

INSTITUTE AND CONSTITUENT COLLEGE

Institute of Self Organising System and Bio-Physics

The Institute established in 1986, It is a purely research institute within the University system dedicated to undertake interdisciplinary research activities in newly emerging and unconventional areas. The primary aim of the Institute has been to investigate biological phenomena using techniques of physical sciences and to train students who can face challenges encountered in pushing the frontiers of science. The Institute is not permitted to offer M.Sc. courses and is dependent upon students from various departments for its research programme. The faculty members are encouraged to pursue diverse research activities with the hope that proximity and interaction would help to evolve programmes of an interdisciplinary nature. With their background and training the Faculty has collaborative research programmes with disciplines such as Mathematics, Physics, Biochemistry, RSIC, Computer Centre and Economics, and with national institutions outside Shillong. The current activities of the Institute include measurements of biophotonic activity and its possible connection with squeezed states, hormonotoxin and drug targeting, acoustic communication in frogs, spectroscopic determination of the structure of protcins and crystals, and modelling of neuronal and the immunological activities.

Head : Vacant

Faculty :

Name and Degrees

Designation

R P Bajpai, PhD (Glasgow)
Vinod Singh, PhD (Kanpur)
Satish Kumar, PhD (Utkal)
Debjani Roy, PhD (NEHU)

Professor
Reader
Reader
Reader

Student Intake :

(a) Enrolment Capacity : 4

(b) Actual Admission : 1

	SC/ST	Genl	Male	Female	Total
Ph.D.=	0	1	0	1	1

Courses Conducted : M.Phil and Ph.D.

Methods of Science, Self Organising Systems, Living State and Biophysics of Living Organisms and Applied Computer Science.

Seminar/Conference etc. :

Attended :

- Debjani Roy, Invited Lecture at the Department of Zoology, Viswa Bharati, Santiniketan on "Courtship in Frogs" in August

1996.

- Debjani Roy, Invited Lecture "Female Frogs can also say aye/nay to their paramour's serenade!" at the 62nd Annual Meeting of the Indian Academy of Sciences, Bangalore in November 1996.

- Debjani Roy, Invited Lecture "Frogs as laboratory pets for developmental biologists" at the All India Developmental Biology Conference, Bhubaneswar in February 1997.

Thrust Area of Research :

Biophotonic Emission, Squeezed States, Immunology, Neuroethology and Developmental Physiology.

Research Programmes/Projects :

1. DST SERC project of Dr. Debjani Roy entitled "Acoustic Communication in frogs", upto October 1996.
2. New DST SERC project of Dr. Debjani Roy entitled "Timing of Development of the middle ear in Rana limnocharis and acoustically mediated behaviour from metamorphosis to sexual maturity", started from February 1997.

Other Activities :

Professor R.P. Bajpai spent 2 weeks at Jawahar Lal Nehru Centre for Advance Scientific Research, Bangalore from November 20 to December 6, 1996 and delivered a talk "Are Living Systems Associated with Coherent Photons?"; he also attended the workshop on "Modelling in Biology" from January 11 to 20, 1997 at Puri.

Pachhunga University College

This College was set up as pace setting institution for undergraduate teaching. The performance of its students at the various University examinations, from the Pre-University to the Degree Level, has been outstanding, particularly in the science stream.

All together 1032 students of whom 1002 were of ST category, were admitted in the College during 1996-97. The details are as follows :

	Male	Female	Total
B.A. :	239	148	387
B.Sc. :	212	97	309
B.Com. :	31	5	36
P.U.(Arts):	88	59	147
P.U.(Sc):	77	38	115
P.U.(Com):	32	6	38
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	679	353	1032

The College had 75 teachers on its rolls. Dr. C.Thanthianga was Principal during the period under report.