate students of the department there. He also delivered a special lecture there on "Unemployment in North-Eastern Region of India: An Inter-State Comparison".

Prof. E.D. Thomas has been reappointed as a member of the Meghalaya State Planning Board.

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

Brief Statement of Academic Activities:

The basic purpose of the department is to give an understanding of the basic principles or fundamental laws of Library and Information Science and to enable them to understand and appreciate the functions, purposes and services of libraries and information organisations in this fast changing world of "information age"; to train the students in the techniques of information management and equip them with the latest developments in information technology and its applications in libraries and information centres and to acquaint the students with the organisation and development of the universe of knowledge and research methods.

Established in 1985, the department holds the distinction of being the first in the country to offer a two year integrated course leading to Masters in Library and Information Science. The department has been improving the professional competencies of the library and information personnel of the region by providing regular in service training programmes and training them in latest developments related to application of information technology to library and information science. This is achieved by the fully equipped computer

laboratory in the department.

Thrust Area of Research:

The thrust areas of research are Information Storage and Retrieval, Information Management, and Universe of Knowledge, Structure and Development.

Degrees Awarded: Ph.D

Moses M. Naga, "A village Level Analysis of the flow and Access to Information: A study of Meghalaya and Nagaland". Supervisor: Prof. J. C. Binwal and Jt. Supervisor: Dr. Veena Saraf.

Courses Conducted:

Compulsory papers: Library and Society, Organisation of Knowledge a. Classification b. Cataloguing (Theory), Organisation of Knowledge a. Classification b. Cataloguing (Practice), Information Services and Sources, Introduction to Information Technology, Library Management, organisation of Knowledge a. Classification b. Cataloguing (Theory), Organisation of Knowledge a. Classification b. Cataloguing (Practice), Programming and Software Packages, Job diary, viva voce and study tour report: Universe of Knowledge, Structure and Development, Library System Analysis and Elements of statistical Methods, Information Users

Head	:	Veena Saraf
Faculty	:	
Professors	:	J. C. Binwal, MLISc (Delhi), Ph.D (Karn) A. S. Chandel, MLISc (BHU), Ph.D (Lkn)
Reader	:	Veena Saraf, MLISc (Delhi), Ph.D (NEHU)
Lecturers	:	Moses M. Naga, MLISc, Ph.D (NEHU) Bikika Laloo, MLISc (NEHU) Paokholun Hangsing MLISc (Delhi), PGDCA (NEHU) Jacqueline Thabah, MLISc (NEHU)
Students Intake:		
(a)	Enrolment capacity:	MLI Sc - 25 Ph.D - 15
(b)	Actual admission :	SC/ST Gen Male/Female Total
	MLISc	24 1 10 15 25
	Ph.D	2 2 2 2 4

and their Needs, Information Users and their needs, Information Retrieval Techniques, Computer Applications in Library and Information Services, and Project report/Dissertation on some current problems in Library and Information Science.

Optional papers: (I) Information and Literature Sources in any one of the following: (a) Humanities (b) Social Sciences (c) Natural Sciences (II) (a) Information systems and services or (b) Management of Information systems.

Seminars/Conferences:

Attended:

Prof. J. C. Binwal attended and acted as director of the seminar on *Manpower Development for Information management* held at the

Department of Library and Information Science, Utkal University, Bhubneshwar, Orissa from 1 to 3 November 2002.

Dr. Veena Saraf: (1) Attended the workshop on *Training on SOUL Software* sponsored by UGC, INFLIBNET at Manipur University, Imphal from 26.7.2002 to 28.7.2002 and presented a paper on "MARC21 Format for Bibliographic Format" (2) Attended the workshop on *Library Information Services* sponsored by Prasar Bharati, Broadcasting Corporation of India at All India Radio, Shillong from 23.03.03 to 28.03.03 and presented a paper on "Internet and Internet Surfing" (3) Attended a training cum workshop on *Compilation of Bibliographies in North East Indian Languages* sponsored by

the Central Reference Library, Kolkata at Agartala from 20.03.03 to 24.03.03 and presented papers on "Machine Readable Catalogue" and "Data Base management systems" (4) Delivered lecture on "Internet research Strategies in Social Science Research" at the NERC-ICSSR sponsored refresher course on *Research Methodology for Social science* during September 2002.

Publications:

Binwal, J. C. 2003. Education for Information Management: Problems and Prospects. In N. Laxman Rao et al. (Eds.) *Manpower Developments for Information management in competitive Environment*. Hyderabad: IATLIS.

Chandel, A. S. et al. 2003. Use of Resources by Research Scholars in University Libraries with Special Reference to Electronic Media. In T. A. V. Murthy et al. (Eds.) *Mapping Technology on Libraries and People*. Ahmedabad: INFLIBNET.

Laloo, Bikika. 2003. Digital Futures! How Ready are Academic Libraries of the North East. *Library*

Herald, 41(1): 62-66.

Naga, Moses, M. 2002. North east India rural information System (NEIRIS): A model. *Library Herald*, 40(4): 241-254.

Saraf, Veena et al. (Coeditor) 2003. *Mapping Technology on Libraries and People*. Proceedings of the First International Convention. Ahmedabad: INFLIBNET.

Study Tours:

The department took the students to various libraries in Shillong and they presented a report for the credit course of 25 marks.

Other Activities:

The department organised the UGC sponsored refresher course from 8th to 28th November 2002. A total of 22 participants attended the course on "Data base management systems".

Dr. Veena Saraf delivered a series of lectures on "Database management systems, online cataloguing and MARC21 at the refresher course held at University of Sagar during January 2003.

II

School of Humanities and Education

Of the seven departments comprising the School of Humanities and Education, two departments, namely English and Hindi, have shifted to the NEHU Permanent Campus during the year 2002-03. This has facilitated to a great extent the research work within the school. The departments of Linguistics and Khasi, however, are still located in

the Mayurbhanj Campus, Nongthymmai.

Having the maximum number of constituent departments/centres spread over Permanent Campus, Bijni Complex, Mayurbhanj Complex and Tura Campus this school has been an active centre of postgraduate teaching in the field of languages, education and philosophy.

DEPARTMENT OF ENGLISH Shillong

Thrust Area of Research: 20th Century Literature

Degrees Awarded: M.Phil

1. Dolly Noreen Kharlukhi, "Re-inventing Identity: Orality, Textuality and Music in Ralph Ellison's Invisible Man". Supervisor: Professor K.C. Baral.

2. Dimchi K Marak, "The Theme of Alienation in the short stories of Eudora Welty". Supervisor: Professor T. Ao.

Ph.D

1. Geetam Sarma, "The War Novel-Hemingway and After: A Study of the Novels of James Jones, Norman Mailer and Joseph Heller". Supervisor: Professor N. Hasan.

2. Baby Pushpa Sinha, "Representing the Unreality of Reality: A Study of three American Post-Modernist Novels (William S. Burrough's Naked Lunch, Thomas Pynchon' Gravity's Rainbow and Kurt

Head : R.P. Sharma

Faculty :

Professors : N. Hasan, M.A. (Aild.), Ph.D (Manchester)

E.N. Lall, M.A. (Patna), Ph.D (Southern Illinois)

T. Ao, M.A. (Gau.), Ph.D (NEHU)

R.P. Sharma, M.A./Ph.D (Bihar)

Readers : S.N. Singh, M.A./Ph.D (Magadh)

E. Syiem, M.A. (Delhi), Ph.D (NEHU)

M.M. Mazumdar, M.A./Ph.D (NEHU)

Lecturers : N. Syiem, M.A. (NEHU), M.Phil (Delhi)

N. Ganguly, M.A. (NEHU)

Ng. Robin Singh, M.A. (NEHU)

Student Intake:

	SC/ST	Genl.	Male/Female	Total		
1 st Semester	1	39	11	13	38	51
3 rd Semester	46	6	17	35	52	

Vonegut, Jr's Slaughterhouse-five)".

Supervisor: Professor K.C. Baral.

3. Sivasish Biswas, "Life as Art: A Study of Rhetorical Ambivalence in Thomas C. Wolfe's Fictions".

Supervisor: Professor K.C. Baral.

4. Mantri Venkat Raghu Ram, "Reading, Writing and Re-writing: Dalit Literature and Discursive Practices".

Supervisor: Professor K.C. Baral.

5. Sravani Biswas, "Carnival and the Novel: A Study of R.K. Narayan".

Supervisor: Professor K.C. Baral.

Courses Conducted: MA

1st Semester: Poetry I, Fiction I, Drama I, Literary Theory and Criticism I.

2nd Semester: Poetry II, Fiction II, Drama II, Environment & Indian Writing in English.

3rd Semester: Poetry III, Fiction III, Literary Theory & Criticism II.

Optional: World Literature in Translation/American Literature I/ Commonwealth Literature.

4th Semester: Shakespeare, Drama III, Literary Theory and Criticism III.

Optional: Women's writing/ American Literature II.

Seminars/Conferences:

Professor R.P. Sharma: (i) Presented a paper on "Gandhi and Bose: Contrary Representations of Indian

Nationalism” at the national seminar on *Narrative and Representation* organized by Mizoram University, Aizawl, 7-8 November 2002. (ii) Presented a paper on “Bapu and Baba: Adversarial Constructions of Dalit Identity” at the international seminar entitled *Constructing Identities: Local and Global* jointly organized by M.S. University, Baroda and CIEFL, North East Campus, Shillong, 16-18 December, 2002.

Professor E.N. Lall: (i) Presented a paper entitled “Verrier Elwin’s Poetry : A Reading” on August 31, 2002 at the national seminar on *Verrier Elwin and the Tribes of North East India*, organized by the Department of Anthropology, NEHU, Shillong. (ii) Presented a paper entitled “Erasure of Identity : the story of the tea-tribe in Assam” on December 17, 2002 at an international seminar on *Constructing Identities: Local and Global* organized by the Forum on Contemporary Thought, M.S. University, Baroda and CIEFL, North East Campus, Shillong, December 15-18, 2002.

Professor T. Ao: (i) Participated in the centenary celebration cum national seminar on *Verrier Elwin and Tribes of North East India* organized by the Department of Anthropology, NEHU, Shillong, August 28-31, 2002 and presented a paper entitled “Myths in Continuum”. (ii) Participated in the national conference on *Cultural*

Heritage and Traditional Knowledge Base of the Indigenous Communities of North East India organized by the Field Station for North East India, Indira Gandhi National Centre for the Arts, Guwahati, 9-10 December 2002 and presented a paper titled “Traditional Eco-Management among the Ao-Nagas”. (iii) Participated in the symposium on *Cultural Identity as Reflected in Contemporary Art Forms of North East India*, organized by Lalit Kala Akademi at Guwahati on 12th December 2002 and presented a paper “Identity and Art : The Naga Experience”.

Dr. E. Syiem: (i) Presented a paper entitled “U Hynniewtrep, Ka Diengiei and U Lum Sohpetbneng – Folk Imprinting” at the seminar organized by the Programme of Folklore Research and Archive (PRO-FRA), NEHU and Indian Folklore Congress, November 4-6, 2002. (ii) Presented a paper entitled “Networking the U Hynniewtrep Way” on 7 March 2003 at the seminar organised by the Programme of Folklore Research and Archive (PROFRA), NEHU, Shillong and Indian Folklore Congress.

Dr. M.M. Mazumdar: (i) Presented a paper entitled “Rushdie and the Postmodern” at the national seminar on *Narrative and Representation* organized by the Department of English, Mizoram University, Aizawl, 7-8 November,

2002. (ii) Presented a paper entitled "Crisis in Gender Identity: Subtext in King Lear" at the *World Shakespeare Conference on 'Alternative Shakespeares'* organized by the Shakespeare Society of Eastern India at Kolkata, 1-4 December, 2002. (iii) Presented a paper entitled "Eye-dentity: Regarding Identity in *The God of Small Things*" at the international seminar on *Constructing Identities: Global and Local* organized by the Forum on Contemporary Theory, Baroda and CIEFL (Northeast Campus) at Shillong, 15-18 December, 2002. (iv) Presented a paper entitled "Family and Sexuality in the God of Small Things" at the Fulbright (AIA) Conference on the theme *Family Matters: Textual Representations* held at Kolkata 24-25 January 2003.

Publications:

Ao, T. 2002. Folk Literature of Nagaland. In *World Literature and Folk Literature*, Volume 5. Guwahati: Assam Sahitya Sabha.

———. 2003. *Songs from Here and There*. Shillong: NEHU Publications.

Singh, Ng. Robin. 2002. Literature from Manipur. *Indian Literature*, 46 (5).

Visiting Professors/Scholars:

(i) Mr. Ron Price, the poet in Residence at the Julliard School, New York gave a talk on "Contemporary

American Poetry" and then recited several of his poems.

(ii) Mr. Basil Griffiths, a distinguished Welsh poet, gave a talk on his poetry.

Other Activities:

Professor R.P. Sharma (i) Gave six lectures (26-28 Nov. 2002) on Indian Poetics during the refresher course organized by the CIEFL, North East Campus, Shillong. (ii) Three lectures (20-22 March 2003) on the Politics of Dalit Identity during the refresher course organized by the Department of Khasi, NEHU, Shillong. (iii) Chaired a session of the seminar on *Verrier Elwin and the Tribes of North East India* organized by the Department of Anthropology, NEHU, Shillong. (iv) Chaired a session on 28 September 2002 of the UGC-sponsored seminar on *The Use of Communication in English* held at Mendipathar College, Mendipathar. (v) Chaired a session on 8 November 2002 of the national seminar on *Narrative and Representation* organized by the Department of English, Mizoram University, Aizawl. (vi) Chaired a session on 16 December 2002 of the international seminar on *Constructing Identities: Local and Global* jointly organized by M.S. University, Baroda and CIEFL, North East Campus, Shillong.

Professor N. Hasan (i)

delivered four lectures at the refresher course organized by the CIEFL, Regional Centre, Shillong in the first week of July 2002. (ii) Chaired the morning session of the UGC sponsored seminar on the *Use of Communication in English* at Mendipathar College, Mendipathar, Garo Hills on 28 September 2002.

Professor E.N. Lall (i) Chaired a session at the international seminar on *Constructing Identities: Local and Global* organized by the Forum on Contemporary Thought, M.S. University, Baroda and CIEFL, North East Campus, Shillong (December 15-18, 2002). (ii) Read some of his poems at an evening of poetry reading organized by the American Center, Kolkata and the Department of English, NEHU, Shillong (September 3, 2002). (iii) Delivered lectures at the refresher course in CIEFL, North East Campus, Shillong held in June/July 2002. (iv) Delivered lectures at the refresher course in Khasi Department, NEHU, Shillong held in March 2003.

Professor T. Ao (i) Delivered two lectures at the refresher course

conducted by Khasi Department, NEHU, Shillong March 2003 on the theme "Literature in Content : A study of Anthills of the Savannah by Chinua Achebe". (ii) Participated in the fifth international seminar of the Forum on Contemporary Theory on the theme *Constructing Identities: Local and Global* December 15-18, 2003 and chaired a session.

Dr. E. Syiem (i) Delivered two lectures on "Fiction – John Gardner's Grendel" at the refresher course in CIEFL, June 2002. (ii) Delivered two lectures on "Fiction: Literary Themes: William Faulkner's – The Sound and the Fury" at the refresher course in the Department of Khasi, March 2003.

Dr. M.M. Mazumdar (i) Lectured from 22 to 27 June 2002 at a refresher course in English at CIEFL, North East Campus, Shillong. (ii) Lectured from 25 to 27 November 2002 at a refresher course in English held at NEHU, Tura Campus. (iii) Delivered a series of special lectures as a Visiting Fellow to the Department of English, Arunachal University, from 19 to 29 March 2003.

DEPARTMENT OF ENGLISH Tura

Thrust Area of Research:

Indian Writing in English,
Fiction and Modern Criticism

Hyderabad and Chennai with the explicit objective of visiting the libraries of CIEFL and Hyderabad Central University and Madras University. The students also visited these institutions to become aware of the syllabuses, courses of study and the approaches

Seminars/Conferences:

Prof. S. Ganguly presented a paper titled "Problems in Designing

Head: S. Ganguly.

Faculty:

Professor: S. Ganguly, M.A. (Del), Ph.D (Ran)

Reader : S. Gurudev M.A./Ph.D (NEHU)

Lecturers: K.C. Joseph M.A.(Pat) Ph.D (NEHU)

R.S. Thakur M.A. (Pat)

Angela Ingty M.A. (Gau) M.Phil (Mad)

Babitha Justin M.A. (Ker) M.Phil (JNU)

Language Syllabuses for the Adolescents" at the national seminar titled *Epistemology and Pedagogy - Its application in the Indian Philosophy of Education*, organized by the Department of Education in collaboration with ICAR, and held from 11th to 13th March 2003.

to teaching-learning. Ms. Angela Ingty went with the students as the teacher-in-charge.

Other Activities:

1. For the first time a refreshers course in English was organized in the department from November 13 to December 3, 2002. The theme of the course was Evaluation of Literature.

2. Two new Lecturers a) Mrs Babitha Justin, and b) Ms. Angela Ingty joined the department during the year.

Study Tours:

A combined study tour with the departments of Garo and Rural Development and Agricultural Production went on a 10 day tour to

DEPARTMENT OF EDUCATION Shillong

Thrust Area of Research:

Educational system in North Eastern region and Environmental Education.

Education; Research Methodology and Statistics in Education; Educational Management and Change Curriculum Development and Instruction; Advanced Sociology of Education; Educational Testing and Evaluation; Environmental Education; Educational Technology; Educational Systems in a Comparative Perspective; Early Childhood Education; Teacher

Degrees Awarded: PhD

1. Mrs. Brinda Bazely Rymbai, "A Study of the Development of Higher Education in Barak Valley and Karbi Anglong Area of Assam". Supervisor:

Education; Research Methodology and Statistics in Education; Educational Management and Change Curriculum Development and Instruction; Advanced Sociology of Education; Educational Testing and Evaluation; Environmental Education; Educational Technology; Educational Systems in a Comparative Perspective; Early Childhood Education; Teacher

Head : A. Henia

Faculty :

Professors : P.P. Gokulanathan, M.A. (Gau.), Ph.D (Dib.)
K.S. Lyngdoh, M.A. (Gau.), Ph.D (Bda.)
M.S. Padma, M.Ed (B.Lore), Ph.D (Bda.)
R. Bhattacharjee, M.A. (Gau.), Ph.D (NEHU)
P.K. Ganguli, M.Ed./Ph.D (Bda.)
A. Henia, M.A. (Gau.), /Ph.D (JNU)

Reader : S.M. Sungoh, M.A./Ph.D (NEHU)

Lecturers : K.M. Warjri, M.Ed/Ph.D (NEHU)
C. Nongbri, M.Ed/Ph.D (NEHU)

Student Intake: (a) Enrolment capacity: 30

(b) Actual admission:		SC/ST	Genl.	Male/Female	Total	
M.A.	:	23	1	3	21	24
Ph.D.	:	3	1	1	3	4

Professor A. Henia.

Education; Laboratory Practical; Higher Education in India; Educational Guidance and Counseling; Method of Teaching at Tertiary Level.

Courses Conducted:

Advanced Philosophy of Education; Advanced Psychology of

Seminars/Conferences:

Professor K.S. Lyngdoh (i) Attended the two day workshop on NAAC in collaboration with Department of Higher Education, Govt. of Meghalaya on 22-23 April, 2002 and delivered a talk on "Assessment and Accreditation of Higher Educational Institutions in the North Eastern Region". (ii) Presided over the national seminar on "Democracy, Pluralism and Conflict, NEHU, Organised by the Department of Sociology, 7th May, 2002. (iii) Presented a paper on "Role of Women in Local-Self-Government at NIRD-NERC Seminar, Guwahati, 12-14 November, 2002. (iv) Participated and presented a paper titled "Globalization and Education" at the international conference on *Globalization and Challenges for Education – A focus on Equity and Equality*, organized by NIEPA New Delhi during 19-21 February 2003. (v) Participated and presided over a session in the national seminar on "Pedagogy and Epistemology: Perspectives in Indian Philosophy of Education" held at Tura, Department of Education on 11-13 April, 2003.

Professor M.S. Padma was a resource person for the Extended Contact Programme for PGDIHE organized by IGNOU Regional Centre, Shillong, November, 2002.

Professor R. Bhattacharjee (i) Worked as the Programme Director for

the Extended Contact Programme of PGDHE course of IGNOU held at the IGNOU Regional Directorate, Shillong from November 9 to 17, 2002. (ii) Delivered extension lectures to M.Ed. students of Gauhati University on March 3, 2003. (iii) Participated in the 12th annual conference of the North East India Education Society held at Arunachal University. Presented a paper and chaired two academic sessions on March 6-7, 2003 on the theme: "Education for Emerging Society with special reference to North East India".

Professor A. Henia (i) Participated and presented a paper titled "Forest Environment and Community Awareness - North East India in the seminar on *Environment in North East India* on 5th June, 2002 held at Shillong and organized by NEICSSR. (ii) Participated and presented a paper titled "Role of Media in distance Education - Prospect in North East India" in the 2 day national seminar on Education in the 21st Century: Issues, Prospect and Challenges, 17-18 June, 2002, organized by NEICSSER and State Resource Centre, NEHU, Shillong. (iii) Participated and presented a paper on "Political Participation in Local Government : the role of Education" in the 3 day national seminar on *Role of Women in Local-Self-Government* held at NIRD-NERC Seminar, Guwahati, 12-14 November, 2002. (iv) Par-

participated and presented a paper entitled "Relevance of Education for International Understanding", at the international conference on *Education for the Survival of Human Race*, organized by AGC Council of Teacher Education on 14-16 December, 2002. (v) Participated and presented a paper on "Globalization of Higher Education-future perspective" at the international conference on *Globalization and Challenges for Education - Focus on Equity and Equality*, organized by NIEPA, New Delhi on 19-21 February, 2003.

Dr. (Mrs) S.M. Sungoh (i) Participated in the international conference on *Globalization and Challenges for Education: A focus on Equity and Equality* and presented a paper on "Impact of Globalization on Education" organized by NIEPA, New Delhi, 19-21 February 2003. (ii) Participated and chaired one academic session in the 12th annual conference, NEIES, on "Education for Emerging Society with Special Reference to North East India" organized by Arunachal University (NEIES) 6-7 March, 2003.

Dr. K.M. Warjri (i) Participated in a refresher course in Manipur University from 1st June to 2nd June 2002. (ii) Participated in a refresher course in Academic Staff College, Gauhati University from 21st October to 10 November, 2002.

Dr. C. Nongbri (i) Participated

and presented a paper on "Emergency Issues and Content Areas" at the seminar on *Curriculum Framework* organized by the Directorate of Educational Research and Training, Shillong on November 12, 2002. (ii) Participated and presented a paper in the international conference on *Globalization and Challenges for Education - A focus on Equity and Equality* and a paper on "Impact of Globalization: The curricular concern". The programme was organized by NIEPA, New Delhi during 19-21 February, 2003.

Publications:

Gokulanathan, P.P. 2003. Building public-private partnership for educational development in the North East Region. *Journal of the North East India Education Society*, 91-94.

_____. 2003. Challenges facing Indian Higher Education in the 21st Century - an analysis. *Dibrugarh University Journal of Education*, 9.

Henia, A. 2002. Management of Forest Resource in North Eastern Region. In A.D. Roy and K. Alam (Eds.) *Forest Resources in North East India*. New Delhi: Omsons publication, 146-158.

_____. 2002. Relevance of Education for International understanding. *Souvenir of the International Conference on Education for the Survival of Human Race*,

Guwahati: Council of Teacher Education.

_____. 2003. Globalization of Higher Education – Future perspectives. *Hand book of International Conference on Globalization and Challenges for Education*. New Delhi: NEIPA.

Nongbri, C. 2003. Empowerment of Women through Education. *Journal of North East India Education Society*, 9: 39-47.

Sungoh, S.M. 2003. Impact of Globalization on Education. In M.K.

Mukhopadhyaya et.al. (Eds.) *Globalization and Challenges for Education*. New Delhi: Sipra Publications.

_____. 2003. An Effective Lecturer. *Journal of NEIES*, 9: 31.

Study Tours/Field Trips:

Teachers-in-charge Prof. K.S. Lyngdoh, Dr. S.M. Sungoh, Dr. K.M. Warjri and Dr. C. Nongbri took students to Kyrdem Khla with the objective of celebrating “Environmental Study” on 26th March 2003.

DEPARTMENT OF EDUCATION Tura

Brief Statement of Activities:

The Department of Education at NEHU, Tura Campus, Tura was established in August 2001 and is still at its infancy. It offers two year M.A. Education programme. The main objective of the course is to sensitize the students about the process and system of education as a whole by offering them a mix of basic, applied, practical and specialized courses.

The department organized a participatory workshop on counselling at Phukan Memorial College, Dalu on 28 June 2002, in collaboration with the Unit for Adult Education, NEHU,

Shillong. The department also organized a three day national seminar on the theme *Pedagogy and Epistemology: Perspectives in Indian Philosophy of Education* from 11 to 13 March 2003, under the sponsorship of ICPR and ICSSR, New Delhi.

Thrust Area of Research:

Educational Testing, Philosophy of Education, Value Education.

Courses Conducted:

Advanced Philosophy of Education; Advanced Psychology of Education; Research Methodology and

Head : P.K. Gupta

Faculty :

Professors : P.K. Gupta, M.Ed (Delhi), Ph.D (Meerut)

N.B. Biswas, M.Ed/Ph.D (Bda.)

Readers : B.D. Chinara, M.A./Ph.D (Panj.)

Lecturers : Nikme S.C. Momin, M.A. (NEHU)

S.C. Subudhi, M.A./Ph.D (Kuruk)

J.V. Madhusudan, M.Ed (Gulbarga)

Student Intake: (a) Enrolment capacity: 22

(b) Actual admission:	SC/ST	Genl.	Male	Female	Total
-	22	-	5	17	22

Statistics in Education; Curriculum Development and Instruction; Educational Management & Change; Advanced Sociology of Education; Educational Testing and Evaluation; Environmental Education; Educational Technology; Educational System in comparative perspective; Early Childhood Education; Education of Creative and Gifted.

Seminars/Conferences:

Professor P.K. Gupta: (i) Delivered the keynote address at the orientation programme on the theme *Quality Education and Society* organized by Tikrikilla College, Tikrikilla, West Garo Hills, Meghalaya on 4th June 2002. (ii) Presented a paper titled "Psycho-Counselling for good mental health" at the workshop on counseling organized by the Department of Education, NEHU, Tura

Campus, Tura at Phukan Memorial College, Dalu on 28th June 2002 in collaboration with the Unit for Adult Education, NEHU, Shillong. Also delivered the chairman's address at the inaugural session of the workshop. (iii) Delivered the inaugural address at the national seminar on the theme *The Place of Garo Hills in the History and Civilization of the North East* organized by the Department of Garo, NEHU, Tura Campus, Tura on 11th November 2002 with the cooperation of Kamrupa Anusandhan Samiti, Gauhati. (iv) Acted as a convener of the organizing committee of the national seminar on the theme *Pedagogy and Epistemology: Perspectives in Indian Philosophy of Education* organized by the Department of Education, NEHU, Tura Campus, Tura, sponsored by ICPR and ICSSR, New Delhi from 11 to 13 March, 2003.

Professor N.B. Biswas: (i) Presented a paper entitled "Indian Epistemology with special reference to Jainism: An exposition", at AIOC, Shri Jagannath University, Puri, December 10-13 2002. (ii) Presented a paper entitled "Epistemology and Pedagogy in Upanishad" at the national seminar on *Pedagogy and Epistemology in Indian Philosophical Perspective* organized by the Department of Education, NEHU, Tura Campus, March 11-13, 2003.

Dr. B.D. Chinara: (i) Presented a paper entitled "An approach to Value Education" at the XVth annual conference of AIAER on *Research Issues in Thinking and Values* organized by the Andhra Chapter of AIAER and Department of Education, Andhra University, Visakhapatnam, May 31st 2002. Also chaired one session. (ii) Presented a paper entitled "Adolescent Counselling in Value Conflicting Behaviour" at the participatory workshop on counseling organized by the Department of Education, NEHU, Tura, at Phukan Memorial College, Dalu, June 28th 2002. (iii) Presented a paper entitled "The Culture of Peace: A programme of Action for Human Engineers" in the 16th Annual Meet of CTE and International Conference of Education for the Survival of Human Race organized by Assam State Centre, Council for Teacher Education, Guwa-

hati, December 14-16, 2002. (iv) Presented a paper entitled "Yoga of Yama and Niyama: A Citadel of Fundamental Human Values" at the 4th International Conference on Yoga Research and Value Education organized by Kaivalyadhama S.M.Y.M. Samity, Kaivalyadhama, Lonavia, December 28-31, 2002. (v) Acted as the Secretary at the national conference on *Pedagogy and Epistemology: Perspectives in Indian Philosophy of Education* organized by the Department of Education, NEHU, Tura Campus at Tura, March 11-13, 2003. (vi) Acted as the convener of the symposium on *World Literacy* organized by Department of Education, NEHU, Tura, September 9th 2002.

Mrs. Nikme S.C. Momin: (i) Acted as convener of the World Environment Day organized by the Department of Education, NEHU, Tura Campus on 5th June 2002 where a talk on environmental conservation and flower arrangement show was organized. (ii) Presented a paper titled "Role of Work experience in traditional system of Garos" at the national seminar on *The Place of Garo Hills in the History and Civilisation of North Eastern India*, organized by the Department of Garo, NEHU, Tura Campus on 11-12 November, 2002.

J.V. Madhusudan: (i) Presented a paper titled "Impact of Shifting Cultivation on Primary Education in

Garro Hills" at the national seminar on *The place of Garo Hills in the History and Civilization of North Eastern India*, organized by the Department of Garo at NEHU, Tura Campus, 11-12 November, 2002 with the cooperation of Kamarupa Anusandhana Samiti, Guwahati.

Dr. S.C. Subhudhi: Presented a paper titled "Resource Mobilization for Education in Garo Hills" at the national seminar on *The Place of Garo Hills in the History and Civilization of the North East* organized by the Department of Garo at NEHU, Tura Campus on 11-12 November 2002 with the cooperation of Kamarupa Anusandhana Samiti, Guwahati.

Publication:

Biswas, N.B. 2002. *Human Rights*. Delhi: Himalayan Publishers.

_____. 2002. *Sustainable Development*. Jagiroad: Jagiroad College.

Chinara, B.D. 2002. Typology of Values: An Introspection. *Quest in Education*, 26 (2).

Study Tour:

Dr. B.D. Chinara guided the study tour of IInd & IVth semester students visiting different educational institutions at New Delhi, Agra and Chandigarh from 8 to 21 February, 2003.

Other Activities:

Prof. P.K. Gupta: (i) Delivered a series of five lectures in the first refresher course in Education organized by the Department of Education, Dibrugarh University, Dibrugarh from 18 to 21 November, 2002. (ii) Delivered two lectures on 31st March 2003 in the UGC sponsored refresher course in Education, organized by the Department of Education, Nagaland University, Kohima.

Dr. B.D. Chinara: (i) Delivered four lectures in the IInd UGC sponsored refresher course in Education organized by the Department of Education, Arunachal University, Itanagar during 12-13 June 2002. (ii) Delivered two lectures in the 9th UGC sponsored refresher course in Education organized by the Academic Staff College, Gauhati University, Gauhati from 30th October to 1st November 2002. (iii) Delivered two lectures in the 49th UGC sponsored Academic Staff orientation programme organized by the Academic Staff College, Gauhati University, Guwahati during 30th October to 1st November, 2002.

Sri J.V. Madhusudan, Lecturer in the department, submitted his Ph.D. thesis entitled "Determinants of Achievement in Minimum levels of Learning at Primary stage" to Gulburga University, Gulburga (Karnataka) in January, 2003 under the guidance of

Dr. R.S. Yeli.

Sri S.C. Subhudhi and Sri J.V. Madhusudan joined the department as lecturers in April 2002 and May 2002 respectively.

Prof. P.K. Gupta delivered a series of six lectures to the M.A. Education students of Dibrugarh University, Dibrugarh from 18 to 21 November 2002.

DEPARTMENT OF GARO Tura

Besides the regular programme of the department it organized a national seminar which helped the students in research and inquiry. Also organized a translation workshop in which former and present students of the department participated. Students were encouraged to obtain first-hand information from their own observation.

Thrust Area of Research:

Garo dialects and Traditional oral Literature.

Courses Conducted:

History of Garo Literature, Poetry I, Drama I, Fiction I, Linguistics I, Poetry II, Drama II, Prose I, Epic Poetry & Environmental Studies, Linguistics II, Modern Poetry, Literary

Head : C.R. Marak

Faculty :

Professor : C.R. Marak, M.A. (Gau), Ph.D (NEHU)

Lecturers : F.K. Marak, M.A. (NEHU)

J.R. Marak, M.Ed (Utkal)

D. Ch. Marak, M.A. (NEHU)

Student Intake: a) Enrolment capacity: 50

b) Actual admission: SC/ST Genl. Male/Female Total
- 48 - 22 26 48

Departmental seminars were organized in which students prepared papers and participated actively in the discussions.

Theory & Criticism, Literature in Translation, Garo Folklore, Tragedy as a Literary Form, Indian Literature in English.

Seminars/Conferences:

Organised:

National seminar on *The Place of Garo Hills in the History and Civilisation of North-East* in collaboration with Kamarupa Anusandhana Samiti, Guwahati, at NEHU Tura Campus on 11-12 November, 2002.

Attended:

Prof. C.R. Marak attended the following seminars and presented papers mentioned against each:

(i) "Garo perception of Environment and use of Natural Resources" at the national conference on *Cultural Heritage and Traditional Knowledge Base of the Indigenous Communities of the North-East India* organized by Indira Gandhi National Centre for the Arts at Guwahati, Dec. 9-10, 2002.

(ii) "The Society and Economy of the Garos" at the seminar on *Economy and Society in the pre-colonial North-East India* organized by the Department of History at Shillong, 3-4 February 2003.

(iii) "Bamboo and Wood Craft of the Garos" at the national seminar on *Art and Culture of the North-East India* organized by Kamarupa Anusandhana Samiti at New Delhi on February 17-19, 2003.

(iv) "Christian Pedagogy" at the national seminar on *Pegagogy and Epistemology : Perspectives in Indian Philosophy of Education* organized by Education Department, NEHU, Tura

Campus at Tura, 11-13 March, 2003.

(v) "Status of Garo Literature and Lixicography" at the national seminar on *The Place of Garo Hills in the History and Civilisation of North East India* organized by the Department of Garo at Tura on 11-12 November, 2002.

Mrs. J. R. Marak presented a paper titled "Contribution of Christian missionaries to Garo Literature" at the national seminar on *The Place of Garo Hills in the History and Civilisation of North-East India* organized by the Department of Garo at Tura, 11-12 November, 2002.

Mrs. D. Ch. Marak presented a paper titled "Comparative Study of Atong and Ruga Consonant Phonemes" at the national seminar on *The Place of Garo Hills in the History & Civilisation of North-East India* organized by the Department of Garo at Tura, 11-12 November, 2002.

Publications:

Marak, C.R. Ed. 2002. *Garo Literature*. New Delhi: Sahitya Academy.

_____. 2002. Matriliney and Education among the Garos. In Walter Fernandes et al (Ed.), *Changing Women's Status in India: Focus in the North-East*. Guwahati: North-Eastern Social Research Centre.

Study Tour:

1. The students were taken to Rongdikgree village, West

Garo Hills, on 10 and 11 October, 2002 to attend the Wangala festival.

2. The students were taken on a 10-day tour to Hyderabad, Chennai and Pondicherry.

Other Activities:

Prof. C.R. Marak has been nominated a member of the General Council of the Sahitya Akademi w.e.f. 1st January, 2003 for a period of five years.

Mrs. F.K. Marak attended the winter programme on *Data Analysis in Social Sciences* organized by the

Tata Institute of Social Sciences, Mumbai from 11 to 23 November, 2002.

Ms. J.R. Marak and Mrs. D. Ch. Marak attended refresher course conducted by the Department of English, Tura Campus from 13th November to 3rd December, 2002.

Prof. C.R. Marak gave six lectures on Indian Literature in English in the refresher course in English conducted by the Department of English, Tura Campus from 13th November to 3rd December, 2002.

DEPARTMENT OF HINDI

Shillong

The Department of Hindi, established in 1996, has been offering regular classes at M. A. level since its inception. Keeping in mind the broader concept of Hindi literature and language, the department is also creating awareness among the students in relation to the socio-cultural development of the region. The continuous phenomenon students coming from almost all the states of North-Eastern India to the department is a testimony to the popularity of the subject and its utility and relevance in the region.

The department is also running Ph.D. programme to enrich the

research activities in the field of Hindi literature and language along with comparative study of Hindi and other regional languages.

Courses Conducted:

1st semester: Aadhunik Kavita (Chhayavad Tak) aur Paryavaran Parak Kavya, Hindi Gadya-Natak aur Nibandh, Hindi Sahitya Ka Itihas-one, Bhartia Kavya Shastra (I). 2nd semester: Chhayavadottar Kavita, Hindi Gadya : Upanyas aur Kahani, Hindi Sahitya Ka Itihas(II) (Ritikal aur Aadhunik Kal), Bharatiya Kavya Shastra & Smiksha Sidhant. 3rd semester: Aadikalin Kavya, Paschatya

Head : V.K.Srivastava

Faculty

Professor : V.K.Srivastava, M.A./D.Phil (A.I.I.D.)

Readers : D.K.Choubey , M.A./Ph.D (Manip)
S.K.Sharma , M.A./Ph.D (Delhi)

Lecturers : M. P. Pandey, M.A./Ph.D (Kashi V)
B.P.Tripathi, M.A./M.Phil (JNU)

Student Intake: (a) Enrolment capacity: 30

(b) Actual Admission:

SC/ST	Gen.	Male	Female	Total
-	5	10	3	12
				15

Samikshha Sidhant, Bhasha Vigyan Ke Sidhanta, Bhakti Kavya. 4th semester: Special Paper: Premchand, Ritikavya, Hindi Bhasha Ka Vikash, and Hindi Nivandh Rachana.

Seminar/Conferences:

Srivastava, V.K. (i) Delivered a key note at national seminar organized by the Deptt. of Psychology at Gauhati University, Guwahati held in June 2002 on the topic "Problems of Youth in North-Eastern India". (ii) Participated as resource person in the national seminar at NEHU, Shillong held on 31st October & 1st November, 2002 on "Rashtrabhasha Hindi Ke Vividha Aayam" presented a paper entitled 'Soochana Proudhyogiki Aur Hindi'.

Sharma, S.K. presented a paper entitled "Swantantrayottar Hindi Natya Sahitya aur chetna ke Srota" at the U.G.C. sponsored national seminar held on 11th & 12th January

2003 at Govt. M.L.B. College, Gwalior (M.P).

Publications:

Choubey, D.K. 2002. Asomiya aur Hindi ke Pratham Ramayankar adhavkandali Tatha Vishnudas ka Bhaktievam Darshan. *Hindi Anusheelan, June Issue.*

_____. 2003. Ramkavya Parampara mein Mahapurush Shankardew ka Asthan. *Prem Mandakini*, Shankar Deo Sangh (Assam).

_____. 2003. Hindi aur Asomiya ki Pratham ramayano me Bhasha Soundrya. *Sammelan Patrika, February Issue.*

Sharma, S.K. 2003. Soor ki Rachanaon mein Prem Evam Prabriti Chitran. *Research Link, February Issue.*

Srivastava, V.K. 2003. Sant Kabir: Vyaktitwa se Anugunjit Kavya.

In-Sant. Kabir: Aadunik Sandarbh Mein. Agra: Kendriya Hindi Sansthan.

_____. 2002. Ramkrishna Paramhansa: Ek. Mahan Vibhuti. *Aryavarta Samiti Souvenir*, Golden Jubilee Issue, October.

Tripathi, B.P. 2002. Review of the book *Kishor Sahitya ki Sambhavanayan. Yuddharat Aam Aadmi*, Special issue.

Thrust Area of Research:

Modern Hindi literature.

Other Activities:

Srivastava, V.K. (i) Lectured in refresher course for Hindi teachers organized by the Central Hindi Institute, Agra (Shillong Centre) at Shillong on

17.10.2002. (ii) Lectured in the UGC sponsored lectures scheme at Pragiyotish College, Guwahati on the topic "Sant Kabir" on 16.11.02. (iii) Lectured in refresher course programme for College/University Hindi lecturers sponsored by the UGC at Hindi Department, Arunachal University, Itanagar on 6, 7 & 8 January, 2003.

Pandey, M.P. participated in the orientation programme at BHU, Varanasi, from 12th November 2002 to 9th December 2002.

Two faculty members joined the department during the year:

1. Dr. S.K.Sharma as Reader on 6.5.2002, and

2. Shri B.P. Tripathi as Lecturer on 26.4.2002.

DEPARTMENT OF KHASI Shillong

Brief Statement of Academic Activities:

The department conducted one refresher course in the month of March 2003. The theme of the course was "Khasi Literary Themes" and the Course Coordinator was Dr. S. Dkhar. Two books written by faculty members of the department, Dr. S. Dkhar and Dr. A. Kharmalki, were released in the valedictory function of the refresher course.

Thrust Areas of Research:

The department offers both M. Phil and Ph.D. programmes where the thrust areas of research are Khasi Literature, Khasi Linguistics, Literature in translation, Khasi literary theory and Literary criticism.

Degree Awarded: MPhil

1. Riana Nongbri, "A Study on Major Themes in S.S. Majaw's Poetry". Supervisor: Professor B.L. Swer.

Head : B. L. Swer till 31st December 2002.
B. War from 1st January 2003.

Faculty :

Professors : B. L. Swer, M.A. (Gau), Ph.D (NEHU)
B. War, M.A. (NEHU/Delhi), Ph.D (London)
Readers : M. B. Jyrwa, M.A. (Gau), Ph.D (NEHU)
S. Dkhar, M.A. (NEHU), Ph.D (NEHU)
Lecturer : A. Kharmalki, M.A. (NEHU/Delhi), Ph.D (NEHU).

Student Intake: (a) Enrolment Capacity : M.A. 40
M.Phil 10
Ph.D 15

	Male	Female	Total
(a) Actual Enrolment : M.A.	8	32	40
M.Phil	2	8	10
Ph.D	5	10	15

2. Pyniarbor M. Tiewsoh, "Naming Ceremony in Shangpung". Supervisor: Professor B. War.

3. External Bright Lytan, "Ego in H.W. Sten's *Kwah Bymjusuk*". Supervisor: Dr. M.B. Jyrwa.

4. Hasting Roy Kharkongor, "H.W. Sten's *La Dkut Sohpet*: A Study of Themes and Techniques". Supervisor: Dr. S. Dkhar.

5. Homelin M. Bareh, "L.H. Pde's *U Mooiong*: A Study of Social Theme". Supervisor: Dr. S. Dkhar.

6. Dapbor Khongsngi, "Passage through Strife in L.H. Pde's *Tang Maphi Khun Baieid*". Supervisor: Dr. A. Kharmalki.

7. Banylla Lapang, "Bronath Thangkhiew as a Social Critic with

Special Reference to *Ki Tien Rwai Khas*". Supervisor: Dr. A. Kharmalki.

Courses Conducted:

Linguistics I, Khasi Poetry I, Khasi Literary Criticism, Khasi Fiction I, Linguistics II, Khasi Drama I, Literary Theory and Criticism, Khasi Poetry II, Linguistics III, Literature in Translation, Khasi Drama II, Culture and Khasi Literature I, Linguistics IV, Khasi Fiction II, Culture and Khasi Literature II, Environmental Awareness in Literature and Khasi Poetry III, Folkloristics, Research Methodology, Khasi Poetic Themes and Techniques.

Seminar/Conference:

Prof. B. L. Swer organized the

25th conference-cum-seminar of Indian Folklore Congress, in collaboration with Indira Gandhi Rashtriya Manav Sangrahalaya, Bhopal and CIIL, Mysore and also presented a paper on "Khasi Folk Drama".

Prof. B. War attended the national seminar on *Borrowings in the Languages of the North-East* organized by the Central Institute of Indian Languages, Mysore, and the Department of Assamese, Gauhati University and presented a paper on "Borrowing in Khasi" in the above seminar held from 27th to the 30th December 2002 in Guwahati.

Dr. S. Dkhar attended the national seminar on *The Life and Works of Great Malayali Poet G. Sankara Kurup* organized by Bhastra Sangam India in collaboration with Hindi Department, Lucknow University and presented a paper titled "Similarities of Primrose G. Gathphoh and G. Sankara Kurup in the treatment of nature in their Poems". The seminar was held at Lucknow on 24th and 25th August 2002. She also attended the national seminar on *The Malayali Poet G. Sankara Kurup* organized by Bhastra Sangam India in collaboration with the MIL Department, Gauhati University and presented a paper titled "A Study of Poetic Techniques in the Poems of G. Sankara Kurup", 1st and 2nd February 2003, Guwahati.

Dr. A. Kharmalki attended the national seminar on *Borrowing in the Languages of the North-East* organized by the Central Institute of Indian Languages, Mysore and the Department of Assamese, Guwahati University, and presented a paper titled "Semantic Extension: The Case of Khasi" in the above seminar held from the 27th to the 30th December 2002 in Guwahati.

Visiting Fellows:

Mr. S. S. Majaw, Head, Khasi Dept., Synod College.

Mr. M. S. Kharsyntiew, Lecturer, Khasi Dept., Lady Keane College.

Publications:

Dkhar, S. 2003. *U Banlum bad Ka Baia*. Shillong: Don Bosco Press.

Jyrwa, M.B. 2002. *Ki Nongrim Literashor bad Ka Jingbishar Bniah*. Shillong: Mang Computers Publishing Centre.

Kharmalki, A. 2003. *U Doktor Phastos* (A Translation of Christopher Marlowe's Dr. Faustus) Shillong: Mawphor Offset Printing Press.

Study Tours/Field Trips:

Local study tour was undertaken by the students of the 3rd Semester to Mawsmat and Sohra in connection with the course on "Environmental Awareness in Khasi Literature" on the 8th November 2002. Prof. B. War was

the teacher in-charge of the trip.

Other Activities:

The department conducted a UGC sponsored refresher course on "Khasi Literary Themes" and the Course Coordinator was Dr. S. Dkhar. The department in collaboration with the Sahitya Akademy, New Delhi also conducted "Poetry Reading for College Students" and the Coordinator was Dr. S. Dkhar. Prof. B. L. Swer was appointed as member of the Expert Committee on Literary Award to Khasi

authors, Department of Arts and Culture, Govt. of Meghalaya, Prof. B. War was appointed as member of Review Committee for financial assistance to Khasi authors, Govt. of Meghalaya. She is also a member of the Research Committee of CIEFL, North East Campus, Shillong. Dr. S. Dkhar delivered two lectures in a refresher course in Bodo organized by the Department of MIL, Gauhati University on the 9th November 2002. Prof. B. L. Swer retired as Professor in the department on the 31st December 2002.

DEPARTMENT OF LINGUISTICS
Shillong

Thrust Area of Research:

Tibeto-Burman and Austro-Asiatic linguistics.

Linguistics, Morphology, Syntax-I, Phonetics and Phonology. Semester II: Semantics (Part I), Linguistics and

Head	:	R. Sachdeva
Faculty	:	
Professor	:	J. War, M.A. (Gau./Delhi), Ph.D (Edin.)
Readers	:	R. Sachdeva, M.A./Ph.D (Pune) A.K. Mishra, M.A./Ph.D (JNU)
Lecturer	:	Saralin A. Lyngdoh, M.A. (NEHU), M.Phil. (Delhi)
Student Intake: a) Enrolment Capacity: 35		
	b) Actual Admission:	SC/ST Genl. Male/Female Total
		32 2 16 18 34

Courses Conducted:

Semester I: Introduction to

Environment (Part-II), Sociolinguistics, Psycholinguistics, Syntax-II. Semester

III: Generative Phonology, Historical and Comparative Linguistics, South Asia as a Linguistics Area with Special Reference to North East India, Language Teaching and Testing. Semester IV: Structure of Tibeto Burman Language, Field Methods on Chang language (including compulsory Dissertation), Language Planning, and Translation: Theory and Practice.

Study Tour/Field Trips:

1. Teachers-in-charge: Dr. A.K. Mishra & Ms. Barika Khyriem

Place of Visit: Mysore, Duration 4 weeks.

Purpose of Visit: Attending various workshops on phonetics and phonology, sociolinguistics, and grammars of Tibeto-Burman languages. The students also visited Speech and Hearing Institute, Sanskrit Institute, Library of manuscripts etc.

2. Teacher in charge: Ms. Saralin A. Lyngdoh (Lecturer).

Place of visit: Umdang (West Khasi Hills).

Purpose of visit: Collection of data on Lyngngam dialect.

Other Activities:

Professor J. War gave lectures in refresher course in Khasi Department, NEHU on 5, 12, and 15 March, 2003.

Dr. A.K. Mishra delivered 6 lectures on various topics related to Applied Hindi Linguistics and 'The Language of Kabir' to the participants of refresher course in Hindi at Assam University, Silchar from 20 to 22 March 2003.

Ms. Saralin A. Lyngdoh attended the refresher course in CIEFL, Lucknow (in English & Linguistics) from 9 to 29 September, 2002.

DEPARTMENT OF PHILOSOPHY Shillong

Brief Statement of Activities:

The academic programme of the department ran smoothly without any disruption. On research front, five students were awarded M.Phil. degree and four students Ph.D. degree. The faculty served as visiting professors and resource persons for refresher

courses in and out of NEHU. A number of them participated in regional, national and international seminars.

Academic Agenda & Thrust Area:

The Department of Philosophy began in 1974 with Professor Mrinal Miri, the present Vice-Chancellor, as

the first faculty member. The Master's programme began in the same year, and the M.Phil and Ph.D. programmes within a span of five years.

The department aims at training the students in the development of their logical and critical thinking on philosophical problems that

Dharma: A Comparative Study". Supervisor: Professor Sujata Miri.

2. Bestar Kharmawlong, "Peace, War and Moral Responsibility in the Context of Nuclear Age". Supervisor: Professor Jagat Pal.

3. Grace Darling, "Feuerbach on Religion: A Critique". Supervisor:

Head	: C. R. Agera
Faculty	:
Professors	: Mrinal Miri, M.A. (Delhi), Ph.D (Cambridge) Sujata Miri, M.A./Ph.D(Delhi) C.R. Agera, M.A. (Mad.), Ph.D (Delhi) Jagat Pal, M.A. (Alld.), Ph.D (IIT, Kanpur)
Reader	: Vanlalnghak, M.A. (NEHU), Ph.D (IIT, Kanpur)
Lecturers	: X.P. Mao, M.A. (NEHU), M.Lett. (Sydney) E.R. Tongper, M.A./Ph.D (NEHU) L.N. Lenka, M.A. (Utkal), Ph.D (Hyd.) B. Oinam, M.A./Ph.D (Panj.)

human beings generally confront. The courses taught and the research carried out has focussed on the authentic awareness of the culture and the cumulative traditions of the North-Eastern region in the context of the development of the philosophical movement of the west and India.

The thrust area of the department is the Philosophy of Culture with special reference to tribal thought of the North-Eastern region.

Degrees Awarded: M.Phil

1. Nidaris Lyngdoh, "Ka Niam (Khasi religion) and the Concept of

Professor C.R. Agera.

4. Bendangrenla, "Karl Marx on Freedom and Justice: A Critique". Supervisor: Professor Jagat Pal.

5. S. Sangchungnunga, "Locke-Marx Divide on Property". Supervisor: Professor C.R. Agera.

Ph.D

1. Ramengliana, "Religious Pluralism: A Critical Study with special reference to John Hick". Supervisor: Professor C.R. Agera.

2. Juthsutho Phoiji, "St. Thomas Aquanas: God and Creation". Supervisor: Dr. S.C. Daniel.

3. Sashinungla, "Environment Preservation: A Philosophical Critique". Supervisor: Professor Sujata Miri.

4. Siby K.G. "A Life in the 'Own' Self: A Critical Account of Heidegger's Concept of Human Authenticity with Special Reference to Being and Time". Supervisor: Professor Jagat Pal.

Courses Conducted:

Indian Logic and Epistemology, Descartes and Modern Philosophy, Philosophy of Religion, Moral Philosophy II, Issues in Contemporary Indian Society, Kant, Ancient & Medieval Philosophy, Applied Ethics, Speech Act Semantics, Indian Metaphysics, Moral Philosophy I & Environmental Ethics, Philosophy of M.K. Gandhi, Symbolic Logic, later Philosophy of Wittgenstein, Philosophy of Culture, Indian Philosophy of Language, Existentialism, Phenomenology, Analytic Philosophy, Understanding Tribal Culture.

Seminars/Conferences:

Professor S. Miri (i) Presented a paper titled "The Paradox of Development" at the national seminar on *Partnership for Development: Holistic Approach to North-East*, at Gangtok from 7 to 10 May, 2002. (ii) Delivered lectures on Tribal Environmentalism at the Department of Folklore and Ethnology, University College, Cork, Ireland, from 20 to 22

June, 2002. (iii) Presented a paper titled "On Social Reality" at the workshop on *Social Reality and Methods in Social Science Research*, organized by NERCICSSR, during 9 to 19 September, 2002. (iv) Delivered the Foundation Day Lecture at Guru Nanak Dev University, on 24th November, 2002. (v) Presented a paper titled "The Natural and the Social Sciences Approach to Environment" at the regional workshop on *Integrated Approaches to Mountain Natural Resource Management*, Shillong from 11 to 16 November, 2002. (vi) Chaired a session in the national seminar on *Pedagogy and Epistemology: Perspectives in Indian Philosophy of Education*, organized by NEHU-Tura Campus from 10 to 11 March, 2003. (vii) Delivered a lecture on "The Indigenous Knowledge System encoded in the Local Tradition and Oral Literature of Selected Mountain People from Nagaland, Bhutan and Nepal" at Adoan Foundation on 26-28 March 2003.

Professor Jagat Pal (i) Presented a paper "The Nature and Function of the Philosophy of Education" at the national seminar on *Philosophy of Education*, organized by the Department of Education, NEHU-Tura Campus, from 11 to 13 March 2003 (ii) Delivered lectures as Visiting Professor on Symbolic Logic at the Department of Philosophy, Assam

University, from 27th August to 13th September 2002.

Dr. L. Lenka presented a paper titled "The Dogma of Determinism" at the seminar on *Causality and Freedom* organized by J.B. College, Jorhat on 29th May 2002.

Mr. X.P. Mao: (i) presented a paper titled "Diffusion but not concentration is the Remedy" at the symposium on *Shillong 1991-2001*, organized by the Department of Urban Affairs, Meghalaya, Anthropological Survey of India, Kolkata and NEICSSR, Shillong on 11-12 November 2002. (ii) Presented "Peace, Security and Development: Friendship but not Confrontation" at the workshop on the *Perspective of Security and Development in North-East India*, organized by the NEICSSR, Shillong on 9th December 2002. (iii) "Nagaland and Naga Nationalism" at the seminar on the *Foundations of Naga People-hood: Road Maps*, held at Hotel Japfu, Kohima on April 11, 2003.

Dr. Bhagat Oinam (i) Presented a paper titled "Ethnic Conflicts in the North East : Towards a Solution" at the national seminar on *Coming out of Violence: Resolving Ethnic Conflicts in North-East India*, organized by the Department of Political Science, Gauhati University on 11-12 November 2002.

Visiting Professors:

Professor Srinivasa Rao (Retd.) of Bangalore University was a Visiting Professor for one semester.

Publications:

Lenka, L. 2002. Can Man be Civilized and Yet Violent? *Philosophy and the Life-World*, 4: 1-6.

_____. 2002. Book Review of Sanjay Kumar Shukla's *Kant's Copernican Revolution in Journal of Indian Council of Philosophical Research*, 19(2): 201-207.

Miri, M. 2002. *Identity and the Moral Life*. Delhi: Oxford University Press.

Miri, Sujata Co.Editor. 2002. *Introduction to Social and Political Philosophy*. Shillong: North-Eastern Hill University Publications.

Oinam, B. 2002. Manipur Assembly Election: Manifestation of Growing Crises. *Economic and Political Weekly*, 37 (27).

_____. 2002. Manipur Assembly Elections: Trends and Issues. *Economic and Political Weekly*, 37 (6).

Pal, J. Co-Editor. 2002. *Introduction to Social and Political Philosophy*. Shillong: North-Eastern Hill University Publications.

Pal, J. 2002. Some Reflections on the Concept of Rationality. *Indian Philosophical Quarterly*, 29: 2 & 3: 265-275.

Study Tour:

Dr. Vanlalnghak, Reader, conducted a study tour for 41 students for 22 days to Kanyakumari.

Other Activities:

(a) Two faculty positions are filled: Dr. Vanlalnghak joined as Reader in May 2002. Dr. B. Oinam joined as Lecturer in April 2002.

(b) Prof. M. Miri, the founder member of the department retired on 31st July 2002.

(c) Prof. Jagat Pal (i) delivered six lectures on Analytic Philosophy and Symbolic Logic in the refresher course organized by the Department of Philosophy, Gauhati University, from 8 to 11 July, 2002. (ii) Delivered

six lectures on Philosophy of Consciousness, organized by the Department of Philosophy, Assam University, from 13 to 17 February, 2003.

(d) Dr. B. Oinam delivered a lecture on "Manipur: Post-Election Scenario" at the India International Centre, New Delhi, in April 2002.

(e) Dr. L. Lenka participated in the refresher course on Philosophy of Science, organized by the Department of Philosophy, University of Hyderabad, from 6 to 26 January, 2003.

(f) Regular weekly seminars were held in which research scholars, faculty and the eminent scholars interacted.

CENTRE FOR SUPPORTIVE LEARNING SYSTEMS Shillong

UNIT FOR ADULT AND CONTINUING EDUCATION

The Unit for Adult and Continuing Education was established in 1974. The primary objective of the unit is to create awareness on important issues at the grass root level with particular reference to overall and diverse learning needs of all segments of the community. The unit extends academic support in the development of teaching and learning materials

pertaining to societal needs. It also organizes programmes in collaboration with other sister departments of the university and with state government departments and other organizations both at the state and national levels.

Courses Conducted:

Adult Education, Adult Psychology, Methods in Adult Education,

Head : M. C. Pandey

Faculty : Professor: M.C. Pandey, Ph.D (Minn)

Reader : E. Jyrwa, M.Phil/Ph.D (NEHU)

Lecturers : I. Lall, M.A. (Patna), M.S. (S.Illinois)
 N.P. Goel, M.Sc./Ph.D
 W.S. Myllemngap, M.Phil (NEHU)
 J. Mawthoh, M.A. (NEHU)
 B.P. Sahu, B.Tech/Ph.D (HRD)
 J.I. Rapphap, MSW (Bombay)
 B.S. Langstieh, M.A. (NEHU)

Student Intake: (a) Enrolment Capacity : 20

(b) Actual Admission :				SC/ST	Genl. Male/Female	Total
19	0	0	19			19

Population Education, Counseling, Demography, Environmental Education, Project Work.

Certificate Course on Adult Education: (One Semester)

Introduction to Adult Education, Population Education, Adult Psychology, Methods in Adult Education.

Student Intake of the Course :

(a) Enrolment capacity : 20

(b) Actual Admission :

SC/ST	Genl.	Male/Female	Total
- 07	0	- 07	07

Seminars/Conferences:

Organized:

1. M.C.Pandey & N.P.Goel

organized a One-day Certificate Course on Adolescence Education on 17 May, 2002 at the NSS Cell, NEHU. Altogether 60 participants attended the course.

2. N.P.Goel & B.P.Sahu organised a One-day Certificate Course on Adolescence Education on 17 December 2002 at NIT, Silchar. Altogether 52 participants attended the course.

3. M.C.Pandey organised a One Day Certificate Course on Counseling on 20 April 2002 at St.Mary's College, Shillong. Altogether 103 participants attended the course.

4. M.C.Pandey organised a One Day Certificate Course on Counseling on 27 April 2002 at Cherrapunjee High School. Altogether 22 participants attended the course.

5. M.C.Pandey & P.K.Gupta organized a One Day Certificate Course on Counseling on 28 June 2002 at Dalu College, Dalu, West Garo Hills. Altogether 40 participants attended the course.

Certificate Course on Disaster Management:

J.Mawthoh & B.P.Sahu organised a short duration certificate course on Disaster Management from September 17 to 21, 2002 at UACE, NEHU. Altogether 40 participants from Assam University and NEHU attended the course.

Certificate Course on NGO Management:

J.I.Rapthap & J.Mawthoh organised a short duration certificate course on NGO Management from March 24 to 29, 2003 at UACE, NEHU. Altogether 40 participants from different NGOs including students of NEHU attended the course.

Population Education Resource Centre (PERC):

PERC-NEHU organized awareness programmes on Population Education and related issues in the educational institutions of the seven states of the Northeastern region.

Distribution of Reading Material:

a. Distribution of research

reports to all PERCs.

b. Distribution of reading materials to colleges in Meghalaya, Assam and Mizoram: Series – XV1.

c. Distribution of reading materials to participants of training programme in Arunachal Pradesh, Manipur, Meghalaya, Mizoram and Silchar.

Extension Lectures (UACE):

N.P. Goel presented a paper on "AIDS & Adolescence Education" on 17 December, 2002 at NIT, Silchar.

B.P.Sahu presented a paper on "Sex & Adolescents" on 17 December 2002 at NIT, Silchar.

I.Lall presented a paper on "Need for Counseling" on 27 April 2002 at Cherrapunji, Meghalaya.

Seminars/Conferences:

E.Jyrwa attended a symposium on *Shillong 1991-2001* organised by the Northeast India Council for Social Science Research (NEICSSR) sponsored by the Department of Urban affairs, Meghalaya and the Anthropological Survey of India, Kolkatta at Raitong Building Conference Hall, Secretariat Complex, Shillong on 11-12 November, 2002 and presented a paper on "Demographic profile of Shillong 1991-2001".

I. Lall attended the workshop on *Adolescent Counseling* organised by the Unit for Adult & Continuing

Education, NEHU in collaboration with the Dept. of Education, NEHU, Tura on 8 & 9th March 2003 at Tura Campus, NEHU and presented a paper on "Need for Counseling".

B.P Sahu attended the international seminar organised by the Department of Geography, NEHU on 28th March 2003 and presented a paper on "HRD for Farmers through Social Engineering – A Case study of Rushikulya Irrigation Project in Orissa".

W.S. Myllemngap & J.I. Rapthap attended a 10 day course on *Research Methodology and Recent Development in Adult Education* organised by Indian Adult Education Association, New Delhi in collaboration with JNU, New Delhi and held at New Delhi from October 21 to 29, 2002.

Research Programmes:

Ongoing:

1. Literacy and Population Growth in India - M. C. Pandey.

2. *Population Trends in North-East India* - N. P. Goel and M. C. Pandey.

3. Awareness level on drugs and AIDS among college students in Districts of Meghalaya- N.P.Goel.

4. HRD for Tribal Women: N.P.Goel & B.P. Sahu.

5. HRD for Women in organised sector - B.P. Sahu.& N.P.Goel.

6. Long term effects of alcoholism among the youth in the Garo Hills - Ms J. I. Rapthap.

7. A study on the effectiveness in the implementation of self help groups in the two districts of Meghalaya (East Khasi Hills and Ri-bhoi Districts). Ms J. I. Rapthap.

8. Effects of tobacco consumption on consumers - a study – W.S.Myllemngap.

9. Degree students prospective on counselling in their Personal and Academic Life – I.Lall.

Publications:

Goel, N.P. and M.C. Pandey. 2003. Awareness on aids and drug among college students in colleges of Meghalaya. *PERC Series*, XVI: 46-57.

Jyrwa, E. 2003. Evolution of Adult Education - a historical perspective. *The NEHU Journal*, 1(1): 93-107.

Mawthoh, J. 2003. College perspectives on Disaster Management. *PERC Series*, XVI: 70-82.

Pandey, M.C. and N.P Goel. 2002. Literacy & population growth in India. *PERC Series*, XVI: 1-9.

———. 2002. Awareness on Population and related issues among the teachers and the students in the educational institutions and the community in the rural areas. *Indian Journal of Population Education*, 17:

13-22.

_____. 2003. Population pressures on Forest Resources in the North Eastern Region *PERC Series*, XVI: 21-30.

_____ and J. Mawthoh.

2003. Substance abuse. *PERC Series*, XVI: 58-69.

Sahu, B.P. 2003. *Post Disaster Management of Super Cyclone in Orissa - A Multi Dimension Approach*. New Delhi: Mittal Publications.

UNIT FOR DISTANCE EDUCATION

The unit was set up in 1986 with an objective to conduct courses in Distance Education.

Primary Teachers Federation State Level, 13th November 2002 at Shillong.

Head : B. Lyndem Laso

Faculty :

Professor : B. Lyndem Laso, Ph.D (NEHU)

Extension Lectures:

Prof. (Mrs.) B. Lyndem Laso:

1. "First level Evaluation of All India Competition for School teacher educators for innovative practices and Experiment" on 20th June' 2002 at NERIE, Shillong.

2. "Managerial Skill for primary teachers"-Basic Skills at NERIE, Shillong, September, 2002.

3. "Women & Skill" at Don Bosco Technical School on National Conference of Private Teacher Institution affiliated to SKIP. November 2002.

4. "Development of Professionalism among Teachers" – All

Seminars/Conferences:

Organised:

The unit (i) organized a workshop in collaboration with the Indian Institute of Entrepreneurship, Guwahati, Department of Commerce, Gauhati University, Guwahati, Indian Institute of Technology, New Delhi and Department of Commerce, NEHU, Shillong for developing a curriculum on Post Graduate Diploma in Entrepreneurship at Indian Institute of Entrepreneurship, Lalmati Guwahati on 16th and 17th June, 2002. (ii) Organised a Writers' Workshop in collaboration with the Department of Commerce, NEHU, Department of Commerce,

Gauhati University and Department of Commerce and Management Studies, Andhra University, Andhra Pradesh at Shillong for developing the curriculum on Post Graduate Diploma on Computerised Accounting on 26th and 27th June 2002.

Attended:

1. Presented a paper on "The Changing Position of Women in Meghalaya" at the seminar organized by the Department of Urban Affairs, Govt. of Meghalaya, Anthropological Survey of India, Calcutta and North East India Council for Social Science Research on 11th and 12th November 2002.

2. Attended the workshop at

NERIE, Shillong and presented a paper on "Managing School as a Resource Management of Innovative practices for Quality" on 8th and 9th January 2003.

3. Presented a paper on "Communication as a part of Sociometric Techniques at NERIE, NCERT Shillong on 3rd to 7th March 2003.

Research Projects:

Literacy & Population Education Project financed by the Ministry of Human Resource Development, Government of India, New Delhi.

Other Activities:

Hosting IGNOU programmes.

UNIT FOR SCIENCE EDUCATION

The unit has been established:

(i) to conduct programmes related to science and mathematics education (remedial teaching for Scheduled Caste/Tribes undergraduate student etc. and various other courses in computer) and promote scientific temper among school/college/university students and the community at large. (ii) To conduct extension activities to sensitize and create scientific awareness among the youth. (iii) To promote innovative methods of science and mathematics education.

Courses Conducted:

Remedial teaching courses in Physics, Chemistry, Mathematics, Botany and Zoology for class XI and XII tribal students.

Seminars/Conferences:

Organised:

1. A 3-day workshop on Teaching Elementary Mathematics for Primary school teachers in April 2002.

2. A month long programme to celebrate "No Tobacco Day" culminating on 31st May 2002.

In-charge : Debashis Bhattacharjee

Faculty :

Professor : M.M. Singh, M.Ed/Ph.D

Reader : D. Bhattacharjee, M.Sc (NEHU), Ph.D (Warsaw, Poland)

P.K. Patra, M.Sc (Sambalpur), Ph.D (NEHU)

A. Chattopadhyay, M.Sc (Cal.), Ph.D (NEHU)

Student Intake:

The unit has no provision for admitting students for formal degree courses. However students were admitted for various informal teaching programmes.

Attended:

Dr. A. Chattopadhyay: (i) Presented a paper at the national symposium on Biodiversity organized by the National Academy of Sciences India held at NEHU, October 2002. Title of the paper: "Modulation of clastogenic activity of γ -radiation on BSO mediated GSH depleted mammalian cells".

Publications:

Bhattacharjee, D. 2002. A Generalized B-product and its properties. *Bulletin of the Allahabad Mathematical Society*, 17: 17-21.

Other Activities:

Dr. Ansuman Chattopadhyay joined the unit as a lecturer on 10th October 2002.

III

School of Human and Environmental Sciences

The School of Human and Environmental Sciences consists of three departments, namely, Geography, Anthropology and Rural Development and Agricultural Production and one centre – Centre for Environmental Studies. The departments and the centre under the school have well equipped laboratory facilities with well-qualified faculty members actively engaged in teaching and research as evident from the profiles of respective departments and the centre. The year under report was quite eventful for the school. A laboratory of Geographical Information Systems (GIS) and two hydrological

observatories were established in the Department of Geography under Special Assistance Programme (SAP) of the UGC, New Delhi. The Centre for Environmental Studies established a pollution monitoring laboratory and weather monitoring stations in various places and the Department of Anthropology established the Elwin Memorial Museum in August 2002. Several new members joined the departments and some got promotion in the year under report. Several collaborative and/or consultative research works were taken up or continued with other institutions of repute in the country as well as outside.

DEPARTMENT OF ANTHROPOLOGY Shillong

The thrust of the department is to build expertise in and train the students to appreciate and understand

the socio-cultural and biological variation of India in general and Northeast India in particular.

During the year under report the faculty position of the department was enriched by the joining of three new faculty members. The most remarkable part of the year was the establishment

pology, Anthropology of Northeast India, Biological Anthropology, Demography and Biostatistics, Human Genetics, Human Growth and Development, Human Ecology

Head	:	Henry Lamin (till 27 th February forenoon 2003)				
		T. B. Subba (from 27 th February afternoon 2003 till date)				
Faculty	:					
Professors	:	T. B. Subba, M.A./Ph.D (N. Bengal)				
		H. Lamin, M.A./Ph.D (NEHU)				
		J. Brouwer, M.A./Ph.D (LEIDEN U)				
Readers	:	L. Zehol, M.A./Ph.D (NEHU)				
		R. Khongsdier, M.Sc./Ph.D (NEHU)				
		D.K. Limbu, M.Sc./Ph.D (NEHU)				
Lecturers	:	V. Pakyntein, M.A./M.Phil (Delhi)				
		J.W. Dkhar, M. Sc./Ph.D (NEHU)				
		Q. Marak, M.A. (GAU)				
		B. Langstieh, M.Sc. (NEHU)				
Student Intake:	(a)	Enrolment capacity = 25				
	(b)	Actual Admission = SC/ST Genl. Male/Female				Total
		23	1	9	15	24

of the Elwin Memorial Museum in the department on the occasion of the centenary celebration of Verrier Elwin. A seminar on *Verrier Elwin and the Tribes of Northeast India* was also organized to commemorate the occasion.

Courses Conducted:

Cultural Anthropology, Palaeo-anthropology, Ecological Anthropology, Indian Prehistoric Archaeology, Linguistic Anthro-

and Adaptation, Practical in Advanced Physical Anthropology-I, Anthropological Theories, Anthropological Methods, Anthropology in India, Social and Cultural Change, Development Anthropology, Medical Anthropology, Economic Anthropology, Ethnicity and Anthropology, Population Biology, Dental Anthropology, Practical in Advanced Physical Anthropology-II, Fieldwork and Dissertation.

Seminars/Conferences:

Organised:

The centenary celebration cum seminar on "Verrier Elwin and the Tribes of Northeast India" during 29-31 August, 2002 at the department.

Attended:

Professor T. B. Subba (1) spoke on "Studying Ethnicity in Northeast India" at the workshop organized by the ICSSR-NERC and held at the Social Science Conference Room on September 10, 2002; (2) delivered the Valedictory Address at the UNESCO sponsored workshop on the *Management of Natural Resources in Mountain Regions* held at the University Guesthouse on November 15, 2002, and (3) presented a keynote paper on "Overview of Change in Tribal Societies" at the *Tribal Transitions Project* workshop held at the Bellagio Center in Italy during October 17-24, 2002.

Professor Jan Brouwer spoke on (1) "Indigenous Knowledge and Development" as *NEHU Friday Extension Lecture* on 17 June 2002; (2) "Indigenous and modern concepts of Multiculturalism" at the Anthropological Association office in Mysore on 12 August 2002; (3) "Indigenous Knowledge for Anthropology and Development" at the Anthropological Association office in Mysore on 13 August 2002; (4) "History and Christianity: Towards the right

Questions" at the centenary celebration cum seminar on *Verrier Elwin and the Tribes of Northeast India* held at the Department of Anthropology, NEHU, Shillong during 29-31 August 2002; (5) "Ignoring linkages between Indigenous Knowledge Systems and Indigenous Technical Knowledge is an Impediment for Development" at the IGNSA seminar at Guwahati on 10 December 2002; (6) "Indigenous Knowledge Systems, the Modern State and its Societies" at the Indo-Canadian seminar held at the University of Pune on 23 February 2003; (7) "Narratives as resource for Social Sciences: A Naga Example" at the Golden Jubilee Seminar of the Anthropological Survey of India in Shillong on 30, April 2003.

Ms. Banrida Langstieh, Lecturer at the Department, delivered a lecture on "Ethnic origin and population structure of Lyngngam" at the Anthropological Survey of India, North-Eastern Regional Centre, Shillong, on 26.11.2003.

Visiting Scholars:

Besides many renowned scholars who visited the department in connection with the centenary celebration cum seminar on "Verrier Elwin and the Tribes of Northeast India" held during August 29-31, 2003, some of the scholars who visited the department during the year under report are: Professor Ranjan Gupta

from the Indian Statistical Institute, Kolkata; Dr Philippe Ramirez from the National Centre for Scientific Research in Paris, France; Dr. Stuart Blackburn from the School of Oriental and African Studies, London University, United Kingdom; Dr. Benqt Karlsson from the Department of Anthropology, Uppsala University, Sweden; and Dr. Richard Blurton from the British Museum, London, United Kingdom.

Publications:

Khongsdier, R. 2002. Body mass index and morbidity in adult males of the War Khasi in Northeast India. *European Journal of Clinical Nutrition*, 56: 484-489.

_____. 2002. Demographic and health traits in relation to maternal education in Northeast India. *The NEHU Journal*, 1(1): 109-135.

Marak, Q. 2002. Child rearing Practices among the Garo of Assam in Matrilineal Context. *Eastern Anthropologist*, 55: 81-87.

_____. 2002. Garo subsistence diet: A modern day perspective. *Journal of North East India Council of Social Science Research*, 26: 35-43.

Pakyntein, V. 2002. Cultural dimension of Water in Khasi society. In Desmond Kharmawphlang (Ed.), *Ka Mer, Ka Sdad* (Conference,

Confluence). Bhopal: Indira Gandhi Rastriya Manav Sangrahalaya.

Subba, T. B. 2002. Following the Trail: Interpretation of Texts in Anthropology. In K.C.Baral (Ed.), *Interpretation of Texts: Text, Meaning and Interpretation*. Delhi: Pencraft International, 169-78.

✓ _____ 2002. Nepal and the Indian Nepalis. In Kanak Kani Dixit and Shastri Ramachandaran (Eds.), *State of Nepal*. Kathmandu: Himal Books, 119-136.

_____. 2003. The Nepalis in Northeast India: Political Aspirations and Ethnicity. In A. C. Sinha and T. B. Subba (Eds.), *The Nepalis in Northeast India: A Community in Search of Indian Identity*. New Delhi: Indus Publishing House, 54-66.

_____. 2003. Being a Nepali in Northeast India: Predicament of a 'Privileged Nation'. In A. C. Sinha and T. B. Subba (Eds.), *The Nepalis in Northeast India: A Community in Search of Indian Identity*. New Delhi: Indus Publishing House, 197-207.

_____. 2003. Epilogue. In A. C. Sinha and T. B. Subba (Eds.), *The Nepalis in Northeast India: A Community in Search of Indian Identity*. New Delhi: Indus Publishing House, 378-81.

Zehol, L (Ed.). 2001. *Research Priorities in Manipur*. New Delhi: Regency Publications.

Fieldwork:

Ms. V. Pakyntein took the IVth semester students to Mawdiangdiang-Mawkasiang-Umroh, East Khasi Hills District of Meghalaya during 9th to 29th January 2003 for their fieldwork training.

Research Programmes/projects:

Continued:

The Indian Face: Race, Nationality and Identity in Twentieth Century India by Professor T.B. Subba.

Academic Collaboration:

A memorandum of understanding between the department and the National Centre for Scientific Research in Paris has been prepared and sent to the government of India for necessary clearance.

Other Activities:

Ms. Q. Marak, Lecturer at the department, attended the refresher course in Anthropology conducted by Dibrugarh University, Dibrugarh from 3rd to 24th March, 2003.

Professor T. B. Subba served as Chairman, Editorial Board of the Annual Report & the Editor, *The NEHU Journal*. He also organized several Friday Extension lectures during the year under report.

During the year three lecturers, viz., Ms. Banrida Langstieh, Ms. Queenbala Marak, and Dr. John Well Dkhar joined the department. Professor T. B. Subba relinquished his post as Dean, School of Human and Environmental Sciences, and assumed the post of Head, Department of Anthropology.

DEPARTMENT OF GEOGRAPHY Shillong

Brief Statement of Academic Activities:

During the year under report a lot of academic activities took place. The department organized several workshops, conferences and meets sponsored by the department's own SAP fund or by other agencies like the UNESCO. The department also revised its undergraduate as well as post-

graduate syllabi, which were approved by the university's appropriate academic bodies.

Degrees Awarded:**(a) M.Phil:**

i) Curvy Linda Nongpluh, Place Names in the Khasi Hills: A Study in Historical Geography. Supervisor: Dr. Ali Ahmad.

Head : B.S. Mipun.

Faculty :

Professors : R.K.Rai, M.Sc./Ph.D (Sagar)
 R.Gopalakrishnan, M.A. (Madras), Ph.D (JNU)
 A.C.Mohapatra, M.A.(JNU), Ph.D (NEHU)
 Surendra Singh, M.A./Ph.D (Meerut)
 B.S.Mipun, M.A. (JNU), Ph.D (NEHU)
 D.K.Nayak, M.A./Ph.D (JNU)

Readers : Ali Ahmad, M.A. (Aligarh), Ph.D (JNU)
 Z.H.Qureshi, M.A./Ph.D (Sukhadia Univ.)

Lecturers : P.G.Momin, M.A.(JNU),M.Phil (NEHU)
 H.J.Syiemlieh, M.A./Ph.D(NEHU)
 L. Cajee, M.A./M.Phil (NEHU)

Student Intake:

A) Enrolment Capacity
 M.A./M.Sc : 35
 M.Phil : 20
 Ph.D : 10

B) Actual Admission during 2001-2002:

	SC	ST	Gen	Male	Female	Total
MA/M.Sc.		31	1	18	14	32
M.Phil		15	4	15	4	19
Ph.D		3	6	3	6	9

C) Number of students qualifying NET: Seven, including one JRF.

(b) Ph.D:

i) B. Vanlalhlana, Population Redistribution and Urbanisation in Mizoram. Supervisor: Prof. D.K. Nayak.

ii) B. Panda, Levels of Distribution in Literacy and Education in North Eastern Region: A Geographical Analysis. Supervisor: Prof. A.C. Mohapatra.

iii) L. Cajee, Phytogeomorphology in Khri Basin: Meghalaya. Supervisor: Prof. R.K. Rai.

Funds Received from Agencies other than NEHU:

DST-FIST, New Delhi: Rs. 32 lakhs.(2003)

Courses Conducted:

a) M.A./M.Sc: I Semester:

Geomorphology, Climatology & Hydrology, Systematic & Regional Geography of India, and Introduction to Mathematical & Statistical Techniques, Cartographic Technique.

II Semester: Elements and Principles of Ecology, History and Philosophy of Geography, Principles and Techniques of Economic Geography, Fundamentals of Social and Cultural Geography, Settlement and Population Geography, Remote Sensing and Surveying.

III Semester: Environmental Science and Geography, Soil Geography, Social Geography of India, Urban Geography, Regional Structure of the North East, Remote Sensing and GIS.

IV Semester: Bio-geography, Applied Climatology, Hydrology, Tropical Geomorphology, Advance Geomorphology, Geography of Tribes of India, Political Geography, Regional Planning, Integrated Area Planning, Agricultural Geography, Project.

b) M.Phil:

Methodology and Research Methodology in Geography, Advanced Agricultural Geography, Evolution of Landforms, Population & Development, Drainage Basin and Water Recourses Geography of Settlements and its Application in Integrated Area Development, Historical Geography of

India with Special Reference to North-East Region, Political Factors in Indian Regional Structure.

Seminars/Conferences:

Prof R.K.Rai attended the XVth Indian Institute of Geo-morphologists Conference during 20-22 January 2003 at Rajasthan University Jaipur and presented a paper titled "Slope Instability and Landslide Occurrences in Meghalaya" and chaired one session in the 15th IGI conference; attended the UNESCO regional workshop on *Integrated Approaches to Mountain Natural Resource Management* as a resource person during 11 to 15 November 2002, attended a symposium on *Ecorestoration of Mining Affected Area* organized by Centre for Environmental Studies, NEHU, Shillong from 15 to 16 March, 2003 and presented a paper on "Mining and Environmental Implications in Meghalaya" attended the 24th IIG Conference held in the Department of Geography, NEHU, Shillong, from 27 to 29 March, 2003 and presented a paper on "Tourism potential in Meghalaya" and chaired one session of the conference.

Prof. A.C.Mohapatra attended the seminar on *Globalisation, Employment, Migration and Trade: Relevance for the North-Eastern Region of India*, organized by Department of Economics, NEHU,

Shillong, November 22-23, 2002 and presented a paper on "Location, Economic Growth and Trade: Revisiting Economic Geography of South Asia", attended the seminar on *Shillong, 2001*, organised by the NEICSSR, Shillong, November 10-11, 2002 and presented a paper on "GIS Methodology in Land Use Planning of Shillong".

Prof. Surendra Singh attended the 2nd international conference on *Sustainable Agriculture, Water Resource Development and Earth Care Policies*, New Delhi, 18-20 Dec. 2002 and presented a paper on "Regional Patterns of Agricultural Development in the Assam Plains"; acted as the local organizing Secretary of the UNESCO sponsored regional workshop on *Integrated Approaches to Mountain Natural Resource Management*, NEHU, Shillong during 11-16 November 2002; was the President of the 24th Meet Institute of Indian Geographers, NEHU, Shillong 27-29, March 2003, and the Convener of the International Conference on Mountain Environment and Natural Hazards Management, March 27-29, 2003, NEHU, Shillong; Organising Secretary, One Day workshop on *Runoff & Soil Loss in Cherrapunjee Area* on the 14th February, 2003 under Indo-Polish Collaborative Research.

Prof. B.S.Mipun attended the national seminar on *Globalisation*,

Employment, Migration and Trade: Relevance for the North Eastern Region of India, organized by Department of Economics, NEHU, Shillong, November 22-23, 2002, and presented a paper on "Border Trade in Mizoram: An Economic Spatial Analysis"; attended the 2002 *IUSSP Regional Population Conference on Southeast Asia's Population in the Changing Asian Context* organized by the IUSSP, France, June 10-13, 2002 at Siam City Hotel, Bangkok, Thailand and presented a poster on "Forced Migration, Social Conflict and Adjustment among Mizos in Mizoram, India"; attended the 8th international conference of the *International Association for the Study of Forced Migration (IASFM)*, Chiang Mai, Thailand, January 5-9, 2003 and presented a paper on "Forced Migration and its Impact on Socio-economic Development in Mizoram, India"; attended the *XXIVth Institute of Indian Geographers Meet* and international conference on *Mountain Environment and Natural Hazards Management*, March 27-29, 2003 and presented papers on a) "Village Grouping in Mizoram: A Geographical Analysis" and b) "A Study of Landslides in North East India". Also acted as the Convener of a three day workshop on *Research Methodology and GIS Application in Scientific Research* from 28 to 30th November 2002 under UGC- SAP.

Prof. D.K.Nayak attended the 8th Conference of *International Association for the Study of Forced Migration on Forced Migration and Global Processes*, Chiang Mai, Thailand, 5-9 January, 2003 and presented a paper on "Ethnic Conflict and Forced Migration in the areas of Bodo Concentration in Assam, India"; attended the *XXIVth Institute of Indian Geographers' Meet* and international conference on *Mountain Environment and Natural Hazards Management*, North-Eastern Hill University, Shillong, 27-29 March, 2003 and presented paper(s) on "Ethnicity Territory and State: The Quest For Bodoland, Assam, India" and "A Few Aspects of Tropical Cyclones"; attended the 22nd General Conference, North-East India Geographical Society, Jagiroad College, Jagiroad, Assam, April 27-28, 2002 and presented a paper on "Redistribution of Population in the Areas of Bodo Concentration in Assam, India"; attended the seminar on *Role and Function of the State Land Use Board for Conservation, Management and Development of Land Resources in Meghalaya* at the Directorate of Agriculture, Government of Meghalaya, 1-2 August, 2002 and presented a paper on "Land Resources: Present Status and Trends"; attended the workshop on *Community, Conflicts and Crisis of Democratic Governance: An Analysis of the Societies of North-East*

India (Focus on Meghalaya) organised by CSDS LOKNITI in collaboration with the London School of Economics' Crisis States Programmes, North-Eastern Hill University, Shillong, Sep. 18-19, 2002 and presented a paper on "A Note on Demographic Profile of Meghalaya and Literacy and Education in Meghalaya" Presented a paper on "Thesis Writing: Referencing and other Aspects" at the workshop on *Research Methodology and GIS Application in Scientific Research* from 28 to 30th November 2002, under UGC SAP, North-Eastern Hill University. Prof. D.K.Nayak also acted as the Organising Secretary, International Conference on *Mountain Environment and Natural Hazards Management*, North-Eastern Hill University, Shillong, 27-29 March 2003.

Dr. Z.H.Qureshi attended the seminar on *Mother Earth*, organised by the North-East India Council for Social Science Research, Shillong on 5th June 2002 and presented a paper on "The Dying Wetlands of Assam: A Case Study of Silsako and Numalijalah Wetlands and Spatial Variation of Land Productivity in Asia"; attended the *XXIII NEIHA Annual Conference*, organised by Agartala University, Agartala, 2002 and presented a paper on "Origin, growth and nomenclature of localities of Shillong"; attended the international conference on *Mountain Environment and Natural Hazards Management* organised by the Dept. of Geography,

NEHU, Shillong from 27 to 29 March, 2003 and presented papers on "Natural hazards management in Kameng Himalaya"; "Climate change and mountain environment"; "Decline and Degradation of Silsako Wetlands of Guwahati city" and "Conservation of Mountain Environment".

Dr. H.J. Syiemlieh attended the seminar on *Role and Function of the State Land Use Board for Conservation, Management and Development of Land Resources in Meghalaya*, Directorate of Agriculture, Government of Meghalaya, 1-2 August 2002 and presented a paper on "Land Degradation in Meghalaya". Attended the International Conference on *Mountain Environment and Natural Hazards Management*, North-Eastern Hill University, Shillong, 27-29 March, 2003 and presented a paper on "Rainfall Variability in North East India".

Dr. L. Cajee attended the International Conference on *Mountain Environment and Natural Hazards Management* organized by Department of Geography, NEHU, Shillong from 27 to 29 March 2003 and presented a paper on "Role of Physical Attributes in the Morphological Characteristics of dominant from Species: A case Study of Khri Basin, Meghalaya". Attended the international conference on *Environment Locational Decision and Regional Planning*, Shillong 5-9 March 2002 and presented a paper on "Geo-

Environmental Appraisal of Greater Shillong".

Visiting Professor/Fellow:

Prof. D.K.Singh, Retd. Professor, Utkal University, Bhubaneswar, June 2002.

Prof. K.R.Dikshit, Retd. Professor, University of Poona, Pune, March 2003.

Dr. Mrs. Juta Dikshit, Retd. Professor, University of Poona, Pune, March 2003.

Publications:

Daimary, T.C. and S. Singh. 2002. Tea Production in the Economic Development of Assam. In S.B. Singh (Ed.) *Environment, Energy and Development*. Varanasi: The Nat. Geog. Soc. of India, 117-130.

Gopalakrishnan, R. 2002. Political Instability and Development in Nagaland. In C.J.Thomas and G. Das (Eds). *Dimensions of Development in Nagaland*. Delhi: Regency, 36-58.

Gopalakrishnan, R., & K. Jhunjhuwala and Manashi. 2002. Population Displacement and Development Dilemma: A Reflection on Linguistic Politics on the North East. In C.J. Thomas (Ed.) *Dimensions of Displacement Persons in the North East*. Delhi: Regency, 50-72.

Hussain. Z. 2002. *Geoecology of Kameng Himalaya*. New Delhi: Regency Publications.

_____. 2002. Tree cultivation: a need of the hour in forest management. In B. Datta Ray and K. Alam (Eds.) *Forest Resources of North East India*. New Delhi: Omsons, 133-140.

Mipun, B.S. & R. Ramthara. 2003. Forced Migration, Social Conflict and Adjustment among Mizos in Mizoram, India. *The NEHU Journal*, 1 (1): 183-192.

Mohapatra, A.C. 2002. Deforestation and Soil Loss in Umran Watershed of Meghalaya In B.Datta Ray and K.Alam (Eds.) *Forest Resources in North East India*. New Delhi: Omsons, 177-187.

_____. 2002. Development and Underdevelopment of the North East Region: Search for a Paradigm. In B.J.Deb (Eds.) *Development Priorities in North East India*. New Delhi: Concept, 23-30.

_____ and B.Panda. 2003. Disparity in Literacy in North-eastern Region of India (1981-2001) In Anup Saikia (Ed.) *Population, Environment and the Challenge of Development*. New Delhi: Akansha Publishing House, 378-414.

_____ 2003. Book Review: *Urbanization in India: Challenges and Opportunities*, Regency Publications, New Delhi, 1998 (NERC-ICSSR, Shillong, Lecture Series) by R.P. Misra, in *The NEHU Journal*, 196-199.

Nayak, D.K. 2002. Gender, Caste and Discrimination: A Geographical Perspective on the Pattern of Literacy among the Scheduled Caste Women of Orissa. *Ambedkar Journal of Social Development and Justice*, 36-53.

Nayak, D.K. & Almond D. Syiem. 2002. A Geographical Perspective on the Pattern of Literacy in Meghalaya, India. *Journal of Geography*, 3: 167-182

Rai, R.K. & S. Bhattacharya. 2002. Geomorphic study of alluvial fans of North Bengal. In S.K. Tandon and B. Thakur (Eds.) *Recent advances in Geomorphology, quaternary Geology and Environmental Geo-Sciences: Indian case Studies*. New Delhi: Manisha Publication.

Singh, Surendra. 2000. Modelling, Structure and Functions of Agricultural Yield Potential. *Transactions*, 1-5.

_____ and H.J. Syiemlieh. 2002. Rainfall, Runoff and Soil Erosion in Cherrapunjee Area-Preliminary Observations. *Geographia Polonica*, 75 (1): 43-65.

_____. 2002. Optimising Spatial Structure of Agricultural Production. *Function Geographical Analysis*, 34 (3): 224-229.

Study Tour /Field Trips of Students:

1) All India Study Tour of IInd semester M.A./M.Sc students to

Rajasthan during February 8th to 28th, 2003 accompanied by Dr. Z.H. Qureshi.

2) Field Study of III semester MA/M.Sc students to Majuli, Assam during February 21st to 8th 2003, accompanied by Prof. B.S.Mipun and Prof. D.K.Nayak.

Research Projects:

Ongoing:

1) Indo-Polish Collaboration with Polish academy of Sciences, Krakow, Poland on Assessment of Soil Loss & Runoff in extremely Humid areas Cherrapunjee. Principal Investigator: Prof. S. Singh.

2) Community Forest Management in Khasi Hills. Principal Investigator: Dr. H.J.Syiemlieh.

Completed:

1) Hydrological Assessment for Operational Watershed Management in Cherapunjee, Mawsynram Areas. Principal Investigator: R.K. Rai.

Academic Collaborations:

Indo-Polish Scientists Exchange Programme with Polish Academy of Sciences, Warsawa on *Soil Loss and Runoff in the Extremely Humid Areas of the World*. Coordinator: Prof. Surendra Singh.

Other Activities:

Professor R. K. Rai retired from

the department from September 2002 and is re-employed for a period of three years.

Prof. Surendra Singh is appointed as Dean, School of Human and Environmental Sciences with effect from February 2003 and as Coordinator UGC Special Assistance Programme, Department of Geography with effect from April 2002.

Prof. B.S.Mipun is appointed as the Head, Dept. of Geography with effect from February 2003.

Guest Lectures:

Prof. K.R.Dikshit, Retired Prof, Poona University, Pune delivered special lectures on Development of Geomorphology in India, Slopes, Evolution of Settlements, Hydrological Cycle, and Drainage Basin Hydrology during March, 2003.

Prof (Mrs) J.D.Jutta, Poona University, Pune delivered special lectures on Development of Geomorphology in India, Topical Geomorphology and Hydrology and Water Balance during March 2003.

Prof. D.K. Singh, Retired Professor, Department of Geography, Utkal University, Bhubaneswar delivered special lectures on Application of Quantitative Techniques in Geography in June 2002.

Prof. R.K. Rai was invited by the Academic Staff College, Rani Durgavati University, Jabalpur as a

resource person and delivered four lectures on 11-12 February, 2003.

Other Activities:

A.C.Mohapatra (on Sabbatical Leave) was a Visiting Fellow at the Centre for Study in Regional Development, JNU, New Delhi, from February 25 to March 18, 2002 at the Centre for Advanced Studies, Department of Geography, Punjab University, Chandigarh, during March 19-20, 2002. Delivered two lectures—Paleo-hydrography of NW India and Indicators of Human Development on NE India at Resources, Gender and Rural Development Program, School of Environment, Resource and Development, Asian Institute of Technology, Bangkok, Thailand, November, 2002. Prof. Mohapatra was also invited as resource person for UGC refresher course, Department of Geography, Arunachal University, Doimukh in June 2002 and delivered 5 lectures on Climate change, National Human Development Report, Measuring regional disparity, Regional Disparity in India, and Human Development in NE India. He was also invited as a resource person for UGC refresher course, Department of Geography, Manipur University, Imphal during February, 2003 and delivered 5 lectures on National Human Development Report—2001, Measuring regional disparity, Regional Disparity in

India, and Climate change. He presented a seminar at Resource, Gender and Rural Development Program, School of Environment Resource and Development (SERD), Asian Institute of Technology, Bangkok, Thailand on November 19, 2002 on “Methodology of National Human Development Report of India, 2001”.

Prof. Surendra Singh visited the Department of Geomorphology and Hydrology, Polish Academy of Sciences, Krakow (Poland) under Indo-Polish Joint Research Programme (KBN-DST) during August, 2002.

Prof. B.S. Mipun attended the one week long training on ArcGIS 8.1 software at NIIT (ESRI India), Kolkata from July 22 to 27, 2002. Delivered lectures on Digital Image Processing and its use in geographic study, and Remote Sensing Application in Geography in the refresher course at Manipur University, February 7-8, 2003, GIS application in geographic study, Digital Image Processing and its use in Geography, Application of Remote Sensing & GIS in Geography at Gauhati University, February 5th 2003, Application of Remote Sensing & GIS in Life Sciences at Dibrugarh University, February 22, 2003.

D.K.Nayak attended one week’s training on ArcGIS 8.1 software at NIIT (ESRI India), Kolkata from July 22 to 27, 2002. Delivered two lectures on Bio-Diversity and Population and

Environment in the UGC refresher course held in the Department of Khasi, NEHU, Shillong during March, 2002.

Z.H.Qureshi attended a DST sponsored orientation course on Application of GIS in Landslide Hazards Mitigation with Special Reference to NE Region, organised by the Centre for Development of Advanced Computing, Pune, in association with the Wadia

Institute of Himalayan Geology, Arunachal Unit, Itanagar from 21 to 31 October, 2002.

H.J.Syemlieh visited the Department of Geomorphology & Hydrology, Institute of Geography, PAS, Warsaw & Krakow, Poland during September, 2002 under the Indo-Polish Collaboration.

DEPARTMENT OF RURAL DEVELOPMENT AND AGRICULTURAL PRODUCTION

Tura

The department was started in July 2002. It developed a small farm for demonstration and instruction purpose. The farm irrigation tank-cum-fishery pond was constructed by erecting a cement concrete dam.

Thrust Area of Research:

The department is unique in its name and academic agenda. Its endeavour is to produce trained manpower that will be capable of starting their own entrepreneurship in the field of agriculture and allied sector.

Courses Conducted:

General aspects of Rural Development, Principles of agriculture, Soil conservation and watershed management, Diseases of field crops,

Statistical Methods.

Seminars/Conferences:

Attended:

S.K. Nanda participated in the seminar on *Democracy, Pluralism, and Conflict* held at NEHU, Shillong on 7-9 May 2002 and presented a paper entitled "Democracy, Cultural Identity and Nationalism in Multi-national Context".

S.K. Nanda participated in the seminar on *Rethinking Sociology: The Indian Context* at JNU, New Delhi on 21-23 October 2002 and presented a paper entitled "Nationalism and Regionalism: A case study of Orissa".

Publications:

Saha, L.R. 2002. *Handbook of*

Head	L.R. Saha				
Faculty					
Readers	L.R. Saha, Ph.D (R.A.U Pusa) B. Gopichand, Ph.D (B.C.K.V.V. Mohanpur)				
Lecturers	S.K. Nanda, Ph.D (JNU) J.P. Jaiswal, M.Sc (Alld.)				
Student Intake:	a) Enrolment capacity: 10				
	b) Actual admission:	SC/ST	Genl.	Male/Female	Total
		7	3	6 4	10

Plant Diseases. Ludhiana: Kalyani Publishers.

Study Tours / Field Trips:

Study tour from 27.1.03 to

9.2.03 was arranged for the students to visit agriculture, animal science and rural development related institutes in Hyderabad and Kolkata.

CENTRE FOR ENVIRONMENTAL STUDIES Shillong

During the year under report the research activities of the centre attained new heights as many major research projects with more than Rs.10 lakh annual outlay were initiated. This has enabled the centre to establish a reasonably good research laboratory for pollution monitoring and computing facility. The centre received research funding from the Ford Foundation, New Delhi through the Indian Institute of Science (Bangalore), G.B. Pant Institute of Himalayan Environment and Development (Almora), Uranium

Corporation of India, (Jaduguda) and Department of Forest, Environment and Ecology & Wildlife, Government of Nagaland (Kohima). The expertise of the faculty of the centre was utilized at the state, regional and national levels by way of their involvement in various research and development programmes. The Centre has emerged as an active centre for research in human-environment interface areas of environmental science.

This year the centre started Ph.D programme in Environmental

Science and admitted three Ph.D scholars. They are pursuing research in different disciplines of Environmental Science on problems of regional relevance. The teaching and research programmes of the centre are becoming increasingly popular which is evident from the number of applications received for admission in the courses offered by the centre.

Thrust Areas of Research:

Biodiversity Conservation, Bio-monitoring, Forest Management, and Bio-resource Management.

Head	B.K. Tiwari				
Faculty					
Professor	B.K. Tiwari, M.Sc.(Gorak.), Ph.D (NEHU)				
Reader	O.P. Singh, M.Sc./Ph.D (BHU)				
Student Intake:	a) Enrolment capacity: 10				
	b) Actual admission:	SC/ST	Genl.	Male/Female	Total
		8	2	2 8	10

Degrees Awarded:

Certificate (ST: 8, Gen: 2)
(Male: 2, Female: 8) (Total: 10)

Funds received from agencies other than NEHU:

(a) Ford Foundation, New Delhi through the Indian Institute of Science, Bangalore: Rs. 3,00,000/-.

(b) Department of Forest, Environment and Ecology & Wildlife, Government of Nagaland, Kohima: Rs.

87,062/-.

(c) G.B. Pant Institute of Himalayan Environment and Development, Almora : Rs. 1,58,000/-.

(d) Uranium Corporation of India Ltd., Jaduguda: Rs. 5,00,000/-.

(e) North Eastern Council, Shillong: Rs. 50,000/-.

(f) Indian National Science Academy, New Delhi: Rs. 10,000/-.

Courses Conducted:

Fundamentals of Environmental Science and Ecological Principles; Environmental Pollution and Envi-

ronmental Impact Assessment; Environmental Conservation and Environmental Problems of North-East India.

Seminars/Conferences:

Organized:

1. International workshop on *Shifting Cultivation in Bangladesh, Bhutan, Myanmar, Nepal & North-East India* on 22-24 April, 2002 at Shillong. (Organizing Secretary: Prof. B.K.

Tiwari).

2. Regional workshop on *Innovation in Shifting Cultivation* on 31 Jan-1 Feb., 2003 at Shillong (Organizing Secretary: Prof. B.K. Tiwari).

3. National Symposium on *Ecorestoration of Mining Affected Areas* on 15-16 March, 2003 at Shillong. (Organizing Secretary: Dr. O.P. Singh).

Attended:

Prof. B.K. Tiwari attended the regional workshop on *Wise Practices and Experiential Learning in the Conservation and Management of Himalayan Medicinal Plants* organized by IDRC, Canada, WWF-UK, UNESCO-WEF-Nepal etc. held at Kathmandu on 15-20 December 2002. He presented a paper entitled "Biodiversity Enriching and Livelihood Enhancing Practice of Forest Management of War Khasis of Meghalaya, India". In the capacity of member of Technical Committee, he helped the organizers on technical matters and monitored the progress of workshop. He chaired a session in the seminar on the *Farmer's Rights and Mountain Communities* held on April 9-10, 2002 in Shillong organized by CUTS, Kolkata. He participated in the South Asia Regional workshop on *Sacred Values and conservation* organized by The Mountain Institute,

USA and IDRC – Canada held at India International Centre, New Delhi on January 8, 2003 and presented a paper on "Conservation of Sacred Landscapes of Sikkim Himalayas". Prof. Tiwari participated in the national workshop on *Joint Forest Management* held at the Indian Institute of Science, Bangalore on 12-16 September, 2002 and presented a paper on Macro-Evaluation of Joint Forest Management in Tripura. He attended the UNESCO workshop on *Integrated Approaches to Mountain Natural Resource Management* held at NEHU, Shillong on 11-16 November, 2002 and presented a paper on "Farmers Innovations in Shifting Cultivation Practices in Meghalaya". He also attended the final workshop on *National Biodiversity Strategy and Action Plan* on December 20-23, 2002 held at INSA, New Delhi. He participated in the regional seminar on the *Role of Biodiversity and Environmental Strategies in North East India for Sustainable Development* held on November 27-28, 2002 and presented a theme paper entitled "Biodiversity Conservation and Sustainable Development". In the national symposium on *Ecorestoration of Mining Affected Areas* held on March 15-16, 2003 at Shillong and presented a paper entitled "Key Mining Policies and Laws governing the mining industry in India". He also

chaired a session in the seminar on Reaching Out in India organized by CUTS; Kolkata held at Guwahati on 30th September 2002 and co-chaired a session on Ecology Biodiversity and Forest Management at the international conference on *Mountain Environment and Natural Hazards Management* on 27-29 March, 2003 at Shillong.

Dr. O.P. Singh participated in the UNESCO workshop on *Integrated Approaches to Mountain Natural Resource management* on 11-16 Nov., 2002 at Shillong. He attended the final national workshop on *National Biodiversity Strategy and Action Plan (NBSAP) Project* on 20-23 Dec., 2002 in INSA, New Delhi and presented the State level Biodiversity Strategy and Action Plan of Nagaland. He also presented a paper entitled "Strategies for Conservation of Biodiversity in North-East India" in the regional seminar on the *Role of Biodiversity and Environmental Strategies in North East India for Sustainable Development* on 27-28 Nov., 2002 at Shillong. He organized and participated in national symposium on *Ecorestoration of Mining Affected Areas* on 15-16 March, 2003 at Shillong. A paper entitled "Acid Mines Drainage Pollution of Rivers in Coal Mining Areas of Jaintia Hills District, Meghalaya and its Impact on the Macroinvertebrate fauna" was also

presented.

Publications:

Das Gupta, S., B.K. Tiwari and R.S. Tripathi. 2002. Coal mining in Jaintia Hills, Meghalaya : An Ecological Perspective. In P.M. Passah and S. Sarma (Eds.) *Jaintia Hills, A Meghalaya Tribe Its Environment, Land and People*. New Delhi: Reliance Publishing House, 21-128.

Singh, O.P. 2002. Impact of Environmental Contamination on Biodiversity. In Z. Hussain (Ed.) *Environmental Issues of North-east India*. New Delhi: Regency Publications, 85-92.

Tiwari, B.K. 2002. Role of Autonomous District Councils in Conservation and Management of Forest in Meghalaya. In B. Dutta Ray and K. Alam (Eds.) *Forest Resources in North East India*. New Delhi: Omsons Publications, 188-198.

Study Tours / Field Trips:

(a) Prof. B.K. Tiwari and Dr. O.P. Singh organized and conducted field trip for students of certificate course at Mawiong Solid Waste Disposal Plant.

(b) Prof. B.K. Tiwari and Dr. O.P. Singh organized a conducted study tour for students of certificate course at Umiam River, Umroi to study aquatic ecosystem.

Research Project:

Ongoing:

1. Study on Ecological and Economic Assessment of Joint Forest Management in Tripura. Principal Investigator: Prof. B.K. Tiwari. Sponsored by the Indian Institute of Science, Bangalore.

2. Biodiversity Strategy and Action Plan of Nagaland, Principal Investigator: Dr. O.P. Singh sponsored by the Department of Forest, Environment and Ecology & Wildlife, Government of Nagaland, Kohima.

3. Assessment of water quality of river Umkhrah, Shillong. Principal Investigator: Prof. B.K. Tiwari sponsored by the Meghalaya State Pollution Control Board, Shillong

4. Regional Centre, National Afforestation and Ecodevelopment Board, Ministry of Environment and Forest, Government of India, New Delhi. (A collaborative long term programme with Department of Botany, NEHU).

New:

1. Environmental Studies in West Khasi Hills, Meghalaya. Principal Investigator: Prof. B.K. Tiwari, sponsored by the Uranium Corporation of India Ltd., Jaduguda. Amount Rs. 10,00,000/-.

2. Biomonitoring of Water Quality in Coal mining areas of Meghalaya. Principal Investigator: Dr. O.P. Singh, sponsored by the G.B. Pant Institute of Himalayan Environment and Development, Almora. Amount Rs.4,49,200/-.

Other Activities:

Prof. Tiwari became honorary member of the Shillong Development Action Committee (SDAC) constituted by the government of Meghalaya for new initiatives for development of Shillong city.

Dr. O.P. Singh and Prof. B.K. Tiwari prepared the state level Biodiversity Strategy and Action Plan of Nagaland and submitted the same to the National Biodiversity Strategy and Action Plan, New Delhi.

IV

School of Life Sciences

The School of Life Sciences consists of three departments namely, Biochemistry, Botany and Zoology. This school is an active centre of post-graduate teaching and research in frontier areas of modern biology. The major thrust areas of research include Immunology, Endocrinology, Reproductive Physiology, Limnology, Genetics, Protein Chemistry & Enzymology, Medical Biochemistry, Radiation Biology, Carcinogenesis, Nitrogen Fixation, Ecology of Forest Ecosystem, Biodiversity, Microbial genetics, Plant Physiology and Biotechnology.

The departments under the school have highly qualified members of faculty drawn from all over India. They are actively involved in teaching and research. Several members of the faculty have international standing and collaborative research programmes with international research groups.

They have won wide acclaim in their respective areas of research and have received several awards. The departments of Botany and Zoology are currently being supported by UGC under the Special Assistance Programme (SAP) and COSIST. All the three departments of the school have also been given support by DST under the FIST (Fund for Infrastructure in Science & Technology) programme. In addition, the departments have received substantial research grants from various national and international funding agencies. With the partial completion of construction of the extension buildings for the three departments during the year, they will be able to better their teaching and research activities in future.

The graduates from this school are occupying responsible position in universities and research institutes within the country and abroad.

DEPARTMENT OF BOTANY

Thrust Area of Research Including the Academic Agenda of the Department:

The rich biodiversity of the north-eastern region of India can generate economic value in terms of extractable plant products, compounds, genes and species. In view of increasing human activities of various types in the region, there is a need for conservation of ecosystems and plant genetic resources for utilization and economic well-being of the people. To achieve these goals, the department is emphasizing on research in following areas: ecological analysis of forest ecosystems of north-east India including plant biodiversity inventory and conservation; ecology of agro-forestry ecosystem; microbial diversity and its conservation; survey of plant genetic resources of the region, their taxonomic characterization and establishment of physical and electronic herbaria; conservation of plant diversity using both *in vitro* and *in vivo* technologies; establishment of genes bank of the region; cryo-preservation of genetic resources of the region; molecular characterization of rare, endangered and endemic plants of the region; documentation of plant genetic resources using molecular markers; identification and isolation of genes coding desirable

traits and their use in plant improvement programmes, molecular phylogeny and ecology, marker assisted plant improvement with special reference to actinorhizal symbiosis, development of molecular markers for native and transgenic bioinoculants with special reference to IPR issues.

Academic Activities:

Intake capacity was increased from 20 to 23 students at M.Sc. level. A total of 16 Ph.D students were admitted during the year. Externally funded research projects received a grant of Rs. 74.37 lakhs. Distinguished visitors delivered lectures to the faculty and students from time to time. Three meetings of national importance were organized. Establishment of on-campus botanic garden at the university was completed. The Bioinformatics Centre became functional. Two M. Sc. laboratories, one library room and one herbarium room were newly constructed with support from DSA programme of the UGC. The department organised a meeting of the Advisory Committee of the UGC- DSA (Phase II) and the Advisory Committee of the UGC-COSIST Programme. Educational excursion for post graduate students was undertaken during February 2003.

Head	:	Arvind K. Misra
Faculty	:	
Professors	:	R. S. Tripathi, M.Sc. (Agra), Ph.D (BHU) P. Tandon, M.Sc. (L'now), Ph.D (Jodhpur) H. N. Pandey, M.Sc./Ph.D (BHU) A. K. Misra, M.Sc./Ph.D (Meerut)
Readers	:	R. C. Laloo, M.Sc./Ph.D (Gau.) N. K. Chrungoo, M.Sc./Ph.D (Kashmir) (Ms.) M. S. Dkhar, M.Sc./Ph.D (NEHU) Y. Kumar, M.Sc./Ph.D (NEHU) S. K. Barik, M.Sc. (Behrampur), Ph.D (NEHU) Uma Shankar, M.Sc. (Agra), Ph.D (NEHU)
Lecturers	:	L. Kharluki, M.Sc. (NEHU), Ph.D (IARI) N. Venugopal, M.Sc./Ph.D (Madr.) H. Kayang, M.Sc./Ph. D (NEHU) (Ms.) S. Kumaria, M.Sc./Ph.D (NEHU)

Student Intake:

- (a) Enrolment capacity: M. Sc.: 23, Ph. D.: variable
 (b) Actual admission: SC/ST Genl. Male/Female Total

M.Sc. :	3	17	3	11	12	23
Ph.D. :	-	8	8	12	4	16

 (c) Number of students qualifying NET: 5 students

Degrees Awarded:

Ph. D.

1. Mr. Putul Bhuyan, "Ecological studies on seed production, dispersal, germination and seedling fitness of rudraksh (*Elaeocarpus ganitrus* Roxb.)". Supervisor: Prof. R. S. Tripathi, Jt. Suprevisor: Dr. M. L. Khan.

2. Mr. Sanjiban Goswami, "Reproductive Biology of *Schima Wallichii*(DC) Korth and *Schima*

Khasiana (Dyer) Bloemb". Supervisor: Prof. H. N. Pandey.

3. Mr. Padma Raj Gajurel, "Experimental taxonomic studies on the *Piper* L. species of Arunachal Pradesh. Supervisor: Dr. Y. Kumar, Jt. Supervisor: Dr. P. Rethy.

Funds received from agencies other than NEHU (sources and amount):

COSIST (UGC): Rs. 4.237 lakhs
 FIST (DST): Rs. 21.05 lakhs
 DBT : Rs. 38.20 lakhs

ICAR-NATP :	Rs. 3.6 lakhs
CFI, Univ. of California :	Rs. 9.1 lakhs
TOTAL	Rs. 74.37 lakhs

Courses Conducted:

Semester 1: Algae, Bryophyta and Pteridophyta; Gymnosperms and Plant Anatomy; Mycology and Plant Pathology (theory & practical).

Semester 2: Plant Taxonomy and Biostatistics; Plant Biochemistry and Molecular Biology; Microbiology and Biotechnology (theory & practical)

Semester 3: Genetics and Plant Breeding; Ecology and Environment; Plant Physiology (theory & practical).

Semester 4: Morphology and Embryology; Ecosystem analysis and Phytogeography; Angiosperm Taxonomy, Microbial Ecology, Forest Ecology (Special papers) (theory & practical).

Seminars/Conferences:

Organized:

Professor P. Tandon organized the 72nd annual session of the National Academy of Sciences, India (NASI) and the national symposium on "Biodiversity – A Scientific Approach Agenda for the 21st Century" during October 25-27, 2002. Bharat Ratna Dr. A. P. J. Abdul Kalam, His Excellency the President of India inaugurated these events on October 25, 2002 on

the NEHU Campus. A large number of distinguished scientists delivered lectures and about 450 delegates from all over the country participated in the mega event. Professor P. Tandon also organized the national roving seminar on "Patenting in Biotechnology" sponsored by the Department of Biotechnology, Ministry of Science & Technology, Government of India on October 26, 2002 at NEHU. This seminar provided the much needed information to both scientists and common people about the various issues related to patenting that are so important in the context of rich bioresources of North-East India. Furthermore, Professor P. Tandon conducted the following training courses sponsored by DBT: (1) Basic Computer Concepts and Applications during April 23-26, 2002, and (2) Application of Basic IT Resources during January 21-23, 2003.

Attended :

Professor R. S. Tripathi: (i) Attended the international conference on *India's Contribution & Influences in the World* organized by the World Association of Vedic Studies and held during July 12-14, 2002 at university of Massachusetts, Dartmouth, USA and presented a paper entitled, "The deep rooted concern for biodiversity conservation in ancient Hindu literature". (ii) Was invited by Prof. K.

S. Bawa, a distinguished Professor of Biology to visit the Department of Biology, University of Massachusetts, Boston during July 9-10 to hold a discussion meeting on forest ecology, forest management and forestry. (iii) Delivered the keynote address on "Shift in forest management paradigms" at the UNESCO workshop on *Community Natural Resource Management* jointly organized by JNU and NEHU at Shillong. (iv) Delivered "Dr. P. Barua Memorial Lecture" at Cotton College, Guwahati on the invitation of the Principal of the College and President of the Dr. P. Barua Memorial Committee and Trust. (v) Delivered a lecture on "Forest ecosystem diversity in northeast India" in the 72nd annual session of the National Academy of Sciences, India and national symposium on *Biodiversity: A Scientific Approach Agenda for the 21st Century*, during March 27-29, 2003 at Shillong, India. (vi) Delivered the keynote address on "Joint forest management" during the workshop-cum-training programme on *JFM and Microplanning* jointly organized by the Regional Centre, National Afforestation and Ecodevelopment Board, Ministry of Environment & Forests, Govt. of India and Assam State Forest Department at the Foresters' College, Guwahati.

Professor P. Tandon: (i) Attended the *Xth IAPTC&B Congress on Plant Biotechnology 2002 and Beyond*

– *A Celebration and a Showcase*, Orlando, USA (2002) and presented a paper entitled "Somatic Embryogenesis in Khasi Pine (*Pinus kesiya* Royle Ex. Gord.) from Female Gametophytes". He visited a number of institutions for holding scientific discussions of mutual interest, such as Washington University, Monsanto Company at St. Louis and Rutgers University at New Jersey. (ii) Delivered a lecture on "Prospects of plant conservation biotechnology in North-East India" at the 72nd annual session of the National Academy of Sciences, India and national symposium on *Biodiversity: A Scientific Approach Agenda for the 21st Century*, during March 27-29, 2003 at Shillong, India.

Professor H.N. Pandey presented a paper on "Environmental degradation and eco-restoration of coal mine area of Jaintia hills, Meghalaya" at the national workshop on *Ecorestoration of mining affected areas*, organised by the Centre for Environmental Studies, North-Eastern Hill University, Shillong, during March 15-16, 2003, at NEHU, Shillong, India.

Professor A. K. Misra: (i) Visited the Crop and Soil Science Department, Oregon State University, Corvallis, USA, in May 2002 as a part of the Indo-US research collaboration. (ii) Presented a talk on "Issues related to release of Genetically Modified Organisms into the Environment" at the

workshop on *Biosafety issues related to Genetically Modified Organisms*, jointly organised by the Ministry of Environment and Forests, Department of Biotechnology, Government of India and Biotech Consortium India Limited, on November 22, 2002 at Guwahati.

Dr. N. K. Chrungoo attended the 2nd international congress of Plant Physiology held at New Delhi from January 8 to 12, 2003 and presented a paper entitled "Isolation and Molecular characterization of a genomic clone encoding a lysine and methionine rich seed storage protein of common buckwheat (*Fagopyrum esculentum* Moench)."

Dr. S. K. Barik (i) Presented two papers entitled, "Environmental Impact Assessment for Mining Projects" and "Impact of coal mining on vegetation of Nokrek Biosphere Reserve, Meghalaya" at the national symposium on *Ecorestoration of Mining Affected Areas* during 15-16 March, 2003 at Shillong, India. (ii) Presented a model project on "Water management systems in Mexico City" during the LEAD International Training Programme held from October 24 to November 04, 2002 at the Universidad de Guadalajara, Mexico.

Dr. S. Kumaria (i) Presented a paper on "*In vitro* conservation of some commercially important orchids of North-East India" at the 72nd annual session of the National Academy of

Sciences, India and national symposium on *Biodiversity: A Scientific Approach Agenda for the 21st Century*, during March 27-29, 2003 at Shillong, India. (ii) Presented a paper on "Cryopreservation of shoot apices of *Pinus kesiya*, Royle ex. Gord. - An important tree of North-East India" at the 72nd annual session of the National Academy of Sciences, India and national symposium on *Biodiversity: A Scientific Approach Agenda for the 21st Century*, during March 27-29, 2003 at Shillong, India.

Dr. Uma Shankar presented a paper on "Impact of coal mining on soil and vegetation in Jaintia Hills, Meghalaya" at the national workshop on *Ecorestoration of mining affected areas*, organised by the Centre for Environmental Studies, North-Eastern Hill University, Shillong, during March 15-16, 2003, at NEHU, Shillong, India.

Dr. N. Venugopal and Mr. N. Dharendra Singh presented a paper on "Cambial activity and annual rhythm of xylem production of Khasi Pine (*Pinus kesiya* Royle ex Gordon.) in relation to phenology and climatic factors, growing in wet sub-tropical forest of north east India" at the 72nd annual session of the National Academy of Sciences, India and the national symposium on *Biodiversity: A Scientific Approach Agenda for the 21st Century*, during March 27-29, 2003 at Shillong, India.

Dr. N. Venugopal and Ms. M.

G. Liangkuwang presented a paper on "Wood anatomy of some woody Ranales growing in North East India" at the 72nd annual session of the National Academy of Sciences, India and national symposium on *Biodiversity: A Scientific Approach Agenda for the 21st Century*, during March 27-29, 2003 at Shillong, India.

Mr. N. Dharendra Singh and Dr. N. Venugopal presented a paper on "Dendroclimatic Techniques Used in North Eastern Himalayan Region of India" at the international conference on *Mountain Environment and Natural Hazards Management*, during March 27-29, 2003 at Shillong, India.

Visiting Professors/Fellow/ Scholars:

Professor P. S. Ramakrishnan, FNA delivered a talk on "Biodiversity and Conservation in North-East India" at the department, on November 15, 2002, NEHU, Shillong.

Professor S. S. Bir, FNA, Honorary Scientist & Professor Emeritus, Department of Botany, Punjabi University, visited the Department of Botany and delivered a lecture on "Plant wealth of Indian Himalaya" on November 20, 2002.

Publications:

Ajungla, T., G.D. Sharma, and M.S. Dkhar. 2002. Zn and Cd accumulation in ectomycorrhizae of

pine (*Pinus kesiya* Royle ex Gord.). *Ecobios*, 1 (1): 41-44.

Arunachalam, A. and H.N. Pandey. 2003. Ecosystem restoration of jhum fallows in northeast India: microbial C and N along altitudinal and successional gradients. *Restoration Ecology*, 11(2): 1-6.

Barik, S. K. 2002. Forest resources and their management. In B. Dutta and A. Alam (Eds). *Forest Resources in North-East India*. New Delhi: Omsons Publications.

Bharali, Sangeeta. & N.K. Chrungoo. 2003. Amino acid sequence of the 26KDA subunit of legumin-type seed storage protein of common buckwheat (*Fagopyrum esculentum* Moench): molecular characterization and phylogenetic analysis. *Phytochemistry*, 63: 1-5.

Bhuyan, P., M.L. Khan, and R.S. Tripathi. 2002. Regeneration status and population structure of Rudraksh (*Elaeocarpus ganitrus* Roxb.) in relation to cultural disturbances in tropical wet evergreen forest of Arunachal Pradesh. *Current Science*, 83 (11): 1391-1394.

_____. 2003. Tree diversity and population structure in undisturbed and human-impacted stands of tropical wet evergreen forest in Arunachal Pradesh, Eastern Himalayas, India. *Biodiversity and Conservation*, 12:1-21.

- Chauhan, V. S. and A.K. Misra. 2002. Development of Molecular Markers for screening *Alnus nepalensis* (D. Don) genotypes for the nitrogenase activity of the actinorhizal root nodules. *Molecular Genetics and Genomics*, 267(3): 303-312.
- Deb, C. R. and P. Tandon. 2002. Change in specific activity of peroxidase and total protein content during early phase of somatic embryogenesis of *Pinus kesiya*. *J. Indian Bot. Soc.*, 80: 313-315.
- _____. 2002. Induction of somatic embryogenesis in Khasi pine (*Pinus kesiya*) from secondary needles. *J. Plant Biol*, 29(1): 113-118.
- _____. 2002. Somatic embryogenesis and plantlet regeneration from mature zygotic embryos of *Pinus kesiya* (Royle ex. Gord.). *J. Plant Biol*, 29(3): 301-306.
- Gajurel, P., P. Rethy, and Y. Kumar. 2002. The Genus *Piper* L. in Arunachal Pradesh - a systematic account. In A.P. Das (Ed.) *Plant Taxonomy*. Dehradun: Bishan Singh Mahendra Pal Singh.
- Jamir, S. A. and H.N. Pandey. 2002. Biodiversity conservation in sacred groves of Jaintia hills, Meghalaya. *Indian Forester*, 128(7): 738-744.
- John, B., H.N. Pandey, and R.S. Tripathi. 2002. Decomposition of fine roots of *Pinus kesiya* and turnover of organic matter, N and P of coarse and fine roots and herbaceous roots and rhizomes in subtropical pine forest stands of different ages. *Biology and Fertility of soils*, 35: 238-246.
- Kayang, H. 2002. Fungi inhabiting alder phylloplane. *Indian Journal of Forestry*, 25 (2): 164-170.
- Kharbuli, B., H. Kayang, D. Nengnong, and R.D.M. Buam. 2003. Meghalaya biodiversity conservation and dams. *The Ecologist Asia*, 11 (1): 87-89.
- Limensela, Y. Kumar, and J. Sarma. 2002. *Orchids of India - III: Biodiversity and status of Vanda Jones*. Delhi: Daya Publication House, Delhi.
- Mao, A. A., D.K. Singh, and P. Tandon. 2002. Tissue Culture. In N.P. Singh and K.P. Singh (Eds.) *Floristic Diversity and Conservation Strategies in India - Vol. V: In situ and ex situ Conservation*. Calcutta: Botanical Survey of India.
- Sarma, G. and A.K. Misra. 2002. Mixed genotypes in some axenic cultures of *Frankia*. *Indian J. Microbiology*, 41(4): 11-14.
- Syiem, D., G. Syngai, B. Kharbuli and H. Kayang, and B.S.Khongwir, B. S. 2003. Anti tumour activity of crude root extract of *Potentilla fulgens*. *Indian Drugs*, 40 (2): 124-125.
- Syiem, D., G. Syngai, P.Z. Khup, B.S. Khongwir, B. Kharbuli and H. Kayang. 2002. Hypoglycemic effects of *Potentilla fulgens* L. in normal

and alloxan – induced diabetics mice. *Journal of Ethnopharmacology*, 83: 55-61.

Uma Shankar. 2003. *Aconitum fletcherianum* G. Taylor (Ranunculaceae) in eastern Himalayas: occurrence and conservation. *Current Science*, 84 (2): 148-151.

Upadhyaya, K., H.N. Pandey, P.S. Law, and R.S. Tripathi. 2003. Tree diversity in sacred groves of Jaintia hills in Meghalaya, north-east India. *Biodiversity and Conservation*, 12: 583-597.

Vergheese, S. K. and A.K. Misra. 2002. *Frankia*-Actinorrhizal symbiosis with special reference to host-microsymbiont relationship. *Current*

Science, 83(4): 404-408.

Study Tours / Field Trips:

A study tour of M. Sc. (Final Year) students was conducted under the guidance of Dr. Uma Shankar and Dr. N. Venugopal and with support from Dr. A. L. S. Rajee. The places visited were Lucknow, Dehra Dun, Mussoorie and Delhi during February 10-23, 2003. The purpose of the tour was to study variation in ecosystem structure and biodiversity characterization across vegetation types of different geographical regions, and to expose the students to modern techniques and recent advances in plant sciences in national institutions.

Research projects:

(a) Ongoing

Title of the project	Name of the Principal Investigator(s)	Funds received during the year 2002-03	Funding Agency
Community forest management in northeast India (in collaboration with the NEHU Regional Centre of NAEB, MoEF, GOI)	R. S. Tripathi, B. K. Tiwari, S. K. Barik, Mark Poffenberger, S. Palit	Rs. 9.1 lakhs	Community Forestry International, University of California, Santa Barbara
Microbial diversity of North Eastern Region with special reference	M. S. Dkhar, H. Kayang	8.79 lakhs	DBT New Delhi

to wood rotting fungi			
Molecular Ecology of <i>Frankia</i>	A. K. Misra (P.I.) R.S.Tripathi (Co-Investigator)	-	DST-NSF
National Agricultural Technology Project on Buckwheat	N. K. Chrungoo (P.I.)	3.6 lakhs	World Bank- ICAR
Mass micro-propagation of orchids towards socio-economic upliftment of women folk in Meghalaya	S. Kumaria	8.68 lakhs	DBT, New Delhi
Conservation of plant diversity of North-East India with special reference to rare and endangered plants	P. Tandon	17.34 lakhs	DBT, New Delhi
Bioinformatics Centre	P. Tandon	15.25 lakhs	DBT, New Delhi

(b) New

Title of the project	Name of the Principal Investigator(s)	Funds received during the year 2002-03	Funding Agency
Establishment of North Eastern Biodiversity Research Cell	B. Myrboh (Chemistry)- PI B. Kharbuli (Zoology) - PI H. Kayang	150 lakhs (Sanctioned for the entire duration of the project)	Ministry of Home Affairs, NEC, Shillong

	(Botany)-PI D. Syiem (Bio-chemistry)-PI		
Ecological analysis of selected agro-forestry systems in Meghalaya	R.S.Tripathi (P.I.) H. N. Pandey (Co-Investigator)	7.73 lakhs	ICAR, New Delhi
Developing molecular markers for native and transgenic bio-inoculants	A. K. Misra	5.61 lakhs	DBT, New Delhi

Academic Collaborations:

I. Indo-US collaborative research programme (funded by the Department of Science and Technology, Government of India and National Science Foundation, US Federal government).

Indian P.I. Prof. A. K. Misra
US P.I. Prof. David Myrold, Co-P.I. Prof. R. S. Tripathi

II. Community Forestry Project in North-East India

(A collaborative project between Community Forestry International Inc., Santa Barbara, USA and NEHU)

Indian Collaborators:

1. Prof. R.S. Tripathi
2. Prof. B. K. Tiwari
3. Dr. S.K. Barik

US Collaborators:

1. Dr. Mark Poffenberger
2. Mr. S. Palit

Honour/Award/Recognition:

Professor R.S. Tripathy was:

- (i) Nominated as a member of the governing body of G.B. Pant Institute of Himalayan Environment & Development, Almora for a period of three years by the Hon'ble Minister of Environment & Forests, Govt. of India.
- (ii) Nominated as a member of the International Panel of Experts of The Global Open University, Amsterdam, The Netherlands.
- (iii) Elected as the Vice-President of the National Institute of Ecology.

Professor P. Tandon was: (i) Member of Task Force on Application of Biotechnology for Biodiversity Conservation and Environment by the DBT, New Delhi. (ii) Member of the Task Force on Application of Biotechnology for Biodiversity Conservation and Environment by the MHRD, New Delhi.

Professor A.K. Misra: Detailed CV included in the Directory of Scientists

associated with Science and Applications of Bio-fertilizers in northeastern region, published by the Regional Biofertilizer Development Centre, Imphal, Ministry of Agriculture, GOI.

Dr. S.K. Barik: LEAD Fellowship by the LEAD International, U.K. (sponsored by Rockefeller Foundation, USA).

Dr. Uma Shankar: Young Scientist Award by the Uttar Pradesh Council of Science & Technology (CSTUP), Lucknow.

Other Activities:

Dr. S. K. Barik (i) Participated as a resource person in a training programme on Microplanning for Joint Forest Management organized by the Nagaland State Forest Department and Regional Centre, National

Afforestation and Ecodevelopment Board, MoEF, NEHU, Shillong at Dimapur during April 22-25, 2002. (ii) Participated as a resource person in a training programme on Microplanning for Joint Forest Management organized by the Mizoram State Forest Department and Regional Centre, National Afforestation and Ecodevelopment Board, MoEF, NEHU, Shillong at Aizawl and Lunglei during November 25-30, 2002. (iii) Participated as a resource person in a training programme on Microplanning for Joint Forest Management organized by the Assam State Forest Department and Regional Centre, National Afforestation and Ecodevelopment Board, MoEF, NEHU, Shillong at Dimapur during February 28, 2003.

DEPARTMENT OF BIOCHEMISTRY

Thrust Area of Research:

Thrust areas of research in the department are Microbial Biochemistry, Medical Biochemistry, Enzymology and Protein Chemistry, and Molecular Biology. Covering these thrust areas, members of the faculty are working in the fields of (i) N₂-fixation and cyanobacterial biochemistry, (ii) Hormone and aging research, (iii) Carcinogenesis and radiation molecular

biology, (iv) Drug delivery/targetting and immunotherapy, (v) Medicinal plants and biodiversity and (vi) Protein chemistry & enzymology. The academic agenda of the department is high quality of teaching and potentially applied and internationally competitive research in modern biochemistry.

The department has been conducting M.Sc. teaching programme and research in areas of regional, na-

tional and international importance. A wide range of courses based on modern approaches and applied aspects are also being served. The M.Sc. syllabus is regularly revised, reviewed and updated to incorporate recent relevant developments in the area of Biochemistry. Our M.Sc./Ph. D students compete successfully in NET and GATE every year. Students of this department have been manning various educational institutions, research centres, hospitals, forensic departments, pharmaceutical companies in this region and abroad, thereby, meeting the hopes and aspirations of the people of the region.

Brief Statement of Academic Activities:

The department revised and implemented the undergraduate and postgraduate syllabi. 13 M.Sc. and 7 Ph.D students have been admitted during the year and 3 Ph. D degrees were awarded. The department has received Rs. 6 lakhs from other funding agencies for research and infrastructure development during the year. Members of the faculty and researchers have attended 15 national and international conferences. They have also participated in various other activities such as attending academic board meetings and visiting institutions in the country and abroad. One book from Kluwer Academic Press and 15

papers in various journals of national and international repute have been published during the year.

Degrees Awarded:

Ph.D

1. Mr. H. G. Lyngdoh, "Developmental and hormonal regulation of malate-aspartate shuttle enzymes in chicken". Supervisor: Prof. R. Sharma.

2. Ms. B. J. Devi, "Study of influence of poly-ADP-ribosylation on progression and regression of chemically induced carcinogenesis". Supervisor: Prof. R. N. Sharan.

3. Mr. Imliwati, "Study on tumor regression by presenting liposome-encapsulated tumor antigens to the immune system". Supervisor: Dr. A. Alam.

Funds received from agencies other than NEHU/UGC:

Rs. 0.75 lakh (CSIR, Project)

Rs. 2.50 lakhs (DST, Project)

Rs. 3.00 lakhs (DST, under FIST Programme)

Courses Conducted:

Semester-I: Introductory Biological Chemistry, Environmental Biochemistry & Metabolic pathways-I, Enzymology and Biochemistry Practical.

Semester-II: Techniques in Biochemistry, Physiological Chemistry, Bioenergetics and Biochemistry

Head	:	R. Sharma (till 13/2/03) A.N. Rai (from 14/2/03)
Faculty	:	
Professors	:	R. Lalthantluanga, M.Sc./Ph.D (Poona) A. N. Rai, M.Sc. (BHU), Ph.D (Dundee) R. Sharma, M.Sc./Ph.D (BHU) R. N. Sharan, M.Sc./Ph.D (JNU)
Readers	:	A. Alam, M.Sc. (AMU), Ph.D (Moscow) D. Syiem, M.Sc./Ph.D (NEHU)
Lecturers	:	A. K. Singh, M.Sc. (Gorakh.), Ph.D (Hyd.) P. K. Ambasht, M.Sc./Ph.D (BHU) (Ms.) M. B. Syiem, M.Sc./Ph.D (NEHU) L. Kma, M.Sc. (NEHU)

Student Intake: a) Enrolment Capacity: 13

b) Actual Admission:	SC/ST	Genl.	Male/	Female	Total
	-	11	2	5	8
					13

c) Number of students qualifying NET: 7

Practical.

Semester-III: Genetics, Medical Biochemistry, Metabolic pathways-II and Biochemistry Practical.

Semester-IV: Molecular Biology, Microbiology, Immunology and Biochemistry Practical.

Seminars/Conferences:

Attended:

I. Ray and R. Sharma presented a paper entitled "Estrogen regulation of adenosine deaminase in mice" at the 71st ann. meeting of *Soc. Biol. Chemist (I)*, Punjab Agri. Univ., Ludhiana, November 14-16, 2002.

D. Dutta and R. Sharma presented a paper entitled "Dietary res-

triction regulates hepatic glucocorticoid receptors in mice" at the 71st ann. meeting of *Soc. Biol. Chemist (I)*, Punjab Agri. Univ., Ludhiana, November 14-16, 2002.

R. Sharma delivered a lecture on "Radio-receptor assay (RRA)" during *Short Term Training Course on Application of Molecular Biology and Biotechnology Tools for Crop Improvement Programmes* at RRL, Jorhat, February 3, 2003.

R.N. Sharan delivered a talk titled "g-radiation induced changes in plasmid pMTa4 in vivo: Study in different repair deficient mutants" at the *international conference on Emerging Trends in Cancer Research*, JNU, New

Delhi, March 14-16, 2002. He delivered a talk titled "Molecular radiation biology with high LET radiation" at the *Heavy Ion Radiobiology Workshop*, NSC, New Delhi, September 6, 2002. He delivered a talk titled "Processing of g-radiation induced strand breaks of pMTa4 plasmid DNA *in vivo*: Some insights from repair deficient mutants of *E. coli*" at the international conference on *Radiation Damage & Its Modification*, INMAS, Delhi, November 12-15, 2002. He chaired the inaugural session and delivered a talk titled "Radiation induced damage to DNA: Nuclear disaster perspective" at the international workshop on *Radiation Risk in the age of Nuclear Terrorism*, JNU, New Delhi, November 16, 2002.

L. Kma and R.N. Sharan presented a paper titled "Negative correlation between poly-ADP-ribosylation of mouse blood lymphocyte proteins and dimethylnitrosamine induced initiation of carcinogenesis as revealed by slot- and Western blot immunoassays" at the 72nd annual session of the *National Academy of Sciences*, India, NEHU, Shillong, October 25-27, 2002.

C. Bhattacharjee, M.M. Odyo and R.N. Sharan presented a poster titled "Radiation induced effects at molecular levels in wild, recA and recF mutants of *E. coli*: RNA, pMTa4 plasmid, and protein profiles *in vivo*" at the international conference on *Radiation*

Damage & Its Modification, INMAS, New Delhi, November 12-15, 2002.

A.N. Rai chaired the inaugural session and delivered a key-note address titled "Cyanobacterium-Plant symbioses" at the national symposium on *Cyanobacteria and Plants under stress* held during Feb. 25-28, 2003 at BHU, Varanasi.

R.K.S. Singh, J. Bhattacharya, A. K. Singh and A. N. Rai presented a poster titled "Evidence for metronidazole as a specific inhibitor of nitrogenase activity in cyanobacterium *Nostoc ANTH*" at the national symposium on *Cyanobacteria and Plants under environmental stress* held during Feb. 2003, at BHU, Varanasi.

A. Malngiang, B.S. Khongwir, D. Syiem, B. Kharbuli, and R. Lalthantluanga, presented a poster titled "Incidence of rickets in Meghalaya" at the *IXth Asian Congress of Nutrition* held at New Delhi, India on 23-27 Feb, 2003.

H. Kayang, B. Kharbuli, B. Myrboh and D. Syiem presented a poster titled "Medicinal plants of Meghalaya" at the 3rd world congress on *Medicinal and Aromatic Plants for Human Welfare (WOCMAP III)* held at Chiang Mai, Thailand on 3-7 Feb 2003.

D. Syiem presented a paper titled "Hypoglycemic and anti-hyperglycemic effects of *Flemingia* on blood glucose level of mice" at the 3rd world congress on *Medicinal and*

Aromatic Plants for Human Welfare (WOCMAP III) held at Chiang Mai, Thailand on 3-7 Feb 2003.

Publications:

Ambasht, P. K. and A.M. Kayastha. 2002. Plant pyruvate kinase. *Biologia Plantarum*, 45: 1-10.

Bhattacharya, J., A.K. Singh, and A.N. Rai. 2002. Isolation and characterization of a chlorate-resistant mutant (Clo-R) of the symbiotic cyanobacterium *Nostoc* ANTH: Heterocyst formation and N_2 -fixation in the presence of nitrate, and evidence for separate nitrate and nitrite transport systems. *Current Microbiology*, 45: 99-104.

_____. 2002. Nitrogen nutrition in the cyanobacterium *Nostoc* ANTH, a symbiotic isolate from *Anthoceros*: Uptake and assimilation of inorganic-N and amino acids. *Indian Journal of Biochemistry & Biophysics*, 39: 163-169.

Humtsoe, J. O., F.H.A. Schneeweiss, A. Srivastava, A. Sarma, and R.N. Sharan. 2002. Biological Effects Induced by Swift Heavy Ions of Lithium on Aqueous Solution of Plasmid pMTa4. *Radiation Effects and Defects in Solids*, 157: 1-5.

Nilsson, M., J. Bhattacharya, A.N. Rai, and B. Bergman. 2002. Colonization of roots of rice (*Oryza sativa* L.) by symbiotic *Nostoc* strains. *New Phytologist*, 155: 517-525.

Pariat, T. and R.N. Sharan.

2002. Role of Mouse Spleen Cell HMG Proteins and its Poly-ADP-ribosylation in Betel Nut Induced Carcinogenesis. *Indian Journal of Biochemistry & Biophysics*, 39: 130-132.

Rai, A.N. 2002. Cyanolichens: Nitrogen metabolism. In A.N. Rai, U. Rasmussen & B. Bergman, (Eds.) *Cyanobacteria in Symbiosis*. Dordrecht: Kluwer Academic Publ, 97-115.

Rai, A.N. and B. Bergman. 2002. Creation of new N_2 -fixing cyanobacterial associations. *Biology & Environment. Proc. Royal Irish Acad*, 102B, 65-68.

_____. 2002. Cyanolichens. *Biology & Environment. Proc. Royal Irish Acad*, 102B: 19-22.

Rai, A.N., U. Rasmussen, and B. Bergman. 2002. *Cyanobacteria in Symbiosis*. Dordrecht : Kluwer Academic Publ.

Ray, I. and R. Sharma. 2002. Dietary regulation of adenosine deaminase in stomach, small intestine and spleen of mice. *Indian Journal of Biochemistry & Biophysics*, 39: 419-421.

Sharma, R. 2003. Radio-receptor assay (RRA). In B.G. Unni (Eds.) *Application of Molecular Biology and Biotechnological Tools for Crop Improvement*. Jorhat : RRL, 91-94.

Singh, R. C., A. Alam, and V. Singh. 2003. Purification, characterization and chemical modification studies

on translation inhibitor protein from *Luffa cylindrical*. *Indian Journal of Biochemistry & Biophysics*, 40: 31-39.

Syiem, D., G. Syngai, B. Kharbuli, H. Kayang, and B.S. Khongwir. 2003. Anti-tumour activity of crude root extract of *Potentilla fulgens*. *Indian Drugs*, 40: 124-125.

Syiem, D., G. Syngai, P.Z. Khup, B.S. Khongwir, B. Kharbuli, and H. Kayang. 2002. Hypoglycemic effects of *Potentilla fulgens* L. in normal and alloxan-induced diabetic mice. *Journal of Ethnopharmacology*, 83: 55-61.

Research Project:

Ongoing:

(I) CSIR sponsored major research project entitled "Regulation of adenosine deaminase in mice: hormonal and dietary interventions" under Prof. R. Sharma. (II) DST sponsored major research project entitled "Dietary regulation of glucocorticoid receptors in mice" under Prof. R. Sharma.

Academic Collaborations:

Prof. R. N. Sharan - Indo-German Bilateral collaboration with Re-

search Center Juelich (Germany) and 'Research for Future' collaboration with Osaka University (Japan).

Other Activities:

Prof. R. Sharma attended project-monitoring meeting at CSIR, New Delhi, July 2002. He was invited as one of the judges to select best project presentation on foundation day celebration of RRL, Jorhat on March 21, 2003.

Prof. R. N. Sharan was Visiting Professor at Research Center, Juelich (Germany) under an Indo-German project from July 09 to August 03, 2002.

Dr. A.K. Singh was Visiting Scientist at the University of Konstanz, Konstanz, Germany from November 18, 2002 to January 10, 2003.

Prof. A.N. Rai delivered a lecture on "Photosynthesis and Nitrogen Fixation" to students of Industrial Microbiology at CAS in Botany, BHU on 29th January 2003 and a lecture on Symbiosis at the School of Biotechnology, BHU, Varanasi on 30th January 2003.

DEPARTMENT OF ZOOLOGY

Thrust area of research including the academic agenda of the department:

Thrust area of research of this department is Functional Biology. The department offers specializations in the major branches of zoology like Genetics, Parasitic Helminthology, Limnology, Endocrinology and Reproductive Physiology, Cell Biology and Immunology, Developmental Biology, Biochemical Adaptation, Biodiversity, and Entomology. The M. Sc. syllabus has recently been revised according to the UGC Model Curriculum, and covers classical as well as modern branches of zoology. At present, over 50 research scholars are registered for Ph.D degree. Ongoing research works include genetic diversity of fishes, helminthology and related zoonosis, biodiversity of zooplanktons and biosystemetics, adrenergic signal transduction and fish endocrinology, anticarcinogenic effects of cisplatin and medicinal plants, biodiversity and developmental biology of frogs, biochemical adaptation to nitrogen metabolism and carbohydrate metabolism in fish, adaptational physiology and entomology, and radiation biology. A large number of students are clearing the NET every year.

Based on overall academic and research contributions, this department was awarded the third phase of the DRS scheme by the University Grants Commission under Special Assistance Programme to promote higher research with special reference to the N. E. region. The department have already completed the first and the second phases of DRS and it has been granted the 3rd phase of the scheme. The department also has UGC-sponsored COSIST and DST-sponsored FIST programmes. The department has completed about 27 research projects (total cost: Rs. 3.0 crore approx.) sponsored by UGC, CSIR, ICAR, DST, DoEn, DAE, NEC, GTZ (Germany), Eco-development, State DST and Meghalaya Pollution Control Board. These projects had direct relevance to the socio-economic development of the N. E. region.

Brief Statement of Academic Activities:

The faculty members of this department have received a total grant of about Rs. 35 lakhs as new research grants from different funding agencies. The department also received the annual grants under DRS-III and the COSIST programmes sponsored by the UGC, and also under the DST-sponsored FIST programme. Most of

the faculty members have attended various national and international seminars/symposia. A total of 32 research papers and reviews have been published by the faculty in well-reputed national and international journals. 8 M.Sc./research students cleared the NET and 4 research students were awarded Ph. D degrees.

biochemical genetics of selected enzymes of the chocolate mahseer, *Acrossocheilus hexagonolepis*". Supervisor: Professor K. Chatterjee.

2. Larisha M. Lyndem, "A study on the status of hookworm infections in human populations in Meghalaya (India)". Supervisor: Professor V. Tandon.

3. Supiya Dutta, "Amino acid

Head	:	B. B. P. Gupta
Faculty	:	
Professors	:	K Chatterjee, M. Sc./Ph.D (Kalyani) A Raghu Varman, M.Sc./Ph.D (Madr.) V Tandon, M.Sc./Ph.D (Punj.) B K Sharma, M.Sc./Ph.D (Punj.) B B P Gupta, M.Sc./Ph.D (BHU) S B Prasad, M.Sc./Ph. D (BHU)
Readers	:	R N K Hooroo, M. Sc./Ph.D (NEHU) N Saha, M.Sc./Ph.D (NEHU) B Kharbuli, M. Sc./Ph.D (NEHU) A Chatterjee, M. Sc (Burdwan), Ph.D (BHU) A K Yadav, M.Sc. (Agra), Ph.D (NEHU)
Lecturers	:	S Choudhury, M.Sc./Ph.D (NEHU) S R Hajong, M.Sc./Ph.D (NEHU)
Student Intake:	(a) Enrolment capacity:	M. Sc. : 24 M. Phil./Ph.D : 20
	(b) Actual Admission:	SC/ST Genl. Male/Female Total
	M. Sc. :	21 3 10 14 24
	Ph.D :	13 7 15 5 20
	(c) Number of students qualifying NET:	8

Degrees Awarded:

Ph. D:

1. Upal Sengupta, "Studies on

metabolism in a freshwater air-breathing catfish, *Clarias batrachus* under hyper-ammonia and osmotic

stress". Supervisor: Dr. N. Saha.

4. Kabita Kumpawat, "Genotoxic effects of raw betel-nut extract in mammalian cells and its DNA damaging activity in betel-nut chewers with respect to cellular glutathione status." Supervisor: Dr. A. Chatterjee.

Funds received from agencies other than NEHU/UGC:

Rs. 34.76 lakhs

Courses Conducted:

Cell Biology & Immunology, Molecular Biology, Animal Physiology, Biological Chemistry, Genetics and Developmental Biology, Parasitology and Entomology, Ecology and Environmental Biology, Endocrinology and Reproductive Biology, Aquatic Biology and Fisheries, Biosystematics and Evolution, Techniques in Biology and Biometrics.

Special papers: Cell Biology and Immuno-Biology, Developmental Biology, Endocrinology and Reproductive Physiology, Entomology, Genetics and Parasitic Helminthology.

Seminars/Conferences:

Attended:

Professor K. Chatterjee attended the 11th All India Congress of Cytology and Genetics held at Mahatma Gandhi Institute of Medical Sciences, Wardha, Maharashtra, August 29-31, 2002 and presented a

paper entitled "Biochemical genetics of dihydrolipoamide dehydrogenase, fructose-biphosphate aldolase and glutamic-oxaloacetic transaminase in the chocolate mahseer, *Neolissocheilusexagonolepis*".

Professor A. Raghuvaman attended (i) The XXth national symposium on *Reproductive Biology and Comparative Endocrinology*, January 7-9, 2002, Tiruchirapalli, Tamil Nadu and presented a paper entitled, "Sex pheromone of the honeybee, *Apis cerana* var. *indica* (Fab.) and the termite, *Odontotermes distans* (Holmgren)", and chaired a session. (ii) XXIst Symposium of the Society for Reproductive Biology and Comparative Endocrinology held at Banaras Hindu University, Varanasi, February 10-13, 2003, and presented a paper entitled "Induction Puffs in the polytene chromosomes of the salivary gland cells of the middle IV instar larvae of *Chironomus khesiya* by spermine, RNA-polymerase and cyclic-AMP".

Professor V. Tandon attended (i) The *Xth International Congress of Parasitology*, August 4-9, 2002, Vancouver, BC, Canada and she co-chaired the session on "Food-borne Infections" with Prof. G. Faubert of McGill University on August 9, 2003. Three oral and one poster presentations were made by her students during the Congress in the sessions of "General Epidemiology and

Chemotherapy I, II", and (ii) Attended and co-chaired a session in the *Roving Seminar on Patenting* organised by Department of Biotechnology, GOI at NEHU, Shillong on October 26, 2002.

Professor S. B. Prasad attended the 22nd annual convention and international symposium on *Recent Advances in Cancer Causes and Control* organized by the Indian Association for Cancer Research, January 10-12, 2003, Thiruvananthapuram and presented a paper entitled "Quantitative changes in sialic acid level in Dalton's lymphoma-bearing mice after cyclophosphamide, cisplatin or ascorbic acid treatments".

Dr. R. N. K. Hooroo attended the 72nd annual session of the National Academy of Sciences, India, 25-27 October, 2002, North-Eastern Hill University, Shillong and presented a paper entitled "Influence of environmental factors on the breeding and metamorphosis of *Rhacophorus maximus* (Anura: Rhacophoridae)".

Dr. N. Saha attended the 72nd annual session of the National Academy of Sciences, 25-27 October, 2002, North-Eastern Hill University, Shillong and presented three papers entitled (i) "Activation of Ca²⁺ - dependent protein kinase C-isoforms mediate cholestasis in rat liver and HepG2 cells", (ii) "Alkalinity (pH 10) stimulates ureogenesis in the air-breathing walking catfish, *Clarias*

batrachus: A possible strategy to avoid the ammonia toxicity", (iii) Effect of high concentration of exogenous ammonia on amino acid metabolism in an air-breathing catfish, *Clarias batrachus*: A strategy to adapt under hyper-ammonia stress".

Dr. B. Kharbuli (i) Organised the national seminar on *Intellectual Property Rights*, 4-11 November, 2002, by the Ministry of Human Resource Development, at NEHU, Shillong. (ii) Presented a working plan at the Stakeholders Meeting on Medicinal Plants Conservation & Sustainable Utilization, November 22, 2002, organised by MoEF/FRLHT & NEBRC, (iii) Presented a report on the NBSAP of Meghalaya at the final workshop on *National Biodiversity Strategy and Action Plan*, 20-23 December, 2002, organised by MOEF, New Delhi (iv) Presented a report on "The Conservation and Sustainable Utilization of Medicinal Plan for the State of Meghalaya" in the orientation programme for state level planning committees on *Medicinal Plants Conservation and Sustainable Utilization*, 19-24 January, 2003, organised by UNDP/FRLHT, Bangalore.

Dr. A. Chatterjee attended (i) the United Kingdom Environmental Mutagen Society 25th anniversary meeting, June 30 to July 3, 2002, University of Plymouth, UK and presented a paper entitled "Cellular

glutathione status and p53 protein expression: Biomarkers for the risk assessment of betel-nut chewers”, (ii) the workshop on *Molecular Radiation Biology* 17 September, 2002 at the National Science Centre, New Delhi, September 17 and delivered a lecture on *Radiation induced cellular damages in relation to cellular glutathione status*, and (iii) the workshop on ‘Radiation risk in the age of nuclear terrorism’ November 16, 2002, Life Sciences, JNU, New Delhi and delivered a lecture on “Radiation induced damages and endogenous radio-protector reduced glutathione”.

Publications:

Dey, S, S. Singh, N.J. Dhar, N. Biswas, R. Chakravorty, P.K. Das, D.K. Sharma, and A. Raghuvaman. 2002. Possible relationship between dorsal Campaniform sensilla in head surface and preferred feeding posture of Muga silkworm, *Antheraea assama* during indoor rearing. *Sericologia*, 42(2): 171-180.

Giri, S, A. Giri, G.D. Sharma, and S.B. Prasad. 2002. Mutagenic effects of carbosulfan, a carbamate pesticide. *Mutation Research*, 519: 75 – 82.

_____. 2003. Induction of sister chromatid exchanges by cypermethrin and carbosulfan in bone marrow cells of mice *in vivo*. *Mutagenesis*, 18: 53-58.

_____. 2002. Genotoxic

effects of malathion in chick *in vivo* micronucleus assay. *Cytologia*, 67: 53 – 59.

_____. 2002. Genotoxic effects of malathion: an organophosphorus insecticide, using three mammalian bioassays *in vivo*. *Mutation Research*, 514: 223 – 231.

_____. Fenvalerate-induced chromosome aberrations and sister chromatid exchanges in the bone marrow cells of mice *in vivo*. *Mutation Research*, 520: 125 – 132.

Gupta, B.B.P. and I.J. Kharkongor. 2002. Hypothyroidism in India. In G. Tripathi (Eds.) *Bioresource Technology*. New Delhi: CBS Publishers, 344-360.

_____. 2002. Fish Pineal: Structure, Function and Regulation. In C. Haldar, M. Singaravel, and S. K. Maitra (Eds.) *Treaties on Pineal Gland and Melatonin*. Plymouth: Science Publishers, Inc., 77-102.

Gupta, B.B.P. and K. Lalchandama. 2002. Molecular mechanisms of glucocorticoid action. *Current Science*, 83(9):1103-1111.

Gupta, B.B.P. and Y. Premabati. 2002. Differential effects of melatonin on plasma levels of thyroxine and triiodothyronine in the airbreathing fish, *Clarias gariepinus* during breeding and quiescent phases. *General and Comparative Endocrinology*, 129: 146-151.

Hajong, S R and A. Raghu-

varman. 2002. A report on positive phototaxis exhibited by polymorphic forms of an aphid. *Journal of Insect Behavior*, 15(2): 295-298.

Kar, P K, V. Tandon, and N. Saha. 2002. Anthelmintic efficacy of *Flemingia vestita* (Fabaceae): genistein-induced effect on the activity of nitric oxide synthase and nitric oxide in the trematode parasite, *Fasciolopsis buski*. *Parasitology International*, 51(3): 249-257.

Kharbuli, B. 2002. Water: Whose is it? In D.L. Kharmawphlang, S. Som and D. Nengnong (Eds.) *Ka Mer Ka Sdad: Conference and Confluence*. Bhopal: Indira Gandhi Rashtriya Manav Sangrahalaya (IGRMS), 38-40.

Kharbuli, B, H. Kayang, D. Nengnong, and D.R.M. Buam. 2003. Meghalaya Biodiversity Conservation and Dams. *The Ecologist Asia*, 11(1): 87-89.

_____. 2003. Meghalaya Biodiversity Conservation and Dams. *The Ecologist Asia*, 11(1): 87-89.

Khynriam, D and S.B. Prasad. 2002. Changes in glutathione-related enzymes in tumor-bearing mice after cisplatin treatment. *Cell Biology and Toxicology*, 18: 349-358.

_____. 2003. Cisplatin-induced genotoxic effects and endogenous glutathione levels in mice bearing ascites Dalton's lymphoma. *Mutation Research*, 526:

9-18.

Kumpawat, K, A. Chatterjee. 2002. Cellular glutathione status and p53 protein expression: Biomarkers for the risk assessment of betel-nut chewers. *Mutagenesis*, 17, 551-579.

_____. 2003. The usefulness of cytogenetic, level of p53 protein and endogenous glutathione as intermediate end-points in raw betel-nut genotoxicity. *Human and Experimental Toxicology*, 22: 1-9.

Marnagar, D., B. Kharbuli, and R.C. Laloo. 2002. Insecticidal activity of some phyto-extracts against the small rice grasshopper, *Oxya hyla hyla* (Serville). *Geobios*, 29:16-19.

Nicol, B M and S.B. Prasad. 2002. Sialic acid changes in Dalton's lymphoma-bearing mice after cyclophosphamide and cisplatin treatment. *Brazilian Journal of Medical and Biological Research*, 35: 549 – 553.

_____. 2002. Sialic acid changes in Dalton's lymphoma-bearing mice after cyclophosphamide and cisplatin treatment. *Brazilian Journal of Medical and Biological Research*, 35: 549 – 553.

Prasad, S B and A. Kharbangar. 2002. Cisplatin mediated biochemical changes in mitochondria in tumor-bearing mice. In L. Khassanova, Ph. Collery, I. Maynard, Z. Khassanova & J.C. Etienne. *Metal Ions in Biology and Medicine* (Eds.) Paris: John Libbey Eurotext, 575-579.

Prasad, S.B. and D. Khyriam. 2002. Mutagenicity and endogenous glutathione levels in tumor-bearing mice after cisplatin treatment. In L. Khassanova, Ph. Collery, I. Maynard, Z. Khassanova & J.C. Etienne. *Metals in Biology and Medicine* (Eds.) Paris: John Libbey Eurotext, 580-585.

Raghuvarman, A, S.R. Hajong, B. Kharbuli, Sentimenla, D. Margnar, and C.Z. Renthlei. 2002. Role of vitamin T (torutulin) in the differentiation of soldier caste in the termite, *Odontotermes distans* (Holmgren). *Proceedings of the XX Symposium of Reproduction and Comparative Endocrinology*. Bharathidasan University, Tiruchirapalli, 5-6.

Roy, B and V. Tandon. 2003. *Fasciolopsis buski*. In M.D. Miliotis and J.W. Bier (Eds.) *International Handbook of Foodborne Pathogens*. New York: Marcel Decker, Inc., 567-570.

Saha, N., S. Dutta, and A. Bhattacharjee. 2002. Role of amino acid metabolism in an air-breathing catfish, *Clarias batrachus* in response to exposure to a high concentration of exogenous ammonia. *Comparative Biochemistry and Physiology*, 133B: 235-250.

Saha, N. Z. Y. Kharbuli, A. Bhattacharjee, C. Goswami, and D. Haussinger. 2002. Effect of alkalinity (pH 10) on ureogenesis in an air-breathing walking catfish, *Clarias batrachus*. *Comparative Biochemistry*

and Physiology, 132A: 353-362.

Sharma, B K and C. Lyngskor. 2003. Plankton communities of a subtropical reservoir of Meghalaya (N. E. India). *Indian Journal of Animal Sciences*, 73 (2): 88-95.

Syiem, D, C. Syngai, B. Kharbuli, H. Kayang, and B.S. Khongwir. 2003. Anti tumour activity of crude root extract of *Potentilla fulgens*. *Indian Drugs*, 40(2): 124-125

Syiem, D, C. Syngai, P.Z. Khup, B.S. Khongwir, B. Kharbuli, and H. Kayang. 2002. Hypoglycemic effects of *Potentilla fulgens* L. in normal and alloxan-induced diabetic mice. *J. Ethnopharmacology*, 83:55-61.

Tandon, V. and B. Roy. 2002. *SEM Pictorial Guide to Trematodes of Livestock and Poultry in India*. New Delhi: Regency Publications.

Tandon, V. 2003. Spectrum of helminth parasites in Northeast India. In ML Sood (Eds). *Helminthology in India*. Dehradun: International Book Distributors, 57-76.

Study Tour/Field Trip of Students:

Professor V. Tandon and Dr. A. K. Yadav took the M.Sc. third semester students on study tour (duration 11 days w.e.f. February 3 to 13, 2003) to Kolkata, Puri, Konark and Bhubaneswar.

Research Project:

Ongoing:

(i) Title: All India Co-ordinated

Project on Capacity Building in Taxonomy- Research on Helminths and Nematodes.

Principal Investigator: Prof. V. Tandon.

Grant: Rs. 2.74 lakhs per annum.

Source: Ministry of Environment & Forests, GOI, New Delhi.

(ii) Title: Study of distribution, ecology, reproduction and development of tree frogs of Meghalaya with special reference to Cherrapunji.

Principal Investigator: Dr. R. N. K. Hooroo (Co-investigators: Prof. B. B. P. Gupta and Prof. K. Chatterjee)

Total grant: Rs. 9.87 lakhs

Source: Department of Science and Technology, New Delhi.

(iii) Title: Purification and characterization of carbamyl phosphate synthetase(s) and expression of urea cycle in an amphibious potential ureogenic air-breathing catfish, *Clarias batrachus* during early life stages.

Principal Investigator: Dr. N. Saha

Total grant: Rs. 4.85 lakhs

Source: University Grants Commission, New Delhi.

(iv) Title: Culture of carps and air-breathing fishes in hilly region and transfer of technology to rural population of Meghalaya.

Principal Investigator: Dr. N. Saha.

Total grant: Rs. 9.31 lakhs.

Source: Department of Biotechnology, New Delhi.

(v) Title: Cellular GSH status and its response to radiation induced cell cycle arrest, p53 expression, apoptosis and lethal mutation induction in mammalian cells.

Principal Investigator: Dr. A. Chatterjee

Total grant: Rs. 12.00 lakhs

Source: Department of Science and Technology, New Delhi.

New:

(vi) Title: Biodiversity and ecology of zooplankton of floodplain lakes of Assam and Manipur (N. E. India).

Principal Investigator: Prof. B. K. Sharma

Total grant: Rs. 3.48 lakhs

Source: GB Pant Inst. of Himalayan Env. & Development, Almora.

(vii) Title: Baseline environmental survey of Domiasiat and adjacent areas

Co-Principal Investigator: Prof. B. K. Sharma and Dr. B. Kharbuli

Total grant: Rs. 1.2 crores.

Sources: DST/ DAE.

(viii) Title: *In vitro* studies on

adrenergic regulation of N-acetyltransferase (NAT) activity in fish pineal.

Principal Investigator: Prof. B. B. P. Gupta

Total grant: Rs. 14.70 lakhs

Source: Department of Science and Technology, New Delhi.

(ix) Title: Establishment of North Eastern Biodiversity Centre at NEHU.

Principal Investigator: Collaborative Project & Dr. B. Kharbuli is one of the PIs.

Total Grant: 1.5 Crores.

Source: NEC, MHA, Govt. of India.

(x) Title: Conservation and sustainable utilisation of medicinal plants in Meghalaya.

Principal Investigator: Dr. B. Kharbuli

Total grant: Rs. 3.00 lakhs

Source: Meghalaya Biodiversity Strategy, Shillong.

Other Activities:

The National Academy of Sciences, Allahabad initiated the Local Chapter in Shillong for the Northeast India with Prof. V. Tandon as convener and Dr. N. Saha as one of the nominated members of the advisory committee of the same.

Prof. B. K. Sharma (i) delivered

a lecture on "Aquatic Resources and their management" at Atomic Minerals Division (AMD), Department of Atomic Energy, Shillong, July 19, 2002, (ii) was a Member organizing committee of national seminar on *Atomic Energy and Societal development in India* (September 16-17, 2002) organized by NEHU, Shillong and sponsored by the Department of Atomic Energy, Govt. of India.

Prof. B. B. P. Gupta acted as the Local Secretary for 'Biological Sciences' on the organizing committee for the 72nd annual session of the National Academy of Sciences, India and symposium on *Biodiversity-Agenda 21st Century A scientific Approach*, October 25-28, 2002 held at NEHU, Shillong.

Prof. S. B. Prasad was joint supervisor of Ms. S. Giri, who was awarded a Ph.D degree in 2002 by Assam University, Silchar for her Ph.D thesis entitled "Studies on the genotoxic effects of some pesticides in mice and chick in vivo by multiple cytogenetic end points". He also acted as a resource person and delivered 6 lectures in a refresher course organised by the Department of Life Sciences, Dibrugarh University, Dibrugarh, February 17-20, 2003, on the topics: a) Cancer, b) Protein targeting, c) Molecular organization of plasma membrane, d) Membrane transport, e) Antigen presentation,

f) Antibody specificity and diversity.

Dr. B. Kharbuli gave two lectures in refreshers course of Khasi Department on 10th & 20th March 2003 on the topics (i) Medicinal Plants used in Khasi Medicine, and (ii) Traditional Knowledge on Medicinal Plants used by Khasis.

Ms. Larisha M. Lyndem, a Ph.D student (Supervisor: Prof. V. Tandon) of the department bagged the 'Swarna Jayanti Puraskar' for the 'best research paper in the section of Biological Sci-

ences' at the 72nd annual session of National Academy of Sciences, India and symposium on *Biodiversity-Agenda 21st Century A Scientific Approach*, October 25-28, 2002 held at NEHU, Shillong for her joint research paper with Prof. V. Tandon entitled "Hookworm infection: Prevalence among the tribal populations of Meghalaya (Northeast India) and development of the infective stage larvae under varied environmental conditions".

V

School of Physical Sciences

The School of Physical Sciences comprises the departments of Physics, Chemistry, and Mathematics; and the Centre for Applied Statistics. The school has evolved over a period of twenty five years, and has reached an optimum size within the available infrastructure. There are approximately 35 members on our faculty, and we admit approximately a hundred new students each year. Each department in the school has a good library, well-equipped laboratories, computers, and internet facilities. Our departments have been recognized through special assistance programmes of the UGC, DST as well as individual faculty research projects funded by DST, DAE, CSIR, DBT, NEC, and other

agencies. Our research work is published in international journals of high repute and members of our faculty are regularly invited to speak at important national and international conferences. In addition to research and teaching at M.Sc./M.Phil levels, we provide diploma courses in Statistics, refresher courses for college teachers, and training for the Mathematics Olympiad. A section of our faculty has also played administrative role in running several service centers of the university such as the Computer Centre, USIC and RSIC. In short, we are a young and dynamic school offering excellent opportunities for young men and women to prepare themselves for a career in physical sciences.

DEPARTMENT OF CHEMISTRY

The department has M.Sc. and Ph.D. programmes. The number of seats in the M.Sc. programme has

been increased from 30 to 32. 11 students were admitted to the Ph.D programme. 4 students were awarded

Ph.D degree. Two students have qualified CSIR/UGC NET examination. Two new faculty members joined the department, increasing the faculty strength to 10. The 18th refresher course in Chemistry for college and university lecturers was conducted during the year. Based on the academic and research activities, the department has been selected for the award of FIST grant by the Department of Science and Technology, New Delhi and an amount of Rs. 36 lakhs has been sanctioned. It received grants from the UGC in the form of Special Assistance (DRS). There are individual research schemes funded by agencies such as DST, NEC, UGC and CSIR.

Thrust Areas of Research:

Chemical Dynamics, Natural Product Chemistry, Coordination Chemistry and Homogeneous Catalysis, Theoretical organic and bio-organic Chemistry, Chemistry of Porphyrins and Related systems, Chemistry of Surfactants, Transport Behaviour of Supercooling systems, Organometallic Chemistry.

Degrees Awarded:

Ph.D.:

1. Mr. A. Tomba Singh, "Electrochemical and EPR Studies of some oxidized metalloporphyrins". Supervisor: Dr. A. Lemtur.

2. Mr. Sarvesh Chandra Katiyar, "Assessment of breathing level air quality in Shillong". Supervisor: Prof. D.T. Khathing, Joint Supervisor: Dr. K.K. Dwivedi.

3. Mr. Rishan Lang Nongkhaw, "Novel methods for the synthesis of (A) Pyridazine derivatives and related N-heterocycles from substituted 1,4-diketones and (B) cyclopropaneacetic acid ethyl esters and hexa-3,5-dienoic acid methyl ester via lead (IV) acetate oxidations". Supervisor: Prof. B. Myrboh.

4. Ms. Simi Das, "Kinetics of oxidation of ketones by quinolinium dichromate". Supervisor: Prof. M.K. Mahanti.

Funds received from agencies other than NEHU/UGC:

1. Department of Science & Technology, New Delhi – Rs. 36 lakhs to the department under the Fund for Improvement of S&T Infrastructure in Universities & Higher Educational Institutions (FIST Grant).

2. North Eastern Council (MHRD) – Rs.34 lakhs (for research project of Prof. B. Myrboh)

3. DST, New Delhi – Rs.11 lakhs (for research project of Prof. K. Ismail)

4. DST, New Delhi – Rs. 2 lakhs (for research project of Dr. K.M. Rao)

5. DST, New Delhi – Rs.3 lakhs (for research project of Dr. T.S.B. Baul)

Head	:	K. Ismail (upto 16.2.03) R.K. Poddar (from 17.2.03 onwards)
Faculty	:	
Professors	:	M.K. Mahanti, M.Sc., (Madr.), Ph.D (Berh.) K. Ismail, M.Sc./Ph.D (AMU) R.K. Poddar, M.Sc./Ph.D (IIT Kanpur) B. Myrboh, M.Sc./Ph.D (NEHU) R.H. Duncan Lyngdoh, M.Sc. (NEHU), Ph.D (IIT Madr.) R.A. Lal, M.Sc./Ph.D (BHU)
Readers	:	A. Lemtur, M.Sc./Ph.D (NEHU) K. Mohan Rao, M.Sc., (S.V. Univ.), Ph.D (IIT Kanpur)
Lecturers	:	S. Aravamudhan, M.Sc. (S.V. Univ.), Ph.D (IIT Kanpur) T.S.B.Baul, M.Sc. (Jbl. Univ.), Ph.D (N.Bengal)

Student Intake:

- a) Enrolment Capacity: M.Sc.: 32
- b) Actual Admission: SC / ST Gen Male / Female Total
02 24 06 21 11 32
- a) Enrolment Capacity: Ph.D:
- b) Actual Admission: SC / ST Gen Male / Female Total
- 04 07 08 03 11
- c) No. of students qualifying NET/GATE/SLET : 02

6. CSIR, New Delhi –
Rs.5,38,750.00 (for research project of
Dr. S. Aravamudhan)

Courses Conducted:

Semester I – Inorganic chemistry-I,
Organic Chemistry-I, Physical Chemistry-
I, Quantum Chemistry, Laboratory
Course in Physical Chemistry.

Semester II – Inorganic Chemistry-II,
Organic Chemistry-II, Physical
Chemistry-II, Chemical Binding and
Molecular Spectroscopy, Laboratory

Course in Organic Chemistry.
Semester III – Inorganic Chemistry-III,
Organic Chemistry-III, Physical
Chemistry-III, Applications of
Spectroscopic Methods, Laboratory
Course in Inorganic Chemistry.
Semester IV – Environmental Chemis-
try, Analytical Chemistry and
Computers.

Optional Courses: Inorganic
Chemistry-IV/Organic Chemistry-IV/
Physical Chemistry-IV, Project work
(Inorganic/Organic/Physical).

Seminars/Conferences:

Attended:

Prof. M.K. Mahanti attended the 72nd annual session of the National Academy of Sciences, India, at Shillong during (October 25-27, 2002) and presented two papers entitled (i) "Kinetics of oxidation of heterocyclic aldehydes by quinolinium dichromate with G. Schanbey" and (ii) "Kinetics of oxidation of formic and oxalic acids by quinolinium dichromate" with H. Snante. Prof. Mahanti also attended the 5th national symposium in Chemistry, Chemical Research Society of India at Chennai during February 7-9, 2003 and presented a paper with H. Snante entitled "Kinetics of oxidation of dicarboxylic acids by quinolinium dichromate".

Prof. B. Myrboh attended the *World Conference on Medicinal Plants* at Chiangmai, Thailand from February 3 to 7 February, 2003 and presented a paper entitled "Hypoglycemic and anti-hyperglycemic affects of *Flamingia* on blood glucose level of mice" and made a poster presentation on "Medicinal plants of North-Eastern India".

Dr. K. Mohan Rao attended the 5th national symposium in Chemistry at Chennai during February 7-9, 2003 and presented a paper entitled "Synthesis and Characterization of Cyclopentadienyl Osmium Allenylidene and vinylidenealkylidene complexes" with R. Lalrempuia.

Dr. S. Aravamudhan presented a poster entitled "Induced Field Distributions in Heterogeneous Samples" at *XIV International Biophysics Congress* at Buenos Aires, Argentina from April 27 to May 1, 2002. He also presented a poster entitled "A simple summation procedure for an involved integral evaluation for the calculation of properties dependent on specimen shape" at the 72nd annual session of the National Academy of Sciences, India at Shillong during October 25-27, 2002. He gave an oral presentation on the topic "Can HR PMR Provide Further Insights into the Requirements of the Spherical Shape for Lorentz Cavity?" at the NMRS Symposia at IISC, Bangalore during February 3-6, 2003. He also presented a poster entitled "Aromatic Ring current effects for macromolecule structure: Consequences of obtaining induced field estimates in the full tensor form for the shielding" at the national symposium on Biophysics at the Department of Biotechnology, IIT/Roorkee, during 24-25 February, 2003.

Visiting Professors / Fellows / Scholars:

1. Prof. N. Kumar, retired Professor of Chemistry, Jammu University was visiting professor from 8th March 2002 to 30th June 2002. He delivered lectures on Inorganic Chemistry to M.Sc. students.

2. Dr. O.M. Singh, Department of Chemistry, Manipur University, Imphal was a visiting fellow during 6th July 2002. He delivered lectures on Organic Chemistry to M.Sc. students.

3. Prof. S.K. Bhattacharya, Department of Chemistry, Gauhati University, Guwahati, visited the department during June 24th to 26th, 2002 as an external examiner for the M.Sc. practical examination.

4. Prof. K.C. Majumdar, Department of Chemistry, Kalyani University, Kalyani visited the department during 18th to 20th July 2002 in connection with the viva-voce examination and evaluation of the M.Sc. project work. Prof. Majumdar visited the department in December 2002 and delivered six lectures on (i) "Mechanisms of Pericyclic Reactions" and (ii) "Organic Photochemistry", to the participants of 18th refresher course.

5. Prof. O.K. Medhi, Department of Chemistry, Gauhati University, Guwahati visited the department on 18th and 19th July 2002 in connection with viva-voce examination and evaluation of the M.Sc. project work. Prof. Medhi visited the department on December 9th and 10th and delivered four lectures on "Bioinorganic Chemistry" to the participants of 18th refresher course in Chemistry Department.

6. Prof. A.K. Mishra, Depart-

ment of Chemistry, Gauhati University, Guwahati visited the department on 18th and 19th July 2002 in connection with the viva-voce examination and evaluation of the M.Sc. project work.

7. Prof. P.L. Majumdar, Department of Chemistry, University College of Science, Calcutta University, Kolkata visited the department on 18th October 2002 in connection with the meeting of the Board of Post Graduate Studies in Chemistry.

8. Prof. R.C. Sharma, Department of Chemistry, Dr. B.R. Ambedkar University, Agra visited the department on October 28, 2002 in connection with the Advisory Committee meeting of the DRS programme of the department.

9. Prof. Saswati Bag, Retired Professor of Chemistry, Jadavpur University, Kolkata visited the department on October 28, 2002 in connection with the Advisory Committee Meeting of the D R S programme of the department.

10. Prof. K. Natarajan, Department of Chemistry, Bharathiar University, Coimbatore, visited the department from 28th October to 30th October, 2003 in connection with the meeting the School Board of Physical sciences. He delivered a lecture on "Bridge between Organic and Inorganic Chemistry" in the department.

11. Prof. S.N. Bhat, retired Professor, Department of Chemistry,

North-Eastern Hill University, Shillong visited the department during 20th to 25th November, 2002. He was an external examiner for the M.Sc. practical examination. He delivered three lectures on (i) Molecular spectroscopy and (ii) Non-ideal solutions to the participants of 18th refresher course in Chemistry.

12. Dr. B.K. Das, Department of Chemistry, Gauhati University, Guwahati visited the department during 25th to 27th November 2002. He was an external examiner for the M.Sc. practical examination. He delivered two lectures on "Homogenous Catalysis in Inorganic Chemistry" to the participants of 18th refresher course in Chemistry.

13. Prof. P.C. Kalsi, retired Professor, Department of Chemistry, Panjab Agricultural University, visited the department during December, 2002 and delivered six lectures on "Structure Elucidation Through the Use of Spectroscopic Methods" to the participants of 18th refresher course in Chemistry.

14. Dr. Dulal C. Ghosh, Department of Chemistry, Kalyani University, Kalyani, visited the department during November 2002 and delivered six lectures on "Fundamentals and Some Applications of Quantum Chemistry" to the participants of 18th refresher course in Chemistry.

Publications:

Basu Baul, T.S., S. Dutta, C. Masharing, E. Rivarola, and U. Englert. 2003. Organotin(IV) complexes of N-[(22)-3-hydroxy-1-methyl-2-butenylidene] glycine. *Heteroatom Chem.*, 14 : 149-154.

Basu Baul, T.S., S. Dutta, E. Rivarola, R. Butcher, and F.E. Smith. 2002. The synthesis and structural characterization of some triorganotin (IV) complexes of 2- {[E]-1-(2-hydroxyaryl) alkylidene] amino} acetic acid. Crystal and molecular structures of $\text{Ph}_3\text{Sn}(2\text{-OHC}_6\text{H}_4\text{C}(\text{H})=\text{NCH}_2\text{COO})$ and $\text{Me}_3\text{Sn}(2\text{-OHC}_6\text{H}_4\text{C}(\text{CH}_3)=\text{NCH}_2\text{COO})$. *J. Organometal. Chem.*, 654: 100-108.

Basu Baul, T.S., S. Dhar, E. Rivarola, F.E. Smith, R. Butcher, X. Song, McCain, and G. Eng. 2003. Synthesis and characterization of some dibutylbis{5-[(E)-2-(aryl)-1-diazenyl]-2-hydroxybenzoato}tin(IV) compounds. Toxicity studies of di- and tri-organotin complexes on the second instar of *Aedes aegypti* mosquito larvae. *Appl. Organometal. Chem.*, 17: 261-267.

Buam, D.L. and R.H. Duncan Lyngdoh. 2002. Information-bearing base-pair sets involving nitrogenous heterocycles: A theoretical modeling study. *Indian J. Chem.*, 41B: 2346-2356.

Chaubey, G.S., A. Susngi, S. Das, and M.K. Mahanti. 2002. Kinetic features of the oxidation of aliphatic

dialdehydes by quinolinium dichromate. *Kinetics and Catalysis*, 43: 789-793.

Chaubey, G.S., S. Das, and M.K. Mahanti. 2002. Kinetics of the oxidation of heterocyclic aldehydes by quinolinium dichromate. *Bull. Chem. Soc. Japan*, 75: 2215-2220.

Chaubey, G.S., S. Das, and M.K. Mahanti. 2002. Oxidation of heterocyclic aldehydes by quinolinium dichromate: A kinetic study. *Heterocyclic Commun.*, 8: 497-500.

Das, S., G.S. Chaubey, and M.K. Mahanti. 2002. Kinetics of the oxidative cleavage of α -keto acids by quinolinium dichromate. *Kinetics and Catalysis*, 43: 794-798.

Gunaseelan, K and K. Ismail. 2003. Estimation of micellization parameters of sodium dodecyl sulphate in water + 1-butanol using the mixed electrolyte model for molar conductance. *J. Colloid Interface Sci.*, 258: 110-115.

Herberich, G.E., T.S. Basu Baul, and U. Englert. 2002. Complexes of the (tetramethylcyclobutadiene) cobalt fragment with boratabenzene ligands and an unprecedented formation of a borabenzene complex. Structures of $(C_4Me_4)Co(3,5-Me_2C_5H_3BSnMe_3)$ with a Sn-B bond and of the dinuclear complex $[(C_4Me_4)Co(3,5-Me_2C_5H_3B)]_2O$. *Eur. J. Inorg. Chem.*, 43-48.

Lal, R.A., J. Chakraborty, S. Bhaumik, and A. Kumar. 2002.

Heterobimetallic chemistry: Heterobimetallic complexes derived from monometallic copper(II) complex of bis-(2-hydroxy-1-naphthaldehyde) malonoyldihydrazone. *Indian J. chem.*, 41A: 1157-1162.

Lalrempuia, R. and K.M. Rao. 2003. Synthesis and characterization of arene ruthenium (II) complexes containing N, N'-donor Schiff base ligands. Molecular structure of $[(n^6C_6Me_6)Ru(C_5H_4N-2-CH=N-C_6H_4-p-NO_2)]$. *Polyhedron*, 22: 605- 609.

Mandal K.D., L. Behera, and K. Ismail. 2003. Electrical conduction and dielectric behavior of the $Gd_{1-x}Ca_xCoO_3$ system synthesized by the chemical route ($x=0.10, 0.20, 0.30$). *J. Alloys comp.*, 352: 309-314.

Rymmai, E. K. and K.M. Rao. 2003. Reactions of $[(n^5-Cp^*)Ru(PPh_3)_2(CH_3CN)]X$ and $[n^5-indenyl)Ru(PPh_3)_2(CH_3CN)]X$ with bipyridine and o-phenanthroline. ($Cp^*=C_5Me_5$, indenyl = C_9H_7 , $X = BF_4$ or PF_6). *Polyhedron*, 22: 307-312.

Tomba Singh, A and A. Lemtur. 2003. Oxidation products of VO (T(m-NO₂)PP): EPR and Cyclic voltammetric studies, *Spectrochimica Acta part A: Mol. & Biomol. Spectroscopy*, 59: 1549-1556.

Study Tour/Field Trips:

The department organized a study tour for the M.Sc. students during the period 24th December 2002 to 13th

January, 2003. Dr. T.S.B. Baul was teacher incharge of it. The team visited Nehru Science Centre, Mumbai, B.A.R.C., Mumbai, National Institute of Oceanography, Goa, Indian Institute of Science, Bangalore, High Tech Technological Park, Bangalore and Bio Organics, Bangalore.

Research Project (Undertaken during the year under review):

(a) New:

(i) Synthesis, structure and reactivity of molybdenum(VI), molybdenum(IV) complexes derived from polyfunctional dihydrazones (Principal Investigator: Prof. R.A. Lal) sponsored by U.G.C., New Delhi for Rs.5,24,560.00.

(b) Ongoing:

(i) Co-ion Effect on Micellization of Ionic Surfactants (Principal Investigator: Prof. K. Ismail) sponsored by the DST, New Delhi.

(ii) Synthetic and Structural Studies on (Cyclopentadienyl and Azacyclopentadienyl) Ruthenium (II) bisphosphine complexes (Principal Investigator: Dr. K.M. Rao) sponsored by DST, New Delhi.

(iii) Synthesis and characterization of organotin carboxylates: Investigation of utagenicity lists and antitumour bioassay with reference to an understanding of a structure/activity relationship (Principal Investigator: Dr.

T.S.B. Baul) sponsored by DST, New Delhi.

(iv) Shielding Parameters on Nuclei: Facilities for the Experimental Determination and Calculation by Theoretical Procedures to Obtain Information on Crystal Structures and Molecular Electronic Structures (Principal Investigator: Dr. S. Aravamudhan) sponsored by CSIR, New Delhi.

North-Eastern Biodiversity – An interdisciplinary Research Project-extended for the Xth Plan period (Coordinator: Dr. B. Myrboh) sponsored by NEC, Shillong.

Academic Collaborations:

Dr. T.S. B. Baul had collaboration with the following scientists which resulted in the form of joint research publications:

i) Dr. E. Rivarota, Dipartimento di chimica Inorganica, Universita di Palermo, Italy.

ii) Dr. F.E. Smith, Department of Chemistry, Laurentian University, Canada.

iii) Dr. R. Butcher, Department of Chemistry, Howard University, U.S.A.

iv) Dr. G. Eng, Department of Chemistry and Physics, University of the District of Columbia, USA.

v) Dr. G.E. Herberic and Dr. U. Englert, Institut fur Anorganische Chemie, Technische Hochschule. Aachen, Germany

Other Activities:

The department conducted the U.G.C. sponsored 18th refresher course in Chemistry for university and college teachers during November 20th to December 10th 2002. 25 teachers attended this course. Prof. R.H.D. Lyngdoh was the course coordinator. Dr. T.S.B. Baul attended it. Professors M.K. Mahanti, K. Ismail, R.K. Poddar, B. Myrboh, R.A. Lal and Dr. A. Lemtur and K.M. Rao were the resource persons from the department.

Prof. M.K. Mahanti was local organizing secretary (Physical Sciences) for the 72nd annual session of the National Academy of Sciences, India, held in Shillong during October 25-27, 2002.

Prof. K. Ismail delivered lectures in refresher courses in Chemistry held at the Department of Chemistry, Dibrugarh University, Dibrugarh on 17th and 18th June, 2002, at the Department of Chemistry, Gauhati University, Guwahati on 2nd July, 2002 and at the Department of Chemistry, Kalyani University, Kalyani on 24th and 25th March 2003 on Thermodynamic Concepts, Equilibrium

and Non-equilibrium Thermodynamics and Statistical Thermodynamics. Prof. K. Ismail was nominated as a member of the Editorial Board of the *Journal of Surface Science and Technology*.

Prof. R.K. Poddar delivered five lectures in the refresher course in Chemistry conducted at the Department of Chemistry, Dibrugarh University, Dibrugarh from 17th June to 7th July 2002. The lectures were delivered on Symmetry, Group Theory and its Applications and on Inorganic Reaction Mechanisms. He was appointed a member of the Committee of Courses in Post-Graduate Studies (Chemistry) Gauhati University, Guwahati.

Prof. B. Myrboh was Professor in-charge (Head) RSIC, North-Eastern Hill University, Shillong.

Dr. A. Lemtur was a guest lecturer at the Department of Chemistry, Nagaland University from 27th July to 9th August 2002. He delivered lectures on Chemical Binding and Molecular Spectroscopy. He was appointed a member of the BUGS in Chemistry, Nagaland University, Kohima.

DEPARTMENT OF MATHEMATICS

The department offers M.Sc./ M.Phil and Pre-Ph.D. courses in different fields of Mathematics like Algebra, Analysis, Differential Equations, Topology/Geometry, Number Theory, Theory of Relativity and Cosmology and Oceanography. It gives two computer courses in M.Sc. and also pursues research in computer aided approach to mathematical research in Number Theory, Cosmology, Algebraic and Differential Topology, Oceanography etc. The department continued to devote itself to M.Sc. level teaching and research.

Thrust Area of Research:

Theory of Relativity and Cosmology, Algebraic and differential Topology, Algebra, Number Theory and Oceanography.

Courses Conducted:

Semester I:

Linear Algebra, Analysis, ODE, Classical Mechanics, Application of Mathematics in Environmental Studies. Analysis II, Topology, PDE, Algebra I. CFT, Computer Programming, Topics in Algebra, Theory of Relativity. ENT, Computer Numerical Analysis, Ring Theory and Operations research.

Seminars/Conferences:

Prof. H.K. Mukerjee (i) Attended the workshop on "Topological Methods in Group Theory" at the Institute of Mathematical Sciences, Chennai, July 15-27, 2002 and delivered talk on "CAT(k) Spaces, metric spaces of curvature $\leq k$ and sectional curvature of Riemannian manifolds". (ii) Attended the instructional workshop and international conference on "Geometric Group Theory" held at the Indian Institute of Technology, Guwahati, December 2-21, 2002. and delivered a talk on "On the Isomorphism problem and related problems". (iii) Delivered a talk at the Indian Institute of Technology, Guwahati, on April 12, 2002 on "Topology, Group Theory and Geometry".

Visiting Professor/Fellow/Scholar:

Dr. N.J. Dev from Shillong.

Publications:

Buhphang, A.M. and M.B. Rege. 2002. Semi-commutative modules and Armendariz modules. *Arab J. Math. Sc*, 8: 53-65.

Mondal, C.R. 2003. *Text book of Ordinary Differential Equations*. New Delhi: Prentice Hall of India.

Mukerjee, H.K. 2003. Smooth involutions and splitting invariants

Head : M. B. Rege.

Faculty :

Professors : S.S. Khare, M.Sc/Ph.D (Alld.)
M.B. Rege, M.Sc/Ph.D (Bom)
S.K. Srivastava, M.Sc/Ph.D (Gorak)
H.K. Mukherjee, M.Sc/Ph.D (Alld)

Readers : P.K. Saikia, M.Sc. (Delhi), Ph.D (Wiscn)
A.K. Das, M.Sc/Ph.D (NEHU)
C.R. Mondal, M.Sc/Ph.D (V.B)

Lecturers : S.L. Marbaniang, M.Sc. (Gau.)
A.M. Buhphang, M.Phil (NEHU)

Student Intake: a) Enrolment Capacity: 33

b) Actual Admission:		SC/ST	Genl.	Male/Female	Total
20	13	23	10	33	

revisited. *Topology and its Applications*, 129: 129-143.

Srivastava, S.K. 2003. Riecion from higher dimensional space time with D-dimensional sphere as a compact manifold and one-loop renormalization. *Pramana*, 60: 29-46.

Research Projects:

Ongoing:

D.S.T. Project entitled "Application of Computer TechniqueHomology" sanctioned to Prof. S.S. Khare and Dr. A.K. Das jointly.

Other Activities:

Prof. M.B.Rege conducted

training programme for college and school teachers for orienting them for Mathematics Olympiad. In addition Mathematics Olympiad at regional and national levels was conducted and also training was given to students for the same.

Computing Facilities:

Computing facilities of the department have been increased to facilitate M.Sc. students to perform practicals for the courses given by the department. Computers of the department are networked through LAN under Linux to the VSAT of the university.

DEPARTMENT OF PHYSICS

The department has set up an Internet Computer Laboratory for the benefit of faculty and students with the help of grants received from the Department of Science and Technology, Government of India. Apart from conducting M.Sc. and Ph.D programmes, faculty members gave talks at national and international conferences on their research contributions. The department organized its first refresher course in Physics for the benefit of university and college teachers.

Thrust Area of Research:

The Department of Physics was established in 1976 with a view to build scientific manpower in this part of the country consistent with the NEHU Act. Over the years, the department has identified Nuclear Physics (Experimental and Theoretical), Solid State Physics (Experimental and Theoretical), High Energy Physics/ Particle Physics (Theoretical) and Laser Physics (Experimental and Theoretical), as the thrust areas in its teaching and research. These are also among the thrust areas declared by the Department of Science and Technology, Government of India. The department has been selected under the DST-FIST programme since July, 2001.

Degrees Awarded: Ph.D.

1. Ratnadeep Roy, "Relaxation dynamics of complex systems : Exact solution of hysteresis in one-dimensional antiferromagnetic random field Ising model at zero temperature". Supervisor: Prof. P. Shukla.

2. Ayon Bhattacharjee, "Dynamics of phase transitions in some ferroelectric and other liquid crystals". Supervisor: Prof. A.L. Verma.

3. H. Hrangmingthanga, "Photophysical studies on some porphyrins and cytochrome-C". Supervisor: Prof. A.L. Verma.

4. Zaithanzuana Pachuau, "Theoretical study of Photoemission from metals and semi conductors". Supervisor: Professor D.T. Khathing, Joint Supervisor: Dr. R.K. Thapa.

Funds received from agencies other than UGC/NEHU:

Rs. 2.00 lakhs - DST Project of M.K. Parida.

Courses Conducted:

Classical Mechanics, Quantum Mechanics I, Mathematical Physics, Laboratory I, Electrodynamics, Electronics, Quantum Mechanics II, Laboratory II, Atomic and Molecular Physics, Solid State Physics, Nuclear Physics, Laboratory III, Thermal Physics,

Head: M.K. Parida

Faculty:

Professors: A.L. Verma, M.Sc. (L'now), Ph.D (IIT Kanpur)*
C.S. Shastry, M.Sc. (Karn.), D.Phil (Calc.)
Y.S.T. Rao, M.Sc. (Andh.), Ph.D (Maryland)
P. Shukla, M.Sc. (IIT Delhi), Ph.D (Temple)
K. Kumar, M.Sc. (Agra), Ph.D (IIT Kanpur)
Y.S. Jain, M.Sc.(Agra), Ph.D (IIT Kanpur)
P.N. Pandita, M.Sc./Ph.D (Kashmir)
D.T. Khathing, M.Sc. (Delhi), D. Phil (Calc)**
M.K. Parida, M.Sc./Ph.D (Utkal)
B.M. Jyrwa, M.Sc./Ph.D (NEHU)

Readers: P. Nongkynrih, M.Sc./Ph.D (NEHU)
M.C. Mahato, M.Sc. (Ranchi), Ph.D (IISc., Bangalore)

Lecturer: S.S. Pohlong, M.Sc/Ph.D (NEHU)

*on deputation as Director, NERIST, Itanagar.

**on deputation as Registrar, NEHU, Shillong.

Student Intake: a) Enrolment Capacity: 30

b) Actual Admission:	SC/ST	Genl.	Male/Female	Total
	23	7	21 9	30

Many Body Theory, High Energy Physics, Laser Physics, Experimental Technique, Environment.

Perspective in Physics: Non-relativistic Quantum Theory; Relativistic Quantum Mechanics; Symmetries, Conservation Laws and Particle Interactions; Plasmons, polaritons, nanomaterials, superlattices, high temperature superconductivity, ferromagnetic domains, hysteresis, noise, fluctuations and their utility; Interaction of

electromagnetic radiation with matter, Laser principles and their applications, holography, molecular symmetries; Nuclear structure, synthesis of heavy nuclei, biological effects of nuclear radiation and radio-isotopes; satellite communication.

Seminars/Conferences:

Attended:

Professor P. Shukla attended the discussion meeting on Statistical

Mechanics of Threshold Activated Systems at Chennai, March 24-26, 2003 and gave a talk on "Driven Random Field Ising Model: some exactly solved examples in threshold activated kinetics".

Professor M.K. Parida presented papers on (i) "Bilarge Neutrino Mixings by Renormalization Group Evolution" at the High Energy Physics Seminar, 26 August, 2002, Centre for Theoretical Studies, Indian Institute of Science, Bangalore. (ii) "Bilarge Neutrino Mixings by Radiative Magnification", and "Radiative Stability of Neutrino Mass Textures" at the international conference on *Particle Physics and Cosmology*, 3-4 January 2003 at the Tata Institute of Fundamental Research, Bombay. (iii) "High-Scale Unification of Mixings of Quarks and Leptons" at the High Energy Physics Seminar, 27 January, 2003, Institute of Mathematical Sciences, Chennai.

Professor Y.S. Jain attended the national conference on *Thermophysical properties of Bose Condensates of Dilute Gases*, September 19-21, 2002 held at Department of Physics, University of Rajasthan, Jaipur and gave a talk on "Microscopic Origin of Thermo-physical Behaviour of Quantum Fluids" and also presented a paper on "Certain properties of Bose condensates of Dilute Gases".

Visiting Professor/Fellows:

(i) Professor J. Pasupatty,

Centre for Theoretical Studies, Indian Institute of Sciences, Bangalore visited the department during September 28-2nd November, 2002 under the auspices of the DST project "Prospects of fermion masses and mixings in unified theories" and gave two lectures.

(ii) Professor L. Satpathy, Institute of Physics, Bhubaneswar, visited the deptt. during May-June, 2002 for research collaboration.

(iii) Dr. B. Sahu, Reader in Physics, Khallikot College, Berhampur, Orissa visited the deptt. during May-June, 2002 for research collaboration and gave one lecture.

(iv) Professor L.P. Singh, Department. of Physics, Utkal University visited the department and presented a paper on "Standard Cosmology".

Publications:

Jain, Y.S. Basic problems of microscopic theory of many quantum system, cond-matt/0208445 e-print www.arxiv.org/.

Jyrwa, B.M. 2002. *Laboratory Manual* (M.Sc. Physics), Vol. I. Shillong: Alpha-plus Publishing House.

Mahato, M.C. and A. Jaynnavar. 2003. Enhancement of mobility by periodically modulating the starting slop of a washboard potential. *Physica*, A318: 154-160.

Mohapatra, R.N., M.K. Parida, and G. Rajasekaran. 2003. High Scale Mixing Unification and Large Neutro

Mixing Angles. *Los Alamos Laboratory Archives in High Energy Physics*, hep-ph/0301234.

Pachua, Z., B. Zoliana, P.K. Patra, D.T. Khathing and R.K. Thapa. 2002. *Physics Letters*, A294: 52-57.

Parida, M.K., B. Purkayastha, C.R. Das and B.D. Cajee. 2003. Precision and Uncertainties in mass scale predictions in SUSY SO (10) with $SU(2)_L \times SU(2)_R \times U(1)_{B-L} \times SU(3)_c$ intermediate breaking. *Eur. Phys. J.*, DOI 10.1140/epjc/s2003-01180-x/

Sabhapandit, S., D. Dhar and P. Shukla. 2002. Hysteresis in Random Field Ising Model and Bootstrap Percolation. *Phys. Rev. Lett.*, 88: 197-202.

Sahu, B., L. Satpathy and C.S. Shastry. 2002. Identification of resonances in scattering with a test imaginary potential. *Phys. Lett*, A303: 105-113.

Sahu, B., S.K. Agarwalla and C.S. Shastry. 2003. Fusion Barrier Distribution described by above barrier resonances. *Nucl.Phys.*, A 713: 45-62.

Sahu, B., S.K. Agarwalla and C.S. Chastry. 2002. Above barrier resonances: Analytical Expressions for Energy and Width. *J.Phys. A(Math & Gen.)*, 35: 4349-4358.

Tripathy, S.P., R. Mishra, K.K. Dwivedi, D.T. Khathing, S. Ghosh and D. Fink. 2002. Dose dependent modification of polypropylene by 62 KeV protons. *Radiation Measurements*, 35:

95-98.

_____. 2002. Proton Induced Modification in Polyethylene Terephthalate (PET). *Radiation Effects and Defects in Solids*, 157: 387-394.

_____. 2002. Degradation in Polytetrafluoro ethylene by 62 MeV Protons. *Polymer Radiation Effects and Defects in Solids*, 157: 303-320.

Study Tours/Field Trips:

Dr. (Mrs) B.M. Jyrwa guided the M.Sc. (Physics) students for study tour to visit Atomic and Mineral Division, Shillong for interaction with scientists dealing with uranium mining.

Research Projects:

Ongoing:

(i) FIST (Fund for Infrastructure in Science and Technology), funded by the Department of Science and Technology, Government of India.

(ii) "Prospects of Fermion Masses and Mixings in Unified Theories", funded by DST, Govt. of India, 2000, New Delhi (PI: M.K.Parida).

(iii) "Senior Associateship" of M.K. Parida, funded by the Institute of Mathematical Sciences, Chennai.

(iv) "Senior Associateship" of Prof. P. Shukla funded by the Institute of Mathematical Sciences, Chennai.

(v) "Relaxational Dynamics in a Complex Landscape" of Prof. P. Shukla funded by DST, Govt. of India.

Academic Collaboration:

Prof. M.K. Parida is collaborating with the Deptt. of Physics, University of Maryland, USA and Institute of Mathematical Sciences, Chennai on "High Scale Unification of Mixings of Quarks and Leptons".

Dr. B.M. Jyrwa is collaborating with BARC, Bombay on nuclear theory.

Other Activities:

The department organized the first UGC-sponsored refresher course in Physics on the theme "Perspectives in Physics" during March 3-22, 2003 in which 18 university and college teachers participated. Prof. Y.S. Jain was the Course Coordinator. Prof. S.N. Behera (Berhampur Univ.), Prof. S.C. Abbi (IIT Delhi), Prof. T.D. Goswami (Gauhati Univ.), Prof. P. Shukla, Prof. M.K. Parida, Prof. P.N. Pandita, Prof. Y.S. Jain, Prof. Satish Kumar, Prof. (Mrs) Koparkar, Prof. R.P. Bajpai, Dr.(Ms) P. Nongkynrih, and Dr. M.C. Mahato gave lectures as resource persons. Dr. S.S. Pohlong attended the course.

Prof. M.K. Parida visited the Centre for Theoretical Studies, Indian Institute of Science, Bangalore for collaborative research and gave lectures during August 22-28, 2002. He also visited the Institute of Mathematical Sciences, Chennai during January 14-28, 2003 as Senior Associate.

Prof. P. Shukla visited: (i) Insti-

tute of Mathematical Sciences, Chennai during Dec. 13, 2002-January 7, 2003 as Senior Associate (ii) S.N. Bose National Centre for Basic Sciences, Kolkata during January 31-February 15, 2003 as Senior Associate and (iii) Physics Department, Indian Institute of Science, Bangalore January 8-10, 2003. Prof. Shukla gave talks during all the three visits about his recent work on "Nonequilibrium behaviour of the random field Ising Model".

Prof. C.S. Shastry (i) was appointed as a member of Advisory Board for DAE-BRNS Symposium, December 2002 at Tirunelveli where he chaired a session on Intermediate Energy Nuclear Physics (ii) visited Anna University, Chennai as a member of UGC visiting team for X-plan in November, 2002 and continued to be a member of SERC programme Advisory Committee of the Department of Science and Technology, Government of India.

Dr.(Mrs) B.M. Jyrwa participated in Radion Counselling for IGNOU, for creating public awareness on uranium mining, and gave seminars regarding the role of women in science organized by NIS.

Professor D.T. Khathing was appointed as a member, national organising committee of 21st international conference on Nuclear Track in Solids, October 21-25, 2002, New Delhi.

CENTRE FOR APPLIED STATISTICS

Thrust Areas of Research:

Statistical Inference, Design of Experiment, Sample Survey and Statistical Ecology.

Seminars/Conferences:

G. Das attended the workshop on *Survey Methodology and Application of Statistical Packages*, organized

Head : M.K. Das

Faculty Readers :
 M.K. Das, M.Sc./Ph.D (Dib)
 G. Das, M.Sc. (Delhi), Ph.D (NEHU)
 B.K. Gupt, M.Sc. (Alig)

Student Intake: a) Enrolment Capacity: 20
 b) Actual Admission:

SC/ST	Gen.	Male/Female	Total
18	2	15 5	20

Degrees Awarded:

P.G. Diploma	SC/ST	Gen	M/F	Total
3	0	2	1	3

by the Indian Statistical Institute, Kolkata and Manipur University, at Imphal, October 28 – November 01, 2002.

Courses Conducted:

Ist Semester: Mathematics and Descriptive Statistics, Computational Technique & Elementary Probability Theory, Probability distribution and Vital Statistics Method, Economics Statistics and Indian Official Statistics.

IInd Semester: Descriptive Statistics & Sampling Distribution, Statistical Methods, Sampling Techniques and Quality Control, Analysis of Variance and Experimental Design, Biometrics (for M.Sc. IVth Semester students of Zoology only).

Publications:

Das, G. 2003. Simulation Studies on the Distribution of Studentized Range. *Communication in Applied and Mathematical Statistics*, 2 (2).

_____. 2003. A Gene-ralised Study on some Preliminary Test Estimators in Double Sampling. *Assam Statistical Review*, 17 (1-2).

Research Projects:

Ongoing:
 (i) "Application of Statistical

Modelling on Management of Bamboos” for 3 years.

Principal Investigator : Dr. G. Das

Amount of Fund : Rs. 3,68,400.00

Source : DST, New Delhi

ii) UGC minor research project entitled “Contributions to Survey Sampling under Super Population Model” (Mr. B.K. Gupta).

VI

School of Social Sciences

The School of Social Sciences comprising the departments of History, Sociology, Political Science and the Centre for Cultural and Creative Studies has been carrying out teaching and research for over twenty five years. The school has advanced considerably in certain areas of contemporary academic concern like gender justice and affirmative action. The number of women faculty members has increased considerably and now they constitute a quarter of the total faculty strength. A large number of the students in the school are also women. Of 285 post graduate and diploma level students 132 are women and 278 belong to Scheduled

Tribes. The school thus has an overwhelming majority of students from among the Scheduled Tribes.

The research and teaching in the school have contributed significantly to the understanding of the social reality and cultural heritage of India's North East. The Ph.D programmes carried out by the departments in the school have been bringing into light many little known aspects of the lives of the communities inhabiting the region. The Department of History as also the Department of Sociology are under Special Assistance Programme of the U.G.C. Some faculty members of the school are involved in international collaboration.

DEPARTMENT OF HISTORY

The Department of History was established on 15th October 1974. Distinguished by an emphasis on the study of peoples and regions with particular reference to social, cultural

and economic developments in North East India, the department's objectives are (1) to provide at the Master's level a broad knowledge of human history and particularly of the areas and

themes of special concern to the department and modern approaches to its study through a suitably structured and balanced syllabus, and (2) to promote historical research in hitherto unexplored areas, especially in North Eastern region through M.Phil/Ph.D programmes and faculty members' research. The department's major achievements have been in the areas of syllabi innovation and promotion of North East India studies. New grounds have been broken in regional history and in the history of the bordering areas or countries. Through the researches of its faculty, its Ph.D programmes and through the North East India History Association which it helped to establish, and nurture since its foundation in 1979, the department has played a crucial role in laying the foundation of regional studies in the region. It is now recognized as the leading centre for historical studies of North Eastern region. In 1994 it was brought under Special Assistance Programme (DRS) of the UGC with North East India Studies as the thrust area and in 2001-02 the programme has been renewed by the UGC for another five years (till 2005-2006). The department organized a national seminar on *Society and Economy in Pre-Colonial Northeast India: 13th –18th Centuries*. The department also conducted a refresher course (UGC) for lecturers.

Degrees Awarded:

Ph.D

1. Anthony Kaba, "The Manipur Political Agency with Special Reference to the Frontier Problem, 1836-1891". Supervisor: Professor Imdad Hussain.

2. Katoni Jakhalu, "Provincial Finance in Assam: A Study of Imperial Provincial Financial Relations, 1874-1947". Supervisor: Professor Imdad Hussain.

3. Sanjeeb Kakoti, "Technological Changes and Mode of Production in the Evolution of the Ahom State". Supervisor: Professor M. Sharma.

Courses Conducted:

M.A.

New Courses: Ist & IInd Semesters

Historical Methods, Pre-Historic to Ancient Societies, Society and Economy in Ancient/Medieval/Modern India, Feudalism, Capitalism and Imperialism, Ancient Indian Polity & Society, Colonialism Imperialism & Economy Change, History of Graeco-Roman Civilization, Modern Japan.

IIIrd & IVth Semesters

Ancient Indian Social & Economic History, Political Theory & Institutions in Ancient India, British Expansion in India, British Imperialism in India, Neolithic & Megalithic Culture of North East India, Religion & Society in Medieval India, Peasant Movements

Head : J.B. Bhattacharjee (till 20.12.2002)
D.R.Syiemlieh (w.e.f. 20.12.2002)

Faculty :

Professor : J.B.Bhattacharjee, M.A./ Ph.D (Gau)
Imdad Hussain, M.A./Ph.D (Gau)
D.R. Syiemlieh, M.A./Ph.D (NEHU)
M . Momin, M.A./Ph.D (JNU)
M. Sharma, M.A. (Gau), Ph.D (NEHU)

Readers : F.A. Qadri, M.A./Ph.D (Alig)

Lecturers: C.Mawlong, M.A./Ph.D (NEHU)
V.R. Rengsi, M.A./Ph.D (NEHU)
A.N. Passah, M.A./M.Phil (NEHU)
T.Gurung, M.A./Ph.D (NEHU)

Student Intake: a) Enrolment Capacity: 50
b) Actual Admission: SC/ST Gen. Male/Female Total
49 01 22 28 50

in Modern India, Rise of Modern Japan, Christianity in North East India, Economic History of Modern India, Religion & Society in Ancient India, Introduction to Archaeology, Frontier & Foreign Policy of British India, History of Sciences, Agrarian Unrest in Medieval India, Modern USA, Ancient India Art & Architecture, Indian Nationalism, History of Ideas in Modern India.

Seminars/Conferences:

Organised:

The department organized a national seminar on *Economy and Society in Pre-Colonial North-East: 13th- 18th Centuries* from 3 to 5 March 2003. Dr. F.A.Qadri was the convenor

of the seminar.

Attended:

Professor J.B.Bhattacharjee presented a paper titled (i) "Rajamala and the tradition of history writing in Tripura", NEIHA, Agartala, September, 2003. (ii) "Krishamala as a source of the History of Northeast India in the 18th Century", *Indian History Congress*, Amritsar, December, 2002. (iii) "Historiography of Ki Lyngamm", Keynote Address, seminar organized by Shillong Environment Society, January, 2003. (iv) "Economic Dimension of Meitei State Formation in Manipur" at the national seminar, Department of History, NEHU, March 2003. (v) "Folklore as Alternative Source for the

History of Arunachal Pradesh”, Keynote Address, ICHR Seminar, Arunachal University, March 2003.

Professor Imdad Hussain

(i) Presided over inaugural session of the seminar on *Education in the 21st Century in North East India: Issues, Prospects and Challenges* organized by the North East India Council of Social Science Research, Shillong, in collaboration with State Resource Centre, Meghalaya, Shillong, 17-18 June 2002. (ii) Presented a paper titled “Border Management: Retrospect and Prospect” and presided over the session on the Media and Security in North East India of the seminar on *Dynamics of Border Management: Past, Present and Future*, organized by Border Security Force, Shillong, 7-8 October 2002. (iii) Presided over inaugural session of the workshop on *Security and Development in North East India* organized by North East Council for Social Science Research, Shillong, 9 December, 2002. (iv) Presented a paper titled “Financial Discrimination and Underdevelopment : North East India’s Colonial Legacy”, and presided over the session on Social Conflicts : Dimensions and Solutions in the national seminar *North East: Challenges and Response* organized by Nehru Memorial Museum and Library, New Delhi, 19-21 December 2002. (v) Presided over the session on “Economic Consequences

of Illegal Migration” in the seminar on *Illegal Migration from Bangladesh: Prevention and Solution*, organized by Astha Bharati (New Delhi) in Guwahati, 21-22 February, 2003.

Professor D.R.Syiemlieh (i) Presented a paper on “Harmonising Indo-US Relations through Partnership in Academics” at the USEFI funded seminar on *Dynamics of Partnership: Nature and Scope of Indo-US Partnership*, organized by Dibrugarh University, 12 August 2002. (ii) Gave a lecture on “Conceptualising Social Reality: Research Enterprise in History”, 12 September, in the ICSSR-NERC training course on *Social Reality and Methods in Social Science Research in the Context of North East India*, 9-19 September, 2002. (iii) Gave a lecture on “The National Movement in North East India” to the students and faculty of St Mary’s College, Shillong, 26 November, 2002. (iv) Delivered a lecture “History and Geography: Problems and Prospects for research in North East India” to participants of the *Research Methodology and GIS Application in Scientific Research*, Department of Geography, NEHU, 29 November, 2002. (v) Presented a paper on “Control of the Foothills: Khasi-Jaintia Trade and Markets in the Late Eighteenth Century” in the ICHR /ICSSR/NERC/NEHU sponsored national seminar on *Economy and Society in North East India : 13-18 Centuries*, organized by

the Department of History, NEHU , 3-5 March, 2003.

Professor M.Momin (i) Attended the conference of the North East India History Association, Twenty-third Session, Agartala, September, 2002. Presented a paper titled "Witnessing History: The Kalika Purana Examined". (ii) Participated in the national seminar on *Economy and Society in Pre-Colonial North East India, 13th – 18th Century*, organized by the Department of History, NEHU, Shillong, March 3-5, 2003. Presented a paper "Socio-Economic Linkages in the 'Decline' of Kamarupa". (iii) Delivered five lectures as resource person in the UGC sponsored refresher course in Dibrugarh University, History Department, March 13-15, 2003.

Professor M. Sharma (i) Presented a paper titled "Trends of Governance and Traditions in Rural Meghalaya" (Co-author A.K.Baruah) at the international seminar on *Local governance in India and China : Rural Development and Social Change* organized by the Indian Institution of Social Science, New Delhi and Institute of Chinese Studies, New Delhi, from 5 to 8 January Calcutta. (ii) Presented a paper "Critiquing Traditions: The Case of Meghalaya", at the international workshop on *Community Conflicts and Crisis of Democratic Governance* organized by Lokniti-NE and sponsored by the

London School of Economic and Politics' Crisis States Programme, at NEHU Shillong, September 18-19, 2002. (iii) Presented a paper titled "Historicity of Traditions" at the national seminar on *Traditional Institutions and Democratic Governance in North East India* organised by the North Eastern Institute of Development Studies in collaboration with OKD Institute of Social Change and Development, Guwahati, ICSSR-NERC and Centre for North-East Studies and Policy Research, New Delhi, at Shillong, 20-21 September, 2002. (iv) Presented a paper titled "Trends, Possibilities and Problems in History writing in Pre-Colonial North East India: Economy and Society, 13th –18th Centuries", at the national seminar on *Economy and Society in Pre-Colonial North East India (13th – 18th Century)*, organized by the Department of History, NEHU, and sponsored by ICHR, ICSSR-NERC, SAP-DRS (UGC) Department of History, NEHU, at Shillong , March 3-5, 2003. (v) Delivered six lectures as resource person at the UGC sponsored refresher course for college teachers at Academic Staff College, Gauhati University, 3 – 5 February, 2003. (vi) Attended the XXIII annual session of the North East India History Association held at Tripura University, Agartala, September 26 – 28, 2002 and presented a paper titled "Interrogating Traditions : Towards a Conceptual

Framework”.

Dr.F.A.Qadri (i) Attended the XXIIIrd annual session of NEIHA held at Tripura University, Agartala, September 26-28, 2002 and presented a paper on “The Patron Sultan of King Ratan Manikya”. (ii) Presented a paper on “Sufis and Process of Islamization in Pre-Colonial North-East India” at the national seminar on *Economy and Society of Pre-Colonial North-East: 13th – 18th Century*, March 3-5, 2003, Department of History, NEHU, Shillong. (iii) Presented a paper on “Shihab al-din Talish on the tribes of Arunachal Pradesh” at the national seminar on *Sources of the History of Arunachal Pradesh* organized by ICHR-NERC, March 12-15, 2003. (iv) Attended the 63rd session of the Indian History Congress at Guru Nanak Dev University, Amritsar, 28-30 December, 2002 and presented a paper on “Historicity of Imam Muhammad Taj Fa-qih”. (v) Delivered five lectures as resource person at the UGC sponsored refresher course in History, Dibrugarh University, November 6-8, 2002. (vi) Delivered five lectures as resource person at the UGC sponsored refresher course in History, Academic Staff College, Gauhati University, January 6—8, 2003.

Dr.V.R.Rengsi presented a paper titled “Surplus Appropriation and Power Structure in Pre-Colonial Mizo Society” at the national seminar on

Economy and Society in Pre-Colonial North East India: 13-18 Centuries, Department of History, NEHU, 3-5 March, 2003.

Ms. A.N.Passah presented a paper titled “Role of Khasi-Jaintia Women in Pre-Colonial Period” at the national seminar on *Economy and Society in Pre-Colonial North East India: 13-18 Centuries*, organized by Department of History, NEHU, 3-5 March, 2003.

Dr.T.Gurung (i) presented a paper titled “Emergence of Ahom Monarchy in Upper Assam (13-15th Century)” at the national seminar on *Economy and Society in North-East India, 13 – 18 Century*, Department of History, NEHU, Shillong, March 3-5 2003. (ii) Also participated in a UGC sponsored refresher course in History, Assam University, Silchar from 3.3.2003 to 24.3.2003 and obtained Grade ‘A’.

Visiting Professor:

Professor Sushil Choudhury of the Department of Islamic History, Calcutta University was visiting faculty at the department during 30 May – 6 June 2002 and delivered a series of lectures on Economic History of Modern India.

Publications:

Bhattacharjee, J.B. 2003. *Economic Dimension of the Making of*

the Garo Policy (1787-1873). In M.Momin (Ed.) *Readings in the History and Culture of the Garos*. New Delhi: Regency, 120-135.

Gurung Nag, T. 2003. Human Movement and Colonial State: The Nepalis of Northeast India under the British Empire. In A.C. Sinha and T.B.Subba (Eds.) *The Nepalis in the Northeast India: A Community in Search of Indian Identity*. New Delhi: Indus Publishing Company, 172-183.

Hussain, I. 2002. Provincial Autonomy and the Hill Areas of Assam: Anthony McCall in the Lushai Hills. *Journal of the North East India Council for Social Sciences Research*, 26 (2): 43-56.

_____. 2003. Soldiers and Settlers: Recruitment of Gorkhas. In A. C. Sinha and T. B. Subba (Eds.) *The Nepalese in North East India: A Community in Search of Indian Identity*. New Delhi: Indus Publishing Company, 65-105.

_____. 2003. Geography behind History: The Garo Hills' Colonial Legacy. In M.Momin (Ed.) *Readings in the History and Culture of the Garos (Essays in Honour of Milton Sangma)*. New Delhi: Regency, 136-158.

Mawlong, C. 2003. Megalithic Elements among the Garo: Some observations. In M.Momin (Ed.) *Readings in the History and Culture of the Garos*. New Delhi: Regency, 98-112.

Momin, M. 2002. Contextua-

lizing Origin Myths of Northeast India. *Proceedings of North East India History Association*. Twenty-second Session. Shillong: NEIHA, 30-47.

_____. 2002. Garo Memorials to the Dead and Sacrificial Stones. *Journal of Historical Research*, 12: 25-34.

_____. 2003. History, Ethnography, Archaeology and the Cultural Sequence in Garo Hills. In Mignonette Momin (Ed.) *Readings in History and Culture of the Garos (Essays in Honour of Milton S.Sangma)*. New Delhi: Regency Publications, 27-56.

Passah, A.N. 2003. Nepali Christians in the Khasi and Jaintia Hills of Meghalaya. In A.C.Sinha and T.B.Subba (Eds.) *The Nepalis in North East India: A Community in Search of Indian Identity*. New Delhi: Indus, 277-294.

_____. 2003. Matriliney in Meghalaya: At the Crossroads? Some Insights. In M. Momin (Ed.) *Readings in History and Culture of the Garos: Essays in Honour of Prof.Milton S Sangma*. New Delhi: Regency, 180-194.

Qadri, F.A. 2002. Shaykh Jalal al-Din Tabrezi, Is he the Saint of Hajo?. *Proceedings of NEIHA, XXII Session*, 186-194.

_____. 2003. Garo Factor in Mughul North East Frontier Policy. In M.Momin (Ed.) *Readings in History*

and Culture of the Garos : Essays in Honour of Milton S. Sangma. Delhi: Regency Publishers, 113-119.

Sharma, M. 2002. Women in the Ahom Economy: Re-examination of two Texts. *Proceedings of North East India History Association*, XXII Session. Shillong: NEIHA, 67-73.

_____. 2003. Sources and Construction of History: The Histories of the Khasi-Jaintia and Garo. In M.Momin (Ed.) *Reading in History and Culture of the Garos: Essays in Honour of Milton S. Sangma.* New Delhi: Regency, 1-26.

Syiemlieh, D.R. 2002. Book review of *Dimensions of Displaced People in North East India*, C Joshua Thomas (Ed), Regency Publications, New Delhi, in *ICSSR Newsletter*, 33 (4) : 17.

_____. 2003. A Critique of Evangelization methods. In Sebastian Karotemprel (Ed.) *Evangelization Methods: Some Clarifications and an Evaluation.* Shillong: Vandrame, 186-191.

_____. 2003. Catholic Missions among the Garos of Mymensingh: Some reflections of its early history – 1909-1942. In M.Momin (Eds) *Readings in the History and Culture of the Garos.* New Delhi: Regency Publication.

Thrust Area of Research:

North East India.

Research Project:

Various research projects are undertaken with the help of SAP-DRS to the department.

Other Activities:

The department organized refresher course for university and college teachers between 20 May and 11 June, 2002. Professor D.R. Syiemlieh was the Course Coordinator.

Prof. Manorama Sharma continued to work on the project "Community, Conflicts and Crisis of Democratic Governance : An analysis of the Societies of North East India" sponsored by the Crisis States Programme of the School of Economics and Politics, London, in collaboration with the North East India Institute of Development Studies (NEIDS), Shillong. Jointly directed with Prof. A.K.Baruah.

Study Tour:

Professors M. Momin and M. Sharma accompanied the IIIrd semester students on a study tour to Bangalore-Goa-Mumbai, 13-30 January 2003.

DEPARTMENT OF POLITICAL SCIENCE

The Department of Political Science, established in 1975, aims at building an academic community 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 12 faculty members, the department has 80 students on its rolls at the M.A. level. The department also provides research facilities leading to M.Phil and Ph.D degrees.

Thrust Area of Research:

Government and Politics in North-East India.

Degrees Awarded:

Ph.D:

1. Rajesh Dev, "Politic of Difference: A Study of Ethnonationalism with Reference to the Chicanos and Nagas". Supervisor: Professor A.K. Baruah.

2. R. Hmingthanzuala, "Regional Council in Mizoram: A Case Study of Pawi-Lakher Regional Council,

1952-1972. Supervisor: Professor L.S. Gassah.

Funds received from agencies other than NEHU:

Rs.12,000/- from ICSSR-NERC in connection with the national seminar on the *Working of Targeted Public Distribution System in North Eastern States*, November 8-9, 2002.

Courses Conducted:

M.A. (Previous)

1st Semester: Political Theory–The Classical Traditions, Theories & Concept in Public Administration, Government & Politics in India, Theory of International Politics. 2nd Semester: Political Theory–The Liberal Democratic Theory & Conservatism, Issues in Public Administration, Socio-economic Basis of the Indian Political System, Problems of International Politics.

M.A. (Final)

3rd Semester: Compulsory: Political Theory – Contemporary, Marxist Theory, Modern Political Analysis. Optional : International Law, Traditional Govt. & Politics of the Hill, Area of N.E. India, Political Economy of Human Rights, Issues in Indian Administration, Research Methodology, Issues in Women's Studies.

Head : B. J. Deb

Faculty :

Professors : R.L. Walli, M.A./Ph.D (JNU)
A.K. Baruah, M.A./Ph.D (Panj)
R.Borgohain, M.A. (JNU), Ph.D (Gau.)
L.S. Gassah, M.A./Ph.D (NEHU)
B.J. Deb, M.A./Ph.D (Gau.)

Readers : E. Laitflang, M.A./Ph.D (NEHU)
K. Debbarma, M.A./Ph.D (NEHU)
H. Srikanth, M.A./Ph.D (Hyd.)
P. Malngiang, M.A./Ph.D (NEHU)

Lecturers : S. Sengupta, M.A./Ph.D (NEHU)
T.T. Haokip, M.A /Ph.D (NEHU)
B.K. Mohapatra, M.A./Ph.D (JNU)

Student Intake:

(a) Enrolment Capacity: 40 students in M.A. Previous and 40 in M.A. Final
10 students in M.Phil
Ph.D as per university rules.

(b) Actual Admission:

	SC/STGen		Male	Female	Total
M.A.	39	1	26	13	40
Ph. D	11	1	11	1	12

Number of students qualifying NET: 7

4th Semester: Compulsory:
Contemporary/ Political Theory: Major
Issues Comparative Politics. Optional
: International Organisation, Govt. &
Politics of the Hill Areas of N.E India
Modern Indian Political Ideas, Foreign
Policy, Political Sociology, Issues in
Environmental Politics.

M.Phil:

Contemporary Political Theory,
Research Methodology, Environmen-

tal Studies

Seminars/Conferences:

Organised:

Prof. B. J. Deb: (i) National
seminar on *Working of Targeted Public
Distribution System in N.E. States*,
NEHU, Shillong, November 8-9, 2002.
(ii) Seminar on *Mother Earth*,
NEICSSR, 5 June 2002 at Don Bosco
Youth Centre, Shillong. (iii) Symposium
on *Shillong: 1991-2001* on 11-12

November 2002 at Raitong Building, Shillong (iv) *Prof. B. Pakem 3rd Annual Memorial Lecture*, 7th May 2002 at District Library Auditorium, Jowai.

Attended:

Prof. A.K. Baruah (i) Presented a paper on "Rural Governance in Tribal Societies" at the international seminar organized by the Institute of Social Sciences in Kolkata, 6-7 January 2003.

(ii) Presented a paper on "Laitumkhrah Dorbar" in an international workshop organized by Lokniti and LSE collaboration, under the Crisis States Programme of the London School of Economics and Political Science at NEHU, September 18-19, 2002.

(iii) Presented a paper on "Tradition and Democratic Governance" at the national seminar organized by the North Eastern Institute of Development Studies, Shillong 20 – 21, September, 2002.

L. S. Gassah (i) Presented a paper on "Parliamentary Democracy, the Sixth Schedule and Autonomous District Councils in N.E. India", at the workshop on *The Functioning of Parliamentary Democracy in India with special reference to the North-Eastern Region*, organized by Umshyrpi College, Shillong, 20 August, 2002. (ii) Presented a paper on "Structure of the Jaintia Traditional Political System" at the first international workshop organized jointly by London School of

Economics and Political Science and Lokniti, Shillong Branch on 18 September, 2002 at Shillong. (iii) Presented a paper on "Traditional Administration of Justice in N.E. India: The Application of Traditional Knowledge in Dispensing Justice" at the 25th *Indian Folklore Congress* held on 5 – 6 November, 2002 at NEHU, Shillong.

B. J. Deb presented a paper (jointly with Dr. K. Debbarma) on "Working of TPDS – Problems and Constraints" at the national seminar on *Working of Targeted Public Distribution System in N.E. States* held on 8-9 November, 2002 at NEHU, Shillong.

K. Debbarma presented a paper (jointly with Prof. B.J. Deb) on "Working of TPDS – Problems and Constraints" at the national seminar on *Working of Targeted Public Distribution System in N.E. States*, 8-9 November 2002, at NEHU, Shillong.

H. Srikanth presented a paper, "Prospects of Liberal Democracy in Meghalaya: Civil Society's Response to KSU led agitation", at the seminar on *Traditional Institutions and Democratic Governance in Northeast India*, organized by NEIDS, Shillong, Sept. 19-20, 2002.

P. Malngiang (i) Presented a paper on "Structure of the Traditional Khasi Durbar", at the workshop held at NEHU, Shillong on 18 September, 2002 organised by CSDS and Lokniti

in collaboration with LSE Crisis States Programme. (ii) Presented a paper titled "Parliamentary Democracy with special reference to N.E. India" at the seminar held on 20 August, 2002 at Umshyrpi College, Shillong.

S. Sengupta presented a paper titled "Governance and Traditions in Arunachal Pradesh – Some Observations", at the national seminar on *Traditional Institutions and Democratic Governance in North East India* organized by the North Eastern Institute of Development Studies, Shillong in collaboration with O.K.D. Institute of Social Change and Development, Guwahati, ICSSR-NERC, Shillong & Centre for North East Studies & Policy Research, New Delhi during 20-21 September, 2002 at NEHU, Shillong.

T. T. Haokip presented a paper entitled "The Kuki-Naga Conflict: Issues and Solutions", at the national seminar on *Coming out of Violence: Resolving Ethnic Conflicts in North East India* sponsored and organized by ICSSR at Guwahati, November 11-12, 2002.

Publications:

Baruah, A.K. et.al. 2002. *Social Science Research Capacity in South Asia*. New York: Social Science Research Council.

_____. 2002. Tribal traditions and crises of governance in North East India with special reference

to Meghalaya. London School of Economics and Political Science web Magazine www.crisisstates.com.

_____. 2002. North East India in Social Science Research Capacity in South Asia: A Report, Volume 2. Regional Studies (South Asia Program, Social Science Research Council) 1-20.

Gassah, L.S. 2002. Traditional Self-Governing Institutions among the Hill Population of Groups of Meghalaya. In Atul Goswami (Ed.) *Traditional Self-Governing Institutions Among the Hill Tribes of N.E. India*. New Delhi: Akansha Publishing House, 180-193.

_____. 2002. Status of the Panchayats in Meghalaya jointly authored with C.J. Thomas. In G. Palnitharai (Ed.) *Dynamics of New Panchayati Raj System in India*. Vol.II. New Delhi: Concept Publishing Company, 106-112.

Malngiang, P. 2002. Student Activism in the North Eastern Region. In V. Thomas & Biju Michael (Eds.) *Youth Vision*. Guwahati: Don Bosco Institute, 127-138.

Srikanth, H. 2002. Persisting Questions. *Economic and Political Weekly*, 37(32).

_____. 2002. Understanding Ethnic Conflicts in Northeast India. In Girin Phukon (Ed.) *Ethnicity and Polity in South Asia*. New Delhi: South Asian Publishers.

Study Tour/Field Work:

Dr. H. Srikanth along with the students went to a study tour to Hyderabad and Goa during January 10-31, 2003.

Research project:

Ongoing:

A. K. Baruah: (1) Community Conflicts and Crisis of Governance. NEIDS and LSE sponsored project. Allocation Rs. 12 lakhs. Working with a team comprising A.K. Baruah – Project Director, Manorama Sharma, Pascal Malngiang, Rajesh Dev and Patricia Mukhim. (2) Criminal Justice in Meghalaya, funded by NUJS, Kolkata. Allocation 75,000.00 working in a team comprising A. K. Baruah – Project Director, Manorama Sharma and Patricia Mukhim.

L. S. Gassah: Assessment of M.Phil and Ph.D Thesis: Department of Political Science, NEHU funded by ICSSR-NERC, Shillong, Allocation 5,000/-.

B. J. Deb & K. Debbarma: Joint Project on “Working of Targeted Public Distribution Systems in N.E. States” sponsored by Ministry of Consumer Affairs, New Delhi. Amount of Fund Rs. 4,60,800/-, Principal Investigators – Prof. B. J. Deb & Dr. K. Debbarma.

Other Activities:

Prof A.K. Baruah (i) Delivered

three lectures in an orientation programme of Academic Staff College, Gauhati University, 14 December, 2002. (ii) Delivered three lectures on Political Theory in the refresher course organized by the Department of Political Science, Dibrugarh University, 26 - 27 December, 2002. (iii) Delivered a lecture on “Traditions and Liberal Democracy” at the Department of Political Science, Calcutta University 20 January, 2003. (iv) Delivered a lecture on “Traditional Values and Democratic Practices in North East India” at Rabindrabharati University, 24 January, 2003.

Prof. R. Borgohain (i) Delivered lectures in Political Science refresher courses held in Dibrugarh University during October 2002. (ii) Worked as Academic Member, SLET, Govt. of Assam.

L. S. Gassah delivered a lecture on “Foundation and Relevance of Social Science Research in the context of N.E. India” during the training course on *Social Reality and Methods in Social Science Research in the context of N.E. India*, September 9-19, 2002 sponsored by ICSSR-NERC, Shillong at NEHU.

H. Srikanth (i) Delivered two lectures on Linking Policy and Research in ICSSR-NERC sponsored course on Research Methodology on September 13, 2002 at NEHU, Shillong. (ii) Delivered five lectures on

Marxist and Liberal interpretations of Indian State and on Secularism in Indian context in refresher course in Political Science, Assam University, December 26-30, 2002. (iii) Delivered 12 lectures in the Department of Political Science, Assam University from January 16 to January 21, 2002. (iv) Delivered 6 lectures on Postmodernism, Feminism and the Indian state in re-

resher course in History, Assam University, Silchar, 15-18 March, 2003.

K. Debbarma attended refresher course at Gauhati University from 18 November to 8 December 2002 and obtained Grade A.

P. Malngiang attended the refresher course held at Gauhati University from 18 November to 8 December, 2002 and obtained Grade A.

DEPARTMENT OF SOCIOLOGY

The Department of Sociology began instruction at MA, M.Phil and Ph.D levels in 1976. Keeping in mind article 4 of the NEHU Act [the Socio-cultural development of the North Eastern region] the department decided to emphasize on social change as its academic thrust in which most of the researches are conducted. 18 books have so far been published by the faculty members.

Thrust Area of Research:

Social Change.

Degrees Awarded: Ph.D.

1. P.C.Lalawmpuia, "Changing Family Structure among the Mizos in Mizoram: A Study in Aizawl District". Supervisor: Processor C. Nunthara.

Funds received from agencies other than NEHU:

	Source	Amount
1.	ICSSR, New Delhi	Rs.1,89,000/-
2.	ICSSR, New Delhi	Rs. 50,000/-
3.	ICSSR, NERC, Shillong	Rs. 10,000/-
4.	DRS (UGC-SAP)	Rs. 60,000/-

Courses Conducted:

First Semester: Sociological Theories I, Methodology of Social Research I, Sociology of Kinship, Social Stratification.

Second Semester: Sociological Theories II, Methodology of Socials Research II, Sociology of Religion,

Head : A. C. Sinha (up to 25.2.2003 F.N.)
P. M. Chacko (from 25.2.2003 A.N.)

Faculty:

Professors : M. N. Karna, M.A./Ph.D (Patna)
A. C. Sinha, M.A. (Ranchi), Ph.D (IIT, Kanpur)
C. Nunthara, M.A./Ph.D (Delhi)
Pariyaram M Chacko, M.A./Ph.D (Delhi)
Nikhlesh Kumar, M.A.(Delhi), Ph.D (NEHU)
C.L. Imchen, M.A./Ph.D (JNU)

Readers : I.Lanu Aier, M.A./Ph.D (NEHU)
A.K. Nongkynrih, M.A./Ph.D (NEHU)

Lecturer : B. Panda, M.A. (Hyderabad)

Student Intake:

(a) Enrolment Capacity:

M.A.	40
M.Phil	15
Ph.D	21

(b) Actual Admission

	SC/ST	General	Male	Female	Total
M.A. I	39	1	17	23	40
M.A. II	38	2	15	25	40
M.Phil	3			3	3
Ph.D	10		3	7	10

Urban Sociology.

Third Semester: Economy and Society, Polity and Society, Sociology of Development, Ethnic Relations.

Fourth Semester: Social Change, Entrepreneurship and Management, Sociology of Movement, Sociology of Environment, Theories in Social Anthropology.

The following courses are offered at the M.Phil level:

Perspectives in Sociological Research.

Ethnic Relations.

Tribal Societies.

Seminars/Conferences:

Organised:

A national seminar on *Democracy, Pluralism and Conflict* was organised by the Department of Sociology under its UGC Special Assistance Programme (DRS) during

7-9 May 2002. It was inaugurated by the Hon'ble Governor of Meghalaya Sri M. M. Jacob and the keynote address was delivered by Prof. T.K. Oommen of Jawaharlal Nehru University. It was attended by 50 persons including senior sociologists from New Delhi, Mumbai, Kolkata, Chandigarh, Amritsar, Hyderabad and Silchar. The seminar deliberated upon the issues like democracy and multiculturalism, secularism and communalism, cultural identity and nationalism, communal situation in Gujarat and culture and violence.

Prof. Nikhlesh Kumar organised a seminar on *Exploring Masculinities – A Travelling Seminar* (18-19 April, 2002) at NEHU, Shillong.

Attended:

Prof. M. N. Karna presented the following papers: (i) "Ethnicity, Movement and Social Structure in North East India" at the seminar held in April, 2002 in the Department of Sociology and Social Anthropology, University of North Bengal. (ii) "Food security and irony of starvation: Some issues concerning India's farm sector", in Research Committee 40: *Sociology of Agriculture and Food*, International Sociological Association, XV World Congress of Sociology, Brisbane, Australia, July 8, 2002. (iii) "Democracy and Nationalism" and presided over a session at a felicitation seminar on

Rethinking Sociology: The Indian Context, at Jawaharlal Nehru University, New Delhi, October 21-23, 2002. (iv) "Social Conflicts: Dimensions and Solutions" and presided over a session at the seminar on *North East: Challenges and Response* organised by Nehru Memorial Museum and Library, New Delhi during December, 19-21, 2002.

Prof. A. C. Sinha presented papers at the following seminars: (i) "Comprehensive Security for Whom?" on December 9, 2002 and presided an academic session in the seminar on *Comprehensive Security in India* organized by North East India Council for Social Science Research, Shillong December 9, 2002 (ii) "Urbanization on a Subsistence Economic Base: History of Urban Growth in Eastern Himalayas" and gave the Valedictory address at the seminar on *Urbanization in Eastern Himalayas* on November 21- 22, 2002 at the Centre for Himalayan Studies, North Bengal University, Rajarammohanpur, Darjeeling (iii). "Dialogue Between Colonial Anthropology and Indological Sociology: Verrier Elwin and Govind Sadashiv Ghurye on the Tribal Policy in India" at the centenary celebration cum seminar on *Verrier Elwin and the Tribes of North –East India*, organized by Department of Anthropology, NEHU, Shillong and Indira Gandhi Rashtriya Manav Sangrahalaya, Bhopal, Madhya Pradesh on

August 29-31, 2002 (iv) "Ethnic Engagement in Bhutan and its Regional Consequences" at the Seminar on *Partnership For Development: Holistic Approach to the North East India*, organized by NERC, Indian Council of Social Science Research, New Delhi at Gangtok, Sikkim, on May 8-9, 2002.

Prof. C. Nunthara presented papers at the following seminars: (i) "Local – Self Government in Mizoram" at the workshop on *Inclusion of Excluded Communities for Social Cohesion through Panchayati Raj* organized by the Institute of Social Sciences, New Delhi during September 13-15, 2002. (ii) "Peace-Making through Accords" at the workshop *Dimensions, Dynamics and Transformation of Resource Conflicts between Indigenous Peoples and Settlers; in Frontier Regions of South and Southeast Asia* in Switzerland during September 25-29, 2002. (iv) "Analysing Mizo Peace Accord" at the seminar on *Analyzing Peace and the Challenges of Development in Mizoram* at Aizawl, November 26-27, 2002.

Prof. Pariyaram M. Chacko presented papers at the following seminars: (i) "Indian Democracy" at the national seminar on *Civil Society and Democracy*, Department of Sociology, NEHU, Shillong (ii) "Migration Pattern in a Small Town in Arunachal Pradesh" at the seminar on *Urbanization in Eastern Himalayas in North Bengal*

University, Nov 21-22, 2002.

Prof. C.L. Imchen presented papers in the following seminars :

(i) "Democracy, Indigenous Tribal Social Structure and Political Movements" at the seminar on *Ethnicity, Movement and Social Structure in North-East India* organised by the Department of Sociology, University of North Bengal, 22-24, April, 2002. (ii) "The Nagas and the legacy of Civilizing Mission of the Western World" at the *Consultation Seminar on Understanding Tribal Cultures for more Effective Education*, sponsored by the Education and Culture Commission of the Catholic Bishops' Conference at Shillong on 1-3 November 2002. (iii) "A Historical Reconstruction of the Relations Between Nagas and the Valley Kingdoms" at the national seminar on *Economy and Society in Pre-Colonial North-East India (13th-18th centuries)*, organised by the Department of History, NEHU, Shillong.

Dr. I. Lanu Aier presented a paper titled "Changing Patterns of Naga Social Institutions", at the seminar on *Continuity and Change in Naga Society*, organised by the Department of History and Archaeology, Nagaland University and Maulana Abul Azad Institute of Asian Studies (MAAIAS) Calcutta on 10 October, 2003 at Kohima.

Dr. A.K. Nongkynrih presented

papers in the following seminars :

(i) "Common Property Resources in the Context of Meghalaya", at the seminar on *Mainstreaming, Equity and Poverty: Issues in Policy for the Management of Common Property Resources in the Hindu Kush Himalayas* organised by International Centre for Integrated Mountain Development (ICIMOD), 19th –20th April, 2002 Kathmandu, Nepal; (ii). "The Role of NGOs in Development", at the seminar on the Role of NGOs in Development organised by Nagaland Development Outreach and Government of Nagaland, Kohima, October 22-25, 2002.

Publications:

Chacko, P.M. 2002. Book review of A.M. Shah, *Exploring India's Rural Past: A Gujarat village in the early nineteenth century*. *Sociological Bulletin*, 51: 275-276.

Nongkynrih, A.K. 2002. *Khasi Society of Meghalaya: A Sociological Understanding*. New Delhi: Indus Publishing Company.

Research Projects.

Title of the Project	Investigator	Amount of Fund	Source
(a) New: Evaluation of Treatment Cum-rehabilitation/ Counselling and De-addiction Centres in North East region.	Prof. A.C. Sinha	Rs.1,89,000/-	ICSSR, New Delhi

_____. 2002. *Farmer, Wild Rats and Broom Plants: Livelihoods and Cultural Beliefs and Practices* Falmer: Livelihoods – Connect, Institute of Development Studies.

Sinha, A. C. 2002. *The Nepalese in North-East India: A Community in Search of An Identity*. Co-edited with Prof. T.B. Subba. New Delhi: Indus Publishing Company.

_____. 2002, The Indians of Nepalese Origin and Security of North East Region. In *Comprehensive Security: Perspectives from India Regions*, New Delhi: Delhi Policy Group.

_____. 2003. Forest Education and Research in British India: The Beginnings. *The NEHU Journal*, 1 (1): 79-92.

_____. 2003. Sonaram Sangma's Struggle for Restoration of Forest Right's and Redressal of Grievances of the Garos. In M. Momin (Ed.) *Reading in History and Culture of the Garos*. New Delhi: Regency Publications, 195-211.

(b) Completed: Evaluations of large size Multi-purpose Cooperative Societies Tribal States in Two of North Eastern India and their linkage with Apex Bodies. Meghalaya and Mizoram.	Prof. P. M. Chacko	Rs.52,000/-	Ministry of Social Justice & Empowerment, New Delhi
(c) Ongoing: Panchayati Raj Institutions in Tripura	Prof. Nikhlesh Kumar		

Other Activities:

Prof. M.N. Karna presided over the session on Agricultural Sustainableabilities, RC 40, 9 July, 2002, International Sociological Association, XVth World Congress of Sociology, Brisbane, Australia. He also organised sessions of Research Committee – 17: Social Movements as Convener at the 28th All India Sociological Conference of Indian Sociological Society, IIT, Kanpur, December 18-20, 2002.

Professor A.C. Sinha gave a series of six lectures in the refresher course in History, Department of History, Assam University, Silchar, Assam on March 6-7, 2003.

Prof. C. Nunthara participated in a workshop on *Resource Conflict between Indigenous Peoples and Settlers in South and Southeast Asia* at Hotel Pinewood, Shillong during

February 26-28, 2003.

Prof. P. M. Chacko attended the 28th All India Sociological Conference held on December 18-20, 2002 at IIT Kanpur. As Convener of Research Committee (of Indian Sociological Society) on *Rural, Peasant and Tribal Communities*, presided over one of its sessions at 28th All India Sociological Conference, December 18-20, 2002, IIT, Kanpur.

Prof. Nikhlesh Kumar visited Tripura in connection with a research project (7-13, April 2002 and from September 16-17, 2002 and from 5-8 January, 2003). He attended the seminar on *Democracy, Pluralism and Conflict* (7-8 May 2002) and presented a paper on "Inclusion of excluded communities for social cohesion through Panchayati Raj: A Case Study of Tripura" at the seminar organised by

the Department of Sociology, NEHU, Shillong. He taught a course on Research Methodology at Sacred Heart College, Shillong (9-19 August, 2002). He also participated in a workshop on the research project on Panchayati Raj Institutions, held at Institute of Social Studies, New Delhi (13-15 September, 2002) and participated in a workshop on the research project on physically and mental handicapped persons in Tripura held at Greater Noida (UP) (9-12 March, 2003) and presented baseline data on three villages of Tripura.

Dr. I. L. Aier attended the

seminar on *Human Rights and Naga Issues*, organised by the Naga Peoples' Movement for Human Rights (NPMHR) on 9.5.2002 at Dimari Com, Kigwema, Kohima, Nagaland.

Dr. A.K. Nongkynrih attended the national seminar on *Democracy, Pluralism and Conflict*, organised by the Department of Sociology, NEHU. He was Coordinator, Community Development Extension Programme, DRS-SAP, Department of Sociology, NEHU.

Mr. B. Panda joined the department as a lecturer and Dr. A.K. Nongkynrih was promoted as Reader in May, 2002.

CENTRE FOR CULTURAL AND CREATIVE STUDIES

This centre has two units, viz., Creative Arts and Cultural and Literary Studies. The Creative Arts Unit is running regular Casual Art classes for imparting basic training to students in painting and music. The classes were conducted for a three-month period after which certificates were awarded to the successful participants.

Thrust Area :

Performing Arts and Visual Arts.

Academic Activities during the year:

The Creative Arts Unit has compiled a manuscript on Traditional

Music (in Khasi). This is based on the proceedings of the workshop on *Traditional Music* conducted by the centre in January 2002, and sponsored by the Directorate of Arts and Culture, Meghalaya, Shillong. The manuscript will be published by the Publication Cell, NEHU.

Started a training programme on Vocal Music in the Tonic Solfa/Staff Notation and Indian Notation from the month of October, 2002.

Conducted a theatre workshop at Nongstoin from 9th to 12th October, 2002. Mr. Dulal Roy, Theatre Expert and Director from Assam and National

Awardee was sponsored by the Sangeet Natak Akademi, New Delhi as the resource person of the workshop.

Organised a programme on "Rare Traditional Dances of the different Raids" at Kyrdem Village, Ri-Bhoi District on 18th December 2002. This programme was organized by the Creative Arts Unit to study and document the various cultural dances of the region.

The Creative Arts Unit has started a year-long activity of the university with different programmes under the caption "Creative Arts Musical Programme" with the objective to create harmony, love, understanding and above all, a healthy environment. Three musical programmes were conducted during the year under report. They are:

(i) "An Evening with Students" held in co-ordination with NEHUSU at the Seminar Hall, NEHU Guest House, Shillong on 31st May, 2002.

(ii) Classical and Creative Dance Programme on 13th July, 2002, held at Seminar Hall, NEHU Guest House, organized by the Creative Arts Unit.

(iii) Street Theatre and Stage Plays by the Theatre Society of St. Anthony's College, Shillong at the Basketball Field, NEHU Permanent Campus on 8th September, 2002.

Organised "Artist in Residence and Painters' Camp" from 17th to 24th March, 2003. Seven renowned artists

from different states of Eastern region and eight painting students of Creative Arts Unit participated in the programme. Ms. Jayshree Chakra-vorty, internationally renowned artist from Kolkata was the Artist in Residence.

The Literary and Cultural Studies Unit has successfully run the course entitled P.G. Diploma in Folkloristics since 1989 and has produced a number of students who have gone on to specialize in Folkloristics in other universities and institutes. With the help of the University, during November, 2002 the unit in collaboration with IGRMS, Bhopal, CIIL, Mysore and PROFRA, NEHU, Shillong jointly hosted the national seminar on Folklore-cum-25th conference of the Indian Folklore Congress held on 5th and 6th November, 2002 at NEHU Guest House, Shillong.

Degrees Awarded:

a) Diploma Course: Diploma in Folkloristics.

Courses Conducted:

Diploma Course in Folkloristics.

1. 2nd Semester of 2001-2002 batch – March to Middle of July 2002.

2. 1st Semester of 2002-2003 batch – August to December 2002.

Seminars/Conferences:

Helen Giri: (i) Presented a paper entitled "Marai Cave: The Origin

Head	:	Helen Giri.				
Faculty	:					
Professor	:	Helen Giri, M.A./Ph.D (Gau)				
Lecturer	:	Desmond L. Kharmawphlang M.A./Ph.D (NEHU)				
		Prabodh Jhingan. M.A.(JNU)				
		M.H. Barbhuiya, B. Fine (Viswabharati)				
		Lapynshai Syiem, M.A.(G.U.), Visharad (L'now,)				
Students Intake: (P.G. Diploma in Folkloristics)						
a)	Enrolment Capacity	: 20				
b)	Actual Admission	SC/ST	Genl.	Male/Female	Total	
		9	1	2 8	10	

of Dance" at the Indian Folklore Congress, Shillong, 5th & 6th November, 2002. (ii) Presented a paper entitled "Political and Economic History of the Lyngams" at the seminar organized by the Heritage Sites and Environment Preservation Organization, Shillong, 8th February, 2003.

Desmond L. Kharmawphlang: (i) Attended and presented a paper on "Songs of Earth and Sky" : A look at some Gond Songs at the centenary celebration cum seminar on *Verrier Elwin and the Tribes of Northeast India* held in the Department of Anthropology, August 29-31, 2002, NEHU, Shillong. (ii) Was the Local Secretary of the national seminar cum 25th conference of the Indian Folklore Congress held at NEHU Guest House, NEHU, Shillong during November 5-6, 2002. (iii) Attended and presented a paper on "The Khasi Were-Tiger: A

Sacred Forest Metaphor" at the national seminar on *Cultural Heritage of North-East India* organized by the Indira Gandhi National Centre for the Arts held at Shrimanta Sankardeva Kalakshetra, Panjabari, Guwahati during December 9-10, 2002.

M.H. Barbhuiya (i) Participated and exhibited recent paintings in *Regional Focus Exhibition on Cultural Identities : Reflection and Representation in the Contemporary Art of the North-East* at Srimanta Sankardeva Kalakshetra, Guwahati from 10th to 25th December, 2002, organized by Rashtriya Lalit Kala Kendra (Regional Branch), Kolkata. (ii) Acted as Co-ordinator in the "Artist in Residence and Painters' Camp" organized by the Creative Arts Unit, NEHU, from 17th to 24th March, 2003. (iii) Participated in the Ceramics and Terracotta camp at Santiniketan, West Bengal from 24th to

30th January, 2003.

Lapynshai Syiem: (i) Attended the Vidya Darshan: A Focus on Musical Instruments, 22nd – 26th July, 2002 in New Delhi, organized by the Sangeet Natak Akademi. (ii) Arranged and conducted “Drum Ensemble” consisting of two major units of Khasi drum beats *Ka Mastieh* and *Ka Padiah*. It is the first scientific analysis of Khasi rhythmic pattern. This was presented at the valedictory function of the Casual Art Class (Music) held in the Creative Arts Unit, NEHU, on 27th September, 2002. Presented a paper on the “Resonance of Khasi Folk Beats” at the national seminar of the Indian Folklore Congress: *Folklore and Cultural Studies in North-Eastern India*, held at the University Guest House, NEHU, Shillong on 5th and 6th November, 2002.

Visiting Professor/Fellows:

During the year under report Ms. Lalsangkimi Sailo, Lecturer, St. Anthony's College, Shillong was invited as Visiting Fellow. She taught the students of Diploma Course in Folkloristics for (a) 2nd Semester 2001-2002 batch during May – June 2002 (b) 1st Semester 2002-2003 batch during November 2002 and (c) the 2nd Semester 2002-2003 batch (March – June 2003).

Publications:

Kharmawphlang, D.L. 2002. *Narrative of North-East India*. Shillong: The Programme of Folklore Research and Archive, North-Eastern Hill University.

_____. Ed. 2002. *Narrative of North-East India – II*. Shillong: Programme of Folklore Research and Archive, North-Eastern Hill University, Shillong.

_____. Ed. 2002. *Ka Mer Ka Sdad* (Conference-Confluence). Bhopal: Indira Gandhi Rashtriya Manav Sangrahalaya.

Study Tours/Field Trips:

One day field trip with students to Pahambir and Pahamshken, Ri-Bhoi, was undertaken on 28th March 2003 to study aspects of folk life and material culture.

Research Project:

New:

Title: Documentation of Vanishing and Dying Art Forms of North East with special reference to:

I – (a) Crafting of Musical Instruments.

(b) Textile Technology (indige-nous)

(c) Bachelors' Dormitory.

II - Directory of Artists.

Principal Investigator's name:

Dr.(Mrs) Helen Giri.

Amount of Fund: Rs. 2 lacs
earmarked for 1st Phase: Meghalaya.

Source of Fund: North East
Zone Cultural Centre, Dimapur.

Honour/Award/Recognition:

Desmond L.Kharmawphlang was inducted as an Associate Member of the Folk Fellows, an academic body instituted by the Finnish Academy of Sciences and Letters.

Other Activities:

On the recommendation of the Creative Arts Unit, two folk artists from Meghalaya – Shri Nokot Khriam (National Awardee) and Shri Risingbor Kurkalang were selected for participation in the “Vadya Darshan” a national workshop-cum-demonstration on the art of making traditional musical instruments organized by the Sangeet Natak Akademi, New Delhi held at the Lalit Kala Galleries, Rabindra Bhavan, New Delhi from 15th to 31st May 2002. This was monitored by Dr.(Mrs) Helen Giri. This includes the membrane instruments, string instruments and bamboo instruments. The expertise with which the two artistes demonstrated the art of making the Khasi musical instruments was highly appreciated by music experts and scholars from different universities in India. They were acclaimed as one of the best musical instrument-makers and their instruments as one of the

finest in the country.

The Creative Arts Unit sent a troupe of artists from Nongtalang, War Jaintia to Imphal to present the “Rongkhli or Tiger Dance” at the Festival of Dance and Music held from 26th to 29th March, 2003.

Prof. Helen Giri was a member: (i) National Fellowships in the Arts (Junior and Senior), Sangeet Natak Akademi (Music). (ii) Advisory Committee for Folk Music and Dance and Puppetry: Indian Council for Cultural Relations, New Delhi. (iii) Advisory Committee on Khasi Customary Laws: Khasi Hills Autonomous District Council, Shillong. (iv) Review Committee, North East Zone Cultural Centre. She delivered a lecture in the fourth refresher course, Khasi Department, NEHU, on “Khasi Literary Themes” on 18th & 19th March, 2003.

Desmond L.Kharmawphlang: (i) Attended the 6th Summer School of the Folk Fellows held at the Department of Folklore Studies, University of Helsinki, Finland, Helsinki from 15th to 25th July 2003. (ii) Assisted in teaching the Folklore component of the M.Phil course work in the Department of Khasi, NEHU, Shillong during 2002. (iii) Delivered lectures in the refresher course in Khasi conducted by the Khasi Department, NEHU, in March 2003. (iv) Acted as Co-ordinator of PROFRA, NEHU,

Shillong, a Ford Foundation sponsored project.

M.H.Barbhuiya participated in the UGC sponsored refresher course in Fine Arts at Kala Bhavan, Visva Bharati University, Santiniketan, West Bengal from 10th to 31st January, 2003.

Lapynshai Syiem completed one UGC sponsored refresher course

from Khasi Department, NEHU, held from 4th to 24th March, 2003 and obtained 'A' Grade. Submitted her Ph.D. thesis on the "Evolution of Khasi Music: A Study of the Classical Context" in January, 2003, under the supervision of Prof. B.L. Swer and Joint Supervision of Dr. Sharayu Kalekar (result awaited).

VII

Institute

INSTITUTE OF SELF ORGANISING SYSTEMS AND BIOPHYSICS

Thrust Area:

Biophotons, Holistic View of Biology, Non linear Dynamics, Biodiversity, Immunology

Brief Statement of the Activities:

The institute is purely a research centre within the university system dedicated to pursue interdisciplinary research in newly emerging areas and to evolve an integrated vision of science. The

Seminars/Conferences:

Prof. R.P. Bajpai attended:
(i) *Summer School and International Symposium on Biophoton* held at the International Institute of Biophysics, IIB e.V. Neuss, Germany from July 28 to September 3, 2002 and delivered a talk entitled "Quantum Coherence: An Introduction for Biologists". (ii) National symposium of Biophysics and international workshop on *Education and Capacity Building in Biophysics:*

Faculty :

Professors : R.P.Bajpai, M.Sc. (Alig), Ph.D (Glasgow)
Vinod Singh, M.Sc/Ph.D (Kanpur)
Satish Kumar, M.Sc.(BHU), Ph.D (Utkal)
Debjani Roy, M.Sc. (Gau), Ph.D (NEHU)

current activities are in the areas of biophoton emission, quantum information, harmonotoxins, drug targeting, acoustic communication in Anurans, bio-diversity, conservation of amphibians in the eastern Himalayan belt, and nonlinear dynamics.

Needs of the Asian African Regions at the Department of Biotechnology, Indian Institute of Technology, Roorkee from February 21 to 25, 2003 and presented a paper entitled "Indicators of a Quantum Description of "Life".

Prof. Vinod Singh visited: (i) Tumor Targeting and Product Laboratory, Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan. (ii) Institute of Organic Chemistry and Biochemistry, Technical University Munich, Germany.

Prof. Debjani Roy: (i) Delivered a lecture "Rethinking Evolution in the Light of Consciousness Studies" at the California Institute of Integrated Studies, San Francisco, USA in April 2002. (ii) Attended the *South Asian Amphibian Conservation Assessment Management Plan & Global Amphibian Assessment Workshop* in Coimbatore as an amphibian expert in July 2002. (iii) Delivered a lecture on "Nature's Biodiversity and its Conservation" at Sri Aurobindo International Centre for Education, Pondicherry in August 2002. (iv) Delivered a talk at the regional seminar on *Role of Biodiversity and Environmental Strategies in North East India for Sustainable Development* and chaired the session on "Application, impact and futuristic planning for environmental conservation" at St. Mary's College, Shillong in Nov. 2002. (v) Delivered a lecture on "Amphibians in relation to their social behaviour and their potential as environmental sentinels" at the Dept. of Molecular Biology and Genetic Engineering, G.B.Pant University, Pant Nagar in Dec. 2002.

Publications:

Alam, A., R.C. Singh and V. Singh. 2002. Design and synthesis of hormonotoxin for selective targeting of gonadal cells Special issue on Structure and Functions of Gonadotropin Hormones. *Indian J. Exp. Biol.*, 40: 477-485.

Bajpai, R.P. 2003. The Physical Basis of Life. In F.A.Popp and L. Belousov (Eds.) *Integrative Biophysics*. Dordrecht: Kluwer Academic Publishers, 439-465.

Butnev, V.Y., V.T. Nguyen, V. Singh, and G.R. Bousfield. 2002. Truncated beta, alpha asparagine⁵⁶-deglycosylated equine luteinizing hormone is a potent follicle-stimulating hormone antagonist. *J. Endocrinology*, 172: 545-555.

Kumar, S., S.K. Srivastava and P. Chingakham. 2002. Hopf bifurcation and stability analysis in a harvested one-predator-two-prey model *Applied Mathematics and Computation*, 129:107-118.

Roy, D. 2002. Amphibians as environmental sentinels. *J. Biosciences*, 27 (3): 187-188.

Seglie, D. and D. Roy. 2003. The Himalayan Newt *Tylototriton verrucosus* an endangered species of India. *FROGLOG*, 55: 1.

Singh, R.C., V. Singh and A. Alam. 2002. Chemical modification of ovine luteinizing hormone and its subunits with different hetero-bi-

functional cross-linking agents. Special issue on Structure and Functions of Gonadotropin Hormones. *Indian J. Exp. Biol.*, 40: 456-466.

Research Project:

Prof. Debjani Roy in collaboration with Prof. Christina Giacome, University of Torino, Italy successfully completed the project entitled "The Himalayan salamander *Tylotriton verrucosus* an endan-

gered species" funded by IUCN and DAPTF.

Other Activities:

Prof. Debjani Roy (i) was re-elected as executive committee member of the Ethological Society of India, (ii) in collaboration with Sri Aurobindo Institute of Indian Culture (SAIIC), Shillong organized a music concert by Padma Bibhusan Hari Prasad Chaurasia in Nov. 2002.

VIII

Students Services and Amenities

DEAN OF STUDENTS' WELFARE

The office of the Dean of Students' Welfare continued to serve as the nodal agency for student's services and their welfare. A major concern of the office has been the management of the halls of residences of the post-graduate students and research scholars, academic study tours, coordination of students' sports and cultural activities, conduct of elections to the Students' Union and the installation of the new union executive committee, and the award of Post-graduate Scholarships and grant of Students Aid to economically weak students.

Dean of Students' Welfare:

Professor Eugene D. Thomas

Residence in Hostels:

In the Shillong Campus, the following post-graduate students and research scholars were given hostel accommodation:

	ST/SC	Gen	Total
Men (P.G. & R.S.)	203	22	225
Women (P.G. & R.S.)	216	18	234

Study Tours and Field Trips:

The office co-ordinated the study tours of the following seven academic departments:

(1) Botany, (2) Chemistry, (3) Philosophy, (4) Linguistics, (5) Commerce, (6) History, and (7) Political Science.

Sports Activities:

The following sports activities were conducted during the year:

1. Handique Memorial Inter-Hostel Volleyball Tournament – April 2002.
2. P.C.Lalmuanpuii Inter-Hostel Basketball Tournament – April 2002.
3. Romengo Murry Memorial Inter-Hostel Table Tennis Tournament

– October 2002.

North-Eastern Hill University Students' Union (NEHUSU) Activities:

1. In order that the term of the NEHUSU and the university's academic calendar coincide, the elections to the Union Executive Committee were held in October 2002 and the office-bearers took charge soon thereafter.

2. The NEHUSU Freshers' Social was held in November 2002.

3. The preliminary sports, cultural and literary events of the Varsity Week were held from 22nd March 2002 onwards.

Scholarships/Aid Fund:

During the year 2002-03, as

many as 85 NEHU post-graduate scholarships were awarded and 66 NEHU students received grant from the University Aid Fund (which includes ST/SC students).

Professor Eugene D. Thomas, DSW, visited Pretoria University in Pretoria and University of Wit-watersrand in Johannesburg, South Africa on May 23, 2002. On both occasions, he had the opportunity to examine the student services offered there. He also visited their Counseling and Career Development units as well as their Campus Health and Wellness centres. During these visits, he interacted with a number of faculty members as well as the staff in the Division of Students Affairs.

SPORTS AND GAMES

Teacher-in-charge:

Professor B.S. Mipun

The Sports Board of NEHU, in its meeting held on 22nd March 2002, decided to conduct the following inter-college tournaments during the calendar year 2002-2003 at Shillong and Tura on zonal and inter-zonal basis.

One Zone Tournaments:

Cricket (Men), Basketball (Men

& Women), Football (Women), Hockey (Men & Women), Boxing (Men), Judo (Men & Women), Best Physique (Men), Weightlifting (Men) and Athletics (Men & Women).

Zonal Tournaments:

Table Tennis (Men & Women), Badminton (Men & Women), Chess (Combined), Football (Men) and Volleyball (Men & Women).

The events like Chess, Boxing,

Judo, Best Physique, Hockey, Weightlifting and Athletics could not be conducted due to lack of adequate entries from different colleges. Tournaments were held at Shillong, though some of the tournaments were scheduled for Tura.

The results and other details of the various tournaments and inter university tournaments held are outlined below:

A. One-Zone Tournaments

1. Basketball (Men & Women)

Both Men's and Women's tournaments were conducted at Polo Ground, Shillong from 10th to 14th September 2002. In this 13 colleges took part. Shri R.G. Lyngdoh, Minister of Urban Affairs, Govt. of Meghalaya gave away the trophies and medals to the winners. The results were as follows:

Men's Section

Winner - St. Anthony's College.
Runners up - NEHU P.G. Classes.

Women's Section

Winner - St. Mary's College.
Runners Up - St. Anthony's College.

2. Football (Men & Women)

Both Men's & Women's tournaments of this event were conducted at Polo Ground, Shillong. The men's events were from 13.6.03 onwards and the women's from 3.10.02 onwards. As

many as 12 teams took part in the men's section and 3 teams in the women's section. Shri J. Lhumding, Finance Officer, NEHU-Shillong was the chief guest in the closing ceremony and gave away the trophies and medals to the winning teams. The results were as follows:

Men's Section

Winner - Nongstoin College.
Runners up- Shillong College.

Women's Section

Winner - Lady Keane College
Runners up- Synod College.

3. Badminton (Men & Women)

The tournament was to be conducted in Two-Zone Basis, i.e. Shillong and Tura. Since there was only one team from Tura it was conducted at Shillong on One Zone Basis. In this tournament 8 colleges took part and it was held at the U Tiroi Sing Indoor Stadium, Shillong from the 4th to 7th June 2003. Shri. A. Mawlong, Dy. Director of Sports & Youth Affairs, Govt. of Meghalaya, Shillong was the chief guest on the closing day and gave away the trophies and medals to the winning teams. The results were as follows:

Men's Section.

Winner - St. Anthony's College
Runners up - B.B.S. College.

Women's Section.

Winner - Shillong College.
Runners up - NEHU P.G. Classes.

4. Table Tennis (Men & Women)

In this event 4 colleges took part in both men's and women's sections, from 4th to 7th June 2002 at U Tirot Sing Indoor Stadium, Shillong. Shri. A. Mawlong, Dy. Director of Sports & Youth Affairs, Govt. of Meghalaya, Shillong was the chief guest on the closing ceremony and gave away the trophies and medals to the winning teams. The results were as follows:

Men's Section.

Winner - Shillong College.

Runners Up - St. Edmund's College

Women's Section.

Winner - St. Mary's College.

Runners Up - St. Anthony's College.

5. Cricket (Men)

This tournament was conducted at Shillong on One Zone basis from 8th to 16th May 2002. In this tournament 11 colleges from Tura and Shillong took part at Polo Ground, Shillong. Prof. T.B. Subba, Dean, School of Human & Environmental Sciences, NEHU, Shillong was the chief guest at the closing ceremony and gave away the trophies and medals to the winners. The results were as follows:

Men's Section.

Winner - B.B.S. College.

Runners up - Tura Govt. College.

6. Volleyball (Men & Women)

In this event 8 teams took part

in the Men's section and 5 teams in the Women's section. The tournament was to be conducted on two zone basis, i.e., Shillong and Tura but due to unavoidable circumstances this had to be conducted in Shillong on one zone basis from the 19th to 21st Sept. 2002 at Polo Ground Shillong. Prof. D.T. Khathing, Registrar, NEHU, Shillong was the chief guest at the closing ceremony and distributed trophies and medals to the winning teams. The results were as follows:

Men's Section.

Winner - U.C.C., Barapani.

Runners up - Mendipather College.

Women's Section.

Winner - Lady Keane College.

Runners up - St. Edmund's College.

East Zone & North East Zone Inter University Tournaments

This year NEHU participated in 2 disciplines in the East Zone Inter University Tournament and in 1 discipline in the North East Zone Inter University Tournament. The disciplines NEHU participated in was Cricket (Men) and Football (Men) in the East Zone Inter University Tournament, which was held at Kolkata (W.B.) from 15th to 26th November 2002 and Kalyani University, West Bengal, from 12th to 21st November 2002 respectively.

Basketball (Women) team

participated in the North East Zone Inter University Tournament, which was

held at Patiala, Punjab from 6th to 10th December 2002.

NATIONAL SERVICE SCHEME

The National Service Scheme (NSS) of the Government of India envisages utilizing the free time of college/university students for socially productive works. An important feature of the NSS is that its programmes are organized by the students themselves, under the guidance of their teachers as Programme Officers. The work undertaken by the college units are divided into Regular Activities and Special Camping. The NSS activities have during the year increased further as evident from the variety of programmes undertaken. The NSS Cell has initiated innovative programmes to increase community outreach and create a lasting impact on society.

Programme Coordinator:

Professor R.N. Sharan

Enrolment:

The enrolment for the year was 10,625 (women 5559 and men 5066) volunteers. Four new units have also been inducted during the year. There was a total of 46 Programme Officers, of whom 29 were trained.

National Integration Camp:

(a) The NSS unit of Shillong College organized NIC for women at the college campus from 12 to 21 October, 2002. There were 175 participants from 14 states who attended the same.

(b) Ten volunteers from UCC & Ri-Bhoi College, Nongpoh were selected by the Deputy Commissioner, Ri-Bhoi District to attend a 7 day National Integration and Cultural Camp at Goa from 23 to 29, December 2002. The camp was organized by the India International Rural Cultural Centre, New Delhi.

National Youth Festival:

Two NSS volunteers from St. Mary's College attended the National Youth Festival at Thiruvananthapuram, Kerala from January 14 to 16, 2003.

Pre-Republic Day Parade Camp:

Eight volunteers from Shillong Commerce, UCC & Women's colleges participated in the Pre-Republic Day Parade Camp, which was held from 21 to 30 October, 2002 at Bhubaneswar.

Ms. Supriya Hajowary and Mr.

John Calvin Deb Burman of UC College were selected for the Republic Day Parade Camp at New Delhi from 1 to 31 January, 2003.

Special Camps:

(a) The NSS unit of Tikrikilla College organized a special camp at Nagargaon village from 13 to 17 June, 2002 which was attended by 60 participants.

(b) The NSS unit of Tura Government College organized a special camp at Reserve Gittim with 110 campers from 18 to 24 September, 2002.

(c) The NSS unit of St. Anthony's College organized a special camp at Lawbyrwa from 11 to 16 October 2002 with 25 participants.

(d) The unit of Seng Khasi College organized a special camp at Laitkor from 12-18 October 2002 with 100 participants.

(e) The units of Mendipathar College organized a special camp at Harinkanta Bakra village from 25 to 31 January, 2003 in which 77 volunteers participated.

University Talk AIDS (UTA) Project:

Regional HIV/AIDS Information and Counselling Centre: The project funded by the MYAS, Government of India has been established at the NSS Cell, NEHU with Dr. (Mrs) D. Srivastava as part-time Counsellor.

Five NSS units of Jaintia East-

ern, Tura Government, Shillong, Tikrikilla and Sohra colleges were identified to implement the UTA project; they conducted a number of activities from July to October, 2002 at college & community levels. As part of the project 6 Programme Officers and 9 volunteers attended the 'Training of Trainers on Adolescent health and HIV/AIDS' organized by INCON at Shillong from August 20 to 22, 2002.

The NSS unit of Tura Government College organized a poster competition on HIV/AIDS on 14th February 2003 in which 60 students participated.

Mrs. D. Srivastava held an AIDS awareness programme at UCC on 21st February, 2003 which was attended by 47 volunteers.

Meeting with College Principals:

The NSS Cell held a meeting with Principals of colleges with NSS units on 19th April, 2002, at NEHU, Umshing, Shillong to review the functioning of NSS units in different colleges.

World No-Tobacco Day:

The NSS Cell in collaboration with the Centre for Science Education (CSE), NEHU and other local organizations held several programmes to mark the occasion of World No-Tobacco Day on 31st May, 2002.

The NSS volunteers of various colleges in Meghalaya participated in

the poster, drawing & essay competitions. Units of St. Mary's, Shillong Commerce, Umshyrpi, Raid Laban and Shillong colleges manned 3 posts for the signature campaign against 'No to Tobacco' at Nongthymmai, Don Bosco Square and Red Cross, Laban on 30th May, 2002.

The NSS unit of Tura Government College, Tura organized a massive rally on 31st May in which 3000 students and teachers of various schools, colleges and the citizens of Tura town participated. The rally was preceded by a procession through the main street of the town. The students carried posters, banners, placards and shouted slogans against the use of tobacco.

A rally was also held at J.N. Stadium, Polo, Shillong in which 800 NSS volunteers from 10 colleges of Shillong participated.

The NSS unit of Sohra College, Cherrapunjee organized a lecture-cum-discussion on effects of tobacco in which 100 volunteers participated.

The NSS unit of Tikrikilla College also held an extempore speech competition for students of the college.

Creation of Assets:

The NSS Cell has released a total of Rs.1,36,640/- for creation of permanent/durable community assets. The units of Shillong College (basket ball court), Seng Khasi College (water

reservoir), St. Anthony's College (two room primary school), Tura Government College (two toilets), P.G. Unit (park cum playground, bus shed), Jaintia Eastern College, Khliehriat (toilet) have created assets at their respective college campuses and adopted villages.

Other Activities:

The NSS Cell in collaboration with the unit for Adult & Continuing Education, NEHU organized a one day participatory workshop on "Youth & Counselling: Role of NSS" on 17th May 2002 at Bijni Complex, Shillong. 29 Programme Officers and 23 volunteers attended the same. This was followed by a discussion on NSS programme implementation with Programme Officers.

80 volunteers from Shillong College and Women's College participated in a rally organized by the Nehru Yuva Kendra Sangathan on the occasion of the World Population Day on 11th July 2002.

17 volunteers along with Professor R.N. Sharan, Programme Coordinator donated blood on the occasion of National Voluntary Blood Donation Day on 1st October, 2002 at Pasteur Institute, Shillong.

Mr. H. Basumatry, NSS volunteer of UCC donated blood for a needy patient at Nazareth Hospital on 24th October 2002.

20 NSS volunteers from UCC attended a programme at Nongpoh on the occasion of Rashtrya Sankalpdivas on 31st October 2002.

Various units organized programmes in observance of the World Environment Day on 5th June 2002 by organizing cleaning drives, tree plantations and campus beautification programmes.

Various units organized programmes such as cleaning drives and singing competition in observance of the NSS Day on 24th September 2002.

Quami Ekta Week:

Various units organized programme in observance of the Quami Ekta Week from 19 to 25 No-

vember, 2002.

Mrs. D. Kharkongor, NSS Programme Officer, Seng Khasi College and Mr. H. langrai, NSS Programme Officer, Shillong College attended the training for NSS functionaries organized by the Rajiv Gandhi National Institute of Youth Development at Sriperumbudur from 13 to 15 December, 2002.

University Advisory Committee Meeting:

The 21st University Advisory Committee meeting of the NSS was held on 19th December, 2002 at the RSIC Conference Room, Bijni Complex, Laitumkhrah which was chaired by Professor M. Miri, the Vice-Chancellor of NEHU.

IX

Central Services

COMPUTER CENTRE

The centre provides computation facility to faculty members, research scholars and students of the university, conducts training programmes in computer related subjects and develops software for the university.

of M.Com. Students/research scholars and teachers/non-teachers from various departments/centres utilized the facilities of the centre for computational work, documentation and internet browsing.

Head: S.N. Rai

Staff:

Director	S.N. Rai, Ph.D (BHU)
Sr. Lecturer	T.K. Sinha, Ph.D (NEHU)
Sr. System Analyst	P.P. Dey, B.Tech (REC, Warangal)
Systems Analysts	B. Rynjah, B.Tech (Kakinada Engineering College) (on study leave to IIT, Chennai)
	S. Ghosh, M.E. (Jadavpur Engineering College)

Students Intake:

20 per short term course per batch.

Brief statement of activities during the year:

Organised short term courses in the following areas:

- (i) Windows & MS-Office
- (ii) Web Designing (iii) Visual Basic.

Taught Accounting Information System course to 4th semester students

The CIC, BCA and MCA computer courses of IGNOU were conducted at the centre during the weekends throughout the year. A special one-month duration Computer Literacy Programme (CLP) for women was conducted at the centre from November 2002 and so far 4 batches

of students have been trained.

One M.Sc. Physics student completed his project work under the guidance of Dr. T.K. Sinha, using the facilities of the Computer Centre. Dr. Sinha also taught the Thermal Physics course in the Department of Physics, NEHU.

Seminars/Conferences:

(a) Mr. S. Ghosh participated in the Winter School on Data Mining organized by MIU, ISI, Kolkata during December 2002.

(b) Dr. T.K. Sinha, Mr. P.P. Dey and Mr. S. Ghosh presented a paper at the national workshop cum conference on *Role of Information Technology in the Development of India with Special Reference to the N.E. Region* held during November 13-15, 2002 at Shillong College, Shillong.

(c) Dr. T.K. Sinha and Mr. P.P. Dey participated in a workshop on *Pattern Recognition: Algorithms, Architectures and Applications* organized by the ECSU, ISI, Kolkata during January 13-17, 2003.

Research Projects:

Dr. T.K. Sinha is working on

Solitons on a DNA Lattice in collaboration with Professor R.N. Sharan, Department of Biochemistry on the project funded by the ICTP, Trieste, Italy and also with Mr. Utpal Gorain of the CVPRU, ISI Kolkata in Dynamics of Two State Systems.

Publications:

Rai, S.N., H. Liebermann, R.J. Buenker, and M. Kimura, 2003. Ab Initio CI Calculations of the Potential Curves and Nonadiabatic Coupling Matrix Elements for Collisions of Protons with the Ethylene Molecule. *Int. J. Quantum Chemistry*, 95 (5).

Other Activities:

Dr. S.N. Rai was with the theoretical chemistry group of the University of Wuppertal, Germany till September 2002.

The centre generated fund for the university by way of conducting in-service course for various govt. organizations and by letting out PCs to IGNOU. The centre also managed the internet facility of the university at Bijni Complex.

LIBRARY

The year 2002-03 witnessed a landmark progress in the automation programme of the NEHU Central Library. The house keeping works of Acquisition Section, Cataloguing, Serial and Articles and Registration of new members are fully computerized. As a result manual labour is greatly minimized.

Other Information:

1. Total collection	2,18,621
2. Books added	2,526
3. Books processed	3,500
4. Journals subscribed	461
5. Daily average issue	380
6. Daily consultation	432

Staff:

Mrs. I. Majaw University Librarian	:	M.A. (Gau.), M.LISc. (NEHU)
Mrs. R. Mishra Dy. Librarian	:	M.A. (Gorak), M.LISc. (NEHU)
Mr. K.K. Das Sr. Asst. Librarian (Periodical)	:	B.Sc. (Cal.), M.A.(Raj), M.LISc (Alig)
Mr. P.K. Mitra Sr. Asst. Librarian (Technical)	:	B.Com. (Cal.), M.LISc. (Burd.)
Mrs. M.V. Soanes Sr. Asst. Librarian (Acquisition)	:	M.A. (NEHU), M.LISc. (Gau.)
Mr. Lalmachhuana Documentation Officer	:	M.LISc. (NEHU), UGC-NET
Mr. F.R. Sumer Information Scientist	:	B.E. (Brd.), B.LISc. (Madurai)

Library Membership:

1. Students	1550	
2. Research Scholars	622	
3. Staff	219	
4. College Teachers	286	
5. Others	93	
TOTAL	2770	

Revenue generated by the library during the year:

1. Reprographic charges		Rs. 27,400.00
2. Fine realized		Rs. 1,139.00
TOTAL		Rs. 28,539.00

Academic Contribution:

During the period under report the following officers and staff were involved in the training of AIR librarians conducted by AIR Training Centre, Shillong during 24-31 March 2002.

1. Mrs. I. Majaw, Librarian - The Role of AIR Libraries in promoting

cultural information.

2. Shri P.K. Mitra, Assistant Librarian (Tech) - Library Automation.

3. Shri Firstborn Sumer, Information Scientist - Microsoft Office.

4. Shri Batskhem Sten - Creating database in CD/ISIS.

LIBRARY

Tura

The Tura campus library is dedicated to meet the intellectual needs of the people of the Garo Hills of Meghalaya. The campus library is located in a remote area yet it has been providing services to its users. This library is scientifically managed with proper classification and cataloguing. It also provides information services, inter library loan, reprographic services,

Book Budget:

(a) General Book Grant - Rs. 7.00 Lakhs

(b) Special Grant for RDAP - Rs. 6.60 Lakhs

With the above grants the library acquired books, encyclopaedias, dictionaries and other reference materials. Text books for the new Department of Rural Development

Staff:	Dr. A.K. Kundu	-	Dy. Librarian
	Sri A.K. Mondal	-	Professional Asstt.
	Sri Santosh Kumar	-	Semi-Prof. Asstt.

etc. to its neighbouring colleges and academic institutions. The campus library is the nodal centre of wisdom for recreation, inspiration and information.

During 2002-03, the Tura campus made significant progress in terms of collection, development and library automation.

and Agricultural Production were purchased.

Fund allocation for periodical subscription (2002-03):

(a) Periodicals Grants - Rs. 3.00 Lakhs

(b) No. of Journals subscribed - 108

- (i) Indian Journals - 70
- (ii) Foreign Journals - 38

Collection as on 31.3.03:

(a) No. of books purchased	-	6722
(b) No. of books on gift	-	211
		6933
(c) Books added during year	-	1173

Total no. of registered members: 189

(a) Students	-	146
(b) Teachers	-	20
(c) Non-Teaching staff	-	23

5. Circulation Statistics:

(Issue/Return)

(a) Students	-	70
(b) Faculty members & others	-	30
		100 per day.

Library Consultation Statistics:

140 per day.

(a) Reference materials	-	55
(b) Books/Journals	-	85

Reprographic Services:

During the year total no. of exposures provided to students, faculty members and others was 42,897.

New Developments in Tura Campus Library:

In the last week of March 2003 the library started the automated house keeping operations in the Acquisition, Cataloguing, Serial Control, Article Indexing and Circulation. For automating library operations the following developments were undertaken.

(i) Library acquired 3 more Zenith P 4 computers.

(ii) LAN connection for 5 terminals installed.

(iii) Windows NT Version of LIBSYS-4 (Small Library Edition) acquired and installed.

(iv) Server for LIBSYS S/W was installed.

(v) OPAC Terminal is available for users for information retrieval.

(vi) House Keeping Operations of data entry is under progress.

Dr. A.K. Kundu, Deputy Librarian, delivered lectures on different topics in the 1st refresher course in English Department at NEHU, Tura Campus on 14th, 21st and 28th November, 2002.

Seminars/Conferences:

Dr. A.K. Kundu, Deputy Librarian, presented a paper on "User Education" at the national seminar on *Quality Education and Society* held at Tikrikilla College, Tikrikilla on 4th June, 2002.

Publications:

Kundu, A.K. 2002. Social Information through LIBSONET *Indian Journal of Information Library and Society* (IJILIS), 15(1-2) 81-88.

_____. 2002. Inevitability of Information Technology: A new Perspective. *Indian Journal of Information Library and Society* (IJILIS), 15(3-4), 129-134.

HEALTH CENTRE

The NEHU Health Centre has two branches – one at Bijni Complex, Laitumkhrah, Shillong and the other at the Permanent Campus, Shillong catering to the health needs of teaching and non-teaching staff alongwith their dependants and students. It has the following staff members at present:

Medical Officer	- 4
Staff Nurses	- 3
Pharmacist	- 3
Medical Attendant	- 1 (female)
Laboratory Technician	- 1
Laboratory Attendant	- 1
U.D.C	- 2
L.D.C	- 2
Peon	- 1
Cleaners	- 3
Safaiwala	- 1

The following facilities are available at the centre:

Consultation:

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 wholesale suppliers and stocked at the Health Centre. These medicines are issued to the patients based on the prescription by the doctors.

Dressing Room:

Dressings, injections and minor surgical procedure carried out in the dressing room.

Immunisation:

Routine immunization is carried out and the NEHU Health Centre participates in the National Pulse Polio Immunisation Programme.

Sport:

First aid service is provided at sports meets and tournaments.

Ambulance:

Ambulance service is provided

during emergency for transporting the severely ill patients from residence to clinic/hospital.

Laboratory:

Biochemical test for blood and urine analysis has been started at the Health Centre.

In-patient Treatment:

Patients requiring in-patient treatment are referred to the hospitals within and outside Shillong depending

upon the necessity.

Credit Billing Facility:

There is credit billing facility available for patients admitted to Nazareth and K.J.P. hospitals in Shillong and C.M.C. hospital in Vellore.

Voluntary Blood Donors:

The Health Centre maintains a list of voluntary blood donors from among the NEHU community as well as outside.

UNIVERSITY PUBLICATIONS

The NEHU Publication Cell was created with a view to promoting and undertaking publications in various areas and for different target groups. It has mainly concerned itself with the publication of university level and undergraduate textbooks, general books, supplementary reading materials, reference books, research works particularly those relating to the Northeast, Endowment Lectures delivered in the university and official publications like the university calendar, the Annual Report, *NEHU News and The NEHU Journal*. NEHU Publications also publishes six higher-secondary level textbooks as per a standing agreement with the Meghalaya Board of Higher Secondary Education.

Apart from these, the cell is also functioning as the official printer of the university.

This is a largely self-financing unit and has developed out of a small investment made at the time of its establishment. The press for which there is a separate Press Revolving Fund is also largely self-financing. At present the cell is revamping its different units based on elaborately prepared blueprints. With the procurement of a new crown-size offset machine which can print by plates and poly masters, the Cell has been undertaking almost all printing jobs emanating from the various departments and centres. On the distribution front, besides opening a

sale outlet at Tura Campus, it is also entering into contracts with major distributors in almost all university towns in the Northeast and elsewhere in the country.

Printing, reprinting and publication of the following works were taken up during the period under report:

1. *NEHU News* (Jan-March, April-June, July-Sept, Oct-Dec).
2. *Dr. Jekyll and Mr. Hyde*.
3. SRC Newsletter (Jan. 2002 issue).
4. *Introduction to Social & Political Philosophy* by S. Miri and Jagat Pal.

5. *Songs from Here and There* by T. Ao.
6. *The NEHU Journal* (Vol.I, No.1 Jan.03) issue.
7. Co-publication of *Nagas: History and Administration* (1932-1937) by S.K. Barpujari.
8. Prospectus & Admission Forms for 2002-03.
9. 28th Annual Report.
10. Forms, certificates, folders and stationery items for various departments.

Sale during the year relating to these categories of books is as follows:

1. Textbooks - Rs.3,14,919.00
2. General Books - Rs. 88,143.00

REGIONAL SOPHISTICATED INSTRUMENTATION CENTRE

The centre provides analytical services, conducts training/workshops and also offers limited repair and maintenance services in computerized instrumentation and compressor based system.

Academic Activities:

Dr. T. Chakraborty of this centre is taking the M.Sc. Physics IVth Semester Laser Physics Course.

Funds received from agencies other than NEHU:

From the Department of

Science & Technology, New Delhi.

Non Plan : Rs. 19,00,000.00

Plan : Rs. 72,50,000.00

Workshop/Training Conducted:

Two-day regional workshop on *Electron Microscopy*, 12th -13th December 2002, Bijni Complex, RSIC-NEHU, Shillong. 25 persons participated in the workshop.

Seminars/Conferences:

Organised:

A seminar on *Preservation of Environment* was organized during the

World Environment Day (5th June 2002)
in collaboration with the Shillong
Chapter of ISAS.

Electron Microscopic Study of Ovary,
Egg surface structure, and hatchlings
of *Labeo gonius* (Hamilton: Buchanan)

Head : Professor B. Myrboh

Scientific Staff:

Dr. Taposh Chakraborty, Sr. Scientific Officer (Ph.D in Physics,
NEHU)

Dr. Sudip Dey, Scientific Officer (Ph.D. in Zoology, NEHU)

Mr. Thomas Job K, Scientific Officer (M.Tech (Instr), I.I.Sc.
Bangalore)

Mrs. Begonia Dkhar, Scientific Officer, (M.Sc. in Zoology, NEHU)

Dr. Debashish Dey, Scientific Officer, (Ph.D in Chemistry,
Rani Durgabati University, Jabalpur)

Dr. P.S. Dkhar, Scientific Officer (Ph.D in BioPhysics, NEHU)

Attended:

Dr. S.Dey, Mrs. B. Dkhar, Mr.
R. Chakraborty and Mr. J.P.
Nongkynrih participated in the following
national and regional seminar:

(i) National seminar on
*Botanical Research in Wildlife Sanc-
tuaries and National Parks of Assam*,
held at Handique College, Guwahati,
on 27 and 28 July 2002.

(ii) Regional seminar on *Role of
Biodiversity and Environmental
Strategies in North East India for
Sustainable Development*, held on 27
and 28 November, 2002 at St. Mary's
College, Laitumkhrah, Shillong.

Publications:

Bhuyan, R.N., S. Dey, S.
Bordoloi and A. Dutta. 2003. Scanning

at mid-altitudinal area of Shillong,
Meghalaya with reference to Induced
Breeding. *Aquacult*, 4 (1): 99-109.

Chakraborty, R., S. Dey, P.S.
Dkhar, D.K. Sharma and D. Ghosh.
2002. Ecological impact on Zinc and
Manganese status of some common
edibles from Northeast India. *Ecobios*,
1 (1) : 33-40.

Dey, S. 2002. Spectroscopical
studies on the muscles of a fresh wa-
ter fish *Channa Punctatus* (Bloch.) in
relation of hydrogen ion concentration
of water and environment pollution.
Pollution Res, 21 (2): 91-100.

Dey, S., D. Singh, N.J. Dhar, N.
Biswas, R. Chakraborty, P.K. Das and
D.K. Sharma. 2002. Possible relation-
ship between dorsal campaniform
sensilla in head surface and preferred

feeding posture of muga silk work, *Antheraea assama* during indoor rearing. *Sericologia*, 42 (2): 171-180.

Research Projects:

Ongoing:

“A Lab to Land Programme on Application of Structural Biological Studies to Non-Mulberry Silk Industry in Relation to Increased Silk Out-put”.

Project Cost :Rs. 10.02 Laks.

Funding Agencies:

Government of India, Department of Development of Northeastern Region, Northeastern Council Secretariat, Shillong.

Other Activities:

Dr. S. Dey, Scientific Officer, delivered talks on (i) “Health & Environment” at G.C. College, Silchar, Assam on 20th December, 2002. (ii) (a) “Basic Principles of Electron Microscopy”. (b) “Application of Electron Microscopy in Fish Biology” at Cachar College, Silchar, Assam on 20th December, 2002. (iii) “Application and Principles of Electron Microscopy” at Assam Science Society, Silchar, Assam on 18th December, 2002.

Dr. T.S.B. Baul, Scientific Officer joined as a Lecturer in the Chemistry Department of NEHU.

Dr. D. Dey and Dr. P.S. Dkhar joined the centre as Scientific Officer.

UNIVERSITY SCIENCE INSTRUMENTATION CENTRE

Thrust Area of Research:

The thrust areas are instrumentation, applications, development and maintenance.

Brief Statement of Activities:

Conducted one-week computer awareness programme for the staff of USIC and ten-day course in Basics of Electronics for the staff of USIC.

Regular Activities:

The details of various activities in which the centre was involved are

given below.

1. Mechanical Section:

- i) Repairs of gas regulator of Biochemistry Department.
- ii) Fabrication of one steel meter box for Mr. F. F. Pyngrope.
- iii) Repairing of cooling pump of lathe machine of the centre.
- iv) Fabrication of MS grills for Saramati Hostel, NEHU.
- v) Fabrication of MS poster stands for the National Symposium on Biodiversity – A Scientific Approach

Head : Professor P.V. Koparkar

Staff
Professor : P. V. Koparkar, M.Sc., Ph.D (Nagpur U)

Agenda for 21st century & 72nd Annual Session of the National Academy of Sciences, India during October 25-27, 2002 organised by the Department of Botany, NEHU.

vi) Fabrication of MS collapsible grills and MS grills for Examination Section, NEHU.

vii) Fabrication of two MS boxes for NEHU VSAT room.

viii) Fabrication of MS grills for Japfu Hostel.

ix) Repairs of steel almirahs and steel tables of the Examination Section, NEHU.

x) Repairs of one weighing machine of Health Centre, NEHU.

2. Electronics and Electrical:

i) In house maintenance and repair of electrical systems of lathe, milling, band saw, mobile fabricator, molder, sheet cutting machines.

ii) In house maintenance of electrical wiring etc. of USIC building.

iii) Repair of voltage stabilizers of Sociology, Political science and Chemistry departments.

iv) Repair of flask shaker, heating mantles, magnetic stirrers, vacuum pumps etc. of Chemistry Department.

v) Repair ovens, water bathe, and 500 VA stabilizer of Zoology Department.

vi) Repair of heaters and hot air blowers.

vii) Electrification of the Electronics Laboratory.

viii) Electrification of the computer room in Examination Section, NEHU.

3. Glass Blowing Section:

i) Cutting of test tubes, cutting of corks and drilling, repairing flask, etc. for Chemistry Department.

ii) Fabrication of 57 test tubes of 10" length, 24 funnels of 2" diameter, etc. for the Chemistry Department.

iii) Fabrication of 15 no. of glass rings for Zoology Department.

iv) Attaching joints to glass tubes for Bio-chemistry Department.

4. Carpentry Section:

i) Fabrication of furniture for nine professor's quarters; Registrar's quarters and Finance Officer's quarter.

ii) Fabrication of double bed for the Vice-Chancellor's quarter.

iii) Fabrication and framing of 4' x 4' 12 mm ply boards for the MS

poster stands for national symposium on Biodiversity – A Scientific Approach Agenda for 21st century & 72nd Annual Session of the National Academy of Sciences, India during October 25-27, 2002 organised by the Department of Botany, NEHU.

iv) Fabrication of centre table for the Vice-Chancellor's office.

v) News paper stands, notice boards, bench with arms, centre table letter box etc. for NEHU hostels.

vi) Fabrication of magazine stands with sliding glass doors for Commerce Department.

vii) Fabrication of glass boards for class rooms of various departments.

viii) Site preparation and fabrication of the computer room of the Examination section including necessary furniture.

ix) Repairing of bus no. 3064 of NEHU including painting, electrical wiring, seats, etc of the Transport Section, NEHU.

x) Fabrication of name plates for Linguistics Department.

xi) Fabrication of 81 sofa sets for NEHU staff quarters started.

xii) Fabrication of two beds for Mr. J. Thabah, NEHU.

Optical Instruments Maintenance:

In order to maintenance and repair optical instruments which are extensively used by the post graduate

students of the departments of Botany, Zoology etc., the centre deputed Mr. N. R. Paul for a period of three weeks in January 2003 for extensive hands on training at the Western Regional Instrumentation Centre, Mumbai. Mr. Paul can maintain and repair simple optical microscopes used by PG students extensively. This facility is now open to departments of the university as well as affiliated colleges of the University.

Staff sent for training outside NEHU, Shillong

The following staff members of the centre were sent to Kolkata for training in order to equip them for rendering better services in their respective fields.

1. Mr.S.Kushawah, AIT Control Kolkata, 12–30.08.2002

2. Mr. A.K. Baruah, AIT Control Kolkata, 12.08– 06.09.2002

3. Mr. M.C. Das, AIT Control Kolkata, 12– 23.08.2002.

4. Mr. L.B. Rathore, AIT Control Kolkata, 15– 27.09.2002

5. Mr. N.R. Paul, WRIC, Mumbai 03 – 26.01.2003.

Other Activities:

Prof. P. V. Koparkar gave two lectures in refresher course conducted by Physics Department, NEHU. The titles of the lectures and dates are as follows:

1. Introduction to Computer networking, Internet and Applications in teaching, 13.02. 2003.

2. Introduction to Satellite Communication and its Applications in Remote Sensing, 15.02.2003.

X

Development Departments

PLANNING DEPARTMENT

The Planning Department is concerned with economic and educational development of the university. Accordingly, the IXth Plan proposal focussed on the following four thrust areas, viz:

1. Development of Permanent Campus.
2. Shifting of departments to the Permanent Campus.
3. Development of certain departments into areas of excellence.
4. Creation of departments to impart professional degrees.

The Planning Department was engaged in preparation of the Xth Five Year Plan proposal of the university. Keeping in view the short comings of the IXth Plan, the university in its Xth Plan took steps to fulfill the objectives as laid down by the UGC as well as to meet the challenges of the scientific, technological, social, economic and political transformation that has been taking place globally. The Xth Plan

proposals seek:

1. To attain the desired academic environment in terms of a fully developed campus functioning as a single coherent unit, the plan lays emphasis on development and completion of the Permanent Campus.
2. To provide basic infrastructure and technological inputs to all academic and supporting departments.
3. To ensure qualitative education through teaching and research with relevance to the global needs and standards.
4. To include unfilled teaching posts sanctioned under the IXth Plan in the Xth Plan proposal.
5. The need to provide wider opportunities to students to develop and acquire skills to their fullest potential in emerging and frontier areas. It has accordingly been proposed to establish five new departments, upgradation/convert four centres/institute into full-fledged departments.

CAMPUS DEVELOPMENT DEPARTMENT

Under IXth Plan (2/3rd Category):

Construction of the Administrative Building:

Main building and sub-station building are nearing completion.

Construction of 5 units of non-teaching staff quarters (allotted 4 units) and sanctioned Rs. 30 lakhs.

(i) Type-II: 2 units

(ii) Type-V: 1 unit

(iii) Type-III: 1 unit have been completed or are under progress.

Construction of 2 units of teaching staff quarters (P-Type) is completed.

Under IX Plan (1/3rd Category):

Construction of 9 units of non-teaching staff quarters (allotted 8 units)

(i) Type-II: 4 units are completed.

(ii) Type-III, IV and V are nearing completion.

Construction of 4 units of teaching staff quarters (allotted 3 units).

(i) Warden's Residence-1 unit

(ii) P-Type: 1 unit and (iii) P-Type: 1 unit are under progress.

Construction of boundary wall (Phase-II) is completed.

Construction of the Central Library building (Phase-II) is under progress.

Under Non-Lapsable Pool (Phase-I):

Construction of Kendriya Vidyalaya building (Phase-I) is completed.

Construction of Library Building (Phase-I) is under progress.

Construction of additional space for Social Science and Life Sciences (Phase-I) (i) Botany & Zoology (ii) Bio-chemistry is completed and sanctioned Rs.98.58 lakhs and Rs.41.28 lakhs respectively.

Under Non-Lapsable Pool (Phase-II):

33 units of staff quarters for Kendriya Vidyalaya are under progress and was sanctioned Rs. 362.81 lakhs.

Construction of additional space for Life Sciences (Phase-II) is under progress.

Construction of boundary wall (Phase-III) is nearing completion.

Construction of 200 Seated Hostel and 50 Staff Quarters:

Construction of overhead tank, parallel road towards housing complex and approach road towards substation No. 2 is completed.

Under Infrastructural Development (Re Appropriation from Salary Savings:

(A) Providing water supply line

from the over head tank towards hostels and housing zone is completed.

(B) Approach road towards NTS quarters.

Approach road towards Type-II & III, towards Type-IV and towards Type-V; link road towards Bio-chemistry from

the Administrative Building, street lighting along parallel road are all completed.

Under Non-Lapsable Pool (Phase-III):

Various construction works are under progress.

COLLEGE DEVELOPMENT COUNCIL

The College Development Council made a stride in improving the working of all the colleges affiliated to NEHU. The CDC staff visited all the colleges to get first hand information on the colleges and provided suggestions for improvement.

The council organized a two-day workshop on *Assessment and Accreditation of Higher Education Institutions in Meghalaya* sponsored by the

National Assessment and Accreditation Council (NAAC), Bangalore on 22nd – 23rd April 2002 at NEHU Guest House, Permanent Campus, Shillong. 30 colleges participated in the workshop.

At present there are 53 affiliated colleges under NEHU of which 16 are permanently affiliated and 37 are provisionally affiliated.

XI

Examination Department

The Examination Department was able to declare the results in 2002 in time, with the extra efforts put in by its officers, staff and concerned teachers. The statistical data of the Examination Department is self-evident regarding the enrolment of students and the examination results of the year 2002-03 relating to the different degree, post-graduate, M.Phil, Ph.D and other professional courses. Such examination results data reflect the contribution and achievement of the university as a whole in the field of human resource development.

Towards the computerization of the Examination Department, as a first step, results of some of the degree courses were computerized successfully. Computerization of results involves coding, automatic decoding and entry of marks/tabulation, printing out of results and mark sheets. The evaluation process and writing of certificates are done manually at present. However, efforts are being made to computerize all the university examination results/system in a phased manner so as to achieve the goal within a span of 5 years.

ANNEXURE 'A'

Enrolment of Students 2002-03

Courses	General		OBC		SC		ST		Total	
	M	F	M	F	M	F	M	F	M	F
<i>B.A.(Pass)</i>										
First Year	248	264	22	18	50	32	1945	1929	2253	2242
Second Year	163	150	15	12	25	23	932	1132	1128	1324
Third Year	77	103	8	11	7	6	425	520	517	641
Grand Total	488	517	45	41	82	61	3302	3581	3898	4207

Courses	General		OBC		SC		ST		Total	
	M	F	M	F	M	F	M	F	M	F
B.A.(Honours)										
First Year	155	203	14	11	15	17	1258	1641	1421	1863
Second Year	118	194	8	6	9	10	523	790	659	978
Third Year	80	104	4	5	7	8	293	580	385	696
Grand Total	353	501	26	22	31	35	2074	3011	2465	3537
B.Sc.(Pass)										
First Year	9	6	2	3	3	3	59	37	70	48
Second Year	7	4	2	1	1	0	23	27	33	32
Third Year	4	6	0	0	0	0	10	15	14	21
Grand Total	20	16	4	4	4	3	92	79	117	101
B.Sc.(Honours)										
First Year	101	99	10	10	8	8	421	402	540	519
Second Year	65	92	3	4	5	3	157	173	233	242
Third Year	48	43	2	1	6	2	100	132	156	178
Grand Total	214	204	15	15	19	13	678	707	929	939
B.Com(General)										
First Year	117	13	1	0	1	2	241	58	360	73
Second Year	48	9	2	0	1	1	113	33	165	42
Third Year	31	4	0	0	1	1	47	19	79	24
Grand Total	196	26	3	0	3	4	401	110	604	139
B.Com(Honours)										
First Year	119	58	1	1	4	2	274	128	398	189
Second Year	27	18	0	0	1	3	61	37	92	58
Third Year	34	28	1	1	2	2	74	53	111	88
Grand Total	180	104	2	2	7	7	409	218	601	335
B.Sc.Home Sc. (Pass)										
First Year	0	0	0	0	0	0	0	1	0	1
Second Year	0	0	0	0	0	0	0	0	0	0
Third Year	0	0	0	1	0	0	0	2	0	3
Grand Total	0	0	0	1	0	0	0	3	0	4
B.Sc.Home Sc. (Honours)										
First Year	0	0	0	0	0	0	0	15		15

Courses	General		OBC		SC		ST		Total	
	M	F	M	F	M	F	M	F	M	F
Second Year	0	1	0	0	0	0	0	8		7
Third Year	0	1	0	0	0	0	0	7		8
Grand Total	0	2	0	0	0	0	0	28		30
<i>B.B.A.(Hons)</i>										
First Year	6	7	1	1	0	2	24	7	31	17
Second Year	8	5	3	0	0	0	10	7	21	12
Third Year	7	5	1	0	0	1	13	8	21	14
Grand Total	21	17	5	1	0	3	47	22	73	43
<i>B.C.A.(Hons)</i>										
First Year	3	0	2	1	0	1	4	2	9	4
Second Year	3	2	2	0	0	0	4	2	9	4
Third Year	12	2	3	3	0	0	11	5	26	6
Grand Total	18	4	7	4	0	1	19	9	44	16
<i>B.E</i>										
First Year	26	6	14	2	2	1	0	1	42	10
Second Year	39	6	9	1	0	0	2	0	50	7
Third Year	32	5	6	0	2	0	1	1	41	6
Grand Total	97	17	29	3	4	1	3	2	133	23
<i>PGDCA</i>	3	5	0	0	0	0	6	4	9	9
<i>B. Ed.</i>	19	58	5	2	0	1	63	140	87	201
<i>LL.B.</i>										
First Year	131	46	10	5	3	2	182	87	326	140
Second Year	17	15	0	0	0	1	88	61	105	77
Third Year	13	13	0	0	1	1	74	47	88	61
Grand Total	161	74	10	5	4	4	344	195	519	278
<i>Diploma Certificate</i>	2	7	0	0	0	0	16	9	18	16
<i>M.A.</i>										
Previous	12	30	0	3	2	1	169	253	183	287
<i>M.A/M.Sc.</i>										
Previous	3	4	0	0	0	0	28	22	31	26
<i>M.Sc</i>										
Previous	22	11	0	0	6	0	68	48	96	59

Courses	General		OBC		SC		ST		Total	
	M	F	M	F	M	F	M	F	M	F
<i>M.Lib. Sc.</i>										
<i>Previous</i>	1	0	0	0	0	1	9	14	10	15
<i>M.Com.</i>										
<i>Previous</i>	6	3	0	0	0	0	24	11	30	14
Grand Total										
<i>Previous</i>	44	48	0	3	8	2	298	348	350	401
<i>M.A.</i>										
<i>Final</i>	12	25	2	1	1	1	168	223	183	250
<i>M.A/M.Sc</i>										
<i>Final</i>	1	5	0	0	0	1	25	23	26	29
<i>M.Sc.</i>										
<i>Final</i>	9	10	2	0	1	1	59	42	71	53
<i>M.Lib. Sc.</i>										
<i>Final</i>	1	1	0	0	0	0	0	3	1	4
<i>M.Com.</i>										
<i>Final</i>	2	2	0	0	0	0	12	6	14	8
Grand Total										
<i>Final</i>	25	43	4	1	2	3	264	297	295	344
Grand Total										
<i>(Previous +</i>										
<i>Final)</i>	69	91	4	4	10	5	562	645	645	745
<i>M.Phil.</i>										
<i>Newly Enrolled</i>										
<i>Previously</i>	0	0	0	0	0	0	2	12	2	12
<i>Enrolled</i>	2	4	1	0	0	0	22	16	25	22
Grand Total										
<i>Ph.D.</i>	2	4	1	0	0	0	24	28	31	34
<i>Newly Enrolled</i>										
<i>Previous</i>	19	11	0	0	1	0	41	30	63	39
<i>Enrolled</i>	42	32	0	0	0	2	75	73	117	107
Grand Total	61	43	0	0	1	2	116	103	180	146

ANNEXURE 'B'

**U.G. Students from
Different States**

**P.G. Students from
Different States**

State	M	F	Total	State	M	F	Total
Manipur	488	342	830	Manipur	41	22	63
Nagaland	298	315	613	Nagaland	25	25	53
Mizoram	228	247	475	Mizoram	14	10	24
Assam	177	158	335	Assam	4	10	14
Tripura	80	68	148	Tripura	3	1	4
Arunachal Pradesh	40	33	73	Bihar	1	1	2
Foreigners	13	20	33	Arunachal Pradesh			
Bihar	4	18	22	Pradesh	1	0	1
Kerala	16	5	21	Kerala	1	0	1
West Bengal	5	14	19	Orissa	1	0	1
Uttar Pradesh	1	10	11	Meghalaya	554	673	1227
Jharkhand	5	2	7				
Orissa	3	1	4				
Rajasthan	1	3	4				
Himachal Pradesh	0	3	3				
Andhra Pradesh	0	2	2				
Delhi	0	2	2				
Karnataka	0	2	2				
Haryana	0	1	1				
Maharashtra	1	0	1				
Tamil Nadu	1	0	1				
Punjab	0	1	1				
Sikkim	0	1	1				
Uttaranchal	0	1	1				
Meghalaya	8118	8611	16729				

Year of Passed

	Number of Students appeared								General Male			General Female				
	General		SC		OBC		ST		Total		I	II	P	I	II	P
B.A. (Pass)	M	F	M	F	M	F	M	F	M	F						
(R)	317	268	24	19	6	2	1395	1103	1742	1392	0	33	143	2	66	138
(NC)	105	62	2	6	0	0	462	376	569	444	0	0	58	0	1	31
Grand Total	422	330	26	25	6	2	1857	1479	2311	1836	0	33	201	2	67	169
B.A. (Hons)																
(R)	187	281	7	9	5	3	643	755	842	1048	10	67	70	28	144	103
(NC)	5	13	0	0	1	1	66	99	72	113	0	0	5	1	3	11
Grand Total	192	294	7	9	6	4	709	854	914	1161	10	67	75	29	147	114
B.Sc.(Pass)																
(R)	19	13	1	1	0	1	43	18	63	33	0	6	4	1	7	3
(NC)	15	0	0	0	0	1	24	9	39	10	0	3	6	0	0	0
Grand Total	34	13	1	1	0	2	67	27	102	43	0	9	10	1	7	3
B.Sc.(Hons)																
(R)	148	125	7	6	3	1	213	217	371	349	50	19	52	38	28	31
(NC)	11	12	1	0	0	1	93	24	45	37	3	2	2	1	3	1
Grand Total	159	137	8	6	3	2	246	241	416	386	53	21	54	39	31	32
B.Com(Pass)																
(R)	154	33	2	3	2	0	136	41	294	77	1	17	64	1	8	14
(NC)	38	0	0	0	0	0	25	10	63	10	0	6	15	0	0	0
Grand Total	192	33	2	3	2	0	161	51	357	87	1	23	79	1	8	14
B.Com. (Hons)																
(R)	104	48	3	4	2	0	119	78	228	130	7	19	37	2	15	48
(NC)	2	1	0	0	0	0	20	8	22	9	0	0	2	0	0	1
Grand Total	106	49	3	4	2	0	139	86	250	139	7	19	39	2	15	49
B.Sc. Home Sc. (Hons)																
(R)	0	2	0	0	0	0	0	11	0	13	0	0	0	2	0	0
(NC)	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
Grand Total	0	2	0	0	0	0	0	13	0	15	0	0	0	2	0	0
B.ED., 2001 December.																
(R)	29	41	0	0	3	0	61	96	93	137	14	12	3	27	12	0
(NC)	0	0	0	0	0	0	0	14	0	14	0	0	0	0	0	0
Grand Total	29	41	0	0	3	0	61	110	93	151	14	12	3	27	12	0

Examination : 2002

SC Male			SC Female			OBC Male			OBC Female			ST Male			ST Female			Total Male			Total Female					
I	II	P	I	II	P	I	II	P	I	II	P	I	II	P	I	II	P	I	II	P	I	II	P	I	II	P
0	5	7	0	2	7	0	2	2	0	2	0	4	119	651	0	240	444	4	159	803	2	310	589			
0	0	1	0	0	3	0	0	0	0	0	0	0	6	206	0	7	131	0	6	265	0	165	165			
0	5	8	0	2	10	0	2	2	0	2	0	4	125	857	0	247	575	4	165	1068	2	754	754			
0	5	1	0	5	2	0	3	2	0	2	2	22	247	262	45	388	215	32	322	335	73	539	322			
0	0	0	0	0	0	0	0	0	0	2	1	0	12	22	3	15	40	0	12	27	4	20	52			
0	5	1	0	5	2	0	3	2	0	4	3	22	259	284	48	403	255	32	334	362	77	559	374			
0	0	1	0	0	1	0	0	0	1	0	0	0	10	6	0	9	2	0	16	11	2	16	6			
0	0	0	0	0	0	0	0	0	0	0	1	0	3	8	0	3	1	0	6	14	0	3	2			
0	0	1	0	0	1	0	0	0	1	0	1	0	13	14	0	12	3	0	22	25	2	19	8			
3	4	1	5	4	1	3	1	1	2	1	1	56	43	54	86	63	31	112	67	108	131	96	64			
0	0	0	0	0	0	0	0	0	0	0	1	4	8	1	0	11	12	7	10	3	1	14	14			
3	4	1	5	4	1	3	1	1	2	1	2	60	51	55	86	74	43	119	77	111	132	110	78			
0	3	2	0	0	4	0	1	1	0	1	2	1	31	44	1	9	11	2	52	111	2	18	31			
0	0	0	0	1	0	0	0	0	0	0	0	0	2	16	0	2	8	0	8	31	0	3	8			
0	3	2	0	1	4	0	1	0	0	1	2	1	33	60	1	11	19	2	60	142	2	21	39			
0	4	2	1	3	1	0	1	2	0	1	1	6	53	50	3	24	43	13	77	91	6	43	93			
0	0	0	0	1	0	0	0	0	0	0	0	0	0	12	0	1	6	0	0	14	0	1	7			
0	4	2	1	4	1	0	1	2	0	1	1	6	53	62	3	25	49	13	77	105	6	44	100			
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3	0	0	0	0	10	3	0			
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2			
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3	2	0	0	0	10	3	2			
0	0	0	0	0	0	0	0	0	0	0	0	6	32	11	25	54	2	20	44	14	52	66	2			
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	8	0	0	0	0	4	8			
0	0	0	0	0	0	0	0	0	0	0	0	6	32	11	25	58	10	20	44	14	52	70	10			

	Number of Students appeared								General Male			General Female				
	General		SC		OBC		ST		Total		I	II	P	I	II	P
B.B.A. (Hons) (R)	M	F	M	F	M	F	M	F	M	F	I	II	P	I	II	P
	7	2	0	0	0	0	8	4	15	6	5	2	0	1	1	0
B.C.A. (Hons) (R)	15	7	0	0	0	0	1	5	16	12	7	8	0	2	5	0
LL.B. (New Course)	6	9	0	0	0	0	1	3	7	11	2	6	0	0	2	0
LL.B. (Old Course)	6	3	0	0	0	0	10	5	16	8	0	4	0	0	1	0
M.A.	22	50	0	1	2	5	196	226	220	282	6	6	2	20	24	5
M.Sc.	38	63	0	1	2	9	261	284	301	357	15	8	2	29	27	5
M.Lib.Sc.	2	0	0	0	0	0	7	10	9	10	2	0	0	0	0	0
M.Com.	1	3	0	0	0	0	4	16	5	19	1	0	0	0	3	0
Diploma	1	0	0	0	0	0	4	10	5	10	0	0	0	0	0	0

SC Male			SC Female			OBC Male			OBC Female			ST Male			ST Female			Total Male			Total Female					
I	II	P	I	II	P	I	II	P	I	II	P	I	II	P	I	II	P	I	II	P	I	II	P	I	II	P
0	0	0	0	0	0	0	0	0	0	0	0	5	3	0	1	2	0	10	5	0	2	3	0			
0	0	0	0	0	0	0	0	0	0	0	0	2	5	0	1	5	0	8	13	0	2	5	0			
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2	6	0	0	3	0			
0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	3	0	1	10	0	0	4	0			
0	0	0	0	0	1	0	1	0	1	3	2	26	113	39	31	128	37									
0	0	0	0	0	1	0	1	0	5	3	2	63	127	40	58	148	41									
0	0	0	0	0	0	0	0	0	0	0	0	5	2	0	4	5	0									
0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	3	9	4									
0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	3	0									

Award of M.Phil/Ph.D during 2002-2003

	General		SC		OBC		ST		Total	
	M	F	M	F	M	F	M	F	M	F
M.Phil. (Arts)	1	0	0	0	0	0	4	9	5	9
Ph.D (Arts)	2	1	0	0	0	0	7	4	9	5
Ph.D (Science)	10	4	0	0	0	0	4	1	14	5
Library Science			0	0	0	0	1	0	1	0
Ph.D	12	5	0	0	0	0	12	5	24	10

XII

Scheduled Castes/Tribes

During the year 2002-03, the Scheduled Caste & Scheduled Tribe Cell was fully engaged in the works related to the implementation of reservation policy for Scheduled Castes and Scheduled Tribes in appointment / promotion to teaching and non-teaching posts and also for admission of students to various post-graduate programmes and hostels in this university.

For proper implementation of the matters related to the above the Standing Committee for Scheduled Castes and Scheduled Tribes met on 24.4.02 and resolved as follows:

Implementation of post-based-roster for all ranks of non-teaching category up to the lowest rank of Group "A". However, for the teaching category the member from the MHRD was requested to take up the matter with the UGC.

In this connection, it may be mentioned that SC/ST Cell has prepared the post-based-roster for all the groups "D", "C" and "B". But some posts are still under process as

clarifications are awaited on the creation of the posts.

The MHRD desired that a separate interview may be held for SC/ST candidates for recruitment to the teaching posts. The Committee has forwarded this matter to the E.C. for consideration and the same was approved. Necessary amendments in the statutes are in the process.

Further, as desired by the MHRD, an agenda item has been placed before the Executive Council for inclusion of SC/ST member in the Selection Committee / Departmental Promotion Committee of the university. The same has been approved by the Council for implementation by the university.

In addition to reservation for SC/ST, the Committee has also decided that reservation for physically handicapped will be applicable to non-teaching category for the time being and this will be applied to teaching posts only after ascertaining the merit of the case and the requirement of the concerned departments. However, for

the non-teaching category 3% reservation for physically handicapped will be adjusted against the 27% quota for O.B.C.

Regarding the Bill 2001 pertaining to reservation in educational institutions for children of parents living below poverty line, the Standing Committee welcomed the idea placed through the Bill, but suggested that the

Govt. should find out the modalities so that this reservation policy can be worked out efficiently. Steps should also be taken by educational institutions to create additional seats to accommodate this category of students. The Director of Public Instruction, Govt. of Meghalaya, has been requested to take further necessary action from his end.

XIII

The Hindi Cell

The Hindi Cell began functioning in 1985 on a modest scale. There was only one L.D.C to begin with, and in 1986, one post of Junior Hindi Translator and one post of Hindi UDC were filled up to promote progressive use of Hindi in this university. Since then on a modest scale this cell has started some activities in pursuance of the Official Language Act, 1963 which is introduced by an Act of Parliament.

Officer-in-Charge:

Dr. Ram Kripal Tiwari.

Scope:

For effective implementation of the Official Language Policy in this university an Official Language Implementation Committee is constituted. Presently Professor Mrinal Miri, the Vice-Chancellor, is the Chairman and all senior officers like Registrar, Finance Officer, Controller of Examination, Librarian, all Deputy Registrars of this university along with In-Charge, Central Institute of Hindi, Assistant Direc-

tor, Hindi Teaching Scheme, Government of India, Shillong Centre are the members of this committee. The In-Charge Hindi Cell is the Member-Convenor of this committee. Since inception of the Hindi Cell till date, this Committee held 18 meetings and resolution passed by the OLIC in these meetings regarding progressive use of Hindi have been indicated below:-

- ☞ Creation of post connected with translation.
- ☞ Training in translation.
- ☞ Imparting Hindi training to the non-Hindi knowing employees of this university.
- ☞ Incentives for passing the Hindi Prabodh, Praveen and Pragya course examination conducted by the Hindi Teaching Scheme, Government of India.
- ☞ Organising Hindi workshops/seminars.
- ☞ Use of Hindi in computers.
- ☞ Organising quarterly OLIC meetings.
- ☞ Agenda/minutes etc of the OLIC meeting to be prepared in bilingual

form.

- Correspondence in Hindi.
- Rubber-stamps, name-plates, signboards, headings & letter heads etc. in bilingual form.

Seminars/Conferences:

A two-day national seminar on Rashtrabhasha Hindi Ke Vividh Aayam was organized on 31st October & 1st November 2002. Professor Vidya Niwas Mishra, former Vice-Chancellor of the Sampurnanand Sanskrit Vishvavidyalaya & Mahatma Gandhi Kashee Vidyapeeth, Varanasi was the chief speaker and Professor Nityanand Pandey, Director, Central Institute of Hindi, Agra, Professor D.D. Tiwari, Visiting Professor of Hindi at Arunachal University, Arunachal Pradesh, Professor Debendra Shukla, Central Institute of Hindi, Shillong Centre and Professor V.K. Srivastava, Head, Department of Hindi, NEHU, Shillong presented their theme papers in this national seminar.

Dr. R.K. Tiwari, In-Charge Hindi Cell and Sri S. K. Karna, Hindi Cell were the organizers of this seminar.

Dr. R.K. Tiwari, In-Charge Hindi Cell and Sri A.K. Singh, Hindi Cell were nominated by the Vice-Chancellor to represent NEHU in the two-day national workshops on filling up of inspection questionnaire of the Committee of Parliament on Official Language. The

workshop was organized under the auspices of the National Institute of Public Administration, Bangalore and held on 21-22 February 2003.

Achievements:

The year 2002-03 was very fruitful for the cell in connection with progressive use of Hindi. First, a two-day national seminar was held under the auspices of Hindi Cell on 31st October & 1st November, 2002 in which all officer members of the Shillong Town Official Language Implementation Committee were invited to attend the seminar.

On the eve of Hindi Diwas the university celebrated the Rajbhasha Fortnight during 14-28 September 2002. During the Rajbhasha Fortnight three Hindi competitions namely Hindi Nibandh Lekhan Pratiyogita, Hindi Handwriting and general knowledge based Hindi Prashnavali were conducted. 1st, 2nd and 3rd place winners of these competitions were awarded cash prizes of Rs. 500/-. In total more than 25 participants took part in these competitions.

Overall achievement pertaining to the Official Language Policy was satisfactory and it is hoped that with adequate support from the NEHU authority the Hindi Cell can go a long way in fulfilling the objectives of the Official Language.

XIV

Appendices

MEMBERS OF THE EXECUTIVE COUNCIL

Professor Mrinal Miri
Vice-Chancellor,
NEHU, Shillong.

Professor (Mrs) K.S. Lyngdoh
Pro-Vice-Chancellor,
NEHU, Shillong (up to 15.11.02).

Professor S.S. Khare
Pro-Vice-Chancellor,
NEHU, Tura.

Professor A.N. Rai
Dean, School of Life Sciences,
NEHU, Shillong.

Professor (Mrs) Sujata Miri
Dean, School of Humanities and
Education, NEHU, Shillong.

Professor P. Shukla
Dean, School of Physical Sciences,
NEHU, Shillong.

Professor Imdad Hussain
Dean, School of Social Sciences,
NEHU, Shillong (up to 22.10.02).

Professor J.B. Bhattacharjee
Department of History
NEHU, Shillong (up to 30.9.02).

Professor M.N. Karna

Department of Sociology. NEHU,
Shillong (w.e.f. 1.10.02).

Professor M. Lalwani
Dean, School of Economics
Management and Information
Sciences, NEHU, Shillong (w.e.f.
23.10.02 to 31.1.03).

Professor A.K. Baruah
Dean, School of Social Sciences,
NEHU, Shillong. (w.e.f. 23.10.02).

Professor R. Lalthantluanga
Dean, School of Life Sciences
(w.e.f. 28.2.03).

Dr. P.K. Saikia
Department of Mathematics,
NEHU, Shillong.

Director,
Higher & Technical
Education, Govt. of Meghalaya.

Principal
Synod College, Shillong.

Registrar
NEHU, Shillong.

Finance Officer
NEHU, Shillong.

MEMBERS OF THE ACADEMIC COUNCIL

Vice-Chancellor
Prof. Mrinal Miri
Vice-Chancellor,
North-Eastern Hill University.

Pro-Vice-Chancellors
Prof. (Mrs) K.S. Lyngdoh
Prof. S.S. Khare

Dean, School of Life Sciences,
NEHU, Shillong.

Dean, School of Humanities and
Education, NEHU, Shillong.

Dean, School of Physical Sciences,
NEHU, Shillong.

Dean, School of Social Sciences,
NEHU, Shillong.

Dean, School of Economics,
Management & Information
Sciences, NEHU, Shillong.

Dean, School of Human and
Environmental Sciences, NEHU,
Shillong.

Dean, Students' Welfare, NEHU,
Shillong.

Head, Department of History,
NEHU, Shillong.

Head, Department of Political
Science, NEHU, Shillong.

Head, Department of Sociology,
NEHU, Shillong.

Head, Department of Economics,
NEHU, Shillong.

Head, Department of Library and
Information Sciences, NEHU,
Shillong.

Head, Department of Biochemistry,
NEHU, Shillong.

Head, Department of Botany,
NEHU, Shillong.

Head, Department of Zoology,
NEHU, Shillong.

Head, Centre for Environmental
Studies, NEHU, Shillong.

Head, Department of Anthropology,
NEHU, Shillong.

Head, Department of Geography,
NEHU, Shillong.

Head, Department of Chemistry,
NEHU, Shillong.

Head, Department of Mathematics,
NEHU, Shillong.

Head, Department of Physics,
NEHU, Shillong.

Head, Centre for Applied Statistics,
NEHU, Shillong.

Head, Department of English,
NEHU, Shillong.

Head, Department of Khasi,
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Head, Department of Linguistics,
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Head, Department of Philosophy,
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Head, Department of Education,
NEHU, Shillong.

Head, Centre for Supportive
Learning Systems, NEHU,
Shillong.

Head, Centre for Cultural &
Creative Studies, NEHU, Shillong.

Head, Computer Centre, NEHU,
Shillong.

Director, Institute of Self-
Organising Systems and Bio-
Physics, NEHU, Shillong.

Head, Department of Commerce,
NEHU, Shillong.

Head, Department of Hindi, NEHU,
Shillong.

Head, Department of English,
NEHU, Tura Campus.

Head, Department of Garo, NEHU,
Tura Campus

Head, Department of Education,
NEHU, Tura Campus.

Head, Department of Rural
Development & Agricultural
Production, NEHU, Tura Campus.

Librarian, NEHU, Shillong.

Department of Political Science,
NEHU, Shillong.

1. Prof. R.L. Walli
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Department of Sociology, NEHU,
Shillong.

1. Prof. A.C. Sinha
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2. Prof. M.M. Singh
3. Prof. Biloris Lyndem Laso

Department of Biochemistry,
NEHU, Shillong.

1. Prof. A.N. Rai
2. Prof. R. Lalthantluanga
3. Prof. Ramesh Sharma
4. Prof. R.N. Sharan

Department of Botany, NEHU,
Shillong.

1. Prof. R.S. Tripathi

2. Prof. P. Tandon
3. Prof. H.N. Pandey
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Department of Zoology, NEHU,
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Department of Anthropology,
NEHU, Shillong.

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Department of Khasi, NEHU,
Shillong.

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2. Prof. (Ms) B. War

Department of Linguistics, NEHU,
Shillong.

1. Prof. (Miss) J. War

Department of Philosophy, NEHU,
Shillong.

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2. Prof. (Mrs) Sujata Miri
3. Prof. C.R. Agera
4. Prof. Jagat Pal

Department of English, NEHU,
Tura Campus.

1. Prof. S. Ganguly

Department of Garo, NEHU, Tura.

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Department of Hindi, NEHU,
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Centre for Cultural and Creative
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Centre for Environmental Studies,
NEHU, Shillong.

1. Prof. B.K. Tiwari

University Scientific Instrumentation
Centre, NEHU, Shillong.

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Nongstoin College, Nongstoin,
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Tikrikilla College, Tura, W.Garo Hills.

Ms. C.W. Momin, Principal,
College of Teacher Education,
Tura, W.Garo Hills.

Dr. Ali Ahmed, Reader, Department
of Geography, NEHU, Shillong.

Dr. R. Sachdeva, Reader, Depart-
ment of Linguistics, NEHU, Shillong

Dr. (Mrs) G. Das, Lecturer, Centre
for Applied Statistics, NEHU,
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Shri B.K. Gupta, Lecturer, Centre
for Applied Statistics, NEHU,
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Institute of Self Organising System
and Bio-Physics, NEHU, Shillong.

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Shillong.

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4. Prof. (Mrs) T. Ao
5. Prof. K.C. Baral

Department of Khasi, NEHU,
Shillong.

1. Prof. B.L. Swer
2. Prof. (Ms) B. War

Department of linguistics, NEHU,
Shillong.

1. Prof. (Miss) J. War

Department of Philosophy, NEHU,
Shillong.

1. Prof. (Mrs) Sujata Miri
2. Prof. C.R. Agera
3. Prof. J. Pal

Department of English, NEHU, Tura
Campus, Tura.

1. Prof. S. Ganguly

Department of Garo, NEHU, Tura
Campus, Tura.

1. Prof. C.R. Marak

Department of Hindi, NEHU,
Shillong.

1. Prof. V.K. Srivastava

University Scientific Instrumentation
Centre, NEHU, Shillong.

1. Prof. (Ms) P.V. Koparkar

Department of Education, NEHU,
Shillong.

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2. Prof. R. Bhattacharjee
3. Prof. P.K. Ganguli
4. Prof. (Mrs) A. Henia

Department of Education, NEHU,
Tura Campus, Tura.

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2. Prof. P.K. Gupta

Centre for Cultural and Creative Studies, NEHU, Shillong.

1. Prof. (Mrs) H. Giri

Centre for Environmental Studies, NEHU, Shillong.

1. Prof. B.K. Tiwari

Head, Department of Library and Information Science, Shillong.

Head, Department of Commerce, Shillong.

Head, Department of Rural Development and Agricultural Production, Tura.

Dr. P.K. Saikia, Department of Mathematics, Shillong.

Dr. Ali Ahmed, Department of Geography, Shillong.

Shri P.G. Momin, Department of Geography, Shillong.

Dr. S. Aravamudhan, Department of Chemistry, Shillong.

Principal, Shillong Law College, Shillong.

Principal, Khatar Daloi Law College,

Jaintia Hills.

Principal, Greater Mawlai College, Mawlai.

Principal, Morning Star College, Nongthymmai.

Principal, Umshyrpi College, Shillong.

Principal, Bissau College, Shillong.

Principal, Thomas Joanes College, Jowai.

Shri Ajay Chakraborty,
210 V.P. House, New Delhi-110 001.

Shri Rajen Gohain,
106 Assam Bhawan, New Delhi – 21.

Shri K.A. Sangtam,
C-1/7 Humayun Road, New Delhi – 110 003.

Shri Holkhemang Hoakip,
A-3 M.S.Flats, B.K.S. Marg, New Delhi- 110 001.

Dr. Arun Kumar Sarma,
P.O. Japisajia, North Lakhimpur, Assam – 787 001.

AND

68, South Avenue, New Delhi – 110 011, Email: asks @ sansad nice.in

Shri C. Apok Jamir,
Half Nagarjan, P.O. Dimapur,
Nagaland.

AND

C-304, Swarna Jayanti Sadan,
Dr.B.Marg, New Delhi-110 001
Email: apok @ Sansad. Nice.in

Ms. Angela Golda Rangad,
Department of Anthropology, NEHU,
Shillong.

Mr. Lalnunpuia, Department of
Physics, NEHU, Shillong.

Mr. Manti P. Khonglah, Department
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Ms. Crystine Syngai, Department of
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Shillong – 793 014.

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General Secretary,
Non-Teaching Staff Association,
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Director of Higher & Technical
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Dr. A.K. Kundu

LIST OF AFFILIATED COLLEGES

Sl. No.	Colleges	Principals	Year of Estt.	Levels to which affiliated
1.	St. Edmund's College, Laitumkhrach, Shillong-3	Bro. L.D. Lobo	1924	Degree (Arts, Science & Commerce)
2.	St. Anthony's College, Laitumkhrach, Shillong-3	Fr. I. Warpakma	1934	-do-
3.	Lady Keane's College, Shillong - 1	Ms. A.M. Marbaniang	1935	Degree (Arts & Science)
4.	St. Mary's College, Laitumkhrach, Shillong-3	Sr. Philomina Kharakor	1937	-do-
5.	Union Christian College, East Khasi Hills Dst.	Shri. Lalmalsawma Pachau	1952	-do-
6.	Shillong College, Shillong-3	Smt. M.P.R. Lyngdoh	1956	Degree (Arts, Science & Commerce)
7.	Sankardev College, Laban, Shillong-4	Smt. D. Dkhar	1962	Degree (Arts & Science)
8.	Shillong Law College, Dhankheti, Shillong-3	Shri. O.D. V. Ladia	1964	L.L.B.
9.	College of Teachers' Education, (PGT) Shillong-3	Smt. J.E. Shullai	1964	B.Ed.
10.	Synod College, Jaiaw, Shillong-2	Dr. D. Wanswet	1965	Degree (Arts & Science)
11.	Kiang Nongbah Govt. College, Jowai.	Shri M. Bareh	1967	-do-
12.	Tirot Singh Memorial College, Mairang, West Khasi Hills District.	Shri Kan Singh Marwein	1987	Degree (Arts)

13.	Seng Khasi College, Jaiaw, Shillong-2	Smt. B. Tymthai	1973	-do-
14.	Raid Laban College, Laban, Shillong-4	Shri S. Nongbri	1985	Degree (Arts, Science & Commerce)
15.	Ri-Bhoi College, Nongpoh, Ri-Bhoi District	Shri H.C. Bathew	1986	Degree (Arts)
16.	Sngap Syiem Memorial College, Mawkyrwat, West Khasi Hills Dst.	Shri D.R.L. Nonglait	1986	-do-
17.	Sohra College, Cherra- punjee, East Khasi Hills District	Shri W. Boney	1986	-do-
18.	Khat-Ar-Daloi Law College, Jowai, Jaintia Hills District	Shri C. Kharkongor	1986	L.L.B.
19.	Shillong Commerce College, Shillong-3	Shri S. Kharkongor	1987	Degree (Commerce)
20.	Nongstoin College, Nongstoin, West Khasi Hills District	Shri B.K. Laitflang	1986	Degree (Arts)
21.	Women's College, Shillong-3	Shri D. Choudhury	1987	-do-
22.	Jaintia Easter College, Jaintia Hills District	Shri P. Nongtdu	1992	-do-
23.	Nongtalang College, Jaintia Hills District	Shri G.J. Nongkhlaw	1992	-do-
24.	Upper Shillong College, Upper Shillong, Shillong-5	Shri Oris Lyngdoh	1992	-do-

25.	Budha Bhanu Saraswati College, Mawprem, Shillong-2	Shri Sanjay Rana	1994	-do-
26.	Morning Star College Nongthymmai, Shillong-14	Shri B. Mawkhiew	1994	-do-
27.	Bissau College, Laitumkhrah, Shillong	Dr. (Smt.) S. Bawri	1996	Degree (Arts & Commerce)
28.	Umshyrpi College, Laban, Shillong-4	Smt. N. Joshi	1995	Degree (Arts)
29.	Greater Mawlai College Shillong-8	Shri E. Wriang	1993	-do-
30.	Mawsynram Border Area College, East Khasi Hills District.	Shri Ajeet Kumar	1998	-do-
31.	Nabon Synod College Jaiaw, Shillong-2	Smt. S. Sohkhlet	1998	-do-
32.	Thomas Jones Synod College, Jowai Jaintia Hills District	Rev. Dr. E.S. Langstieh	1998	-do-
33.	North-East Adventist College, Thadlaskein, Jaintia Hills District.	Shri B. Rynthlei	1998	-do-
34.	Shillong Engineering & Management College Laitumkhrah, Shillong	Shri P.K. Baruah	1998	Proposed Degree in Elec. Engg. Computer, BBA, Mech. Electronics
35.	Alpine College, Nongthymmai, Shillong-14	Shri N. Kharshiing	1999	Degree (Arts)

36.	Good Will College Nongthymmai, Shillong-14	Shri V.P. Singh	2000	-do-
37.	St. Mary's College of Teachers Education, Laitumkhrah, Shillong.	Sr. B. Shadap	2000	B.Ed.
38.	St. Dominic College, Nongthymmai, Shillong-14	Mrs. Kalpita Kar	1998	Degree (Arts)
39.	Tura Govt. College Tura, Garo Hills	Dr. P.K. Das	1958	Degree (Arts Science & Commerce)
40.	Mendipathar College, East Garo Hills Dst.	Smt. A.G. Momin	1971	Degree (Arts)
41.	Acheng Rangmanpa College, Garo Hills	Shri D. Ch. Marak	1986	Degree (Arts & Science)
42.	Don Bosco College Tura, Garo Hills.	Fr. V.A. Cyriac	1987	-do-
43.	Tikrikilla College, West Garo Hills.	Shri Nanda B. Gaire	1988	Degree (Arts)
44.	Kazi and Zaman College West Garo Hills.	Shri K.I. Mondal	1992	-do-
45.	Durama College, Tura Garo Hills.	Shri I.K. Sangma	1993	-do-
46.	Captain Williamson Memorial College, South Garo Hills.	Shri Bomberd Sangma	1994	-do-
47.	College of Teachers' Education College, Tura, Garo Hills.	Shri S.B. Das	1993	B.Ed.
48.	Tura Law College, East Garo Hills.	Shri L. Momin	1975	L.L.B.

49.	Ramsang College, East Garo Hills.	Shri S.G. Momin	2001	Degree (Arts)
50.	William Nagar College, East Garo Hills.	Shri Nirendra Sangma	2001	-do-
51.	NERIST, Itanagar.	Director - Professor A.L. Verma	1990	B.Tech.
52.	Christian Academy College, Pynthorbah, Shillong.	Smti. S.M. Pdah	2002	Degree (Arts)
53.	Mawlai Presbyterian College, Mawlai Iewrynghep, Shillong-8	Shri B.R. Kharlukhi	2002	Degree (Arts)
54.	Phukan Memorial College, Dalu - West Garo Hills.	Shri Ashis Daring	2003	Degree (Arts)

UNIVERSITY FINANCE

Statement showing the Receipt/Expenditure in respect of Non-plan Grant/Plan Grant for the year 2002-2003

NON-PLAN

(A) RECEIPT

1. Grant received from UGC (including one time special grant)	Rs.	32,35,48,000
2. Interest on Investment	Rs.	60,00,000
3. Internal Income:		
(a) Academic	Rs.	13,83,007
(b) Examination fee	Rs.	26,04,574
(c) Other fees	Rs.	84,61,433
(d) University Hostel	Rs.	9,60,285
4. Income from Building	Rs.	3,64,132
5. Miscellaneous Receipt	Rs.	43,976
6. Publication	Rs.	6,94,608
7. UGC Grant for NEHU Fellowship	Rs.	72,514
8. Other Receipts	Rs.	1,69,12,917
9. Misc. recovery	Rs.	19,71,941
TOTAL RECEIPTS:	Rs.	34,04,60,917

(B) EXPENDITURE

1. Salaries for Teaching Staff	Rs.	7,24,68,665
2. Salaries for Non-Teaching Staff	Rs.	12,40,96,218
3. 12-Common Services & General Charges	Rs.	6,27,51,193
4. Pension/Family Pension/DCRG	Rs.	1,97,62,406
5. Bodies & Committees (TA/DA)	Rs.	14,74,817
6. NEHU Fellowship	Rs.	2,16,000
7. Other Charges:		
(a) Examination Department	Rs.	1,19,22,902
(b) Sports Department	Rs.	9,43,242
(c) C.D.C	Rs.	18,943

(d) Publication Cell	Rs.	1,02,171
(e) D.S.W.	Rs.	8,65,190
(f) Health Clinic	Rs.	36,35,867
(g) U.S.I.C.	Rs.	80,890
8. Capital Expenditure:		
(a) Office Equip. & Furniture	Rs.	49,88,407
(b) Lib. Periodicals/Books & Journals	Rs.	77,97,540
(c) Lib. Books	Rs.	22,36,285
(d) Equip. for U.S.I.C.	Rs.	3,47,654
(e) Vehicle	Rs.	56,91,674
(f) Other capital items	Rs.	16,45,449
(g) Lab. equipment	Rs.	11,48,254
9. Other charges for schools:		
(a) Sch. of Social Sciences	Rs.	1,28,663
(b) Sch. of Physical Sciences	Rs.	19,30,272
(c) Sch. of Life Sciences	Rs.	29,19,460
(d) Sch. of Human & Environmental Sciences	Rs.	5,79,978
(e) Sch. of Humanities & Education	Rs.	2,45,778
(f) Sch. of Eco. Management & Inf. Sciences	Rs.	83,077
10. Other Charges of centres:		
(a) Computer Centre	Rs.	48,624
(b) I.S.O.S.B.	Rs.	6848
11. Other Charges for Academic & Administrative:-		
(a) University Library	Rs.	4,47,865
(b) Hostel for Men	Rs.	33,844
(c) Hostel for Women	Rs.	13,638
12. Cultural Activities	Rs.	3,41,973
TOTAL EXPENDITURE:	Rs.	32,89,73,787

PLAN

(A) RECEIPT

1. 10 Plan Grant	Rs.	4,25,00,000
2. Interest & Investment	Rs.	39,48,927
3. Miscellaneous Plan	Rs.	4,41,801
4. Road	Rs.	12,969

(B) EXPENDITURE

1. Construction of 150 Staff Quarters	Rs.	14,22,482
2. Construction of 200 Seated Hostel, etc.	Rs.	8,56,062
3. Construction of Admn. Block for Head Quarters	Rs.	44,17,584
4. Books & Journal	Rs.	95,48,538
5. Central Library	Rs.	1,26,25,921
6. Construction of Kendriya Vidyalaya	Rs.	1,24,307
7. Equipment Grant	Rs.	N.A.
8. Books	Rs.	450
9. Construction of Social Science Complex	Rs.	11,382
10. Visiting Professor TA/Honorarium	Rs.	N.A.
11. Replacement of obsolete condemned/equip.	Rs.	N.A.
12. Construction/2 unit (T)	Rs.	3,97,013
13. Construction/4 unit (T)	Rs.	5,07,983
14. 9 Plan/Const/5 unit (T)	Rs.	7,43,030
15. 9 Plan/Const/9 unit (NTS)	Rs.	27,84,972
16. Const. Add. Space Botany/Zoo.	Rs.	35,44,308
17. Const. Add. Space, Pol/Economic	Rs.	36,76,443
18. Const. Boundary Wall	Rs.	55,04,915
19. Salaries	Rs.	N.A.
20. Infrastructure Dev. Grant	Rs.	13,93,241
21. Construction at Tura Campus	Rs.	5,740
22. Const. Academic Complex	Rs.	45,99,986
23. Const. Auditorium	Rs.	4,88,000
24. 10 Plan (Adm. Building)	Rs.	70,10,670
TOTAL PLAN EXPENDITURE:	Rs.	5,96,63,027

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Mawkynroh - Umshing, Shillong - 793 022

Tel : +91 - 364 - 2721001 (4 lines) Fax: + 91 - 364 - 2721000

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