

INSTITUTES AND CONSTITUENT COLLEGES

The only institute under the University's is the Institute of Self-Organising System and Bio-Physics in Shillong. The Pachhunga University College, Aizawl is also the only constituent college of the University formerly known as the Pachhunga Memorial Government College. It was established in 1958 and became a constituent college of NEHU in 1978-79.

INSTITUTE OF SELF ORGANISING SYSTEMS AND BIOPHYSICS

It is a purely research institute within the University system dedicated to undertake interdisciplinary research activities. The primary aim of the Institute is to investigate biological phenomena using the techniques of physical science and to train students to face challenges on the frontiers of science. Consequently, the faculty members are encouraged to pursue diverse research activities and evolve programmes of interdisciplinary nature. The current interest of the faculty lies in the measurements of invited talks by the staff including-biophotonic activity and its possible connection with squeezed states, hormonotoxin and drug targeting, characterizing the inherent biological oscillators in the rhythmic activities, acoustic communication in frogs, spectroscopic determination of the structure of proteins and crystals, simulation of carcinogenesis and its probable mechanism modelling of neuronal and immunological activities.

Director : Vacant

Faculty Positions:

Name of the Teacher	Designation	Specialization
1. Dr. R.P.Bainzi	Professor	Modelling ,Theo.Physics
2. Dr.Vinod Singh	Reader	Life Science, Biology.
3. Dr. Satish Kumar	Reader	Statistical Mechanics, Field Theory, Many Body Problems.
4. Dr. Debjani Roy	Reader	Developmental Physiology
5. Dr. P. Nonakynrih	Lecturer	X-Ray and Spectroscopy (Experimental Physics)
(Joined Deptt. of Physics on 15.9.94)		
6. Dr. P.K.Bajpai	Lecturer	Phase transition in Solid.
(Joined Deptt. of Physics on 17.8.94)		

7. Vacant Positions:

Professor : Two

Lecturer : Three.

Course Conducted:

Students in-take in the course : Two

(SC/ST)	Genl.	Male	Female
1	1	1	1

Extension Lectures/ Seminars/ Symposium:

Attended :

Dr. Satish Kumar - Institute of Physics, University of Tokyo, Japan.

Dr. Debjani Roy - at ISOSB, NEHU Workshop.

- Lecture at Department of Biophysics, Molecular Biology and Genetics, Calcutta University.

- at Biophysics Division of the Saha Institute of Nuclear Physics, Calcutta on Sept. 1994 and Jan. 1995.

- Invited to chair a session at the XXIII Annual Meeting of the Ethological Society of India and national Symposium on Animal Behaviour, Lucknow in December, 1994.

- Participated in the Indo-Japan Symposium on "Morphogenesis, Genes and Development" at Central food technological Research Institute, Mysore during february 18-21, 1995.

Workshops Organised

National Workshop Organised on " Theories and Models in Biology" May 6 to 10 1994.

PUBLICATIONS:

1. B.G. Nathew and S. Kumar J. Biolum. Chemilum.. 9 (1994) 55-58. " Active Oxygen generation in-irradiated whole seedings of Cicer arietinum L."

2. Roy, Debjani, J. Biosciences, 19 (5) : (1994), 629-644. "Development of auditory structures in vertebrates, with special reference to anurans."

3. Roy, Debjani, Bijoy Lakshmi Borah and Amarendra Sarma, Proceeding of the Ethological Society of India, Lucknow (1994) Page No. A-17. "Vocalization and Social Behaviour of ran erythraea" (Abstract).

4. Vinod Singh and Roy Curtiss III, Mol. Cell Biochem, 130 (1994) 83-90. "Effect of amino group modification of ovine uterine LH hormone (oLH) by N-Succinimidyl 6-[3-(2-pyridyldithio)propanoate] hexanoate, a long chain N-succinimidyl-3-(2-pyridyldithio) propanoate (SPDP) on immunological and biological properties: A comparative study with SPDP modified oLH".

5. Vinod Singh and Roy Curtiss III, Mol. Cell Biochem, 130 (1994) 91-101 "Hormonotoxins: The role of positive charge on lysine residue in the immunoreactivity, receptor binding and cytotoxicity of lutropin-S-S-aetoinin conjugated".

6. P.K. Baidpai, B. Pal and T.S. Basu Baul, J. Raman Spect, 26, 217-222 (1995) "Structure of Some Arylazophenols and Arylazonaphthos in the solid state: resonance Raman study".

7. Dr. Anjana Munshi, The Nucleus, 37: 1,2 (1994) A novel aneuploid in *Plantago lanceolata* L..

Research Programmes:

1. CSIR Project entitled "Studies on single chain RIPs from pante" sanctioned to research associate Dr. Anjan Munshi.

2. DAE R/P entitled "Investigation of the mechanisms inherent by the Biological Clocks" to Dr. (Ms.) P. Nynokyrnh for three years w.e.f. 27.5.1994.

3. DAE R/P entitled "Establishment of critical limits of micronutrients of rice soils and plant in Meghalaya" to Dr. (Ms.) P. Nynokyrnh w.e.f 27.5.1994 for three years.

Other remarks:

(a) Alexander Von-Humboldt Foundation Fellowship in Biochemistry 1994 was awarded to Dr. Vinod Singh to work at the university of Hiedelberg, Germany.

(b) Dr. Satish Kumar visited and worked at the University of Tokyo, Japan from December 24th 1994 to March 23rd 1995.

(c) USC visiting Associate for 2 years from October 1994 to October 1996 to Dr. (Ms.) Debjani Roy to work at the Centre of Ecological Studies and the Developmental Biology and Genetic Laboratory, Indian Institute of Science, Bangalore.

(d) Mr. James Haorah got an Indian Overseas fellowship to work at the University of Nebraska, USA.

(e) Dr. (Ms.) Debjani Roy was elected member of the Ethological Society of India for 3 years 1994-1996.

(f) Dr. (Ms.) Debjani Roy was made a member of the International association for the Society of Animal Behaviour.

(g) Prof. R.P. Bajpai was elected Vice President of the Indian association of Physics teachers.

NAME OF PRINCIPAL : P.GOHAIN

Class and subjects of which affiliated :

(a) Pre-University Arts : (1) English (2) MIL (Mizo/Hindi/Bengali/
(Compulsory subject) Assamese/Nepali/Alt.English)

Elective subject : (1) History, Mathematics
(2) Economics
(3) Pol. Science/Statistics
(4) Education (5) Geography/Mizo
(6) Logic

Pre University Science : (1) English (2) MIL (Mizo/Hindi/Bengali/
(Compulsory subject) Assamese/Nepali/Alt.english.

(Elective subjects) : (1) Chemistry -Compulsory
(2) Physics - compulsory
(3) Biology (4) Mathematics
(5) Statistics

Pre University Commerce: (1) English (2) MIL (Mizo/Alt.Eng/
Hindi/Assamese/Nepali
(3) Business Method (4) Commercial
Arithmetic (5) Book Keeping
(6) Commercial Geography
(7) Economics

Optional subjects : (1) Salesmanship and Publicity
(2) Secretarial Practice & procedure
(3) Insurance

b) B.A. (Compulsory subject): (1) English (2) MIL/Foundation
Course

(Elective subject) : (1) English/Mizo (2) Pol. Science
(3) History (4) Economic
(5) Psychology (6) Geography
(7) Sociology
(8) Education/Philosophy

B.Sc (Compulsory subject) : (1) English (2) foundation Course

Elective subject Group A. Physics, Chemistry, Mathematics
B. Zoology, Chemistry, Botany
C. Mathematics, Physics, Statistics
D. Biology, chemistry, Zoology
E. mathematics, Statistics, Economics

B.Com (Compulsory subject): (1) English (2) MIL (3) Foundation
Course

Elective subject : Group A - Accountancy

- (1) Accountancy I (2) Accountancy II
(3) Auditing

Group B - Economics

- (1) Principles of Economics
(2) Economic Problems of India with special reference to the North-East
(3) Theory and Practice of Banking

Group C - Organisation

- (1) Statistics and Business Mathematics/Applied Statistics
(2) Business Organisation & Management
(3) Commercial Law and Company Law

C) Degree Honours : Arts - Any subject introduces at Degree Course English, History, Pol. Science, Education, Economics, Sociology, Philosophy, Geography, Psychology.

Science - Mathematics, Statistics, Chemistry, Zoology, Botany, Geology, Physics.

D) Nil

5. Enrolment of Students :-

P.U.	Degree - Pass			Degree Honours							
	SC.	ST.	Genl.	SC.	ST.	Genl.					
a) Arts											
			Arts			Arts					
Male	-	167	5	Male	-	137	13	Male	-	47	2
Female	-	109	8	Female	-	83	11	Female	-	18	1
b) Science											
			Science			Science					
Male	-	194	26	Male	-	147	3	Male	-	32	2
Female	-	84	8	Female	-	74	3	Female	-	9	1
c) Commerce											
			Commerce			Commerce					
Male	-	68	13	Male	-	19	4	Nil			
Female	-	25	2	Female	-	4	2				
d) TOTAL	General - 106			S.Caste - Nil			S.Tribe - 1219.				

e) No. of Shifts. : 6 Shifts.

f) No. of teachers subject wise :

English	- 7	Commerce	- 5
Mizo	- 5	Zoology	- 3
Sociology	- 2	Physics	- 6
Philosophy	- 3	Botany	- 5
Pol.Science	- 4	Statistics	- 3
Education	- 5	Mathematics	- 4
History	- 4	Geology	- 4
Economics	- 4	Chemistry	- 5
Psychology	- 2		
Geography	- 5		

Extra curricular activity : 1) N.S.S. 2)N.C.C. 3)S.U.

Any other remarks :- Detail activities of N.S.S. is attached herewith.