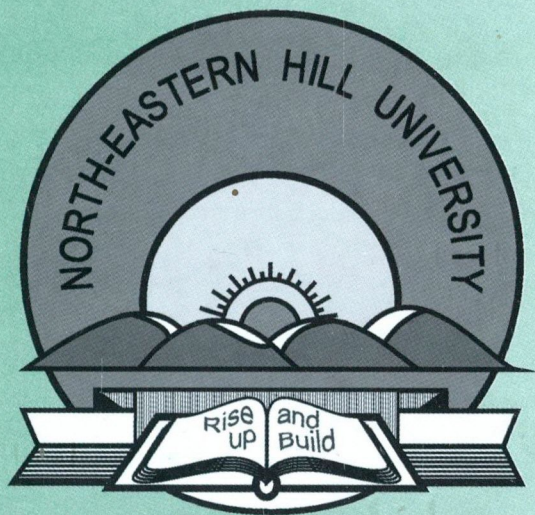


North-Eastern Hill University

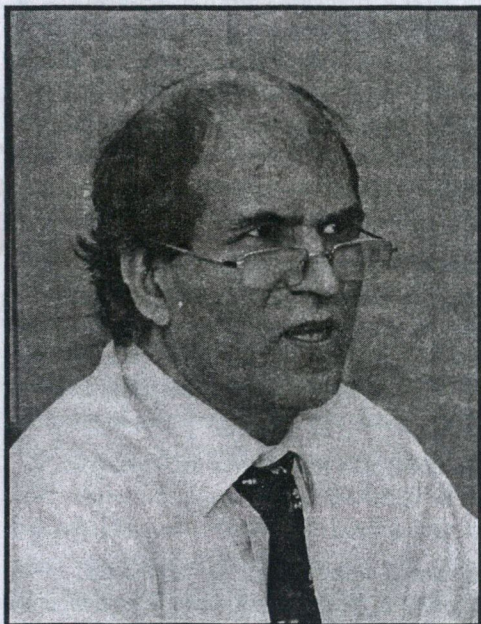


Thirty-eighth
**Annual
Report**

2011-2012



From the Vice-Chancellor's Desk



Greetings from North-Eastern Hill University!

I am happy to place before you the Annual Report for the year 2011-12 comprising the details of the University and activities of its Academic as well as Service Departments/Centres. During the year under review, we held the 19th Convocation of the University where His Excellency the Vice President of India graced the occasion as the Chief Guest and also delivered the Convocation Address.

The NEHU is comparatively a young University which continues to grow and improve its performance year after year. From previous year's All India Ranking of 22nd, NEHU is now ranked 16th and adjudicated as one of the top five upward moving universities. Several of our Academic Departments are

recognized in the form of Special Assistance Programme [SAP] and Centre for Advanced Studies [CAS] schemes of the UGC as well as FIST and PURSE Programmes of the DST. NEHU has also been recognized by the UGC as "University with Potential Excellence" since past five years and in a recent review, it has again been recommended by the UGC Review Committee to continue to be recognized as such for the next five years. More than one-third Academic Departments have collaborative research programmes with other institutions – within as well as outside the country. The University has a high speed data voice network linked to NKN with 1GB speed through which we have access to electronic journals and various digital repositories.

Presently we have 312 teachers and 800 Research Scholars spread across 34 Departments and 2 Centres of Studies in two campuses – one at Shillong and another in Tura. The total strength of students has grown to nearly 4000, an increase of more than 13% from the previous year. In addition, there are more than 37,000 students in 63 colleges affiliated to our University. The student population represents good gender equality with male-female ration of 1:1.25.

During 2011-12, more than 500 research papers and 19 books were published, 68 seminars and workshops were organized, 44 new research projects with an outlay of nearly Rs. 15.00 crores were undertaken and 70 PhD and 46 MPhil Degrees were awarded. Faculty members presented as many as 384 research papers at Conferences. The University has adopted the UGC Regulations 2010 and necessary reforms in administration, examinations, academic and

finances are underway.

The Eleventh Plan came to an end [March 2012] with University achieving over 90% grant utilization and target achievement. The residual work of the plan will be completed within the two years grace period allowed by the UGC. Nearly 50% of the vacancies of the faculty positions have been filled during the year. We hope to fill the remaining during the year 2012-13. Similarly, a large number of backlog of the promotional cases of the faculty and staff have been cleared and we hope to complete the task within next year.

Although the financial constraints continue to persist, our efforts to cut expenditure and raise internal revenue have partially helped to tie-up the situation. However, this is not enough and we expect the UGC to provide us suitable increase in our non-plan budget.

I would like to thank the university community for their hard work and devotion to duty in making NEHU an institution worthy of its name in the field of higher education. While congratulating the students who graduated from this University during this year, I convey my deep appreciation to all for maintaining peace and sound academic ambience on the campus.

Lastly I thank the Editorial Team led by Prof. T. B. Subba for their good effort in preparing the Annual Report within the stipulated time and also thank the Hindi Cell of the University for translating the same.



Professor A. N. Rai
Vice-Chancellor

Executive Summary

North-Eastern Hill University was established in 1973 by an Act of Parliament “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 North-East Region, and, in particular their intellectual, academic and cultural advancement”. The University has its headquarters in Shillong and a campus in Tura. It is one of the Sixth Schedule universities that can affiliate minority educational institutions from the entire country. It has eight Schools of Studies, 34 departments and 2 Centres of Studies. 63 colleges are affiliated to it.

North-Eastern Hill University is comparatively a new university that continues to grow and improve its performance year after year. Today it holds the 16th position in all India ranking and is well-recognised for its quality of teaching and research as evident from the fact that it is a University with Potential for Excellence, several of its academic departments are covered under SAP and Advanced Centre Schemes of the UGC, and it also qualified under PURSE programme of the DST for special funding. Process is on for setting up of a Centre of Advanced Study in Sciences, Social Sciences and Humanities.

Presently we have about 312 teachers, nearly 800 research scholars spread across 34 departments and 2 centres of studies. The total strength of the students on the University campus is about 4000. The students' population represent a good gender equality with male and female ratio of 1:1.25

During the year under review, there were 501 articles published out of which 179 (36 per cent) were published outside India. A total of 19 books were published out of which about 1/5th was published from abroad. The University organized as many as 68 seminars and workshops and bagged 44 new projects. As many as 70 Ph.D. and 46 M.Phils were produced. More than one-third of the academic departments had collaborative programmes with other departments with institutions of repute within and outside India. Many faculty members served as Presidents of all-India level professional bodies, Editorial Board members or referees of some of the highest ranking journals in various disciplines. They also served on various groups and committees appointed by the State or Central government and many of them have received national recognition and awards. In this regard special mention may be made of the first of its kind, a tripartite agreement between NEHU, Prof. R. N. Sharan of Biochemistry Department and IndSwift Pharmaceutical Ltd. signed on 24th November 2011 at Shillong for further R&D to make the cancer detection kit, a patented novel invention of Prof. Sharan.

Recently 6 new departments in Shillong Campus and 3 in Tura Campus were started and faculty members have been recruited and syllabi approved for those departments. The University has adopted the UGC Regulations 2010 and necessary reforms in administration, examinations, academics and finances are being undertaken. The University has a high speed Data Voice Network linked to NKN with 1 GBPS speed through which we have access to electronic journals and various digital repositories.

The University continues to receive grants from the UGC, DST, DBT, CSIR, DRDO, ICSSR, MoEF, MSJE, NBHM, NEC, etc. The total amount of research grant received during the year under report was 14 crores and 98 lakhs. As many as 10 departments are supported by the UGC's Special Assistance Programme (Biochemistry, Botany, Zoology, Chemistry, Physics, Mathematics, Sociology, History, Political Sciences and Geography). The Department of Botany has been upgraded to the level of Centre of Advanced Studies, the only of its category in Northeast India. The departments of Zoology and History have been given the position of SAP-DSA. Biochemistry, Botany, Zoology and Chemistry are funded under the Committee on Strengthening of Infrastructure for Science and Technology (COSIST). Biochemistry, Botany, Zoology, Chemistry, Physics and Geography receive funds from DST under FIST.

The University has a Sophisticated Analytical Instrumentation Facility to facilitate scientific research. The Internal Quality Assurance Cell works for maintenance of quality in all spheres of university academics and administration. The University also has Equal Opportunity Cell, Grievance Cell, Hindi Cell, Statistics Cell, Women's Cell, National Service Scheme and so on. There is a Voice-Data Network on the campus. This facility enables faculty, research scholars and students to access Internet as well as UGC Infonet and Inflibnet sources.

The University has a North-East India Centre for Diversities under the Innovative Programme funded by the UGC. This Centre comprises two major components that relate to socio-cultural and biological diversities of the entire region that occupies about 9 percent of the geographical area of India. Soon, the Centre will showcase the rich diversities through a Culture Park and a Bio-park that are coming up on the campus. The University faculty members, in collaboration with the indigenous communities of the region, are working for preservation, projection and promotion of the region's rich diversity.

The overall performance of the University in terms of governance, research and academic profiles has been excellent. This is confirmed with re-accreditation by the National Assessment and Accreditation Council, which awarded NEHU with 'A' ranking, once again the only university in the region to get this distinction.

All the academic departments have on-line, digital & multimedia class rooms and on-line access to over 3500 journals. Digitization of the intellectual property of NEHU is currently under process. The University follows its academic calendar strictly. Both teaching and examinations are conducted on time. Various departments of NEHU have successfully received extra-mural funding for research. It has been awarded prestigious chairs like Rajiv Gandhi Chair or Protective Discrimination and Rajiv Gandhi Chair for Contemporary Studies. In recognition of the academic achievements of the faculty members of this university a large number of them have received fellowships like FNA, FASc, FNASc and some of them have been decorated with Padma Shree and Padma Bhushan awards as well.

Officers of North-Eastern Hill University

Visitor	HE Pratibha Devi Singh Patil
Chancellor	Prof. M. G. K. Menon
Chief Rector	HE Ranjit Shekhar Mooshahary
Vice-Chancellor	Prof. A. N. Rai
Pro-Vice-Chancellor (Tura Campus)	Prof. Eugene D. Thomas
Registrar	Shri Lambha Roy
Finance Officer	Shri Taliremba
Controller of Examinations	Professor K. Ismail
Librarian	Dr. I. Majaw
Dean Students' Welfare	Prof. R. N. Sharan
Dean, School of Economics, Management & Information Sciences	Prof. N. M. Panda
Dean, School of Education	Prof. P. K. Gupta
Dean, School of Human and Environmental Sciences	Prof. H. Lamin
Dean, School of Humanities	Prof. J. War
Dean, School of Life Sciences	Prof. B. K. Sharma (upto 14/1/2012) Prof. A. K. Misra (w.e.f. 15/1/2012)
Dean, School of Physical Sciences	Prof. H. K. Mukerjee
Dean, School of Social Sciences	Prof. L. S. Gassah
Dean, School of Technology	Prof. S. Choudhury

Members of the Editorial Board

T. B. Subba, Chairman
Nirankar Srivastav, Member
R. H. Duncan Lyngdoh, Member
F. A. Qadri, Member
A. K. Misra, Member
Esther Syiem, Member
P. K. Gupta, Member
S. Choudhury, Member
B. Shylla, Member

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Chapter I

SCHOOL OF ECONOMICS, MANAGEMENT & INFORMATION SCIENCES

Dean : Professor N. M. Panda
Telephone : 2723131 (o), 2551311 (o)

The School consists of seven academic departments: Economics, Commerce, Library and Information Science, Management (Tura Campus), Tourism and Hotel Management, Journalism and Mass communication and Agribusiness and Food Technology (Tura Campus) of which the last three came into existence just before the close

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

Department of Commerce

Head : Dr. K.C. Kabra
Telephone : 2723161 (o)
Email : hodcom@nehu.ac.in

Thrust Areas

The department aims at imparting education for creation and management of business enterprises in an emerging economy of North-East India. Keeping this in view the following

are the thrust areas of research in the department: Accounting & Finance, Entrepreneurship & Small Business, Organisational Happiness.

Faculty Profile

Professor	
N M Panda	M.Com, LL.B (both from Utkal Univ) Ph D (Manipur Univ), FDP (IIMA)

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Associate Professors	
A P Pati	M Com, M Phil, Ph D, LLB, (All from Utkal Univ), ACWA(ICWAI), DBF(ICFAI)
V K Shrotrya	M.Com, LLB, Ph. D (All from Rohilkhand Univ)
K C Kabra	M.Com, Ph. D (both from JR Nagar Raj Vidyapeeth)
Assistant Professors	
R A J Syngkon	M.A, M.Com, Ph D (All from NEHU)
Mrs. S. Kharmawphlang	M.Com, (NEHU), DFM (NILEM, Chennai)
S G Maji	M.Com, Ph.D (Burdwan Univ), DBM (ICFAI)

Student Intake

Enrolment capacity: M.Com - 50

Actual admission:	SC	ST	Gen	Male	Female	Total
M.Com	-	41	10	28	23	51
Ph D Course Work	-	2	4	1	5	6
Ph D Registration	-	-	3	2	1	3

Degrees Awarded

	SC	ST	Gen	Male	Female	Total
M.Com	-	9	3	3	9	12

Ph D

Mr Benjamin Franklin Lyngdoh on the topic 'Impact of Micro-Finance on Women Empowerment: A Study of Meghalaya', (March. 2012), under the supervision of Dr AP Pati.

Reporting Practices, *Service Management, NGO Management, and IT & Business.*

Courses Conducted

M Com

Semester I: Business Environment, Organization Behavior, Corporate Accounting, Statistics for Decision Making, and Managerial Economics.

Semester II: Advanced Financial Management, Marketing Management & Policy, Corporate

Semester III: Financial Markets and Instruments, Entrepreneurship, Cost & Management Accounting, *Financial Risk Management, Management of Small Enterprise, and Business Survey & Research.*

Semester IV: International Business, Strategic Management, Security Analysis & Portfolio Management, Project Planning & Control, and Human Resource Management.

PhD

Research Methodology, *Management Theory & Entrepreneurship, Accounting & Finance Theory, Organisation Behaviour*, and Literature Review in concerned area.

*Courses given in italics are open courses

Seminars / Workshops / etc

Organised

Regional Investors' Meet on 30th March 2012 in collaboration with IPF Cell, BSE Ltd, Mumbai.

Attended

Prof. N M Panda delivered a talk on 'Strategic Cost Management – A Tool for attaining Competitive Advantage' at the seminar organized by PG Department of Business Administration, FM University, Balasore on 23rd February, 2012.

Dr. A P Pati delivered a talk on "Microfinance Research-Issues and Challenges" at the UGC Sponsored National Seminar on "Women Empowerment through self help group", organized by PG Dept. of Commerce, FM Autonomous College, Balasore on 27th December, 2011. He also delivered a talk on "Post Reform Challenges in Indian Banking Industry", at the National Conference on "Emerging Trends in Banking Industry", organised by Gokhale Education Society's BVA, Commerce and Science College, Mumbai on 3rd and 4th Feb 2012.

Dr S G Maji presented a paper titled "An Information Technology based Framework for improving Agricultural Credit delivery system in India" at the International Conference on Transformation and survival of Business Organization: Challenges and Opportunities,

organized by Prestige Institute of Management, Gwalior, on 28-30 December, 2011. He also presented a paper titled "Need to adopt Green Banking Products and Services" at the National Conference on "Creativity & Innovations for Challenging Times" organized by Department of Commerce Studies, Jaya Engineering College, Chennai on 25th November, 2011.

Publications

Shankar, A N & Panda, N M (2012). Does Companies' Age and Operational Areas matter for Scoring on CSR Front? *International Research Journal Lab to Land*, 4 (13), 1-11.

Shankar, A N & Panda, N M (2011). Corporate Social Reporting in India: An Explorative study of CEO Message to stakeholders. *Zenith International Journal of Business Economics and Management Research*, 1(3).

Pati, A P; Debnath, B & Sinha, T K (2012). Prevention of Non-Performing Assets in Banks: An Application of Artificial Neural Network, *Pranjan- Journal of Social and Management Science*, 4, Jan-March, 269-284.

Pati, A P & Lyngdoh, B F (2011). Microfinance and Socio-economic Change: An Assessment of Women Clients of Meghalaya, *The Micro Finance Review*, Jan-June, 2011, Vol. III(1), 110-122.

Shrotriya, V K. The Alchemy of Development: Lessons from Bhutan, *The India Economy Review*, 2011, Vol 8 (Feb-May), p 150-153.

N.Srivastav & Ricky A JS (2012). Emergence of entrepreneurship in a tribal dominated economy. In Behera, M.C. & Baruah, D.

- (Ed.), *Development Dynamics: Finance, Empowerment and entrepreneurship*, DVS Publishers, Guwahati, 2012, Pp. 136-169.
- Maji, S G & Dey, S (2012). Credit and Insolvency Risks of Indian Commercial Banks: Do Size and Capitalization Matter, *JM International Journal of Finance*, 2 (1), 47-59.
- Maji, A K & Maji, S G (2012). An Information Technology based Framework for improving Agricultural Credit delivery system in India. In Bhakar, S.S; Singh, T; Yadav, K.K & Mehra, A. (Ed.), *Transformation and Survival of Business Organizations: Challenges and Opportunities*, Macmillan Publication, 523-530.
- Maji, S G; Dey, S & Jha, A K (2011). Insolvency Risk of selected Indian Commercial Banks: A Comparative Analysis, *International Journal of Research in Commerce, Economics and Management*, 1 (5), September, 2011, 120-124.
- Dey, S; Maji S G & Jha, A K (2011). Need to adopt Green Banking Products and Services in India. In Mu. Subrahmanian (Edn.), *Creativity and Innovation for Challenging Times: Theory and Concepts*, Anuragam, Chennai, 2011, 62-67.
- Maji, A K & Maji, S G (2011). A Secured Mobile Payment Model for Mobile Marketing in Developing Countries. In Varghese, T. (Edn.), *Marketing in the Post Recession Era*, Excel India Publishers, New Delhi, 2011, 22 – 34.
- A P Pati, *Industrial Development Bank of India: Evolution, Growth and Transformation*, LAP Lambert Academic Publishing GmbH & Co. KG, Germany, 2011.
- V K Shrotryia, Organizational Behaviour – a South Asian perspective by Nelson, Quick and Khandelwal (2011) Cengage Learning, Delhi, *Invertis Journal of Management*, Vol 3 No 2 Pp 99-101.
- V K Shrotryia, Fish! A remarkable way to boost morale and improve results by Stephen C Loundin, Harry Paul and John Christensen (2000), Hodder and Stoughton, Great Britain, *Invertis Journal of Management*, Vol 4 No 1 Pp 97- 99.
- V K Shrotryia, Research Methodology : Text and Cases with SPSS Applications, *Invertis Journal of Management*, Vol 4 No 1 Pp 99-100.

Research Projects

Ongoing

Major (UGC): Capital Structure and Sustainability: An Empirical study on Indian Micro Financing Institutions, 2011. PI: Dr. A. P. Pati.

Department of Economics

Head : Prof. B. Mishra (up to 16.12.2011)
 Prof. S.K. Mishra (From 16.12.2011)
Telephone : 2723171 (o)
Email : nehu.economics@gmail.com

Thrust Areas

The thrust areas of the department are: (1) Economics of North-Eastern Region, (2) Issues of Development Economics, (3) Quantitative Economics, (4) Industrial and Agricultural Economics, (5) Public and environmental economics.

and international seminars/conferences. They also published books and research papers in various national and international journals. They have been appointed members of Expert Committees and working groups set up by Government of India and Government of Meghalaya.

Brief Statement of Academic Activities

During the year, the faculty members participated in a number of regional, national

Faculty Profile

Position	Name of the Faculty Member	Specialization
Professors	S. K. Mishra, M.A. (Bhag.), M.R.P., Ph.D. (IIT Kharagpur)	Econometrics, Planning
	N. Srivastav, M.A. (Rajasthan), Ph.D. (IIT Kanpur)	Industrial Economics
	E. D. Thomas, M.A., Ph.D. (NEHU) [on lien as Pro VC Tura]	-
	P. Nayak, M.A. (Utkal), Ph.D. (IIT Kharagpur)	Human Development, Women's Empowerment
	B. Mishra, M.A., Ph.D. (Utkal)	Public Economics, Political Economy
Associate Professors	U. K. De, M.Sc., M.Phil., Ph.D. (Burdwan)	Econometrics, Environment & Resource Economics
	B. Panda, M.A. (Utkal), M.Phil. (Berhampur.), Ph.D. (Utkal)	Development Economics, Rural Economics
	P. S. Suresh, M.A., M.Phil. (S.V. Univ.), Ph.D. (Hyd.)	Financial Economics
	B. K. Dutta, M.A., Ph.D. (NEHU)	Microeconomics, Indian Economy
	S. Umdor, M.A., Ph.D. (NEHU)	Indian Economy, Local Govt. Finance

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Assistant Professors	W. Tariang, M.A. (NEHU)	Agricultural Economics, Gender & Poverty
	D. Nongkynrih, M.A., Ph.D. (NEHU)	Labour Economics
	D.W. Thangkhiew, M.A. (NEHU)	Macroeconomics
	D. Das, M.Sc. (Guahati), Ph.D. (IIT Guahati)	Econometrics
	Veronica Pala, M.A., Ph.D. (NEHU)	Microeconomics, Quantitative Economics

Student Intake

Enrollment Capacity: M.A. – 55; M.Phil. – 20; Ph.D. - 20

Actual Admission	SC	ST	GEN	Male	Female	Total
M.A. 1 st Semester	-	55	-	24	31	55
Ph.D.	-	9	3	6	6	12

Degrees Awarded

Degree	SC	ST	Gen	Male	Female	Total
MA	-	32	6	11	27	38
PhD	-	1	1	-	2	2

Ph.D

- Ms. Joyeeta Deb, “Post-Reform Bank Efficiency in North-East India: A Branch Level Analysis”, Supervisor: Prof. P. Nayak; Jt. Supervisor: Dr. A.P. Pati.
- Ms. Deigracia Nongkynrih, “Women Workforce Participation in India: A Study of Trends and Determinants”, Supervisor: Prof. Eugene D. Thomas.

II, Macro-economic Analysis-II, Techniques of Statistical Analysis, Economics of Development- II, Economics of Environment, Indian Economic Policy, Historical Perspective of Modern Economics, International Economics, Industrial Economics, Labour Economics, Financial Economics.

Open Courses: Budgetary Theory and Practice, Computer Applications in Economic Analysis, Econometrics, Economics of Social Sector, Economics of NER.

Courses Conducted

MA/MSc

Core Courses: Micro-economic Analysis- I, Macro-economic Analysis- I, Mathematics for Economists, Economics of Development -I, Public Economics, Micro Economic Analysis -

MPhil/PhD

Recent Advances in Economic Theory; Scientific Methods and Quantitative Techniques; Major Issues of Indian Economy.

Study Tours/Field Trips of Students

In order to acquaint the students with the current research trends in Economics and to have an exposure to the socioeconomic and cultural conditions of the people beyond North-East India, Dr. B. Panda and Dr. D. Nongkynrih took the third semester students for a study tour to Chennai and Bangalore.

Seminars/Conferences/Symposia/Workshops/Extension Programmes

Organized

Dr. UK De was the joint coordinator of the Refresher Course in Economics, held in Academic Staff College, NEHU, Shillong from 12-9-2011 to 2-10-2011. He also organized five days' Research and Writing Workshop in Environmental Economics and Policy in the Department of Economics, NEHU, sponsored by SANDEE from 28-08-2011 to 01-09-2011.

Attended

Dr. UK De presented a paper on "Infrastructural Growth, Farm Size and Pattern of Crop Diversification across the Districts of West Bengal" at the National Seminar on *The Economy of West Bengal: Future Direction for Development*, organized by Deshabandhu Mahavidyalaya, Chittaranjan, W.B., on 17-18, Feb., 2012. He also presented a paper on "Pattern of Livelihood and Dependence on Forest: Some Evidences from Meghalaya" at the national Seminar on *Demographic Transition and Inclusive Development* organized by International Institute for Population Sciences (IIPS), Mumbai, at Indian Statistical Institute, Kolkata on March 15-17, 2012. He also participated and presented a paper on "Development of Tourism, Involvement of Indigenous Women and Process of Empowerment: A Case Study in Meghalaya" at

the International Seminar on *Lifelong Learning and Skill Development* organized by Department of Adult and Continuing Education, NEHU, Shillong on 17-18 Oct., 2011. He also participated in a UGC sponsored two-day workshop on "positive discrimination" organized by Women's College, Shillong on 25-26 Nov. 2011 and presented a paper on "justification of discrimination in favour of women: a study of rural Khasi society in Meghalaya".

Dr. Daisy Das presented a paper titled "Scope of Livelihood Sustainability in Assam: An Indicator Based Approach" at the 2nd International Conference on Sustainability: People, Planet and Prosperity, at IIM Shillong, on 9th-11th November, 2011 and Role of Infrastructure in Developing Countries: A Case Study of Assam at the International Conference on Infrastructure Finance, at IIT-Kharagpur, on 28-30th December, 2011. She attended the National Conference on Infrastructure on Economic Development of Assam: Problems and Prospects' at Jagiroad college, on 3-4 February, 2012 and presented a paper titled "Infrastructure Development in Assam: A comparative Study Among Districts". She also attended the IHDP Workshop on Asian Development Pathways in the Context of Transitions towards a *Green Economy* on October 17- 24, 2011 in Nanjing, China and Research and Writing Workshop in Environmental Economics and Policy Research and Writing Workshop in Environmental Economics and Policy, NEHU, Shillong (28th Aug - 1st Sept, 2011).

Dr B. Panda (i) Participated in a one day consultative national workshop for policy making on 'Empowering Lives through MGNREGA: Strengthening the Reform Agenda' and presented a paper titled "Addressing the demand through effective Institutional

Arrangements” on 14th of November 2011. The workshop was organized jointly by UNDP and Ministry of Rural Development, GOI. (ii) Participated in the UGC sponsored two-day workshop on Positive Discrimination organized by Women’s College, Shillong on November 25th 2011 and presented a paper on “Positive Discrimination and Weaker Sections of the Society”. (iii) Presented a research paper entitled “Growth, Composition and Determinants of Rural Non-Farm Employment in North East India” at the national seminar on ‘Labour & Employment Trends in North Eastern Region: Challenges and Opportunities’ held at New Delhi on 30-31st March, 2012 and organised by V.V. Giri National Labour Institute, NOIDA.

Prof. N. Srivastav attended the State level four days workshop on ‘Research Methodology’ and delivered a lecture on ‘Sampling Techniques’ organised by ICSSR, NERC, Shillong, November 14-17, 2011.

Dr. Deigracia Nongkynrih presented a paper entitled “Youth Unemployment in North East India: A Profile” at the National Seminar on *Labour Employment Trends in North-Eastern Region: Challenges and Opportunities*, organised by V.V. Giri National Labour Institute, Noida on March 30-31, 2012.

Dr. Veronica Pala presented a paper on “Vulnerable and Marginalised Women and Women in Difficult Circumstances in the North-Eastern Region of India” at the Regional Conference on Achieving Convergence for Empowerment of Women, organised by the National Mission for Empowerment of Women, Government of India, and the Social Welfare Department, Government of Meghalaya, at Shillong, February 7 - 8, 2012.

Publications

Published in India

De, U. K. 2011, “Economic Impact of Coalmining in Meghalaya and the Question of Sustainability”, in A. K. Ghosh and A. Watve (Eds.) *Naturenomics-4*, Vol.-1, Balipara Tract and Frontier Foundation, pp. 50-66.

De, U. K. 2011, “Spatio-Temporal Pattern of Growth in Ericulture of Assam”, in J. K. Das (Ed) *Agenda for Assam and North-East India: Issues and Trends (Vol.-2)*, Eastern Book House, Guwahati, pp. 170-194.

De, U. K. 2011, “Water Scarcity, Informal Domestic Water Market and Consumer’s Benefit: A Study of Shillong Urban Area”, in Z. Husain and L. Cajee (Eds), *Water Crisis in the Indian Sub-continent*, Bookwell, New Delhi, pp. 433-452.

De, U. K. and Devi, Amrita 2011, “Valuing Recreational and Conservational Benefits of a Natural Tourist Site: Case of Cherrapunjee”, *Journal of Quantitative Economics* Vol. 9, No. 2, pp. 154-172.

De, U. K. and Ghosh, B.N. 2011, “Status of Women in the Rural Khasi Society of Meghalaya” *Journal of NEICSSR*, Vol. 34, No. 2, pp. 1-17.

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(*Finance, Empowerment and Entrepreneurship*), DVS Publishers, Guwahati, pp 204-226.

Mishra, B. and Suresh, P.S. 2011, "Tax Efforts in North-Eastern States of India" in B.K. Mohanty (ed), *Economic Development in India (Issues and Challenges)*, New Century Publishers, New Delhi, 292-301.

Mishra, S.K. 2011, "Issues and Problems in Human Resource Development in the NER", in Raul, R.K. & Saikia, J.N. (eds) *North East India: Approaches towards Sustainable Development*. Southern Economist, Bangalore, pp. 160-182.

Mishra, S.K. 2011, "Some Experiments on Fitting of Gielis Curves by Simulated Annealing and Particle Swarm Methods of Global Optimization", *IUP J. of Computational Mathematics*, Vol. 4(4), pp. 50-59.

Mishra, S.K. and Lyngskor, J.W. 2011, "Trends in Wage Goods Prices and Cost of Living of Casual Workers in Shillong", in Raul, R.K. & Saikia, J.N. (eds) *North East India: Approaches towards Sustainable Development*. Southern Economist, Bangalore, pp. 232-251.

Mishra, S.K. 2011, "A Comparative Study of Various Inclusive Indices and the Index Constructed by the Principal Component Analysis", *IUP Journal of Computational Mathematics*, 4(2): 7-26.

Mishra, S.K. 2011, "A Note on Empirical Sample Distribution of Journal Impact Factors in Major Discipline Groups", *The FedUni Journal of Higher Education*, Vol. VII(4), pp. 42-83.

Nayak, P. and Mishra, S.K. 2011, "Structural Changes in Meghalaya - Theory and Evidence", in Raul, R.K. & Saikia, J.N. (eds) *North East India: Approaches towards Sustainable*

Development. Southern Economist, Bangalore. pp. 25-40.

Pala, Veronica and Ibalari Phylla Khongjoh 2012, "Calorie Deficiency among Scheduled Tribes in the North-Eastern Region of India", in Nathan, Dev and Xaxa, Virginius (eds.), *Social Exclusion and Adverse Inclusion: Development and Deprivation of Adivasis in India*, Oxford University Press, New Delhi, pp. 286 – 309.

Panda, B. 2012, Growth, Composition and Determinants of Rural Non-Farm Employment in North East India, NLI Research Study Series, V.V. Giri National Labour Institute, NOIDA, 2012.

Srivastav, N. 2011, Poverty in the Northeastern States of India: An Inter-Temporal Analysis. In *Understanding India's Northeast*, Ed.: A.K. Agarwal and B. Singh, DVS Publishers, New Delhi, 59-69.

Published Abroad

Das, D., Borbora, S & Dutta, M.K. 2011, "Satisfaction from Quality of Life in Urban Living Environment", *South Asian Journal of Socio-Political Studies*, Vol.XI No.2 (online).

Das, D., Borbora, S & Dutta, M.K. 2012, "Living Environment and Quality of Life: A Case Study", *International Journal of Ecological Economics and Statistics*, Vol.25, No.2 (online).

De, U. K. 2011, "Human Resource and Economic Development: Where Does North-East India Stand?" *International Journal of Asian Social Science*, Vol. 1, No. 4, November, pp. 108-116.

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Nongkynrih, D. 2011, *Women Work Participation in India-Trends and Determinants: 1983 to 2004-05*, LAMBERT Academic Publishing.

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Santos, C.A.G., Freire, P.K.D.M.M., Mishra, S.K. and Soares Junior, A. 2011, "Application of a particle swarm optimization to the Tank Model", in *Risk in Water Resources Management*, (Proceedings of Symposium H03 held during IUGG2011, in Melbourne, Australia, July 2011; LAHS Publ. 347, 2011), pp. 114-120.

Santos, C.A.G., Freire, P.K.D.M.M., Silva, R.M. da, Arruda, P.M. and Mishra, S.K. 2011, "Influence of the Catchment Discretization on the Optimization of Runoff-Erosion Modelling", *Journal of Urban and Environmental Engineering*, vol. 5(2), pp. 91-102.

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Research Projects

Completed

Dr. B Panda (i) Completed the project entitled "Appraisal and Impact Assessment of MGNREGA in Assam" and submitted the report as principal investigator to UNDP, India, which has since been accepted. (ii) Completed and submitted the project report entitled "Growth, Composition and Determinants of Rural Non-Farm Employment in North East India" to V.V. Giri National Labour Institute, Govt. of India, NOIDA, which has since been accepted.

Dr. S. Umdor submitted i) 'Appraisal of Impact Assessment of MGNREGA in Assam', funded by UNDP; Dr. P. Banda (PI), Dr. S. Umdor (Co-PI)

Dr V. Pala was the Principal Investigator in the project "Social Structure and Educational and Employment Achievements: A Study of Disparities Across Different Social Groups in India during 1983 to 2004-05" (with Amaresh Dubey as Co-investigator); sponsored by the Indian Institute of Dalit Studies, New Delhi; report submitted in July 2011.

Ongoing

U K De is Principal Investigator of the major research project "Valuation of Some Tourist Sites in Khasi Hills of Meghalaya", sponsored by UGC.

S. Umdor (i) 'Flow of Central Development Funds to the Northeast Region and its Utilization', funded by Planning Commission, GoI; Prof. M.P. Bezbaruah (PI), Dr. S. Umdor (Co-PI); (ii) 'Local Government Finance in Sixth Schedule Areas of Northeast India', funded by Indian Council of Social Science Research, New Delhi; Dr. S. Umdor (PI).

Dr. V. Pala is consultant to the Indian Institute of Dalit Studies, New Delhi in a series of studies relating to social group disparities from 01-10-2011 to 30-09-2012.

Academic/Professional Collaborations

Dr. B. Panda continued to collaborate with the Ministry of Rural Development, GOI in the capacity of member, expert committee for formulating research methodology in MGNREGA and as co-opted member, expert committee to evaluate the performance of districts for Prime minister's annual MGNREGA District Award 2012.

Honours/Awards/Recognitions

Prof. S.K. Mishra was referee to (i) the *British Journal of Mathematical & Statistical Psychology* (Wiley), (ii) *Computational Statistics and Data Analysis* (Elsevier), (iii) *Economics Letters* (Elsevier), (iv) *Journal of Risk* (Incisive Media, London) and (v) *IUP Journal of Managerial Economics* (ICFAI). He was on the editorial boards of (v) *Indian Journal of Regional Science* (Kolkata) and *Gitam Review of International Business* (Visakhapattanam). He also served as a member on the Plagiarism Committee of RePEc, an international organization of Research Documentation in Economics under the auspices of the Federal Reserve Bank of St. Louis, USA.

Prof. B. Mishra was appointed as a member of the working Sub-Group on Societal Intervention of S & T Society under the Department of Science and Technology, Government of India, for formulating the Twelfth Five Year Plan perspective for the department. He was also appointed as a member of the Meghalaya Commission on Resource Mobilisation w.e.f. 25th November, 2011.

Dr. B. Panda was co-opted as a member of the Expert Committee to evaluate the performance of districts for Prime Minister's Annual MGNREGA District Award 2012.

Dr. Daisy Das was honoured as the second best paper presenter in the 2nd International Conference on Sustainability: People, Planet and Prosperity, IIM Shillong, 9th-11th November, 2011.

Other Academic Activities

Prof. N. Srivastav (i) delivered two lectures on 'Critical Appraisal of Multi Dimensional Poverty Techniques' in the UGC-ASC sponsored

Refresher Course organised by the Department of Economics, Gauhati University, Guwahati, July 12, 2011; (ii) delivered six lectures on 'Linkage between Environment and Economic System'; 'Material Balance Approach and Environmental Kuznets Curve' in the UGC-ASC sponsored Refresher Course organised on 'Environmental Economics and Climate Change' by the Department of Economics, Manipur University, Canchipur, Imphal, October 17-19, 2011; (iii) delivered four lectures on 'Monetary, Non-monetary and Subjective Determinants of Happiness' and 'Scope of Economic Networking of NE States' in the UGC-ASC sponsored Orientation Course organised by the Department of Education, Mizoram University, Aizawl, November 29-30, 2011; (iv) delivered four lectures on 'Trends in Entrepreneurial Development in Meghalaya' and 'Reflections on Experimental Economics', in the UGC-ASC sponsored Refresher Course organised by the Department of Economics and Commerce on 'Contemporary issues in Economics and Commerce', Mizoram University, Aizawl, November 29-30, 2011.

Prof. P. Nayak delivered six lectures on various issues of Human Development, Inequality, Poverty, and Multi-dimensional Poverty which included concepts, methods of measurement, status and trend from 29.11.2011 to 01.12.2011 in the U.G.C. Refresher Course in Economics and Human Development, organized by the Dept. of Analytical and Applied Economics, Utkal University, Bhubaneswar, Odisha.

Prof. B. Mishra delivered 4 lectures on "FDI in Retail Sector: Where Does It Lead? And Global Recession and its Impact on Indian Economy" on 16th and 17th January, 2012 in the UGC Refresher Course in Management and Economics at Sambalpur University, Sambalpur, Odisha. He delivered 6 lectures on "Public

Expenditure and Rural development, Issues relating to Externalities and Market Failure and Fiscal Policy” from 29th November to 1st December, 2011 in the UGC Refresher Course in Economics and Commerce at Mizoram University, Aizawl. He delivered 3 lectures on “Problems and prospects of Rural Development and Problems of Resource Mobilisation in North-Eastern Region of India” from 29th November to 1st December, 2011 in the UGC Orientation Course conducted by Academic Staff College, Mizoram University, Aizawl. Dr. UK De delivered a lecture on “Justification of Discrimination in favour of Women: A Study of Rural Khasi Society of Meghalaya” on 26-11-2011 at the UGC Sponsored Workshop on *Positive Discrimination* organised by Women’s College, Shillong on 25-26, November, 2011. He also delivered two lectures on “Agricultural Diversification and its Impact” and “Infrastructure, Agricultural Development and Sustainability” on 18-08-2011 in the Summer School on Quantitative Techniques in Policy Planning, Monitoring, Modelling, Analysis and Impact Assessment of Hill Agriculture, held at ICAR Research Complex for NEH Region.

Dr. B Panda (i) participated as a member in the 3rd meeting of the expert group on Research Methods in MGNREGA constituted by the

Ministry of Rural Development, GOI. (ii) Evaluated the performance of MGNREGA in the districts of Coimbatore and Salem in Tamilnadu, Allepey in Kerala, Nizamabad and Vijayanagaram in Andhra Pradesh and Keonjhar in Orissa as a co-opted member of the central expert team headed by Mr. K.B. Saxena, former secretary, MORD, Govt. of India from 17th December 2011 to 16th January 2012. (iii) Attended a brainstorming session on ‘The ICSSR-NERC and Social Science Research in North East India’ held at Shillong on 7.5.2011 and organized by ICSSR-NERC, Shillong.

Dr. S. Umdor was a Resource Person for the Inter-State Interactive Experience Sharing of the Leaders of Tribal Autonomous Councils from North Eastern States on 30-31 March 2012, organized by Rajiv Gandhi National Institute of Youth Development, Sriperumpudur, Tamil Nadu.

Dr. V. Pala attended a Refresher Course in Economics at the UGC-ASC, NEHU, Shillong from 12-09-11 to 02-10-12. She also participated in the ‘Meeting of the Initial Stakeholders for the preparation of the State Strategic Statistical Plan (SSSP) in the State of Meghalaya’ held on the 12-03-2012 at the Meghalaya Main Secretariat, Shillong.

Department of Library and Information Science

Head : Prof. Masoom Raza
Telephone : 2723141 & 2723142(o)
Email : masoomr@yahoo.com

Thrust Areas

Information Retrieval, Information & Knowledge Management; Database Management Systems, Communication

Technologies & Digital Libraries, Measurement & Effectiveness of Information Services and Information Centres, and Human Resource Management of Academic Libraries.

School of Economics, Management and Information Sciences

Brief Statement of Academic Activities

During the year under report, the faculty members published a good number of their research outputs in leading professional journals and in seminar & conference

proceedings of national and international level. They also participated in various national and international seminars and conferences and presented papers and delivered lectures.

Faculty Profile

Professor		
	Prof. Masoom Raza,	MSc, MLISc, PhD (PU Chandigarh)
Associate Professors		
	Dr. Moses M. Naga,	MLISc, Ph. D (NEHU)
	Dr. Bikika Laloo,	MLISc. (NEHU), Ph.D(GU)
Assistant Professors		
	P. Hangsing,	MLISc. (Delhi), PGDCA, Ph.D (NEHU)
	Jacqueline Jean Thabah,	MLISc. (NEHU) (on study leave)
	Jiarlimon Khongtim,	MLISc, PGDCA (NEHU)

Student Intake

Enrolment Capacity: 30

Actual Admission	SC	ST	GEN	Foreign	TOTAL
M.L.I.Sc.	NIL	29	1	NIL	30
Ph.D	NIL	2	2	1	5

Degrees Awarded

	SC	ST	GEN	Male	Female	Total
M.L.I.Sc.	NIL	15	2	7	10	17
Ph.D.	NIL	NIL	NIL	NIL	NIL	NIL

Study Tours/Field Trips of Students

Dr. P. Hangsing took the 2nd Semester students on a study tour to visit and assess various

libraries at Chennai and Pondicherry from 10th to 23rd February 2012.

NEHU Annual Report 2011-2012

Seminars/Conferences/Workshops/Extension Programmes

Organised

Theme of the programme	Date	Venue & name of the organiser
Refresher Course in Library and Information Science	27.4.2011 to 17.5.2011.	Academic Staff College, NEHU, Shillong Prof. M.M. Raza

Attended

Name of the Teacher	Title of the Paper presented	Theme of the Seminar	Organised by	Date & Venue
Dr. Moses M. Naga.	"Empowering the people with information relevant to their day-to-day sustenance and the role of public libraries in promoting information literacy"	"Public Libraries in ICT-Driven Knowledge Society"	Manipur University.	09-11, September, 2011, Manipur University
	"Mobilisation of Financial Resources for College Libraries in North East India"	"Resource Mobilisation for College Libraries in North Eastern Region"	Government North Aizawl College, Aizawl	22-23, September, 2011, Government North Aizawl College, Aizawl-Mizoram
	"Awareness and Accessing of Electronic Resources by the Post Graduate Students of North-Eastern Hill University, Shillong"	"Building Participatory Library services in Digital Era"	INFLIBNET CENTRE, Ahmedabad and Sikkim University	1-3, March, 2012, Sikkim University, Gangtok, Sikkim
Dr. P. Hangsing Dr. P. Hangsing & Kallol Das Talukdar	"Information Communication Technology in Education" "Preservation, Disco Graphy, and cultural Crossings of north Eastern Indian Tribal Folk music on free Rile hosting sites"	UGC sponsored Refresher Course in Library & Information Science. National Seminar ICT on Education	Academic Staff College, Shillong. Deptt. of Education NEHU Shillong	27.4.2011-to 17.5.2011 13 th to 15 th September 2011
J. Khongtim	Pros and Cons of using Information and Communication Technology for Teaching and Learning at University Level	12 th Orientation programme (Information Technology)	Academic Staff College	27.4.2011 to 17.5.2011

Publications

Published in India

Upadhyay, Ashok & Raza, Masoom (2011). Resource sharing among libraries with special reference to library consortium: India's Perspective. Satpathy, K C, Ramamachandran, R(eds). *In Networking of Library & Information centers in Digital Era: Problems & Prospects*, Jaipur, National library Kolkata, SK. Jain & Sons.

Naga, Moses M. (2011), "Role of Public Libraries in Promoting Information Literacy", *In Public Libraries in ICT-Driven Knowledge Society*, edited by Ch. Ibohal Singh, Published by Raja Ram Mohon Roy Library Foundation (RRRLF) and Manipur Library Association (MALA), Imphal, 144-148.

Naga, Moses M., Hangsing, P, Das, Kallol (2011), "Use of ICT Based Electronic Resources in Selected Central University Libraries of India", *In Brenda Bazeley (ed) on ICT in Education* organized by the Department of Education, NEHU, Shillong during 13-14, September, 2011.

Naga, Moses M.(2011), "Mobilisation of Financial Resources for College Libraries in North East India", *In Zomuana Zoute (ed) on Resource Mobilisation for College Libraries in North Eastern Region* organized by Government Aizawl North College, Aizawl, Mizoram, sponsored by UGC and North Eastern Council (NEC) during 22-23, September, 2011

Naga, Moses M, Sten, B. (2012), "Awareness and Accessing of Electronic resources by the Post Graduate Students of North-Eastern Hill University, Shillong", *In Tamal Kumar Guha et al (ed), Building Participatory Library Services in Digital Era, PLANNER*, held on 1-3, March, 2012 at Gangtok jointly organized by INFLIBNET CENTRE, Ahmedabad and Sikkim University.

Published Abroad

Eqbal, Munnawar & Raza, Masoom (2012). *Total quality Management in Central University Libraries of India*. Lambert Academic Publishing.

Honours/Awards/Recognition

Prof. M.M Raza was a member of Departmental Advisory Board of NCERT, New Delhi.

Other Academic Activities

Prof. M. M. Raza was a Resource Person for Training Course in Research Methodology and Computer Applications in Social Science Research on 20th – 25th March, 2012 at the Department of Library & Information Science, Aligarh Muslim University, Aligarh in collaboration with ICSSR, New Delhi.

Dr. P. Hangsing completed his Consultant tenure assigned to him in the project on "Setting up Digital Archival Cell & Interactive Website Cell" of Department of Information & Public Relations, Govt. of Nagaland from 20/9/2010 to 20/9/2011.

Department of Management

Head : Dr. J. U. Ahmed
Telephone : 03651-224566 (o)
Email : jaynaluahmed@yahoo.co.in

Thrust Areas

The thrust areas of the department are Cross-cultural Management, Entrepreneurship, Small Business Management, Tourism Management, and Micro-Finance.

national and international journals. They also participated and presented papers in a number of national and international seminars/conferences. The faculty members also participated in MDP, FDP, Refresher Courses and Orientation Programmes.

Brief Statement of Academic Activities

During the year under report the faculty members published books and research papers in various

Faculty Profile:

Designation	Name	Specialisation
Professor	G. Singaiah, M. Com., MBA., PhD (Utkal University)	Cross Cultural Management, Marketing, Entrepreneurship Development.
Associate Professors	K. Mishra, (on lien) MMS., Ph.D (Lucknow)	Human Resource Development, Services Marketing
	J. U. Ahmed, M.Com., Ph.D., LL.B (Assam University), LL.M (GOU)	Finance, Banking, Statistical and Quantitative Techniques
Assistant Professors	B. F. Lyngdoh, M.Com (GU), Ph.D (NEHU)	Accountancy and Finance.
	Deepak Bhagat, MBA (AAU, Jorhat)	Agri-Business Management, Supply Chain Management.

Students Intake

Enrollment Capacity: 33

Actual Admission

	SC	ST	GEN	Male	Female	Total
MBA	3	17	13	26	7	33
Ph.D	0	0	1	1	0	1

Degree Awarded

	SC	ST	GEN	Male	Female	Total
MBA	4	11	12	19	8	27
Ph.D	0	0	0	0	0	0

Courses Conducted

MBA:

The department offers 32 courses, out of which 20 are core courses and one project work equivalent to two courses. Besides these, 10 courses including 6 courses from major and 4 courses from minor specialisations are to be pursued. The specialised courses are based on four functional areas of management, viz, finance, marketing management, human resource management and agri-business management.

Ph.D:

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

Industrial Tour

An industrial visit with the second semester students of the department was carried out. The students (26 boys and 13 girls) under the guidance of Dr. J. U. Ahmed visited Kolkata, Ahmedabad and Jaipur for industrial exposure from 2nd to 18th February 2012. They visited some of the reputed industries like Amul Factory, Jute Industries and Marble industries. The department also organized a short industrial tour for the third semester students to Jowai and Guwahati. The students visited Star Cement Ltd at Jowai and BitChem at Guwahati on 4th-9th November 2012 under the guidance of Prof. G. Singaiah.

Seminar/Conferences/Workshop/Extension programmes

Organised

The department in collaboration with MSME, Tura Branch organized one 'Management Development Programme (MDP) on Financial

Management' from 19th to 23 September, 2011. Mr. Deepak Bhagat coordinated the programme. The department also organized an 'Entrepreneurial Awareness Programme' sponsored by IIE, Guwahati from 3rd to 31st March 2012. Prof. G. Singaiah coordinated the programme. Further, an MSME sponsored workshop on 'ESDP on Computer Hardware and Networking' was organized from 23rd April to 22nd May 2011 in the department. Prof. G Singaiah worked as coordinator.

Attended

Dr. B. F. Lyngdoh presented a paper titled "Does Microfinance Contribute Towards Women Empowerment: A Case Study of Meghalaya" at the International Seminar on lifelong learning and skill development organised by Dept of Adult and Continuing Education, NEHU, Shillong on 17th and 18th October, 2011.

Mr. Deepak Bhagat presented (1) a paper entitled "Financial Inclusion Through Microfinance and Women Empowerment: Some Cases" at the National Conference on Financial Inclusion-The Issues and the Future at K. C. Das Commerce College, Guwahati on 13th - 14th May, 2011; (2) a paper entitled "Horticulture Development Interventions and Grass Root level Institutions in West Garo Hills District of Meghalaya" at the UGC Sponsored National Seminar on Problems and Prospects of Horticultural Development in the North- Eastern Region with Special Reference to Garo Hills of Meghalaya organised by the Department of Economics, Mendipathar College, Mendipathar, Meghalaya on 26th November, 2011; (3) a paper entitled "Impact of MGNREGA on Agricultural Employment Pattern in West Garo Hills of Meghalaya" at the 19th Annual AERA Conference (Dynamics of Supply and Demand for Labour in Indian Agriculture), Assam Agricultural University, Jorhat, Assam

on 28-30 November, 2011; (4) a paper entitled "Impact of FDI in India's Retail Trade" at the National Seminar on Emerging Trends in the Indian Retailing Industry organised by CMR Technical Campus, School of Management on 6- 7th January, 2012; (5) a paper entitled "Exploring South East Asian market for India's High Value Agricultural Products: Patterns and Policy Issues" at the 14th Indian Agricultural Scientist and Farmers Congress on Diversification in Agriculture and Agri-preneurship organised by Bioved Research Institute of Agriculture and Technology, Allahabad during 18th-19th February, 2012.

Publications

Published in India

Ahmed, J.U (eds.) (2012) *Agriculture and Rural Development: A Foretaste*, DVS Publishers, Guwahati.

Ahmed, J. U., Bhagat, D and Singaiah, G (eds.) (2011) *Micro Finance Revolution in India: Success and Sustainability*, New Central Book Agency (P) Ltd, Kolkata.

Ahmed, J. U (2011) Management of Non-Performing Assets of Commercial Banks in India: The Evidence from Indian Banking Sector, *International Journal of Financial Management*, July, 1(3): 49-62.

Ahmed, J.U (2011) *Financing Issues in Agricultural Sector: An Implication*, in Mishra, B.K (Ed) *Livestock Production and Rural Development in India*, Bio Tech Books, New Delhi, (pp- 167-177).

Ahmed, J.U (2011) Environmental Accounting in India: Setback and Solutions, in Singha, K (ed) *Global Warming & Carbon Trading*, Alpna Enterprise, Kolkata, (pp-177-183).

Lyngdoh, B.F (2011) Microfinance and Socio-economic Change: An Assessment of Women Clients of Meghalaya, *The Microfinance Review*, 3(1), pp. 110-122.

Bhagat, D (2011) Agriculture Supply Chain Management: A Review. *The IUP Journal of Supply Chain Management*, VIII (3) Sept, 2011.

Bhagat, D (2011) Exploring the Women Empowerment and Leaderships through Microfinance: Evidences from Grass-root, In J. U. Ahmed, D. Bhagat, G. Singaiah (Eds). *Microfinance Revolution in India: Success and Sustainability*, New Central Book Agency, Kolkata.

Bhagat, D (2011) Application of Geographical Information System (GIS) in Dairy industry, In B. K. Mishra (Eds.) *Live Stock Production and Rural Development in India*, Biotech Books, New Delhi.

Published Abroad:

Bhagat, D (2011) *Consumers Perceived Value and Satisfaction: A Study on Farmers Buying Behaviour with Reference to Agrochemicals*, LAP LAMBERT Academic Publishing GmbH & Co.

Research Projects

Completed

1. ICSSR project entitled "Performance of Commercial Banks in India: The Profitability and Productive Efficiency". Principal investigator: Dr. J. U. Ahmed.
2. UGC Major Research Project, "Evaluation of Entrepreneurship Motivation Process: A Cross Cultural Perspectives of North East India". Principal Investigator: Prof. G. Singaiah.

Other Academic Activities

Prof. G Singaiah chaired one technical session of the National Seminar on 'Horticultural Development in the North East at the National Seminar on Problems and Prospects of Horticultural Development in the North Eastern Region With Special Reference to Garo Hills of Meghalaya' organized by Department of Economics at Mendhipathar College on 26th November 2011. He also chaired one technical session of the National seminar on "Emerging trends in the Retail Industry" held on 22-23rd January 2012, organised by GMR Technical Campus, Hyderabad. He delivered a lecture on emotional intelligence for the management students and faculty in the GMR technical campus, Hyderabad on 6th February, 2012 and worked as coordinator of HR Conclave entitled, 'People are like Ice Berg' organised by the department on 14th May 2011 at Vivekananda Kendra, Uzanbazar, Guwahati, Assam.

Dr. J. U. Ahmed delivered lecture on "Horticultural Development in the North East"

at the National Seminar on Problems and Prospects of Horticultural Development in the North Eastern Region with Special Reference to Garo Hills of Meghalaya organized by Department of Economics at Mendhipathar College on 26th November 2011. He also organised the cultural fest MOSAIC to showcase the essence and the importance of Management education in the region on 26th September 2011. Around 350 students participated in management related simulation exercise and events.

Dr. B. F. Lyngdoh attended the Refresher Course in Commerce organised by UGC-ASC, NEHU, Shillong from 21st Nov to 11th December, 2011. He also attended the capacity building in social science research training-cum-workshop on statistical package for social sciences organised by the ICSSR-NERC, Shillong on 13th-22nd Feb, 2012 and co-authored a Self Learning Material (SLM) titled "Introduction to Financial Market" for the Centre for Open and Distance Learning, Tezpur University.

Chapter II

SCHOOL OF EDUCATION

Dean : Prof. P. K. Gupta
Telephone : 2723342 (o)

The School of Education comprises two departments viz., Department of Adult & Continuing Education and Department of Education (Shillong and Tura Campus), and two Centres of study, viz., Centre for Distance Education and Centre for Science Education. The Department of Education conducts M.A (Education) and Ph.D programmes both at Shillong & Tura campuses while M.Ed programme is conducted at Shillong Campus. The Department of Adult & Continuing Education, besides various kinds of training and extension activities, offers M.A, and Ph.D programmes. The Centre for Distance Education offers various courses through distance mode viz: B.Ed (Special Education) P.G Diploma in Special Education, PG Diploma in Entrepreneurship, Certificate and General Course in Floriculture, and Foundation Course on Education of Children with Disabilities. The Centre for Science Education mainly concentrates on research & extension activities. It also works for the popularization of science

in North-East India.

Each department/centre has its own identified thrust areas of research. At present about 42 (forty two) research scholars are working for their Ph.D in various departments/centres of the School. Under the School, 12 (twelve) research scholars have received Rajiv Gandhi National Fellowship, 2(two) scholars have received Maulana Azad National Fellowship, 5 (five) students have cleared NET and 5 (five) scholars were awarded PhD degree during the period under report. The Department of Education organized a National Seminar on ICT in Education and the Department of Adult & Continuing Education organized an International Seminar on Life Long Learning and Skill Development during 2011-12. As a monitoring institution the Department of Education at Shillong campus was involved in the Project Appraisal of Sarva Shiksha Abhiyan (SSA) of the Ministry of HRD New Delhi for the state of Meghalaya.

Department of Adult and Continuing Education

Head : Prof. E. Jyrwa
Telephone : 2723323 (o)
Email : drejyrwa@rediffmail.com

Thrust Areas

(i) Adult Education, (ii) Continuing Education, (iii) Literacy Programme, (iv) Functional Literacy, and (v) Total Literacy Campaign.

Brief Statement of Academic Activities

The department concentrated its activities on Lifelong Learning and skills development training programmes by conducting vocational courses for the unemployed, non-students and out-of-school youths, organising vocational

training programme for M.A and P.G. Diploma students, organising certificate courses on human resource management and organising skills training programme on resource management. The department organised an International Seminar on "Lifelong Learning and Skill Development" during the year under review. The faculty members remain active in guiding PhD research work and conducting training activities besides teaching.

Faculty Profile

Professor : E. Jyrwa, M.A. M.Phil, Ph.D. (NEHU)
Specialisation: Research Methodology, Philosophy of Adult Education & Rural Development

Associate Professors : B.P. Sahu, MSW, Ph.D. (Kurukshetra)
Specialisation: Human Resource Development, Group Work in Adult Education

J. Mawthoh, M.A. Ph.D. (NEHU)
Specialisation: Environmental Education & Entrepreneurship Development

Assistant Professors : W. S. Myllemngap, M.A, M.Phil (NEHU)
Specialisation: Adult & Continuing Education & Social Development

N.P. Goel, M.Sc., MPS (IIPS, Mumbai), Ph.D (NEHU) Specialisation: Population Education & Research Methodology

J.I. Rapphap, MSW (Bombay)
Specialisation: Counselling & Community Organisation

E. Syngkon, M.A, Ph.D. (NEHU)
Specialisation: Adult Psychology, Extension Education, Women Education & Research Methodology

Student Intake

Enrolment Capacity

M.A.: 40, Ph.D.:06, Basic Computer Literacy: 15, C Programming.: 15

Actual Admission:	SC	ST	GEN	MALE	FEMALE	TOTAL
M.A.	-	29	2	10	21	31
Ph.D.	-	04	2	04	02	06
Basic Computer Literacy						
April – June	-	08	-	01	07	08
Jan- April	-	02	01	02	01	03
C Programming						
April-May				08	05	13

Courses Conducted

MA in Adult & Continuing Education:

Semester I: Introduction to Adult & Continuing Education, Educational Psychology of Adults, Guidance and Counselling, Environmental Education, Adolescence Education.

Semester II: National, Regional and International Strategies of Adult Education, Group Work in Adult and Continuing Education, Social Development, Social Policy and Social Action, Inclusive Education, Extension Education.

Semester III: Research Methodology, Women Education, Management of Non-Governmental Organizations, Human Resource Development, Adult Education for Rural Development.

Semester IV: Population Education, Working with Communities: Community Organization in Adult and Continuing Education, Entrepreneurship Development for Adult Learners, Material Development in Vernacular Languages for Non-Formal Education Intervention, Project Work.

PhD Course Work in Adult & Continuing Education:

Research Methodology, Adult and Continuing Education Practices, Literature Review and Seminar Presentation.

Seminars/Conferences/Workshops/Extension Programmes

Organized

1. International Seminar on “Lifelong Learning and Skills Development” from 17th to 18th October, 2011 at the Multi-Use Convention Centre, NEHU, Shillong sponsored by UGC, ICSSR-NERC and NEHU. Seminar Director, Prof E. Jyrwa and Assistant Coordinators, Dr. N.P. Goel and Dr. (Mrs) E. Syngkon.
2. Workshop on Research Methodology and Statistical Analysis with SPSS from 12th to 16th March, 2012 at E-Learning, DACE, NEHU for PG Students and Research Scholars of the Department. In-charge of the Programme - Dr. N.P. Goel.
3. Vocational Training Programme on Tourism Hospitality from 15th to 25th July,

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2011 in DACE, NEHU for M.A. and P.G Diploma Students of the Department. Indrajit Dutta, Tourism Hospitality Trainer, Jetwings Institute of Air Hostess Training acted as the Resource person. In-charge of the Programme - Prof E. Jyrwa.

4. Certificate Course in Motor Mechanics from 1st to 15th July, 2011 at Don Bosco Technical School, Shillong to further train the trained mechanics. In-charge of the Programme - Dr. B. P. Sahu.
5. Certificate Course on Hair and Skin Care (under Vocational Career Oriented Course) from 21st to 23rd March, 2012 at Youth Hostel for unemployed youth and Mrs. Karen Nongsiej acted as the resource person. In-charge of the Programme - Mrs. W. Mylliemngap.
6. Short Term Course on Disaster Management I from 7th to 9th February, 2012 in collaboration with the UGC-Academic Staff College, NEHU, at UGC-ASC NEHU, Shillong for Community Based Organizations, NGOs, College Teachers affiliated to NEHU, Student communities and Staffs of NEHU, Shillong. Course Co-ordinator - Ms. J. I. Rapphap.
7. One Month Certificate Course on Tailoring (under Vocational Career Oriented Courses) from 20th June 2011 to 20th July 2011 at Pohkse Training Centre, Shillong, for unemployed, non student and out of school youth. In-charge of the Programme -Dr. (Mrs.) E. Syngkon.
8. Skills Training Programme on Steel Fabrication (under Human Resource Management) from 22nd to 27th March, 2012 at B. Sawkmie Steel Fabrication Work for unemployed and out of school youth. In-

charge of the Programme -Dr. (Mrs.) E. Syngkon.

Attended

Prof. E. Jyrwa attended the National Seminar on “Role of Education in the Democratic Society” organized by the Department of Continuing Education and Extension, Barkatullah University, Bhopal (M.P.) on 16th-17th February, 2012 and presented a paper on “Role of Education in Democratic Society”. Also chaired the plenary session on 16th February, 2012.

Dr. B.P. Sahu attended the UGC sponsored National Seminar on “Life Skills Education” on 20th-21st March, 2012 at the Conference Hall, Administrative Building, North Bengal University and presented a paper on “Lifelong learning in the context of globalisation with special reference to India’s labour force.”

Dr. (Mrs) E. Syngkon attended the International Seminar on “Lifelong Learning and Skill Development organized by Department of Adult & Continuing Education” on 17th & 18th October 2011 and presented a paper on “Self Directed Learning- A Perspective towards Lifelong Learning” on 18th October, 2011 at the Multi-Use Convention Centre, NEHU, Shillong.

Funds Received

ICSSR-NERC, Shillong: Rs. 50,000.

For organizing the International Seminar on “Lifelong Learning and Skill Development” on 17th & 18th October 2011.

Other Academic Activities

Prof. E. Jyrwa attended the meeting at UGC, New Delhi on 3rd & 4th May, 2011 to review the existing Adult, Continuing Education, Extension and Field Outreach Departments/Centres in

universities. She also acted as Resource Person on the Research Methodology Workshop on 14th-17th November, 2011 organized by ICSSR-NEERC, Shillong and delivered a lecture on “Method and Research Tools in Social Science Research” on 15th November, 2011.

Dr. B. P. Sahu delivered a lecture as resource person on “Community Based Disaster Risk management and strengthening partnership with NGOs and CBOs” on 21st October 2011 at the district level workshop on mainstreaming of Disaster Risk Reduction (DRR) project into Development organized by Deputy Commissioner, East Khasi Hills District, Shillong. He also delivered a lecture as resource person on “Working with NGOs and CBOs for community based Disaster Risk management” on 25th November 2011 at the District level workshop on Mainstreaming of Disaster Risk Reduction (DRR) project into Development at science hall, Jowai Circuit House, and a lecture on “Role of Media in Disaster Management” at Science Hall, Nongpoh for media persons organized by the office of Ri-Bhoi District Public Relation Officer on 14th March, 2012.

Dr. J. Mawthoh attended a State Consultation “An Initiative Encouraging Responsible Tourism by engaging stakeholders in Meghalaya” organized by Impulse and Dept. of Tourism, Govt. of Meghalaya on 29th April 2011 at Hotel Polo Towers, Shillong. He also attended a “Consultative meet on synergizing stakeholders efforts on ICT for rural development in the states of Assam and Meghalaya” organized by IIBM & Regional Office, Guwahati on 24th June 2011 at IIBM, Khanapara. He also delivered a lecture on “School Disaster Management Plan” at the “Training of Principals & Vice Principals of Secondary and Higher Secondary Schools on

School Disaster Management Plan – Concept and Preparation” organized by Meghalaya Administrative Training Institute, Shillong on 24th May 2011 at Meghalaya Administrative Training Institute, Shillong and a lecture on “Youth and Leadership” at the Capacity Building cum Leadership Workshop – 2011 organized by the Syngkhong Rympei Thymmai, Shillong on the 20th August 2011 at Don Bosco Youth Centre, Shillong.

Mrs. W. Myllemngap attended a “Short term Course on Research Methodology” organized by UGC Academic Staff College, NEHU, Shillong on 8th- 13th August, 2011 at the Academic Staff College, NEHU, Shillong.

Ms. J. I. Raptap attended a “Short term Course on Research Methodology” organized by the UGC-Academic Staff College, NEHU, Shillong on the 8th-13th August 2011 at the Academic Staff College, NEHU, Shillong. She also delivered a lecture on “Trauma Counseling & Trauma Care” on 18th January 2012 organized by the Meghalaya Administrative Training Institute (MATI), Government of Meghalaya. The participants were the officials of various government departments of Meghalaya and a lecture on “Psycho-social & Trauma counseling - Care and Support” on the 31st March 2012 organized by the Additional Deputy Commissioner & CEO (DDMA) East Khasi Hills District, Govt. of Meghalaya. The participants were the women groups of Shillong town.

Dr. N.P. Goel delivered a lecture on “Use of Computer in data analysis” on 30th November 2011 organized by NERC-ICSSR, NEHU, Shillong and 18 lectures to the participants of Training Course on SPSS and Report Writing, organized by NERC-ICSSR, NEHU, Shillong on 13th – 22nd February 2012.

School of Education

Department of Education

Head : Prof. S.M. Sungoh
Telephone : 2723340/2723347(o),
Email : hodedu@nehu.ac.in

Thrust Areas

System of Education in the North East, Correlates of Achievement, Test Construction and Standardization, Mental Health Education, and Economics of Education.

Brief Statement of Academic Activities

The department admitted 48 Students to its M.A. programme and 20 to its M.Ed programme during the year. 2 students passed NET

(Lectureship) in 2011. All the teachers actively participated in various activities like attending Seminars, conferences and workshops. They have also conducted research in various areas and have published articles in books and journals. The department being the monitoring institution was engaged in the project appraisal of Sarva Shiksha Abhiyan (SSA) of the Ministry of Human Resource Development (MHRD), Govt. of India, for the State of Meghalaya.

Faculty Profile

Professors : P. K. Gupta M.Sc Chy (Agra); M.Ed (Delhi); M.Phil; Ph.D. (Meerut)
Specialization: Experimental Education, Research Methods & Statistics, Science & Mathematics Teaching, Economics of Education & Philosophy of Education.

A. Henia M.A. (Gauhati); M.Phil; Ph.D. (JNU)

Specialization: Higher Education in India, Comparative Education, Special Education (Gifted & Creative), Environmental Education, Development System of Education, Sociology of Education, Teacher Education, Women Education.

S. M. Sungoh M.A; M.Phil; Ph.D. (NEHU)

Specialization: Teacher Education, Teaching at Tertiary Level, Measurement & Evaluation, Educational Psychology, Guidance & Counseling, Research Methodology.

Associate Professor : C. Nongbri M.A (Pol. Sc) M.Ed; Ph.D. (NEHU), *Specialization*: Educational Management and Change, Curriculum Development and Instruction, System of Teacher Education in India and Educational System in India.

Assistant Professors : Ibadani Syiem MA; Ph.D (NEHU), *Specialization*: Psychology of Education, Early Childhood Education, Guidance and Counseling, Environmental Education, Mental Health Education.

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B. Bazeley K. Rymbai MA; Ph.D (NEHU)

Specialisation: Educational Technology, Philosophy of Education, Sociology of Education, Curriculum Development, Educational Testing & Evaluation, Higher Education, Economics of Education.

Yodida Bhutia MA (Eng. Litt.), M.Ed, MA (Edu), Ph.D (NEHU)

Specialization: Mental Health Education, Educational Technology, Special Education, Educational Testing and Evaluation and Research Methodology in Education.

Student Intake

M.A

Enrolment Capacity: 48

Admission	Actual	SC	ST	GEN	Male	Female	Total
		-	47	1	-	48	48

M.Ed

Enrolment Capacity: 20

Actual Admission	SC	ST	GEN	Male	Female	Total
	-	19	1	10	10	20

Ph.D Course Work

	ST	GEN	Male	Female	Total
-	9	2	6	5	11

Degrees Awarded

Course	SC	ST	GEN	Male	Female	Total
MA (2009-11)	-	4	1	3	38	41
Ph.D	-	4	-	-	4	4

Name and Topic of Research	Supervisor
Ms. Rubynia Lamare "A Study of Academic Achievement in Relation to Some Psycho-Social Variables of Secondary School Students in East Khasi Hills District, Meghalaya"	Prof. P.K. Gupta

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Ms. Isabella Kyrstian "A Study of Secondary Education in the Ri-Bhoi District of Meghalaya"	Prof. A. Henia
Ms. Hiramon Diengdoh "Effect of Intelligence Social Maturity and Emotional Competence on the Academic Achievement of Higher Secondary School Students in East Khasi Hills District of Meghalaya"	Prof. P.K. Gupta
Ms. Daffodils Era Lamare "Secondary Education in Jaintia Hills District of Meghalaya: An Analytical Study"	Prof. S.M. Sungoh

Courses Conducted

MA (Education)	Courses
Semester-I :	Philosophy of Education, Psychology of Education, Educational Management and Change, Research Methodology in Education (I&II),
Semester-II :	Curriculum Development and Instruction, Sociology of Education, Educational Testing & Evaluation, Environmental Education and Mental Health Education,
Semester-III :	Educational Technology, Comparative Education, Early Childhood Education, Teacher Education, Special Education
Semester-IV :	Laboratory Practical, Higher Education in India, Guidance and Counseling, Methods of Teaching at Tertiary Level, Economics of Education.
M.Ed	
Semester-I :	Foundations of Education; Educational Psychology; Research Methods- (I &II) and System of Teacher Education in India.
Semester-II :	Theory and Practice of Teaching; Educational Testing; Dissertation, Educational Planning and Finance; Mental Health Education.
Ph.D	
	Research Methodology, Data Analysis & Computer Applications and Review of Related Literature.

Seminars/Conferences/Symposium/ Extension programmes, etc.

Organized

Prof. S.M. Sungoh organized the 19th Annual Conference of the North-East India Education Society, on 28th and 29 of June, 2011, held in College of Teacher Education, Sikkim.

Dr. C. Nongbri was Course Coordinator for the 15th ASC-UGC sponsored Refresher Course in Education, 21 days (7th June to 28th June 2011) UGC- Academic Staff College, NEHU, Shillong. She also organized a Two-Day Hands on Workshop on Enhancement of Life Skills of Students - 2 Days October 18-19, 2011 in collaboration with Placement Cell. Dr. Yodida Bhutia organised World Environment Day on

5th June 2011 in the Department of Education, NEHU, Shillong and helped students to recycle waste papers and create different items from recycled papers.

Attended

Prof. P.K. Gupta.

1. Presented a paper on "ICT and Quality Education" at the two-day workshop on leveraging Information & Communication Technology in Education for College Teachers organized by St Mary's College, Shillong on 20th June, 2011.
2. Delivered the Keynote Address on "Educational Management with Special Reference to North East India" at the 19th Annual Conference-Cum-Seminar organized

by North East India Education Society (NEIES) at Harkamaya College of Education, Tadong, Gangtok (Sikkim) on 27th June, 2011. Also chaired the First Academic Session of the Conference on the same day.

3. Presented a paper on 'Choice Based Credit System' at a Short Term Training Course on Reforms in Higher Education for Senior Faculty of Universities & College organized by UGC-Academic Staff College, Gauhati University, Guwahati on 7th July, 2011.
4. Presented a paper titled "Improving the Quality of Higher Education through ICT" at a National Seminar on ICT in Education on 14th Sept, 2011 organized by Department of Education, NEHU, Shillong in collaboration with NERC-ICSSR, Shillong, IGNOU-New Delhi and MITS and SCSTE Meghalaya from 13th to 15th Sept, 2011.
5. Presented a paper titled "Life Long Education for Sustainable Development" at the University Level Seminar on the theme "Issues in the Sustainable Development in Meghalaya" organized by William Carey University, Shillong on 5th March, 2012.
6. As member of the Peer Team of National Assessment & Accreditation Council (NAAC), Bangalore, visited Hindu College of Education, Sonipat (Haryana and N.C. College of Education, Israna, Panipat, (Haryana) and prepared their performance assessment report from 30th Jan to 2nd Feb., 2012.

Prof. A. Henia.

1. Participated and presented a paper on 'Understanding Child and their Needs' at the National Workshop on Sensitisation Programme organised for Officials of Education Department/ SCERT/DERT/SSA on Prevention of Child Abuse, June 7-9, 2011 held at NEHU, Shillong, organised by National Institute of Public Cooperation and Child Development – NER, Guwahati.

2. Presented a paper on 'Secondary Education: Access and Equity in the 21st Century' at the National Conference on Universalisation of Secondary Education: Prospects and Challenges with Special Reference to North –East India, July 25 & 26, 2011 at the Conference Hall, NEHU, Tura. Organised by the Department of Education, NEHU Tura Campus in collaboration with Comparative Education Society of India, New Delhi.
3. Delivered the Keynote Address on 'Empowerment of Rural Women through Education in the UGC sponsored National Seminar on 'Education for Women in Rural Colleges: Problems & Prospects', July 29, 2011 held at Moirabari College. Organised by the Department of Education Moirabari College, Assam.
4. Presented a paper on 'Problems of Women in Higher Education' at the National Workshop on Women in Scientific Research-Examining the Challenges and Identifying their Needs, October 21-22, 2011, held at NEHU, Shillong. Organised by National Council for Science & Technology Communication, DST, New Delhi, Indian Council of Social Science Research, North Eastern Regional Centre, Shillong and coordinated by Deptt. of Chemistry Nagaland University, Lumami and Deptt. of Anthropology NEHU – Shillong.
5. Presented a paper on Environment Sustainable Development through Education in North East India, at the 2nd International Conference on People Planet Prosperity SUS-CON, November 9-11, 2011, held at Shillong. Organised by RG-Indian Institute of Management.
6. Presented a paper on 'Role of Higher Education towards Economic Development of Meghalaya' at the UGC sponsored Two Day Seminar on Impact of Education in Socio-Cultural Development

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in Meghalaya, November 15, 2011, held at Shillong. Organised by Raid Laban College, Shillong.

7. Presented a paper on 'Contribution of Forest Resources towards Hill Tribes Livelihood and Education in North-East India', at the International Seminar & Cultural Expo, Natural Resources and Rural Livelihoods among Tribes in Hilly Areas, March 22-24, 2012, held at NEHU, Shillong. Organised by the Department of Geography, NEHU, Shillong. Supported by Climate Change Adaptation (CCA – NER) – GIZ and Greater Himalayan Bio-Cultural Society (GHBS), Shillong.

Prof. S.M. Sungoh

1. Acted as resource person for the following:
 - (i) UGC-ASC 14th Refresher Course on 31st, May, 2011; June 1st & June 2nd.
 - (ii) UGC-ASC 16th Orientation Programme on 4th July, and 18-19 July, 2011.
 - (iii) UGC-ASC 17th Orientation Programme on 23rd to 29th February, 2012.
 - (iv) UGC-ASC 18th Orientation Programme on 2nd to 7th March, 2012.
2. Acted as a resource person for "Training on SCERT and DIET Faculty on Psychological Testing for School Children" on 15th and 16th of June, 2011.
3. Resource Person for the Interactive Session in the 14th Refresher Course Programme held, in the ASC, Shillong on 15 June 2011.
4. Monitoring and Evaluation of the Sarva Shiksha Abhiyan (SSA) in schools of Jaintia Hills and East Khasi Hills on November, 2011.

Dr. C. Nongbri

1. Was a Speaker in the "Educational Exploration of Women's Livelihood Projects" held in the Silliman University,

Dumaguete, Philippines, organized by the International Council of Unitarian Universalist Women (ICUW) from January 30th to February 6th 2012.

2. Acted a Resource Person in the 16th UGC-ASC, Orientation Course on Curriculum Development-I and Curriculum Development-II — 21 Days organized by UGC Academic Staff College, NEHU, Shillong from 4th to 31st July 2011.
3. Acted as Resource Person in the 17th UGC-ASC, NEHU Refresher Course in Education on Curriculum Development at the Higher Education level on 23.2.12 and 24.2.12 — 21 Days organised by UGC Academic Staff College, NEHU, Shillong from 13th February to March 2011.
4. Acted as Resource Person in the 18th UGC-ASC Orientation Course on Curriculum Development at the Higher Education level and Micro Teaching — 21 days organized by UGC Academic Staff College, NEHU, Shillong from 23rd Feb. to 21st March 2012.

Dr. I. Syiem

1. Presented a paper on "Emotional Intelligence : Why it Matters in Teaching" at the 19th Annual Conference cum Seminar of North East India Education Society, Shillong organized by Harkamaya College of Education Gangtok, Sikkim, 27th -28th June, 2011.
2. Presented a paper on "ICT Awareness amongst Post Graduate Students" at the National Seminar organized by Department of Education, NEHU Shillong, 13th – 15th September 2011.
3. Presented a paper on "Emotional Intelligence: Why it Matters to Human Well Being "at the International Seminar organized by Department of Adult and Continuing Education, NEHU Shillong, 17th -18th October 2011.

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4. Presented a paper on "Challenges faced by Women Professionals" at the National Workshop organised by the Indian Council of Social Science Research, North Eastern Regional Centre, Shillong and coordinated by Department of Chemistry, Nagaland University, Lumami, 21st-22nd October, 2011.
5. Presented a paper on "Governance and Ethics" at a two day International Conference Sustainability- People, Planet, Prosperity on 9-11 November, 2011 organized by Indian Institute of Management, (IIM) Shillong.

Dr. Brinda Bazeley

1. Presented a paper titled "Cloud Computing in Higher Education" at the National seminar on "ICT in Education" on 13th-15th September, 2011, organized by the Department of Education, NEHU, Shillong in collaboration with IGNOU, EDNERU New Delhi, ICSSR Shillong, Meghalaya Information Technology Society and State council of Science Technology and Environment, Meghalaya.
2. Presented a paper titled "Prospects of RMSA in the schools of Meghalaya" at the National seminar on "Universalization of secondary education: Prospects and challenges with special reference to North East India" on 25th-26th July, 2011 organized by Department of Education, NEHU, Tura Campus.
3. Presented a paper titled "Prospects of women's education in the rural colleges of North East" at the UGC sponsored National seminar "Education for women at rural colleges-Problems & Prospects" on 29th-30th July, 2011 organized by Moirabari Rural College, Moirabari, Assam.
4. Presented a paper titled "Women Empowerment: Indian Perspective" at the International seminar "Lifelong and skill development" on 17th-18th October, 2011 organized by the Department of Adult and Continuing Education, NEHU Shillong.
5. Presented a paper titled "Status of working women in Indian society" at the National workshop "Women in scientific research: Examining the challenges and identifying the needs" on 21-22nd October, 2011 organized by Department of Anthropology, NEHU, Shillong in collaboration with Department of Chemistry, Nagaland University, Kohima.
6. Presented a paper titled "Sustainability through traditional methods in conservation of forest resources in Meghalaya" at the International conference "Sustainability-People, Planet, Prosperity" on 9th-11th November, 2011 organized by the Indian Institute of Management (IIM), Shillong.
7. Presented a paper titled "Enhancing livelihoods of the rural poor through ICT" at the International seminar on "National Resources and rural livelihoods among tribes in hilly areas" on 22nd-24th March, 2012, organized by the Department of Geography, NEHU, Shillong.

Dr. Yodida Bhutia

1. Presented a paper titled "Sikkim Government College teachers' perception of principal on leadership effectiveness" at the National Seminar on Educational Management on 27th- 28th June 2011, Harkamaya College, Gangtok, Sikkim. Organized by NEIES and funded by ICSSR-NE.
2. Presented a paper titled "Need of Life skill education in Secondary schools" at the National Seminar on Universalization of Secondary Education: Prospects and Challenges with respect to North East, 25th-26th July 2011, Dept of Education, NEHU, Tura.
3. Presented a paper titled "ICT awareness among Post Graduate students" at a National seminar on ICT in Education, organised by the Department of Education, NEHU, Shillong on 13th-15th September 2011, Department of

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- Education, NEHU.
4. Presented a paper titled "Occupational Health Hazards among Women Farmers of Mawkyrwat Block, West Khasi Hills" at the International Seminar on Lifelong learning and skill development, organised by the Department of Adult and Continuing Education, NEHU, Shillong, 16th-17th October 2011, Department of Distance and Continuing Education, NEHU.
 5. Presented a paper titled "Problems Of Women Scientist in Research Institute" at the National Seminar on Women in Scientific Research - Examining the challenges and identifying their needs" on 21st- 22nd October 2011, Department of Anthropology, NEHU, Shillong.
 6. Presented a paper titled "Sustainability in the school curriculum of Meghalaya and Sikkim — an analysis" at the International Seminar on Sustainability Conference on 9th-11th November 2011, IIM, Meghalaya.
 7. Presented a paper titled "Mental Health Level among school going students" at the International Seminar on Education and Development on 5th-7th March 2012, Tomorrows People Organization, Bangkok.
 8. Presented a paper titled "Health of Women in Arunachal and Sikkim" at the Workshop cum Seminar on Population Education, 29th- 30th March 2012, Department of Education, Rajiv Gandhi University, Arunachal Pradesh.
- Publications**
- Sungoh, S.M. "Emotional Intelligence in Organizational Behaviour". In *Modern Perspective of Organisational Behaviour*, H.Taj and P. Bhargava (Eds). Agra: Harprasad Institute of Behavioural Studies, 2011.
- Syiem I. S. *Guidance and Counselling*. Shillong: Akashi Book Depot, 2012.
- Early Childhood Care and Education*. Shillong: Akashi Book Depot, 2012.
- Emotional Intelligence: The Difference it Makes*. Shillong: Akashi Book Depot, 2012.
- Rymbai, B.B. *Globalization and Higher Education*. Guwahati: Eastern Book House, 2012.
- Bhutia, Y. *Higher Education: Status and Problems in Sikkim*. New Delhi: APH Publishing Corporation, 2011.
- Gupta, P.K. Marking Vs Grading System, *Journal of the North East India Education Society (NEIES)*, Vol, 14, June 2011.
- Sungoh, S.M. Comprehensive Continuous Evaluation, *Journal of the North-East India Education Society*, Vol, 14, 2011: 103-118.
- Nongbri, C. "The Right of Children to Free and Compulsory Education Act, 2009: Strategies for Professional Development of Teachers in Meghalaya", *Journal of the North East India Education Society*, Vol. 14, 2011, 8-20.
- Rymbai B B. Relevance of TQM in Higher Education, *Indian Journal of Education Research Experimentation and Innovation* (e journal), Vol I, Issue 5, 2011.
- The problems of adolescence, *Indian Journal of Education Research Experimentation and Innovation* (e journal), Vol II, Issue 1, January, 2012.
- Bhutia, Y. Job Satisfaction Level of Teachers of Government Schools in Aalo-East Block of West Siang District, Arunachal Pradesh, *Indian Journal of Education Research Experimentation and Innovation*, Vol I. 2011, 30-35.
- Henia A. (2011), Environment Sustainable Development in North East India. Proceedings of the 2nd International Conference on People Planet Prosperity SUS-CON, RG-Indian Institute of Management, November 9-11, 2011.

Henia A. (2011), *Role of Higher Education towards Economic Development of Meghalaya*. Proceedings of the Two Days State Level Seminar on Impact of Education in Socio-Cultural Development in Meghalaya, Raid Laban College, November 15, 2011.

Funds Received

Rs. 6.30 lakhs only from MHRD, New Delhi for monitoring work of SSA for the State of Meghalaya.

Other Academic Activities

Dr. I.S. Syiem

1. Delivered a lecture on “Continuous and Comprehensive Evaluation” organised by NCERT on the occasion of Training of Teacher Educators on “Continuous and Comprehensive Evaluation at the Primary Level” 27th September 2011.

Dr. B.B.K. Rymbai

1. Delivered a lecture on Role of teachers in continuous comprehensive evaluation at primary Level” at the National workshop on “Training of teacher educators on CCE at primary level” on 29th of September, 2011 organized by DERT, Shillong.
2. Spoke on “Importance of Value education in schools” at the National seminar on “Value Education” on 28th of July, 2011 organized by NCERT-NERIE, Shillong.
3. Spoke on “Factors influencing quality education in the schools-RTE Act, 2009”

(19th October, 2011) at the National seminar on “Orientation of KRPs of North-East states on issues and concerns in operationalizing children’s Right to Free and Compulsory Education Act,2009 on 19th and 20th of October, 2011 organized by NCERT-NERIE Shillong.

4. Spoke on “Bringing quality in our schools through the RTE Act-2009” (20th October, 2011) at the National seminar on Orientation of KRPs of North-East states on issues and concerns in operationalizing children’s Right to Free and Compulsory Education Act,2009.” on 19th and 20th of October, 2011 organized by NCERT-NERIE Shillong.
5. “Understanding the child and his needs” at the Sensitization programme organized for officials of Education Department/ SCERT/DERT/SSA on prevention of child abuse, NEHU Shillong on 7-9th of June, 2011. Organized by National Institute of Public Co-operation and Child Development, Regional Centre (NIPCCD) Guwahati.

Dr. Y. Bhutia.

1. Presented a paper on Impact of Education on Socio-Cultural Development at the National Seminar on Impact of Education on Socio-Cultural Development in Meghalaya. Organised by Raid Laban College on 15th-16th Nov 2011.

Department of Education (Tura)

Head : Dr. B. C. Das
Telephone : 03651 – 220258 (o)
Email : dasbishnucharan@gmail.com

Thrust Areas

Value and Peace Education, Teacher Education,

Methods of Teaching at Tertiary Level, Special Education, and Elementary Education.

School of Education

Brief Statement of Academic Activities

The department was established in August 2001. Since then, it has been offering M.A. and Ph.D.

programmes in Education. The department was also engaged in research projects funded by the UGC and ICSSR, New Delhi.

Faculty Profile

Associate Professors : Dr. Bishnu Charan Das, M.A. (Utkal), M.Phil.(DAV), Indore, Ph.D.(B.H.U). Specialization: Educational Technology, Teacher Education, Research Methodology.

Dr. (Mrs.) Nikme S. C. Momin, M.A & Ph.D., NEHU, Specialization: Value Education, Educational Psychology.

Assistant Professors : Dr. S.C. Subudhi, M.A., M.Phil. & Ph.D. (Kurukshetra University). Specialization: Research Methodology & Statistics, Special Education.

Dr. Madhusudan J.V., M.Ed., M.Phil & Ph.D. (Gulbarga University). Specialization: Sociology of Education, Early Childhood Education.

Students Intake: 30

Enrolment Capacity: MA: 30, Ph.D. :Variable

Actual Admission:	OBC	SC	ST	GEN	MALE	FEMALE	TOTAL
M.A.:	01	02	26	01	03	27	30
Ph.D:	01	01	03	-	1	04	05

Degrees Awarded

	OBC	SC	ST	GEN	MALE	FEMALE	TOTAL
MA	01	02	22	-	05	20	25

Courses conducted

MA

Semester I: Philosophy of Education, Psychology of Education, Educational Management and Change, and Research Methodology in Education (I & II) Semester II: Curriculum Development and Instruction, Sociology of Education, Educational Testing & Evaluation, Environmental Education and Mental Health Education Semester III: Educational Technology, Comparative Education, Early Childhood Education, Teacher Education, Education for the Gifted & the Creative and Special Education, Semester IV: Laboratory Practical, Higher Education in India, Guidance and Counseling, Education for the

Physically and the Cognitively Challenged, Methods of Teaching at Tertiary Level and Economic of Education

Ph.D.

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

Seminar/Conferences/Workshop/Extension Programmes

Organised

The department organised a National Seminar

on Examination Reforms in Secondary Schools on 17th - 18th Feb. 2012.

Attended

Dr. B. C. Das

1. Presented a paper on Examination Reforms in Secondary Schools: A Study of Tura Town, at the National Seminar on Examination Reforms in Secondary Schools on 17th -18th Feb. 2012.
2. Presented a paper on Teacher Education at Secondary Level in North Eastern States at the workshop on Appraisal of Research Projects from 19th to 21st December, 2011 at Tripura University, Agartala.

Dr. Nikme S. C. Momin

1. Presented a paper entitled "Perception and Learning: Needs for Teachers' Understanding" at a workshop on "Teacher Empowerment for the Secondary School Teachers of Garo Hills" held from 23rd to 28th May, 2011 and organized by College of Teacher Education-Government of Meghalaya, Rongkhon, Tura West Garo Hills District, Meghalaya.
2. Presented a paper entitled "Affective Teaching Competency for Teachers of Secondary Schools" at a workshop on "Teacher Empowerment for the Secondary School Teachers of Garo Hills" held from 23rd to 28th May 2011 and organized by College of Teacher Education, Government of Meghalaya, Rongkhon, Tura West Garo Hills District, Meghalaya.
3. Presented a paper entitled "Secondary School Teachers and their roles in the School Guidance and Counseling" at a workshop on "Teacher Empowerment for

the Secondary School Teachers of Garo Hills', held from 23rd to 28th, May 2011 and organized by College of Teacher Education, Government of Meghalaya, Rongkhon, Tura West Garo Hills District, Meghalaya.

4. Presented a paper entitled "Status and Issues related to school Guidance Programmes in Meghalaya: Implications for Quality Universalisation Secondary Education" at a National Seminar on Universalization of Secondary Education: Prospects and Challenges with Special Reference to North East India, organized by the Department of Education, NEHU, Tura on 25th-26th July, 2011.
5. Presented a paper entitled "Inculcation of Environmental Ethics: Implication for Universalization of Secondary Education" with Pyrkhatlang A. Shadap at a National Seminar on Universalization of Secondary Education: Prospects and Challenges with Special Reference to North East India, organized by the Department of Education, NEHU, Tura on 25th-26th July, 2011.
6. Presented a paper entitled "Quality Universal Secondary Education with Special reference to Garo Hills in Meghalaya: Exploring Foundational Links" at a National Seminar on Universalization of Secondary Education: Prospects and Challenges with Special Reference to North East India, organized by the Department of Education, NEHU, Tura on 25th-26th July, 2011.
7. Presented a paper entitled "ICT and Play in Early Childhood Education" with Challang R Marak at a National Seminar on Information Communication

School of Education

Technology in Education, organized by the Department of Education, NEHU, Shillong from 13th to 15th Sept. 2011.

8. Presented a paper entitled "Results of the Garo Students in MBOSE Examination (HSLC & HSSLC) and Critical Analysis' at the 41st Annual General Conference of the Garo Graduates' Union, Tura held on 3rd Dec. 2011 at the Government Girls' Higher Secondary School, Tura.
9. Presented a paper entitled "The Role of Village and Social Mapping in Educating the Mass" at a training cum Community Awareness Programme conducted by District Institute of Education and Training (DIET), Tura, Meghalaya from 23rd Jan. to 27th Jan. 2012 at Mellim village of Gambegre Block of West Garo Hills District of Meghalaya.
10. Presented a paper entitled "The Cost Benefit Analysis of Education" at a Training cum Community Awareness Programme conducted by District Institute of Education and Training (DIET), Tura, Meghalaya from 23rd to 27th Jan. 2012 at Mellim village of Gambegre Block of West Garo Hills District of Meghalaya.
11. Presented a paper entitled "Motivating Oneself and Others Towards Achievement in Learning" at a Training cum Community Awareness Programme conducted by District Institute of Education and Training (DIET), Tura, Meghalaya from 23rd Jan. to 27th Jan. 2012 at Mellim village of Gambegre Block of West Garo Hills District of Meghalaya.
12. Co-presented a paper entitled "Educational Stress and Strategies for Reeducation: A Picture of Meghalaya" with Mrs Kanika Das

at a National Seminar on Human Resource Development in the Context of 21st Century, organized by the Department of Education, Gauhati University, Guwahati, Assam on 5th-6th April 2012.

Dr. Siba Charan Subudhi

1. Presented a paper "Status of Teacher Training Programme for Special School Teachers in Meghalaya" at the National Seminar on Educational Management with a special reference to North-Eastern Region held at Harkamaya College of Education, Gangtok, Sikkim on 28th June, 2011.
2. Presented a paper "Research in Higher Education is Doldrum: An Observation" at the National Seminar on Issues and Challenges in Higher Education in 21st Century, held at Department of Education, Udala College, Udala Baripada, Odisha on 7-8th Feb. 2012.
3. Presented a paper "Issues and Challenges in Higher Education in 21st Century" at the National Seminar on Examination Reforms in Secondary Education held at NEHU, Tura Campus on 17-18th Feb. 2012.
4. Presented a paper "Effect of Continuous and Comprehensive Evaluation on Students attainment" at the National Seminar on Implementation of Continuous and Comprehensive Evaluation: Issues and Challenges held at Department of Education, Budha College of Education, Karnal, Kurukshetra, Haryana on 31st March, 2012.

Publications

Dr. B. C. Das

1. Facilitative Factors in the spread of Innovations in Teacher Education. *Vetri*

NEHU Annual Report 2011-2012

Education, Vol.6, March 2011, PP. 5-11.

2. What Prevents Teacher Education Institutions from being Innovative. *EUTRACKS*, Vol. 10, No.6, Feb.2011, 3-8.

Dr. Nikme S. C. Momin

1. Edited with Dr. Madhusudan, J.V. a book entitled *Towards Universalisation of Secondary Education in North-East India* and published by Sri Siddalingeshwara (2012), Gulbarga.

Dr. Siba Charan Subudhi

1. Teaching Practices at Lower Primary Schools in East Garo Hills District of Meghalaya, *Educational Research Journal-An International Research Journal (JER)*, Vol. 1(4); 60-67, September, 2011.
2. 'Should Physical Punishment be abolished at Elementary Schools? A Discussion'. *Anweshan: Journal of Education*, Vol-1, No-1, June 2011, 37-42.
3. 'Mental Health of Secondary School Teachers of Manipur', *Vision-Research Journal of Education*, Vol. II, No.1, 59-63, April-2011.

4. 'Environmental Degradation in East Garo Hills of Meghalaya- A Case Study'. *Journal of Education and Development*, Vol.1, No. 2, Dec. 2011.

Projects

Ongoing

Dr. B.C. Das

1. A Study of the Organization of Teacher Education Programmes for Secondary School Teachers in North Eastern Region of India. Funding Agency: ICSSR, New Delhi, Amount Approved: Rs 3,81,625/-
2. A Critical Evaluation of the Teaching Learning Systems adopted for the Management of Refresher Courses in the Academic Staff Colleges in India. Funding Agency: UGC, New Delhi, Period: 2 years, Amount Approved: Rs. 5,60,200/-.

Completed

Dr. Siba Charan Subudhi

1. A Study on Teaching Practices at Lower Primary Schools in Rural Areas of West Garo Hills District of Meghalaya, funded by ICSSR-NERC, Shillong, Rs Rs 60,000.

Centre for Distance Education

Head : Dr. S.N. Sarma
Telephone : 0364-2226822/2228705 (o)
Email : Surendranathnehu@gmail.com

Thrust Areas

The Centre has been selected as the only nodal agency of the Rehabilitation Council of India (RCI), New Delhi for teaching/learning on disability areas in the entire North Eastern Region of India through the distance mode. A fresh Memorandum of Understanding (MOU) has been signed on 1st December, 2010 after the expiry of the last MOU between NEHU and the RCI. The Centre for Distance Education started with a certificate course on Floriculture a decade ago and the same is the most sought after programme in the region.

In the disability areas, the Centre started the B.Ed. Special Education in 2007. The number of students enrolled in the course is big but few appeared in the examination. The Foundation Course on Education of Children with Disabilities (FC-SEDE) started from September, 2009. The Post-Graduate Professional Diploma in Special Education (PGPD-SEDE) was launched in March, 2010. The last mentioned programme through the distance mode was started in the eight RCI approved study centres in North-East India. In addition, the Centre has the Post Graduate Diploma in Entrepreneurship (PGDE) course

going on smoothly.

The thrust areas of the Centre are to offer General, Certificate, Diploma and Degree Courses in distance mode to all those who have been deprived of formal higher education irrespective of caste, creed, region or religion. The following is a list of academic programmes under operation and the current enrolment position and degrees awarded:

(a) Courses Offered

- (i) 6 months Certificate Course in Floriculture
- (ii) 3 months General Course in Floriculture
- (iii) 1 year Post Graduate Diploma Course in Entrepreneurship
- (iv) 2 years B.Ed.- Special Education (B.Ed-SEDE)
- (v) 3 months Foundation Course on Education of Children with Disabilities (FC-SEDE)
- (vi) 1 year Post Graduate Professional Diploma in Special Education (PGPD-SEDE)

Faculty Profile

Associate Professors

1	S.N. Sarma	MA., Ph.D (Gauhati University)	Education	Specialization: Tribal Society in Transition & Cultural Change
2.	S. Wangu	M.Sc., Ph.D (Kashmir University)	Botany	Floriculture
3.	R.N. Rai	M.A., Ph.D (BHU)	Psychology	Specialization: Psychological Testing and Social Psychology of Aging

Assistant Professor

I.	R.C. Pandey	M.A., Ph.D (Kumaon University)	Specialization: Experimental Psychology & Statistics
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Student Intake

Actual Admission	SC	ST	Gen	OBC	Male	Female	Total
B.Ed.-SEDE	4	73	35	11	40	83	123

Actual Admission

	SC	ST	GEN	OBC	MALE	FEMALE	TOTAL
B.Ed.-SEDE 1 st Year	1	13	6	1	9	12	21
Certificate Course in Floriculture	-	-	-	-	-	-	-
Foundation Course on Special Education of Children with Disabilities (FC-SEDE) July 2011	8	94	58	43	102	101	203
Foundation Course on Special Education of Children with Disabilities (FC-SEDE) December 2011	12	128	78	28	108	138	246
Post Graduate Professional Diploma (PGPD-SEDE)	-	5	4	-	3	6	9
TOTAL	21	240	146	72	222	257	479

Courses Conducted

Commercial Floriculture, Nursery Establishment, Propagation of Ornamental Crops, Annuals, Cultivation of Selected Commercial Flowers, Common Pests and Diseases, Dried Flower Making, Wild Plants of Horticultural Potential in Northeast India, Orchid Cultivation-I, Orchid Cultivation-II, Common Diseases and Pests of Orchids, Plant Tissue Culture, Laboratory Equipments and General Techniques, Tissue Culture Media, Clonal Propagation of Orchids, Rose Cultivation, Botany, Nursery Practices-I, Nursery Practices-II (Organic Gardening-A), Nursery Practices-III (Organic Gardening-B), Nursery Practices-IV, Manures and Fertilizers, Pests and Diseases, Gardens, Planting of Ornamental Plants-I, Planting of Ornamental Plants-II, Growing of Ornamental Plants in Containers, Cut Flowers and Their Arrangements, Dried Flower arranging, Commercial Aspects of Floriculture.

Post Graduate Diploma in Entrepreneurship

Entrepreneurship and Environment: Dynamics of Entrepreneurship, Entrepreneurial Qualities – Self Appraisal and Development, Small Business Policies and Programs, Institutional Framework of Small Business and Entrepreneurial, Ethics and Social Responsibility.

Venture Creation: Project Identification, Market Survey, Project Formulation, Project Appraisal and Enterprise Startup Process, Procedure.

Business Communication Skill: Introduction, Business Communication, Written Communication Skills, Non Verbal Communication Skills & Technological Aids for Communication.

Enterprise Management: Financial Management, Human Resource Management, Production, Marketing Management & Management of Accounts.

School of Education

Strategic Management of Small Enterprise: Introduction, Environmental Analysis and Diagnosis, Strategy Formulation and Choice of Alternatives, Functional Strategy and Strategy Implementation and Evaluation.

Enterprise Control System: Analysis of Financial Statements, Cost and Cost Control, Cost Analysis for Enterprise Decisions, Enterprise Control & Use of Software Packages.

Export and Import Management: International Trade and Commercial Policy Instruments, India's Foreign Trade and Policy, Instruments of Export Promotion, Documentation and Financing & Management of Import.

Project Report: To enable the students develop a business to create a venture. Conceiving a business idea, developing a business plan, conducting feasibility study of the business plan, preparing a tentative project report for presentation to a financing agency and preparation of final report and submission for evaluation by the university.

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

B.Ed.-SEDE 1st Year

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

Practical

Core Training in Teaching Skill, Psychology Practical, Basic Computer Operation, Adaptive skills, Aids & Appliances, Training in Visual Impairment/Training in Mental Retardation/

Training in Hearing Impairment, Teaching Practice in English/Hindi/Regional Language, Teaching Practice in Inclusive School.

B.Ed.-SEDE 2nd Year

Educational Planning and Management, Curriculum designing & Research, Teaching of Science/Teaching of Mathematics/Teaching of Social Studies, Educational Perspective of Visual Impairment, Instructional Methods, Mental Retardation: Its Multidisciplinary Aspects, Curriculum and Teaching Strategies.

Or

Aural and Oral Rehabilitation of the Hearing Impaired, Methodology of Teaching Language and Other Subjects to Hearing Impaired

Practical

Work Experience/Art Education, Co-Curricular and extra-curricular activities, Project Work in Visual Impairment, Training on Equipment related to Visual Impairment

Or

Project Work in Mental Retardation, Training on equipment related to Mental Retardation

Or

Project work in Hearing Impairment, Training on Equipment related to Hearing Impairment

Publications

Dr. R. N. Rai

“Creativity and Sex: A cross-cultural Study among Indian and Nepali Students”, *Indian Psychological Review*, Vol. 76, No. 1, March, 2011.

Centre for Science Education

Head : Prof. Man Mohan Singh
Email : profmmscse@yahoo.co.in

Thrust Areas

Research in the areas of science education, scientific awareness, development of science educational tools and scientific aptitude.

Faculty Profile

Professors : Prof. Man Mohan Singh
 Prof. D. Bhattacharjee, M. Sc. (NEHU), Ph. D. (Warsaw)
 Prof. M. S. Bisht, M. Sc. (Jodhpur University), Ph. D. (Delhi University)
 Prof. P. K. Patra, M. Sc. (Sambalpur University), Ph. D. (NEHU)

Publications

J. Gielis and G. Potters). Vol. 1-2, 393-402.

Published Abroad

Bisht, M. S., N., Chongtham, and P. Nogdam. 2012. Bamboo shoot as a resource for health food and socio-economic development of North-East India. In: *9th World Bamboo Congress Proceedings*, Antwerp, Belgium (eds

Chongtham, N and Bisht, M. S. 2012. Bamboo shoot as a functional food. In: *9th World Bamboo Congress Proceedings*, Antwerp, Belgium (eds J. Gielis and G. Potters). Vol.1-2, 753-763.

Funds Received :Rs. 13,56,584.0

Research Projects

Ongoing

Project Title	Funding Agency	Principal Investigator	Co-Principal Investigator
1. Novel Plant Genotypes for Predicted Climate Change.	UGC, New Delhi	Prof. M. S. Bisht	
2. Exploration and Germplasm Collection of Citrus from the North-East India and Characterization of Genetic Variability Using Cellular and Molecular Cytogenetical Approaches.	UGC, New Delhi	Prof. S. R. Rao, Department of Biotechnology and Bioinformatics, NEHU	Prof. M. S. Bisht

School of Education

New Projects

Project Title	Funding Agency	Principal Investigator	Co-Principal Investigator
1. Organic Garbage Recycling for the Generation of Livelihood and Zero Solid Waste. Date of Sanction: Nov. 15, 2011; Period: Apr. 2012-March, 2015	DST, New Delhi	Prof. M. S. Bisht	Prof. S. R. Rao, Department of Biotechnology and Bio-informatics, NEHU
2. Development of Processing Techniques for Preserving Juvenile Shoots of Nutritionally Rich Bamboos of Sub-Himalayan and North-Eastern Region of India. Date of Sanction: Aug.23, 2011; Jan. 2012-Dec. 2014	Ministry of Food Processing Industry, New Delhi	Prof. C. Nirmla, Botany Department, Panjab University, Chandigarh	Prof. M. S. Bisht

Academic Collaborations

Faculty member	Collaborator	Area of collaboration
Prof. M. S. Bisht	Prof. S. R Rao, Department of Biotechnology and Bio-informatics, NEHU, Shillong	Plant cytogenetical and molecular biology
Prof. M. S. Bisht	Prof. N. Chongtham, Department of Botany, Panjab University, Chandigarh.	Nutritional analysis of edible bamboo shoots

Other Academic Activities

Prof. M. S. Bisht (1) Delivered a lecture on “Skill Development for Livelihood Earning Based on Local Resources: Scope and Prospects of Bamboo Shoots for Employment and Income Generation in the North-East Region of India” at the International Seminar on Lifelong Learning and Skill Development, North-Eastern Hill University, Shillong on Oct. 17th, 2011. (2) Delivered a lecture on “India and its Diversity”

at the Division of Natural Sciences, International Centre, Osaka Kyoiku University, Osaka, Japan Nov. 10th, 2011. (3) Delivered a lecture on “Study of Plant Chromosomal Diversity in India” at the 62nd Meeting of Society of Chromosome Research, Kanagawa University, Kanagawa, Japan, on Nov. 11th, 2011.

Prof. P. K. Patra taught M.Sc. and Pre Ph.D. courses in the Department of Physics, NEHU, Shillong.

Chapter III

SCHOOL OF HUMAN AND ENVIRONMENTAL SCIENCES

Dean : Prof H. Lamin
Telephone : 2723221(o) Fax : 2550040
Email : hlamin3@hotmail.com

The School of Human and Environmental Sciences comprise five departments, namely, Anthropology, Environmental Studies, Geography, Rural Development and Agricultural Production and Horticulture Department. These departments were actively engaged in research and teaching programmes during the year under report. Many faculty

members had collaborative research programmes with prestigious national and international research institutes. Some of the faculty members carried out externally funded research projects. Many research publications contributed by the faculty members were published in national and international journals.

Department of Anthropology

Head : Professor T.B. Subba
Telephone : 2723101/2726106
Email : tbsubba@nehu.ac.in

Thrust Areas

Biological and cultural diversity of the people of Northeast India.

Brief Statement of Academic Activities

The department admitted 30 students to its M.A./M.Sc. programme and 12 students to its Ph.D. programme during the current year. 26 students successfully completed their M.A./

M.Sc. course, 4 students were awarded PhD degree and 10 students passed the UGC NET examination. The project entitled "Culture, Genetics and Status of Health in Northeast India" under Area Studies of the University with Potential for excellence (UPE) Scheme of the University Grants Commission was completed.

School of Human and Environmental Sciences

Faculty Profile

Professors	:	T.B. Subba, MA, Ph.D. (NBU) Cultural Anthropology H. Lamin, MA, Ph.D. (NEHU) Cultural Anthropology R. Khongsdier, M.Sc., Ph.D (NEHU) Physical Anthropology
Associate Professors	:	L. Zehol, MA, Ph.D. (NEHU) Cultural Anthropology D.K. Limbu, M.Sc, Ph.D. (NEHU) Physical Anthropology
Readers:		B. Langstieh, M.Sc, Ph.D. (ISI, Cal. U) Physical Anthropology G. Ranjan, MA, Ph.D. (Lucknow U) Cultural Anthropology
Assistant Professors	:	V. Pakyntein, MA (NEHU), M.Phil. (Delhi U) Cultural Anthropology J.W. Dkhar, M.Sc, Ph.D. (NEHU) Physical Anthropology Q. Marak, MA, (GauhatiU), Ph.D (NEHU) Archaeological Anthropology S. Ghosh, M.Sc., Ph.D. (Delhi U) Physical Anthropology

Student Intake

Actual Admission	SC	ST	Gen	Male	Female	From Meghalaya	Outside Meghalaya
M.A./M.Sc.	-	27	3	12	18	9	21
Ph.D	-	10	2	4	8	-	12

Degrees Awarded

	ST	OBC	Gen	Male	Female	Total
MA./M.Sc.	24	1	1	11	15	26
Ph.D	3		1	1	3	4

Ph.D

1. Mr. Immanuel Zarzosang Varte, "Impact of Development on the Hmars of Tipaimukh in Churachandpur District, Manipur". Supervisor: Dr. L. Zehol.
2. Ms Sarnali Saikia, "Dental Anthropology of the Khasis of Shillong". Supervisor: Dr. D.K. Limbu.
3. Ms. R.V. Khanchuila, "Gender relations among the Tangkhuls of Manipur: An Anthropological study". Supervisor: Dr. L. Zehol.
4. Ms. Jennifer Baiamonlang Khyriem, "A Study on Health Status of the Khasis in

Domiasiat Area of West Khasi Hills District, Meghalaya". Supervisor: Prof. R. Khongsdier.

Study Tours/Field Trips of Students

Prof. R. Khongsdier took the 3rd Semester students to Umden area, Ri-Bhoi district, Meghalaya for their fieldwork training, which is a compulsory part of the curriculum from 18th January to 6th February, 2012.

Seminars/Conferences/Symposia/Extension Programmes, etc.

Organized

Prof. T.B. Subba organized (i) an international seminar on 'Nepali Diaspora in the Globalised

Context', held at ICSSR-NERC Conference Hall, NEHU Campus, on 28-30 November 2011, (ii) Coordinated the International School for Doctoral Scholars in Anthropology, held at ICSSR-NERC Conference Hall, NEHU Campus, on 5-15 March 2012.

Dr. B. Langstieh was the convener of a two-day national workshop on 'Women in Scientific Research - Examining the Challenges and Identifying their Needs' held at the Department of Anthropology, NEHU, on 21-22 October, 2011. Dr. G. Ranjan was the (i) course coordinator of the UGC sponsored Refresher Course in Tribal Studies organized by the Department of Anthropology at the Academic Staff College, NEHU, Shillong, from 12 March to 1 April, 2012, (ii) Co-convener of two-day national workshop on 'Women in Scientific Research- Examining the Challenges and Identifying their Needs' held at the Department of Anthropology, NEHU, on 21-22 October, 2011. Dr. Q. Marak organized the National Workshop on Lithics: Issues and Problems on 3-5 November 2011 sponsored by NEHU, NEC and ICSSR-NERC, Shillong.

Attended

Prof. T.B. Subba attended the national workshop on 'Discourse on Social Exclusion from Interdisciplinary Perspective', organized by the Centre for the Study of Social Exclusion and Inclusive Policy, Hyderabad University, Hyderabad on 30-31 January 2012. He delivered the keynote address and presented a paper titled "Understanding Relative Exclusion of STs vis-a-vis SCs in India".

Dr. L. Zehol attended: (i) the national seminar on 'Development and Ecology: Issues and Perspectives' organized by the Department of Sociology, NEHU, Shillong, on 21-22 March 2011 and presented a paper on "Sacred Forest:

A Cultural Symbol of Naga Identity/Politics and the Interpretation of Meaning", (ii) the national workshop on 'Women in Scientific Research- Examining the Challenges and identifying their Needs' organized by Department of Anthropology NEHU, Shillong, on 21-22 October, 2011 and presented a paper titled "Career, Home and Family? Can she do it all?", (iii) International seminar on 'Natural resources and Rural Livelihoods among Tribes in Hilly Areas' organized by Department of Geography, NEHU, Climate Change Adaptation (CCA_NER)-GIZ and Greater Himalaya Bio-Cultural Society (GHBBS) Shillong, on 22-24 March, 2012 and presented a paper titled "Naga Women as Natural Resource Managers – Some Issues and Challenges".

Dr. D.K. Limbu attended: (i) the national seminar on 'Problems and Prospects of Ethnic Communities of India with Special reference to North East India' organized by Dibru College, Dibrugarh on 18 and 19 January, 2012, and presented a paper titled "Eruption of Permanent Teeth and Prevalence of Dental Caries among Garo Girls", (ii) the Capacity Building in Social Science Research Training-cum-workshop on Statistical Package for Social Sciences (SPSS) organized by the ICSSR-North Eastern Regional Centre, Shillong on 13-22 February 2012 at ICSSR-NERC, NEHU Campus, Shillong.

Dr. B. Langstieh attended the national workshop on 'Women in Scientific Research - Examining the Challenges and identifying their Needs' organized by Department of Anthropology NEHU, Shillong, 21-22 October, 2011 and presented a paper titled "Why women do not opt for the profession of Scientific Research – Examining the Challenges and Identifying their Needs".

Dr. G. Ranjan attended (i) the national seminar on Semiotics and Folklore organized by the Department of Cultural and Creative Studies, NEHU, Shillong on 27-28 September, 2011 and presented a paper titled "Bidesia and the Issues of Migration, Separation and Diaspora", (ii) national workshop on 'Women in Scientific Research- Examining the Challenges and identifying their Needs' organized by Department of Anthropology NEHU, Shillong, on 21st-22nd October, 2011 and presented a paper titled, "Fieldwork Experience of a Woman Anthropologist", (iii) international seminar on 'Nepali Diaspora in the Globalised Context' held at ICSSR-NERC Conference Hall, NEHU Campus, 28-30 November 2011 and presented a paper titled "The Inheritance of Loss: An Anthropological Study of the Gorkhaland Movement in Fiction".

V. Pakyntein attended (i) the international conference on "Perspectives on Matriarchal Politics" organized by International Academy HAGIA held at St. Gallen, Switzerland on 12-15 May, 2011 and presented a paper titled "The Pnar Trilogy: Explicating Pnar Society and Culture through the Lahoo Dance", (ii) international conference - World's Women 2011 on 'Inclusions, Exclusions, Seclusions: Living in a Globalized World' organized by Women's World 2011 Committee and co-hosted by University of Ottawa and Carleton University, Ontario on 3- 7 July 2011 at Ottawa – Gatineau, Canada and presented two papers titled 'Matri-centered Pnar Family' and 'Life and Death: Reciprocity and Solidarity in Khasi-Pnar Society'.

Dr. Q. Marak attended: (i) the national seminar on 'Feminization of Culture' organized by ICSSR-NERC, Shillong and AITS, RGU at ICSSR-NERC, NEHU campus, Shillong held on 26-27

April 2011 and presented a paper titled "The Garo Hearth: Deconstructing Concepts of Femininity and Masculinity among the Garos", (ii) the international seminar on 'Human Origin and Population Migrations', organized by the Asiatic Society of Bengal held at Kolkata on 7-9 December 2011 and presented a paper titled "Prehistoric Migrations in India's North East: The Garo and Khasi Hills Dilemma", (iii) the International seminar on Natural Resources and Rural Livelihoods among Tribes in Hilly Areas, held in NEHU campus, Shillong organized by Department of Geography, NEHU Shillong on March 22-24, 2012 where she presented a paper titled "Cultural Dynamics of Slash-and-Burn Cultivation: The Case of the Garos of Assam".

Dr. S. Ghosh attended: (i) the international seminar on 'Resources, Tribes and State', organized by Arunachal Institute of Tribal Studies (AITS), Rajiv Gandhi University, Arunachal Pradesh on 13-15 February, 2012 and presented a paper titled "Deficiency and Sources of Nutrition: A Case Study of Santhals from West Bengal", (ii) Inter-Congress in Anthropology: 2012, organized by Indian National Confederation and Academy of Anthropologists (INCAA) held on February 21-23, 2012 at Lucknow and presented a paper titled "Heritability of Physique in a tribal population".

Publications

Published in India

Marak, Q. 2011. Changing Dimensions of Rice in Garo Foodways. *Voice of Intellectual Man*, 1(1): 1-12.

Marak, Q. 2011. Revisiting Playfair's *The Garos A Century Later*. *Man in India*, 91 (3 & 4): 517-29.

Marak, Q. 2011. Stone Age Archaeology in the Garo Hills: Some Issues. *Proceedings of North*

East India History Association, 31st Session, pp. 393-404.

Marak, Q. 2012. Are Daughters Preferred in a Matrilineal Society? A Case Study of the Garos from Assam. *The Anthropologist*, 14 (1): 49-56.

Ranjan, Geetika. 2011. Ethnography of Development: Challenges and Promises. *The NEHU Journal*, IX (2):49-62.

Ranjan, Geetika. 2011. Status of Women in Bhoksa Tribe. *Vithika*, 2(1):75-78.

Subba, T. B. 2011. From Caste to Tribe: An Autobiographical Essay. In P. K. Misra, H. K. Bhat and Dipali G. Danda (eds), *Tribe, State, and Empowerment: The Indian Experience*. Jhargram: India National Confederation and Academy of Anthropologists, 101-14.

Subba, T. B. 2012. (ed. with Nicolas Laine) *Nature, Environment and Society: Conservation, Governance and Transformation in India*. New Delhi: Orient Blackswan.

Subba, T. B. 2012. Cultural Roots of Gendered Historiography. *Northeast Researches*, 3(3): 95-109.

Published Abroad

Ghosh, S. 2011. Association between Physique and Blood Pressure in an Adult Tribal Population. *Anthropologiai Közlemények*, 52: 119-130.

Research Projects

Ongoing

Prof. T.B. Subba (PI) and Dr. G. Ranjan (Co PI): Nepal on the Move: Conflict, migration and stability, funded by DANIDA Fellowship Centre, Copenhagen. Starting date: 15 November 2011. In collaboration with Copenhagen University, Aarhus University, and Kathmandu University.

New

Dr. B. Langstieh's project proposal on Red Blood Cell Antigen typing among the indigenous populations of Meghalaya as Co-Principal Investigator with Dr. Lutika Nephram Lyngdoh, Medical Officer, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS), Shillong.

Honours/Awards/Recognition

Prof. T.B. Subba was (i) appointed Honorary Director, Indian Council of Social Science Research, North Eastern Regional Centre, Shillong from 4th April 2011 till 3rd April 2014, (ii) nominated as Member, Regional Centres Committee of the Indian Council of Social Science Research, New Delhi for three years (2011-13).

Dr. B. Langstieh was (i) nominated Visiting Scholar by the University Grants Commission, New Delhi and the Hungarian Scholarship Board, Ballasi, Budapest, Hungary for research stay of 15 days (3-17 October, 2011), (ii) nominated Visiting Scholar to the Department of Anthropology, University of Washington, Seattle, USA under the Fulbright-Nehru Senior Research Fellowship Grant awarded by the United States Educational Foundation in India and supported by the Council for International Exchange of Scholars (CIES), Washington DC.

Other Academic Activities

Prof. T.B. Subba continues as (i) Editor of *The NEHU Journal*, (ii) Editor, *Man and Society*, (iii) Member, Editorial Advisory Board, *Contributions to Indian Sociology*, Institute of Economic Growth, Delhi University, Delhi, (iv) Member, Editorial Board, *Asian Anthropology*, Chinese University of Hong Kong from August 2010 till date, (v) delivered lecture on "Why the Scheduled Tribes in India are more excluded than

School of Human and Environmental Sciences

the Scheduled Castes?” at the Department of History and Area Studies, Aarhus University, Denmark on 5th October 2011.

Dr. B. Langstieh delivered lectures on (i) “Anthropological Genetics: Its Quest Down Under Human Behavioural & Addictive Traits” by the Institute of Medical Chemistry, Molecular Biology and Patho Chemistry, Semmelweis University, Budapest, Hungary on 14 October 2011, (ii) “Culture, Tradition and Social Structure – Are there genetic influences on human behavioural and addictive traits?” 21 March 2012 in the 3-Day national seminar on “Tribal Health and Genomics” organized by the Department of Molecular Human Genetics Jiwaji University Gwalior, Madhya Pradesh, India.

Dr. J.W. Dkhar attended the UGC sponsored Refresher Course in Tribal Studies organized by Department of Anthropology, NEHU, at the UGC Academic Staff College, NEHU, Shillong

from 12 March to 1 April, 2012.

Dr. Q. Marak (i) delivered two video lectures on ‘Neolithic Cultures in India’ and ‘Dating Methods in Anthropology’ at IGNOU, New Delhi on 31st January 2012, (ii) was a Resource Person at the seminar on *Folklore of Meghalaya* organized by the All India Radio Shillong at Don Bosco Youth Centre, Shillong on 9th March 2012 and delivered a lecture on ‘Rongpra: The Story and Practice’, (iii) participated in ICSSR Post-Doctoral Initiation Programme organized by ICSSR-NERC at ICSSR-NERC, NEHU campus, Shillong on 18-19 November 2011 and on 28-29, February 2012.

Dr. S. Ghosh’s proposal to host Dr. Tom D. Brutsaert, Associate Professor, Syracuse University as a Fulbright specialist was approved by the Fulbright Foundation under the aegis of ‘Fulbright Specialist Program 2012-13’.

Department of Environmental Studies

Head : Professor B. K. Tiwari
Telephone : 2721158 (o)
Email : bktiwarinehu@gmail.com

Thrust Areas

Biodiversity Conservation, Environmental Monitoring, Forest Management, Environmental Impact Assessment, Environmental Biology.

Brief Statement of Academic Activities

The department organized several international and national workshops/seminars/training programmes and undertook a number of research projects aimed at creating much-needed

database for promoting ecologically sound and sustainable development of the hill regions of Northeast India. The department also contributed towards configuring the deeper crustal structure for understanding the crustal evolutionary processes, global positioning system studies and seismicity of Northeast India. It received grants from a number of national and international agencies for its research and other activities.

Faculty Profile

- Professors : B. K. Tiwari, M. Sc. (Gorakhpur), Ph.D. (NEHU): Human Environment and Natural Resource Management.
 L. K. Jha, M. Sc. (Bhagalpur), Ph.D. (LNMU), Dip. Forestry (FRI, Dehru Dun): Forestry and Rural Development.
 O. P. Singh, M. Sc., Ph.D. (BHU): Remediation of Environmental Degradation and Pollution.
- Associate Professors : D. Walia, M. Tech. (Applied Geology) (Sagar), Ph.D. (Gauhati): Geophysical Studies in NER and RS & GIS.
 D. Paul, M.Sc., Ph. D. (NEHU): Ecology, Entomology, IPM.
- Assistant Professor : S. S. Chaturvedi, M. Sc. (Gorakhpur), Ph.D. (BHU): Environmental Monitoring and Abatement.

Student Intake

Enrolment capacity: M.Sc.: 25, Ph.D.: Variable

Actual Admission:	SC	ST	Gen	Male	Female	Meghalaya/	Outside Meghalaya
M.A./M.Sc.	-	22	3	15	10	22	3
Ph.D.	-	3	1	2	2	3	1

Degrees Awarded

Ph.D.

1. Mr Sanabam Sujen Singh, "Geophysical studies in the North eastern Indian region using the magnetotelluric techniques". Supervisor: Dr Devesh Walia.
2. Ms Donnycia Tariang "Assessment of the water quality of Umkhras River: Physico-chemical and Biological Investigation". Supervisor: Prof. B. K. Tiwari.
3. Ms Van Jennifer Joan Wallang "Geoenvironment and Metabolism of Shillong City Ecosystem". Supervisor: Prof. B. K. Tiwari.
4. Ms Phalguni Kayenpaibam "Ecological and socioeconomic analysis of traditional and modern forest management practices

of Tangkhul Naga community".
 Supervisor: Prof. B. K. Tiwari.

Courses Conducted

Environment, Ecology and Ecosystem Dynamics, Plantation Forestry for Environmental Conservation, Environmental Pollution, Environmental Microbiology, Biotechnology and Toxicology, Environmental Impact Assessment and Environmental Policies, Remote Sensing and Geographical Information System, Environmental Law, Environmental Geoscience and Energy, Research Methods, Techniques and Statistical Analysis, Disaster Management, Environmental Issues and Problems of North East India, Environmental Economics and Sociology, Forest Management and Biodiversity.

Study Tours/Field Trips of Students

Dr. S. S. Chaturvedi guided the final year M.Sc. students for Study Tour from December 27 to January 8, 2012. The students visited several academic institutions and places of biological and environmental interest such as Annamalai University, Chennai, Crocodile Bank and Reptile Park, Chennai, Pondicherry University, Pudduchery, Alipore Zoo, Kolkata and National Botanical Garden, Kolkata. Dr Devesh Walia and Dr. S. S. Chaturvedi accompanied the M. Sc. 2nd Semester students for educational tour to learn the Pollution Control Measures, equipments and mining process at Mawlmuh Cherra Cement Limited (MCCL), Cherrapunjee, Meghalaya, on 11th June 2011. Professor B. K. Tiwari accompanied M.Sc. 4th Semester students to Mawphlang, Meghalaya for fieldwork relating to Community Forest Management, Joint Forest Management and Sacred Groves on 3rd June 2011.

Conferences / Seminars /Symposium/ Extension Programmes

Organized

Prof. B. K. Tiwari organized: International Research Capacity Building Workshop entitled “Enhancing Sustainability of Marginal Upland Agroecosystems in Montane Mainland of South-East Asia and the Indian Himalayas” in Shillong on 23-29, 2012, in collaboration with Jawaharlal Nehru University, New Delhi and United Nations University, Tokyo.

Dr D. Walia organised: 1. Training programme on “Magnetotelluric Techniques - Theory and Applications” from 8th to 12th August 2011 in the Department of Environmental Studies; 2. Training programme on “Earthquake Risk mitigation and management” from 26th to 30th March 2012 in the Department of Environmental Studies.

Attended

Prof. B.K. Tiwari attended: 1. A three-day workshop on Sustainable Agriculture: Traditional Indigenous Knowledge Systems and Food Security on 3-5 May 2011 in Patna organised by UNESCO New Delhi and presented a paper entitled “Technological Innovations in Shifting Cultivation Practices by the Khasi, Karbi and Garo tribes of Meghalaya, North-East India”; 2. 99th Indian Science Congress 3-7 January 2012, Bhubaneswar, and delivered the presidential address entitled “Institutional Arrangements for preservation and management of community forests of North-East India” in the capacity of the President of Environmental Science section of the Congress; 3. National Workshop on India’s Second National Communication to UNFCCC, New Delhi, 20th September, 2011 as an invited participant and presented a talk on “people’s perception on climate change in NE India”; 4. Workshop on “Review of Carbon Enhancement Toolkit for Agriculture and NRM projects” held at Indian Institute of Science, Bangalore on 22 December 2011 and presented a paper entitled “A commentary on the Tool Kit and its applicability in North East India”; 5. National Conference on “Environmental Concerns & Sustainable Development: Challenges and Issues for India” held on 2-4 March 2012 at Banaras Hindu University, Varanasi and presented a research paper entitled “Tree diversity and population structure in traditionally managed sub-tropical wet evergreen forests of Meghalaya, North East India”; 6. 2nd International Conference ‘Sus Con 2011 People Planet Prosperity on 9-11 November 2011 at IIM, Shillong and delivered an invited talk on ‘Community forests of North-East India’; 7. International Seminar on Natural Resources and livelihoods among tribes in hilly areas and

presented a paper entitled "Role of NTFPs in Rural Economy" held on March 22nd – 24th, 2012, NEHU, Shillong.

Prof. L. K. Jha: 1. Delivered the keynote address on 4th February entitled "Biodiversity loss and socio-cultural uncertainties in North Eastern Himalayas" at Focus Asia 2011 (World Congress of Asian Studies) 2-6 February, 2011, Kolkata; 2. Presented a paper entitled "Forest Rights of Indigenous people of North eastern India Vs Biodiversity Act, 2002" at Focus Asia 2011 (World Congress of Asian Studies) on 5th February, 2011, Kolkata.

Prof. O. P. Singh delivered: 1. An invited lecture on 'Forest-Nature at your service' at the seminar organized to observe World Environment Day-2011 by North Eastern Electric Power Corporation Ltd. (NEEPCO), Shillong on June 6, 2011; 2. An invited lecture on 'Diversity of macroinvertebrates and their role in monitoring of water quality' at the National Seminar on "Status of Biodiversity in India: Conservation and Social Relevance with reference to Northeast India" organized by Don Bosco College, Tura on Aug. 8-9, 2011; 3. An invited lecture on 'Current Environmental Issues' at the Mass Awareness Programme organized by St. Mary's College in collaboration with Central Pollution Control Board (Regional Office, Shillong) on September 29, 2011; 4. An invited lecture as Resource Person on 'Coal Mining and its Environmental Impact: a case study of Meghalaya' at the Seminar on "Coal Mining and its Impact on Environment in the Jaintia Hills District" jointly organized by Kiang Nangbah Government College and Meghalaya College Teachers' Association held on November 29, 2011 at Jowai; 5. An invited lecture on Management of Pollution for Sustainable Development' at the Seminar on "Issues in Sustainable Development of Meghalaya"

organized by William Carey University on March 5-7, 2012.

Dr. D. Walia: 1. Attended and presented a paper entitled "Crustal geometry and growth of Surma basin" at the International Conference on 'Indian Monsoon and Himalayan Geodynamics' (IMHG 2011) at Wadia Institute of Himalaya Geology, Dehradun, 2-5 November 2011; 2. Attended and presented papers with D. Maibam, Y. Sharma, A. Saxena, E. Deingdoh, A. K. Rapmai, "Measurement of Potential Alpha Energy Concentration in some Schools in Shillong City" at the 17th National Symposium on SSNTDs and their applications, Vadodara, 17-19 October, (2011); 3. with D. Maibam, Y. Sharma, A. Saxena, Trune Pao and Andrew C. Lyngdoh, "Radon Levels in Potable Ground Water of Shillong Agglomeration" at the 17th National Symposium on SSNTDs and their applications, Vadodara, 17-19 October, (2011); 4. with D. Maibam, Y. Sharma, A. Saxena and Trune Pao, "Potential Radiation Hazards due to Radon Concentration in Groundwater of Shillong Agglomerate" at the 99th Indian Science Congress, Bhubaneswar, 3-7 January, (2012); 5. With A. Saxena, D. Maibam, Y. Sharma and W. Khonglah, "Measurement of Radon activity concentration and Radium content in soil samples of Nongrah, Shillong" at the 99th Indian Science Congress, Bhubaneswar, 3-7 January, (2012); 6. with D. Maibam, Y. Sharma, A. Saxena, E. Diengdoh and A. K. Rapmai, "Potential Alpha Energy Concentration in some Schools of Shillong City" at the 99th Indian Science Congress, Bhubaneswar, 3-7 January, (2012).

Publications

Published in India

Chatterjee, S., Ghosh S., Sarma, J., Barik, S. K., Tiwari, B. K. and Das, K. C. 2011. Community conserved areas in North-East India some

observations in Assam, Meghalaya and Arunachal Pradesh. *Indian Forester* 137: 48-61.

Imotemsu and Jha, L.K. (2011) Provisions in the States enactments on Forest Rights of Indigenous people of Northeastern India Vis-à-vis Forest Conservation Act, 1980 and Biological Diversity Act, 2002, *NeBIO*, Vol.II (4), pp.37-45.

Lalthanzara, H., Ramanujan, S. N. and Jha, L.K. (2011) Population dynamics of earthworms in relation to soil physio-chemical parameters in agroforestry systems of Mizoram, India, *Journal of Environ. Biology*, Vol(32), pp .597-605.

Lyngdoh, A C, Taid, M., Walia, D. and Ahmed, S. (2011). Earthquake frequency, Magnitude and energy relation scenario in Northeastern Region of India; Seismic Hazard and Mitigation of North East India (Editors: Deka, D. K. and P.K. Deka); p 61-65, EWMI 2011.

Marak, J.P., Rymbai, P.N. and Jha, L.K. (2011). Management of water resources in the Ri-Bhoi District of Meghalaya with special reference to ownership of source of water, Zahid Husain and L. Cajee (Eds.), Proceeding International seminar on Water Crisis in the Indian Subcontinent, Book well, Delhi, India, pp.241-256.

Paul D and Dey, S 2011. Nutrient Content Of Sexual and Worker forms of the subterranean termite *Reticulitermes* sp. *Indian Journal of Traditional Knowledge*, 10 (3) : 505-507.

Paul, D and Dey, S. 2011. Assessment of the nutritive value of some wild edible insects of Meghalaya, North East India. *J. ent. Res.*, 35 (4) : 353-358

Paul, P., Lalnunsangi, and Jha, L. K. (2011) Self sustaining Insect pest management in small scale multiple cropping & agro forestry

systems: A potential model of eco-friendly agriculture, Tiwari, D.(ed.), Proceeding International Seminar on Advances in Environmental Chemistry, Excel India Publishers, Delhi, pp114-119.

Rymbai, P.N. and Jha, L.K. (2011) Impact of geomorphology and Land use system on water resource management:a case study of Umbaniun micro-watershed of Meghalaya , Zahid Husain and L. Cajee (Ed.,), Proceeding International seminar on Water Crisis in the Indian Subcontinent. Book well, Delhi, India), pp. 221-240.

Sarma K., Jha. L. K and Tiwari, B. K. 2011. Spatio-temporal changes in land uses and land cover due to human interference in Meghalaya, India: A case study of Wah Shella microwatershed. *Journal of Geography and Regional Planning* 4: 338-343.

Sarmah, K., Jha L. K. and Tiwari, B. K. 2012. Morphometric analysis of a highland microwatershed in East Khasi Hills District of Meghalaya, India: Using remote sensing and geographic information system (GIS) techniques. *Journal of Geography and Regional Planning* 5: 142-150.

Sarmah, K., Jha, L.K. and Tiwari, B.K. (2011) Water Resource Assessment and Preparation of Management Plan using GIS and Remote Sensing: A Case Study of Wah Shella Micro-Watershed of Meghalaya, Zahid Husain and L. Cajee (Eds.), Proceeding International seminar on Water Crisis in the Indian Subcontinent, Book well, Delhi, India, pp. 257-272.

Tiwari, B. K. 2011. Institutional arrangements for preservation and management of community forests of north-east India. *Proceedings of the 99th Session of Indian Science Congress, Section Environmental Science*, Tynsong, H. and Tiwari B. K. And Dkhar, M. 2011. Bird

hunting techniques practiced by of War Khasi Community of Meghalaya, North-east India. *Indian Journal of Traditional Knowledge* 11:334-341.

Tynsong, H. and Tiwari, B. K. 2011. Contribution of *Phrynium capitatum* Wild Leaf a Non-Timber Forest Product to the livelihoods of rural poor of south Meghalaya, north-east India. *Natural Forest Product Resources* 2: 229-235.

Tynsong, H., Dkhar, M. and Tiwari B. K. 2012. Traditional knowledge based management and utilisation of bioresources by war khasi tribe of Meghalaya, North-east India. *Indian J. Innovations Dev.*, 1: 162-174.

Walia, Devesh (2011). Seismic Event Forecasting: Recent Developments; Seismic Hazard and Mitigation of North East India (Editors: Deka, D. K. and P.K. Deka); p 9-20, EWMI 2011.

Published Abroad

Giri, Nandu and O. P. Singh (2010) Study on water quality in relation to land use changes in Bhutan. *J. Coll. of Education Samtse, RUB* 5: 40-47.

Giri, Nandu and O. P. Singh (2011) Study on water quality in relation to land use changes in Samtse district, Bhutan. *Academic J. of Education* V: 70-78.

Kumar N., M. Graham, S. K. Jha and S. S. Chaturvedi (2011). An investigation of the biogeochemistry of the uranium radionuclide in the munitions testing contaminated soil of Kirkcudbright, New Galloway, SW Scotland, *J. Radioanal Nucl. Chem*, 290:203-208.

Kumar N., S. K. Jha and S. S. Chaturvedi (2011). Baseline assessment of dose and risk due to natural radionuclides in edible biota of Domiasiat, Meghalaya, India, *J. Radioanal Nucl Chem.*, 290:525-533.

Kumar N., S. S. Chaturvedi and S. K. Jha (2011). Assessment of dose and risk due to natural radionuclides in edible biota of Domiasiat, Meghalaya, *Radiation Protection Dosimetry*, pp: 1-9.

Kumar N., S. S. Chaturvedi and S. K. Jha (2011). Assessment of the dose due to natural radionuclide in the green leafy vegetables of Domiasiat, Meghalaya, India, *J Radioanal Nucl Chem*, 290: 95-101.

Paul, D A. Nongmaithem, L. K. Jha (2011) Collembolan Density and Diversity in a Forest and an Agroecosystem *Open Journal of Soil Science* 1, 54-60.

Tynsong, H. and Tiwari B. K. (2012). Contribution of NTFPs to cash income of War Khasi Community of Southern Meghalaya, North-East India. *Forest Studies in China*, 14: 1-8.

Funds Received

1. Status, biodiversity value and strategies for conservation of sacred groves of East and West Khasi Hills of Meghalaya. GBPIHED, Almora 2009-2012.; Rs 2.16 lakhs; PI: Prof B K Tiwari.
2. Geophysical Studies in Southern part of Shillong Plateau using Micro-earthquake techniques; NEC, Shillong; Rs. 35.00 lakhs; PI: Devesh Walia.
3. Metagenomics of insect gut microflora implicated in cellulose digestion. NEC, Shillong; 10.0 Lakhs; PI: D. Paul.
4. Training programme on "Magnetotelluric Techniques - Theory and Applications" from 8th to 12th August 2011 in the Department of Environmental Studies; Rs 4.80 Lakhs, MoES, New Delhi.

Research Projects

Ongoing

1. Study of Forest, Soil and Water Resources and Their Utilization and Management in Tribal Societies of NE India. Principal Investigator: Prof. O. P. Singh Co-Principal Investigators: Dr. D. Walia and Dr. S. S. Chaturvedi. Under UGC-Area Studies of University with Potential for Excellence Programme to NEHU, Shillong.
2. Radon Monitoring in Groundwater of the Northeastern India Region to Study the Neotectonic Activities and Health Hazard. Co-Principal Investigator: Dr Devesh Walia. Sponsored by DAE, BRNS- BARC, Mumbai.
3. Hydrogeological Studies of the Proposed Uranium Mining Tailings Dam Site at Domiasiat. Principal Investigator: Dr Devesh Walia. Sponsored by DAE, BRNS- BARC, Mumbai.
4. Baseline Data of Domiasiat Ecosystem due to Natural Radiation Dose. Principal Investigator: Dr. S. S. Chaturvedi. Sponsored by DAE, BRNS- BARC, Mumbai.
5. Remediation of soil affected by coal mining in Jaintia Hills, Meghalaya. Principal Investigator: Prof. O. P. Singh. Sponsored by University Grants Commission, New Delhi.
6. Status, biodiversity value and strategies for conservation of sacred groves of East and West Khasi Hills of Meghalaya. GBPIHED, Almora 2009-2012.; Principal Investigator: Prof B K Tiwari.

Completed

1. Quantification and characterization of Solid waste and sewage for the Shillong urban agglomeration (SUA) area; Mott McDonald; 8.99 lakhs; PI: D. Paul.
2. GDP of the Poor; University of Liverpool, UK. Principal Investigator: Prof B. K. Tiwari.

New

1. Geophysical Studies in Southern part of Shillong Plateau using Micro-earthquake techniques; NEC, Shillong; Rs. 123,70.00 lakhs.
2. Strategies for Conservation of Biodiversity in Tato Hydro Power Project Area, Arunachal Pradesh, Reliance Power Ltd, New Delhi; Rs 4.00 lakhs.
3. Impact of fire and grazing on structure and function of grassland ecosystem of Cherrapunjee, Ministry of Environment and Forests, New Delhi; Rs 8.93 lakhs.
4. Wildlife and Biodiversity Conservation in and around Tato project, Arunachal Pradesh, sponsored by Reliance Power, Noida. Principal Investigator: Prof B K Tiwari; Co investigators: Dr D. Paul and Dr. S. S. Chaturvedi. Rs 5.00 lakhs.

Academic/ Professional Collaboration

Prof. B. K. Tiwari had collaboration with (i) Prof. Dr. Wolfgang-Albert Flügel in INNO-Asia-Brahma Twin project of Friedrich-Schiller University, Jena (FSU-Jena), Löbdergraben 32; D-07743 Jena; Germany. (ii) Indian Institute of Science, Bangalore on Climate Change Adaptation in North East Region of India.

Dr Devesh Walia had academic collaboration with EOS-NTU, Singapore; IIG, Navi Mumbai;

BARC- BRNS, Mumbai, Department of Physics, NEHU.

Honours/ Awards/ Recognition

Prof B. K. Tiwari was elected President, Environmental Science Section: 99th Session of Indian Science Congress Association-2012, Bhubaneswar and member of the Council of Indian Science Congress Association for the year 2011-2012.

Prof L K Jha was elected Fellow of the Linnean Society of London (20th January, 2011. The Linnean Society of London, founded in 1768, is a forum of Natural History.)

Other Academic Activities

Professor B. K. Tiwari delivered a talk entitled 'Forests of Meghalaya: Typology, management and services provided to the people' on 4th June 2011, on the occasion of the celebration of the World Environment Day at Shillong College, Shillong.

Prof. L. K. Jha chaired "Technical Session 1: Environment and Ecological matters", on 4th February, 2012: Focus Asia 2011 (World Congress of Asian Studies) 2-6 February, 2011, Kolkata.

Prof. O. P. Singh delivered three lectures as Resource Person in the Refresher Course in Environmental Science organized by Academic Staff College, Burdwan University and Department of Environmental Science, Burdwan University on (i) Climate change and its impact on Biodiversity, (ii) Initiatives to combat climate change, and (iii) Options for Sustainable Development on November 1-2, 2011 at Burdwan. He was invited as subject expert by the University Grants Commission, New Delhi to evaluate the progress of ongoing research projects sanctioned by UGC and to shortlist new

project proposals submitted to UGC for funding. The meeting of the Mid-term Evaluation was organized on November 24, 2011 at UGC, New Delhi.

Dr Devesh Walia attended the 6th Central Geological Planning Board (Group VIII- Geology and Mineral Resources of NER) meeting; Served as external expert during the Tern Review (FS 2010 - 2012) meeting on 5-6 March 2012 of Geological Survey of India activities; Co-chaired the Symposium Session of Earth System Sciences at the 99th ISC at KIIT on 6 January 2012; Attended the Group Monitoring Committee meeting, Seismology Division, Ministry of Earth Sciences, GOI, New Delhi, held on 5-6 November, 2011 at University of Srinagar, Srinagar; Was a member of the Shillong City Disaster Management Plan (Working group II) and attended meetings (21 Sept 2011) to prepare the Disaster Management Plan. He presented invited talks on "Understanding Environmental Changes" and "Identifying seismic and climate change risk areas in the northeast India and mitigation measures" at the Climate Change and Environmental Degradation Risk and Adaptation Assessment (CEDRA) workshop organised by NEICORD on 15-16 March 2012.

Dr D Paul chaired a session (*in silico* drug design) at the National Workshop on "Recent advances in *in silico* Drug Design and X-ray Crystallography". Dept. of Biotechnology and Bioinformatics, NEHU Shillong July 25-30, 2011.

Dr S. S. Chaturvedi attended the training programme on "Earthquake Risk Mitigation and Management" from 26th to 30th March 2012 in the Department of Environmental Studies, NEHU, sponsored by NIDM, New Delhi, and MATI, Shillong.

Department of Geography

Head : A.C. Mohapatra (till forenoon of 16th December 2011) and
Zahid Husain Qureshi (since afternoon of 16th December 2011)
Telephone : 272-3202, 272-3209, (o)
Email : husainzahid1@rediffmail.com; zhqureshi@nehu.ac.in

Thrust Areas

(i) Geomorphology with focus on Regional and Applied Geomorphology, (ii) Environmental studies with focus on Climatology and Climate Change, Water Resources and Hydrology, Biogeography and Biodiversity and Watershed Management Studies, (iii) Regional Development and Regional Planning, (iv) Researches on Social and Cultural Diversity of the North-Eastern Region of India with a special focus on Tribal Development, and (v) GIS and Remote Sensing applications in Environment and Land Use Planning.

Brief Statement of Academic Activities

As many as three candidates from the department qualified in the UGC NET Lectureship. The department organized a series

of lectures delivered by eminent geographers namely, Prof. H. Ramachandran from Delhi University, Prof. B. S. Butola from Jawaharlal Nehru University, Prof B. K. Misra from Ravenshaw University, Cuttack and Prof S. Subbiah from University of Madras, Chennai. The department organized an International Seminar and Cultural Expo on 'Natural Resources and Rural Livelihoods among Tribes in Hilly Areas' during the year under review. A Refresher Course for the College and University teachers was also organized by the department under the aegis of the ASC, NEHU. Most of the faculty members attended and presented research papers in national and international Conferences/ Seminars. As many as four research scholars were awarded Ph. D. degree.

Faculty Profile

Professors : A. C. Mohapatra, M.A., M. Phil. (JNU) Ph. D. (NEHU) (Regional Development and Planning, Philosophy and Methodology in Geography, Environmental Issues)
Surendra Singh, M.A., Ph. D. (Meerut) (Agricultural Geography, Area Planning and Quantitative Techniques)
B.S.Mipun, M.A. (JNU), Ph.D. (NEHU) (Agricultural Geography, RS and GIS)
D. K. Nayak, M.A. M. Phil, Ph. D. (JNU) (Social and Population Geography, Gender and Health related)
Z. H. Qureshi, M.A. Ph. D (M. L. Sukhadia University) (Geomorphology, Environment, Ecology and RS)

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- Associate Professors : H. J. Syiemlieh, M.A., M. Phil. (NEHU) Ph. D. (NEHU) (Fluvial and Applied Geomorphology).
 L. Cajee, M. Sc., Ph. D. (NEHU) (Biogeography, Geography of Tourism and Quantitative Techniques)
 N. K. Sinha, M.A. (Gauhati) Ph.D. (NEHU) (Economic Geography and Watershed Management)
 P. G. Momin, M.A. (JNU), M. Phil (NEHU) (Climate and Ecology)
- Assistant Professors : P. K. Ryngnga, M.A. (NEHU), M. Phil, Ph.D. (JNU) (Urban and Regional Development, RS and GIS)
 S. Purkayastha, M.A, Ph.D. (NEHU) (Population Geography)

Student Intake

Enrolment Capacity: MA/M.Sc – 38

Actual Admission

	SC	ST	Gen	Male	Female	Total
<i>MA/MSc</i>	02	34	3	17	22	39
<i>Ph.D.</i>	1	1	-	-	2	2
M. Phil	-	9	1	6	4	10

Degrees Awarded:

	SC	ST	Gen	Male	Female	Total
<i>M.A. /M. Sc.</i>	-	27	1	15	13	28
<i>Ph. D.:</i>	-	2	2	4	-	4

Ph.D

1. Pranjit K. Sarma: Habitat Suitability for Rhino and Utilization Pattern in Rajiv Gandhi Orang National Park of Assam. Supervisor- Professor B.S. Mipun.
2. K.C. Lalmalsawmzauva: Reproductive Health in Mizoram with special reference to Champhai District. Supervisor- Professor D.K. Nayak.
3. B.C. Nath: Assessment of Irrigation Requirement and Potential for Crop Diversification in Lower Kameng Basin. Supervisor- Professor Z.H. Qureshi.

4. C. Ramhnehzauva: Distribution and Types of Water Sources in Aizawl City. Supervisor- Professor Z.H Qureshi.

Courses Conducted

M.A./M.Sc.

Semester I: Geomorphology, Climatology, Economic Geography, Geographical Thought-I, Quantitative Techniques in Geography-I, Cartography-I (Practical).

Semester II: Geography of India, Principles of Ecology (open course) Bio-Geography (open course), Population and Settlement Geography, Geographical Thought-II, Quantitative

Techniques in Geography-II, Cartography-II (Practical), Geography of North-East India (open course).

Semester III: Regional Development and Planning, Social and Cultural Geography (open course), Environment and Development (open course), Research Methodology, Computer Aided Cartography (Practical), Remote Sensing and GIS (Practical).

Semester IV: Dissertation, Advanced Geomorphology, Environmental Geomorphology, Tropical Geomorphology, Applied Climatology, Integrated Area Planning, Agricultural Geography, Social Geography, Cultural Geography, Population and Development.

M.Phil. / Ph. D.

Research Methodology in Geography, Advanced Tools and Techniques in Geographical Researches, Contemporary Geomorphic Issues in North-East India, Geohydrological Processes of Extreme Humid Tropics; Population, Development and Environment, Remote Sensing and GIS Techniques for Agricultural Geography, Contemporary Issues in Urban Development with Special Reference to India, Geographical Perspectives in Cultural Tourism.

Study Tours/Field Trips of Students

Socio-Economic and Physical surveys at Umden, Ri Bhoi District, Meghalaya were conducted by the M.A./M.Sc. Second Semester students for 15 days from Jan. 18 to Feb 1, 2012 under Dr. L. Cajee and an All India Study Tour was conducted at Chandigarh and Shimla Region on 6-20 February, 2012, under Professor Z. H. Qureshi.

Seminars/Conferences/Symposia/Extension Programme

Organised

1. Two-day workshop on “Research Writing”, Department of Geography, NEHU, Shillong under SAP-DRS-II Programme, March 26-27, 2012 (Organised by Professor A.C. Mohapatra).
2. International Seminar and Cultural Expo on ‘Natural Resources and Rural Livelihoods among Tribes in Hilly Areas’ on 22nd - 24th March, 2012 (Convener: L. Cajee and Organising Secretary: H. J. Syiemlieh) (Supported by GIZ-NER, ICSSR-NERC, SAP-DRS, NEHU).
3. Refresher Course in Geography on Modern Themes in Geography, ASC NEHU, 31st October-20th November, 2011 (Coordinator: Prof. D.K. Nayak).
4. The 2nd Indian Landslide Congress, organised at I.I.F., Guwahati, 15th - 16th September, 2011 (Organising Secretary: Prof. Z.H. Qureshi).

Attended

Prof. A.C. Mohapatra (i) delivered as a resource person a lecture on “An Eruption that Changed the World: The Thera Eruption” at the national seminar on “Climate Change and its Impact on North East”, Department of Geography, Rajiv Gandhi University, Doimukh, November 10-12, 2011; (ii) presented a keynote paper on “Capitalism, the Nation State and the Tribes: The Livelihood Perspective” at the International Conference on “Natural Resources and Rural Livelihood of Tribes in Hill Areas”, Department of Geography, NEHU, Shillong, March 22-24, 2012.

Prof. Surendra Singh (i) presented a key note paper on Water Resource and Runoff Process

in Extremely Humid Area of the World at the National Seminar on Resource, Environment and Development: Issues and Strategies for Sustainable Development, Hemvati Nandan Bahuguna Garhwal University, Srinagar (Uttarakhand), 2-3 November 2011; (ii) Key note on Techniques for Inferences of Phenomenal Facts from Quantitative Observations in Geographical Researches at the National Seminar on Recent Advances in the Development of Geographical Knowledge and its Interdisciplinary Association with Sciences, Banaras Hindu University, Varanasi, 3-4 November 2011; (iii) keynote on Regional Dimensions of Indian Agriculture at the International Conference on Dimensions of Development and Resource Conservation organized by Department of Geography, University of Calcutta, Kolkata, 10-11 March 2012.

Prof. B.S. Mipun (i) delivered keynote address on "Globalisation: Rational for Restructuring of Curriculum" at the Seminar on Historical Studies in the Context of Globalization: Rational for Restructuring the Curriculum, at Khagarijan College, Nagaon, 30-31, July, 2011; (ii) presented keynote address on Monitoring and Mapping of Environmental degradation using RS and GIS at the National Seminar on Environmental Management and Degradation in North East India, Sibsagar Girls College, Sibsagar, Assam on 14-15 Oct, 2011 (iii) presented a paper on "Conflict and Forced Migration in Manipur, India" and chaired the Geography Session at the 10th Annual Hawaii International Conference of Arts and Humanities in Honolulu, Hawaii, 10-13 Jan. 2011.

Prof. D.K. Nayak (i) presented a paper on "Demographic implications of Climate Change" and chaired a session at the National Seminar

on Climate Change, Development and Social Transition in North East: Impact and Issues, Department of Geography, Rajiv Gandhi University, Doimukh on 10-12 November, 2011 (ii) presented a paper entitled Urbanization and the Sustainable Use of Space and chaired a session at the UGC Seminar on Land use vis-à-vis Environmental Impact in India with Special Reference to Himalayan Foothills, Prasannadeb Women's College, Jalpaiguri, West Bengal, 26-27 Nov. 2011; (iii) Presented a paper on "Are We Heading for Eco-Terrorism?" at the UGC Seminar on "Tourism, eco-tourism and Eco-terrorism: What is the Ultimate Goal-A Discussion in the Context of India" Vivekanand Mahavidyalaya, Haripal, Hugli, 10th January, 2012; (iv) Delivered Presidential Address at the International Seminar on Population Development and Disaster Management, Tripura University, Agartala, 8-11 Feb. 2012 and chaired Technical Session on Social and Ethnic Geography: Harmony and Conflicts; (v) presented a paper on "Impact of Globalisation on India's Society and Culture at the UGC National Seminar on Globalization and its Impact on India's Economy, Society and Culture, Suri College, Siuri, West Bengal on 26-27 March, 2012.

Prof. Z.H. Qureshi presented (with Bhogtoram Mawroh) a paper entitled 'Scarcity of Domestic water in Cherrapunjee- Evidences from the Lean Session' at the National Seminar on 'Natural Resource Management and Environmental Issues', Department of Geography, Govt. Lohia P.G. College, Churu (Rajasthan), on 24th and 25th September, 2011.

Dr. H.J. Syiemlieh presented a paper entitled 'Fine Bedload Distribution of Initial Streams in Extremely High Rainfall Region: A Case Study of Um-U-Lah Watershed, Cherrapunjee' at the

National Conference & Annual Convention of the Institute of Indian Geomorphologists on Coastal Dynamics & Geomorphology, Department of Geology, Anna University, Chennai during 19th-22nd October 2011.

Dr. P.K. Ryngnga presented papers on (i) Women and Career: Barriers to Equality in Academic Ladder at the National Workshop on Women in Scientific Research: Examining the Challenges and identifying their needs, Department of Anthropology, NEHU, Shillong on 21st-22nd October 2011; (ii) Forest Resources and Population of North East India at the National Seminar on Conservation and Management of Natural Resources, Department of Geography, Gauhati University, Guwahati on 28th-29th March 2012.

Dr Subrata Purkayastha (i) Presented a paper titled 'Urban growth and solid waste management- A case study of Shillong, Meghalaya and also a paper (with Gagan Gautam) entitled 'State Green Mission-A Unique and Innovative Environmental Programme' at the International Congress of Environmental Research, Sardar Vallabhbhai National Institute of Technology, Surat (Gujarat) on 15-17th December 2011; (ii) presented (with R. K. Purkayastha) a paper on "Tourism potential of Sacred Groves in Meghalaya," at the national seminar on Status of Biodiversity in India: Conservation and Social relevance with reference to NE India, Don Bosco College Tura, Meghalaya on 8-9th August 2011.

Publications

Published outside India

Nongkynrih, Jenita M., and Husain, Zahid, 2011. Morphometric analysis of the Manas river basin using earth observation data and geographical information System. *International Journal of Geomatics and Geosciences*, 2 (2): 647-654.

Singh S. and Syiemlieh H. J., 2011. Prediction of Runoff in the Um-U-Lah Catchment of Extremely Humid Area of Cherrapunjee, India, *Geographia Polonica*, PAS, Warsawa: 84(2): 127-139.

Published in India

Debnath, A.C. and Husain, Zahid, 2011. Water resource harnessing of Kameng river and its utility in agriculture, in Zahid Husain and L. Cajee (eds.), *Water Crisis in the Indian Subcontinent*. Bookwell, New Delhi. pp. 201-2219.

Guite, L.T. S., 2011. Strategies of Forest Conservation in Karbi Anglong. *Journal of North East India Council for Social Science Research*, XXXV (2): 74-80.

Husain, Zahid and Cajee, L. (eds.), 2011. *Water Crisis in the Indian Subcontinent*. Bookwell, New Delhi. 503+xlv pp.

Lalmalsawmzauva K.C., Nayak D.K. and Vanlalvena, R. 2011. Interface between Developments and Female Age at Marriage in Mizoram, *Transactions of the Institute of Indian Geographers*, 33 (1):139-149.

Lalmalsawmzauva, K.C. and Nayak, D.K., 2010. Use of Antenatal Care Services in Mizoram. *Demography India*, 39 (2):173-186.

Mawroh, Bhogtoram and Husain, Zahid, 2011. Scarcity of water for domestic consumption in Cherrapunjee, in Zahid Husain and L. Cajee (eds.), *Water Crisis in the Indian Subcontinent*. Bookwell, New Delhi, pp. 647-486.

Mipun, B.S. and Vanlalvena, R., 2012. Agriculture in Mizoram with Special Reference to Jhum Cultivation in Lunglei District, Mizoram, in Sujit Deka (ed.), *Population Development and Conflicts in Northeast India*, EBH Publishers (India) Guwahati, pp. 259-270.

- Mohapatra, A. C., 2012. Size Distribution of Urban Centres in North East Region of India. Book Chapter (2), N. Deva Singh (ed.), *Urbanization in Changing Environment with Reference to Manipur*, Regency, New Delhi, pp. 16-37.
- Nath, B. C. and Husain, Zahid, 2011. Productive use of moisture in the flood affected areas of Lower Kameng Basin through appropriate crop and water management practices, in Zahid Husain and L. Cajee (eds.), *Water Crisis in the Indian Subcontinent*. Bookwell, New Delhi, pp. 99-116.
- Nayak, D.K., 2012. Demographic Change and Ageing in North-East India, in D.V. Kumar (ed.) *Social Change and Development*, Rawat, Jaipur, pp. 286-304.
- Nayak, D.K., 2012. Trends of Pattern in Ageing in Tribal Areas of the Northeast India, in Sujit Deka (ed.) *Population Development and Conflicts in North East India*, EBH Publishers, Guwahati, pp. 75-90.
- Purkayastha S. 2011. Water Issues in Urban India- A case study of Shillong, Meghalaya. In Z. Hussain and L. Cajee (eds.): *Water Crises in the Indian Subcontinent*, Bookwell, New Delhi, pp. 417- 430.
- Purkayastha, S., 2012. Ecotourism as a Strategy for conservation of Biodiversity – A case study of Mawphlang Sacred Grove (Meghalaya), *Journal of Northeast Researches*, III (3): 26-37.
- Ramhnehzauva, C. and Husain, Zahid, 2011. Water crisis in Aizawl city, in Zahid Husain and L. Cajee (eds.), *Water Crisis in the Indian Subcontinent*. Bookwell, New Delhi, pp. 487-500.
- Ryngnga, P. K., 2011. Water Scarcity and Indigenous System of Water harvesting in Meghalaya, in Zahid Husain and L. Cajee (eds.), *Water Crisis in the Indian Subcontinent*, Bookwell, New Delhi, pp. 453-465.
- Ryngnga, P.K., 2012. Illegal Immigration to North East India: A Challenge to India's Security and Political Stability, in Das J. K. (ed.): *Agenda for Assam and North East*, Vol I, EBH Publishers, Guwahati, pp. 125-153.
- Sarma, P.K., Mipun, B.S., Talukdar B. N., Kumar R. and Basumatry A. K., 2011. Evaluation of Habitat Suitability for Rhino (*Rhinoceros unicornis*) in Orang National Park Using Geo-Spatial Tools International Scholarly Research Network, *ISRN Ecology* Volume, Article ID 498258, 9 pages doi:10.5402/2011/498258.
- Singh L. Basant and Mohapatra, A. C, 2011. A Study in Geographic Spread of AIDS in Manipur. *Hill Geographer*, XXVI (1&2): 65-75.
- Singh, S., 2011: Modelling and Simulation Techniques in Geographical Researches, in P.R. Sharma, R.S. Yadav and V.N. Sharma (eds.), *Research Methodology- Concepts and Studies*, R.K Books, New Delhi, pp. 377-393.
- Singh, S., 2011: Regional Dimensions of Agricultural Development and Poverty, in Amitabh Shukla (ed.), *Paradigms of Regional Development and Planning*, Deep and Deep Publications Pvt. Ltd., New Delhi, pp 3-14.
- Singh, S., Hayashi, T., Syiemlieh, H.J., Cajee L. and Terao, T., 2011. Weather Variability and Rainfall Pattern of 'Sidr' Post - Monsoon Cyclonic Storm of 15th November 2007 in the Meghalaya Plateau, India, *Current Science*, 100 (10): 1522-1531.
- Talukdar M. and Singh S., 2011. Land Use Changes in Tinsukia District, Assam, *Annals, National Association of Geographers of India*, 31(1): 81-92.

Fund Received

UGC (SAP) DRS II Programme:
Rs. 3.50 Lakhs

School of Human and Environmental Sciences

International Seminar:

Rs. 0.75 Lakhs

Projects:

Rs. 4.50 Lakhs

Research Projects

Completed

- i) UGC-SAP DRS II Programme, Coordinator Prof. A.C. Mohapatra; Joint Coordinator Prof. B.S. Mipun.
- ii) UPE II Area Studies Project: 'Valuation of Community Natural Resources and Livelihood Systems of Selected Communities of North East India', UGC, New Delhi; Prof. A.C. Mohapatra-PI; Prof. B.S. Mipun-Co-PI; Prof. D.K. Nayak-Co-PI; Dr. L. Cajee Co-PI; Dr. P.K. Ryngha-Co-PI.
- iii) Student Migration in Shillong, Meghalaya, under UGC-SAP DRS II, PI; Dr. S. Purkayastha.
- iv) Land Use/Land Cover Changes and Density of Population Influences on Urban Heat Island of Shillong- A Methodological Consideration, under UGC- SAP DRS II, P.I.: Dr. P. K. Ryngha.

Ongoing

1. Baseline Survey for Provision of Infrastructure (Sewage and Solid Waste Management) for Greater Shillong Planning Area. Mot Macdonald, Ahmedabad. PI: Prof. B.S. Mipun, Co-PI: Prof. D. K. Nayak.
2. Studies on Health Status and Demographic Pattern of Population around Domaisiat Area, West Khasi Hills, Meghalaya, BRNS-DAE, Mumbai, Co-PI: Prof. B.S. Mipun.

3. Identification Strategy for Mapping of S&T Needs in Meghalaya, Dept, of Science and Technology, Govt. of Meghalaya, Shillong, Co-PI: Dr. H.J. Syiemlieh.
4. Fluvial Geomorphology of the Manas and Pagladia River Basins, North Eastern Space Application Centre (NESAC), Barapani, Meghalaya, Co-PI: Prof. Z.H. Qureshi.
5. Climate Change in South Asia under Indo-Japan Collaboration with Disaster Prevention Research Institute, Kyoto University (Japan), Team Members: Dr. H.J. Syiemlieh and Dr. L. Cajee.

Academic Collaboration

Indo-Japan Collaboration with Disaster Prevention Research Institute, Kyoto University (Japan), Team Members: Prof. S. Singh, Dr. H.J. Syiemlieh, and Dr. L. Cajee.

Other Academic Activities

Professor A.C. Mohapatra was Elected President of the Indian Institute of Geography (Pune) for 2012-13 (ii) was PI of Valuation of Community Natural Resources and Livelihood Systems in NE India, sponsored under UPE-II Area Studies, UGC, New Delhi; (iii) Coordinator of SAP-DRS II, Department of Geography, NEHU, Shillong.

Prof. S. Singh was nominated member of the Meghalaya State Watershed and Waste Land Development Agency, Government of Meghalaya, Shillong.

Prof. D.K. Nayak (i) was Coordinator, Refresher Course in Geography on Modern Themes in Geography, ASC NEHU, 31st October-20th Nov. 2011, (ii) delivered a series of lectures on settlement geography, Historical Geography and

Geographical Thought, at Department of Geography and Disaster Management, Tripura University, 9-19 April 2011 as Visiting Professor; (iii) delivered a talk on “Disaster in School Curriculum” at the Training of Principals and vice-Principals of Schools on School Disaster Management Plan-concept and Preparation, MATI, Shillong, 26th May 2011 and also in various institutions like St. Mary’s College, 18th June, 2011 and ICSSR (NERC) 15th Nov. 2011; (iv) Nominated Expert of Advisory Committee of Dr. Ambedkar Studies Centre under the scheme of Epoch Making Social Thinkers of India, Kasi Viswanath University, Varanasi; (v) Member, Advisory Board, *Geo-Analyst-A Research Journal of Social Sciences*, Geographical Society of North Bengal; (vi) delivered lectures in Refresher Course at Department of Geography, Calcutta University, Kolkata, 15-16 September, 2011; (vii) delivered an invited Lecture on Are we Losing Regions as Focus of our Study? Some Reflections on Regional Perspective at Geography Department, Burdwan University, Burdwan, West Bengal, 28th March, 2012.

Prof. Z.H. Qureshi conducted field work in the Manas River basin from 5th to 10th May 2011 under the joint project ‘Fluvial Geomorphology of Manas and Pagaldia River Basins’, along with the team of NESAC, Umiam.

Dr. H. J. Syiemlieh (i) was co-investigator in the project on Identification Strategy for mapping of S & T Needs in Meghalaya, sponsored by the Government of Meghalaya and a team member of the Indo-Japan collaboration with Japanese scientists from Disaster Prevention Research Institute, Kyoto University on Climate Change in South Asia; (ii) was involved in evaluation of Centrally sponsored Watershed projects implemented by Soil & Water Conservation, Govt. of Meghalaya, in Jaintia Hills & West Khasi Hills and (iii) Member of Meghalaya Water Foundation, Government of Meghalaya, Shillong.

Dr. L. Cajee was a team member of the Indo-Japan collaboration with Japanese scientists from Disaster Prevention Research Institute, Kyoto University on Climate Change in South Asia.

Department of Rural Development and Agricultural Production

Head : Professor S. C. Srivastava
Telephone : 03651-221407 (o)
Email : subhash58nehu@yahoo.co.in

Thrust Areas

The thrust areas of the department are impact assessment, micro and decentralized planning, local governance, globalization and food security, and marketing of rural products.

School of Human and Environmental Sciences

Faculty Profile

Designation	Name of Faculty	Qualification	Specialization
Professor	Dr. S C Srivastava	Ph. D. in Economics (Allahabad University)	Regional Planning, Micro Planning, Developmental studies,
Reader	Dr. D. C. Kalita	Ph. D. in Agricultural Economics (Assam Agriculture University)	Project Planning and Management, Micro-credit and Micro Finance, Research Methodology
Assistant Professors	Sri J. P. Jaiswal	M. Sc. In Agricultural Engineering (Allahabad University)	Soil and Water Conservation
	Dr. B K Mishra	Ph.D. in Animal Husbandry and Dairying (Banaras Hindu University)	Dairy Technology
	Dr. Binu Mathew	Ph.D. in Horticulture (Bidhan Chandra Krishi Vishwavidyalaya)	Fruits and Orchard Management
	Dr. Lolly S. Pereira	Ph. D.in Horticulture, Bidhan Chandra Krishi Vishwavidyalaya	Fruits and Orchard Management

Student Intake

Course	Intake Capacity	Actual Admission	SC	ST	GEN	Male	Female	Total
M. Sc.	25	25		22	3	15	10	25
Ph.D	Variable	3	-	3	-	2	1	3

Degree Awarded

Course	SC	ST	GEN	Male	Female	Total
M. Sc.		18	2	5	15	20
Ph.D.		1	-	-	1	1

Courses Conducted

M. Sc

Semester-I: General Aspects of Rural Development; Introductory Agriculture and Agronomy; Fundamentals of Horticulture; Introduction to Animal Husbandry and Poultry; Soil Conservation and Watershed Management; Insect Pests of Field and Horticultural Crops and their Management. Semester-II: Rural Development Approaches, Programmes and

Policies; Package of Practices for Field Crops; Plant Propagation and Nursery Management; Dairy and Livestock Development; Diseases of Field and Horticultural Crops and their Management; Organic Farming. Semester-III: Basic Statistics and Computer Application; Rural Development Organizations, Institutions and Administration; Production Technology of Fruits and Plantation Crops; Principles and Practices of Dairy Farm Management; Rural Development Planning and Project

Management; Commercial Floriculture and Landscaping; Swine, Goat and Sheep Production; Dairy Farming and Rural Development. Semester-IV: Rural Marketing and Entrepreneurship Development; Research Methods; Agricultural Surveying and Leveling; Rural Credit and Micro-Finance; Production Technology of Vegetables and Spices; Processing of Livestock Products; IEC and Rural Development; Post-Harvest Management of Horticultural Crops; Rabbit, Fishery and Poultry Production; Micro-Enterprise and Non-Farm Sector Development ; Minor Horticultural Crops; Indigenous Dairy Products and Soya Milk.

Study Tours/field trips of students

Dr. B.K. Mishra took 3rd semester students for a study tour to Kolkata and Visva-Bharati (Santiniketan) from 23rd March to 29th March, 2012.

Seminars/conferences/symposia/workshops/extension programmes etc

Attended

Dr. B.K. Mishra attended the National Seminar on Status of Biodiversity in India: Conservation and Social Relevance with Special Reference to Northeast India and presented a paper on Sustainable Livestock Production System Module for Meghalaya, organized by Department of Botany and Zoology, Don Bosco College, Tura, Meghalaya, on 8-9 August, 2011. He also attended the National Seminar on Food Security and Sustainability of Agriculture and presented a paper on Sustainable Livelihood and Food Security through Livestock, organized by U.P. Rajarshi Tandon Open University, Allahabad, 9-10 Feb, 2012 and attended the 14th Indian Agricultural Scientists and Farmers Congress on Diversification in Agriculture and

Agripreneurship, organized by Bioved Research Institute of Agriculture and Technology, Allahabad and presented a paper on Dairy Animal Production and Climate Change- A Global Perspectives, on 18-19 Feb, 2012.

Publications

Published in India

Ajanta Deb Kar and Binu Mathew (2011) Biodiversity of Meghalaya – Status and Threats. *Proc. National Seminar on Status of Biodiversity in India*, August 8-9, 2011, pp. 99-105.

B K Mishra (2012): *Livestock Production and Rural Development in India*, Biotech Books, New Delhi.

Choubey, CS and BK Mishra (2012): “Dairy and Livestock Development in Meghalaya”, in *Livestock Production and Rural Development in India*, Biotech Books, New Delhi, pp 35-46.

Kalita, D.C. (2012): “Economic Evaluation of Settled and Shifting Cultivation along with their Farming Systems in the Hill Zone of Assam”, in *Livestock Production and Rural Development in India* Biotech Books, New Delhi, pp.279-293.

Kalita, DC and B K Mishra (2012); *Sustainability and Economic Development in Hill Agriculture*, Biotech Books, New Delhi.

Mathew, B., Pereira, L.S. and C.P. Suresh (2010) Pineapple Production in Meghalaya (India) - Indigenous Cultural Practices and Status. *Acta Horticulturae Proc. 7th International Pineapple Symposium at Johor Bahru, Malaysia*, July 13-15, 2010, pp. 275-280.

Mishra, B K (2012); “Poultry Farming as a means of Livelihood for Small Farmers in Garo Hills”, in *Livestock Production and Rural Development*

in India, Biotech Books, New Delhi, pp 247-255.

Mishra, BK and CS Choubey (2011): A Review on Status and Culture of Women in Meghalaya, *Bioved –an International Bi-annual Journal of Life Sciences*, Bioved, 22(1,2): pp 1–7.

Mishra, BK and RK Pandey (2011): Application of Microwave Process in the Manufacture of Ghee, *Indian Journal of Dairy Science*, 64 No.1, pp16-20.

Panwar, P, Bhutia, K.D., C.P. Suresh and B. Mathew (2011) Performance of Elephant-foot yam grown as intercrop in mango orchard in terai zone of West Bengal. *Transient*, Vol. 1, pp. 148-54.

Paul, Biswajit and BK Mishra (2012): Livestock and Environmental Pollution” in *Livestock Production and Rural Development in India*, Biotech Books, New Delhi, pp 229-245.

Saha, L.R. and Mathew B. (2011) Stem Bleeding Disease- a threat to coconut plantations of Garo Hills. *Transient*, Vol. I, No. 1, pp.42-45.

Sunil Kumar and BK Mishra (2011): Existing Feeding and Housing Management Practices followed by Dairy Producers of Uttarakhand, *Indian Journal of Animal Production and Management*, Vol. 27(3-4) pp159-162.

Sunil Kumar and BK Mishra, (2011): Existing Calf Rearing and Milking Management Practices followed by Dairy Farmers in Uttarakhand,

Journal of Hill Agriculture, Vol. 2(1): 79-84.

Research Projects

Ongoing

i) Village Knowledge Connectivity (Action Research), Coordinator Professor S C Srivastava, sponsored by DRDA, West Garo Hills.

ii) Comprehensive District Agricultural Planning for Garo Hills (Consultancy); Chief Investigator, Professor S C Srivastava, Sponsored by National Institute of Rural development, Hyderabad.

New

Socio-economic Survey of REDD+ Project Area in Garo Hills (consultancy); Chief Investigator Professor S C Srivastava, Rs. 3.00 lakhs, Sponsored by Wild Life Trust of India.

Academic/ Professional Collaboration

The department collaborated with NIRD, Hyderabad, Wildlife Trust of India, New Delhi and ICAR Research Complex for NE Region, Barapani.

Honours/Awards/Recognition

Dr. B K Mishra got the Founder Fellow Award of Indian Society of Hill Agriculture and Bioved Fellowship Award for his “Outstanding Contribution in the field of Animal Science” awarded by Bioved Research Society.

Chapter IV

SCHOOL OF HUMANITIES

Dean : Professor Juanita War
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The School of Humanities has five departments in Shillong campus, viz., English, Philosophy, Khasi, Linguistics, and Hindi, and two departments in Tura campus, i.e., English and Garo. Except Garo, all departments ran MA, M.Phil and PhD programmes during 2011-12. Faculty members of the School were actively involved in teaching, guiding research, and other academic activities.

Faculty members of Linguistics, English and Khasi had collaborative research projects with the Centre for Development of Advanced Computing (C-DAC), Pune, Bhasha Research and Publication Centre, Baroda. Nearly all the departments conducted seminars/workshops/refresher courses as reflected in their respective reports. Publications especially from the literature departments were satisfactory.

Department of English

Head : Dr. Moon Moon Mazumdar
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Thrust Areas

Contemporary Literatures, Literature from the North-East, World Literature in Translation, Gender and Cultural Studies, Theatre and Performance.

The department, in collaboration with Khasi, Linguistics and Bhasha Research Centre, Baroda, organized a Language Workshop on 1-2 December 2011.

Brief Statement of Academic Activities

The department organized a Refresher Course from 22nd March to 11th April 2012 at the Academic Staff College, NEHU. The Theme of the Course was Contemporary Literature: Interdisciplinary Approaches and Influences.

School of Humanities

Faculty Profile

- Professors : Prof. Esther Syiem: MA (Delhi), MPhil and PhD (NEHU)
Specialisation: American Literature, Modern Fiction, Folk Literature
- Associate Professors : Dr. Moon Moon Mazumdar MA (NEHU), PhD (NEHU), DDE (IGNOU),
Specialisation: Modern British Fiction, Womens' Writing, Translation Studies
- Dr. Mala Renganathan: MA (Madurai), MPhil (Pondicherry), PhD (Madurai), Specialisation: American / Indian Drama, Indian Fiction
- Dr. S. Bhattacharjee: MA, MPhil and PhD (NEHU),
Specialization: Critical Theory, Gender Studies
- Dr. Utpala G. Sewa: MA, MPhil and PhD (NEHU)
Specialisation: British Poetry
- Dr. Kynpham Sing Nongkynrih: MA and PhD (NEHU),
Specialisation: World Poetry in Translation
- Ms. N. Ganguly: MA (NEHU) Specialisation: Modern British Fiction
- Mrs. N. Syiem: MA (NEHU), MPhil (Delhi) Specialisation: British Drama
16th-17th Century
- Assistant Professors : Mr. Ng. Rabindra Singh: MA (NEHU) Specialisation: Indian Writing in English
- Mr. Lang Kupar K. War: MA (NEHU) Specialisation: Modern Fiction
- Ms. Suranjana Choudhury : MA (Assam University, Silchar), MPhil (Calcutta) Specialisation: Cultural Studies, Gender Studies

Student Intake

Enrolment capacity: MA (52), PhD: 11.

Actual Admission: SC: 1 ST: 46 GEN: 5 MALE: 6 FEMALE: 46 TOTAL: 52

PhD: 11 SC: Nil ST: 10 GEN: 1 MALE: 2 FEMALE: 9 TOTAL: 11

Degrees Awarded

MA: SC: 1 ST: 40 GEN: 1 MALE: 9 FEMALE: 33 TOTAL: 42

- MPhil
1. Amanda Khyriem, "From a Slave to a Man: A Critical Study of Frederick Douglass and his Autobiographies". Supervisor: Prof. T. Ao.
 2. Philakyntiew Nongkhlaw, "The Theme of the "Phenomenal Woman" in Maya Angelou's Poetry. Supervisor: Prof. E. Syiem.

3. Ruulhoukhono Nakhro, "Poetry of Protest: A Study of the Poems of Anna Akhmatova." Supervisor: Dr. U. Sewa.
4. Mutum Roshni Devi, "Women Characters in Chinua Achebe's Novels: A Critical Study." Supervisor: Dr. S. Bhattacharjee.
5. Lalnunsanga Ralte, "Asimov as a Social Critic: A Select Study of His Science Fiction". Supervisor: Dr. K.S. Nongkynrih.
6. Jayanta Kumar Swain, "The Use of Myth in Jayanta Mahapatra's Poetry: A Select Study". Supervisor: Dr. M.M. Mazumdar.
7. Daiarisa Rumnong, "Transgressing Boundaries" in Gabriel Garcia Marquez's One Hundred Years of Solitude, The Autumn of the Patriarch and Collected Stories." Supervisor: Prof. E. Syiem.
8. Malcolm M. Lyngdoh, "Contemporary Poetry from North-East India: A Select Study." Supervisor: Dr. U. Sewa.
9. Biswanath Liensang, "The Search for Identity and Freedom in the Poetry of Margaret Walker." Supervisor: Dr. U. Sewa.
10. Nosazono Lothu, "Existentialism and the Poetry of Wislawa Szymborska: A Select Study". Supervisor: Dr. K.S. Nongkynrih.

PhD

1. Lakhimai Mili, Arundhati Roy as a Writer-activist: A Study. Supervisor: Dr. S. Bhattacharjee.
2. S. Khaiminthang, The Tribal World of Chinua Achebe's Novels: A Post-Colonial Perspective. Supervisor: Dr. S. Bhattacharjee.

3. Jenniefer Dkhar, Re-Inventing History: A Study of Amitav Ghosh's Novels. Supervisor: Dr. M. Renganathan.
4. Baljuda War Nongbri, Re-examining the American Dream: A Study of Joyce Carol Oates's Later Fiction. Supervisor: Prof. E. Syiem.

Courses Conducted

M.A.

1st Semester: Poetry I, Fiction I, Drama I, Literary Theory & Criticism I, American Literature I.

2nd Semester: Poetry II, Fiction II, Drama II, Literary Theory & Criticism II, Commonwealth Literature (Option A), World Literature in Translation (Option B).

3rd Semester: Poetry III, Shakespeare I, Literary Theory & Criticism III, American Literature II, Indian Fiction in Translation (Option A), Women's Writing (Option B).

4th Semester: Fiction III, Drama III, Shakespeare II, Literary Theory & Criticism IV, Environment & Indian Writing in English.

M.Phil / Ph.D

Research Methodology, Research Writing and Presentation, (Option C) Contemporary World Poetry.

Seminars/Conferences/Workshops/Extension Programmes

Organised

Prof. E. Syiem coordinated the PLSI National Editorial Collective Workshop on North-East Languages, which was a collaboration between the departments of English, Khasi and Bhasha

Research Centre, Baroda, at NEHU, Shillong on 1st & 2nd Dec 2011.

Dr. M.M. Mazumdar organized, in collaboration with the Department of English, St. Mary's College, a workshop on "Staging a Scene from Macbeth on 14th May, 2011 at St. Mary's College.

Dr. U.G. Sewa

- i) Organised for college teachers a Training-cum- Refresher programme on Rhetoric, Prosody and Basic Linguistics on the 7th and 8th December 2011 at ICSSR-NERC, NEHU Campus.
- ii) Co-ordinated UGC sponsored Refresher Course in English from 22nd March 2011 to 11th April 2011 on Contemporary Literature: Interdisciplinary Approaches and Influences at ASC, NEHU.

Attended

Dr. M.M. Mazumdar presented a paper on "Transgressing Boundaries: Tagore's Eclecticism" at a National Seminar on "Tagore and the World" organized by Indian Council for Cultural Relations (ICCR) at Brookside, Shillong on 8 May, 2011. She also presented a paper titled "Marginalization, Ideology and Competing Structures of Authority in Bijoya Sawian's *Shadow Men*" at an International seminar on "Narrating Marginalisation: North East and Beyond" jointly organized by Department of English, Assam University, Diphu Campus, on 3-6 January, 2012 at Diphu.

Dr. M. Renganathan presented a paper on "Contemporary Indian Drama: Trends and Perspectives" at the UGC Sponsored National Seminar on "Indian Writing in English: A Reassessment," organized by Department of English, Maheshtala College, on 13 February 2012, at Jadavpur University, Kolkata and

another paper titled "Contemporary Indian Drama: Problems of Transition" at the UGC Sponsored National Seminar on "Indian Drama: Tradition and Transition" organized by Department of English and Assamese, HCDG College, at Nitaiphukuri, Sivasagar on 18 & 19 March 2012.

Dr. S. Bhattacharjee presented a paper titled (1) "Recasting Feminist Discourse: Body, Subjectivity and Writing" at the National Seminar on "Feminization of Culture" organized by ICSSR-NERC in collaboration with Rajiv Gandhi University, Itanagar on April 26-27, 2011 at ICSSR-NERC Shillong. (2) "Conflict, Development and Justice: A Gendered Perspective" at the National Seminar on Development, Conflict and Democratic Governance: India's Experience in the North-East on 9-10 June 2011 at ICSSR-NERC Complex NEHU Campus organised by Indian Council of Social Science Research, North Eastern Regional Centre, Shillong & Council for Social Development, New Delhi. (3) "Tagore's Ideas on Nationalism: A Contemporary Perspective" at the National Seminar on Rabindranath Tagore and Contemporary Indian Social Sciences on 15-17 September 2011 at ICSSR-NERC, NEHU Campus, Shillong. (4) "Tagore's Idea of Education and Patriotism" at the National Seminar on Tagore's Educational Philosophy and its Relevance in Contemporary India, organized by Women's College Shillong on 2nd-3rd December 2011. (5) "Seeing Sameness and Differences: The Problem of Representation in Social Theory" in the Academic Session on Beyond Standpoint at the 40th World Congress of the International Institute of Sociology on After Western Hegemony: Social Science and its Public at New Delhi on 16-19 February 2012 organized by the Centre for the Study of Developing Societies (CSDS), Delhi in

collaboration with the Swedish Collegium for Advanced Study (SCAS), Uppsala.

Dr. U.G. Sewa presented a paper titled (1) 'Symbolic Significance of Rituals: *Tihar* Festival of Nepalis' at the National Seminar on Semiotics, organised by the Department of Cultural and Creative studies, NEHU, Shillong, on 27-28th September 2011. (2) "Mother-friendly Environment in Academic Workplace" at the National Workshop on Women in Scientific Research - Examining the Challenges and Identifying Their Needs, organised by Dept. of Anthropology, NEHU, Shillong on 21st and 22nd October 2011. (3) "Between Two Worlds: A Re-Reading of *Bhramaputraka chheu chhau*" at the International Seminar on Nepali Diaspora organised by the Department of Anthropology, NEHU, on 28th-30th November 2011 at ICSSR Seminar Hall, NEHU Campus.

Mr. Ngangom R. Singh presented a paper titled 'Challenges of Multi-Lingual Culture' at Carleton University, Ottawa, Canada on 25 October 2011, and read self-composed poems at the University of British Columbia, Vancouver, Canada on 27 October 2011 as part of Year of India in Canada Writers Festival organised by the Sahitya Akademi, New Delhi and Shastri Indo-Canadian Institute.

Ms. S. Choudhury presented a paper titled "Questioning Female Agency in Bapsi Sidhwa's *Ice-Candy-Man*" at the UGC National Seminar on Transposing Culture, Translating Texts: An Overview of Indian English Literature(s) Organized by Sarsuna College, Kolkata in collaboration with Sahitya Akademi. on 2-3rd February, 2012 and a paper titled "Restructuring Lives, Rebuilding families: Women as Providers in Select Partition Narratives" at the International Conference on Recent Trends in Literature: A Global Perspective organised by

Garden City College, Bangalore, on 27-28 January, 2012.

Publications

Bhattacharjee, S "Gendered Narratives: An/Other History, An/Other Subjectivity" in *Journal of Women's Studies*, Vol III, Number 3, Jun 2011.

Bhattacharjee, S. "Global Transactions: Recasting the Kali" in Himadri Lahiri edited *Literary Transactions in A Globalized Context: Multi-ethnicity, Gender and Marketplace*, Kolkata, Worldview Press, 2011.

Bhattacharjee, S. "Narrative as an/Other History or His/Story Otherwise" in Subha Chakraborty Dasgupta et al edited *Literature and Oratures as Knowledge Systems: Texts From Northeast India*, New Delhi, Akansha Publishing House, 2011. pp 20-31.

Bhattacharjee, S. "Theorizing Tribal Literature": A Postcolonial Perspective", M.B. Jyrwa ed. *Postcolonial Writings in Tribal Languages of India*, Society for Khasi Studies, 2012.

Bhattacharjee, S. "Understanding the 'Tribal': Postcolonial identity and Creative Writing" in *Man and Society: A Journal of North-East Studies*, Vol VIII Summer 2011 pp 1-13.

Choudhury, Suranjana. Interrogating Development: The Case of Migrant Women as bread winners in Select Partition Narratives. *Human Development: Aspects and Dimensions* (Annual Journal of Woman's College, 2010-11, Vol.4.

Choudhury, Suranjana. "Contesting the Issue of Female Agency and Activism: a Study of Select Narratives on Communal Violence." Arnab Bhattacharya, (ed) *The Gendered India: Feminism and the Indian Gender Reality*. Kolkata: Books way, 2012.

Nongkynrih, Kynpham Sing. 2011. *Ka Pyrkhath Niam ki Khanatang*. Shillong: Pine Cones Publications.

Nongkynrih, Kynpham Sing. 2011. *Ki Miet Ka Jingriem*. Shillong: Pine Cones Publications.

Nongkynrih, Kynpham Sing. 2011. *The Yearning of Seeds*. New Delhi: Harper Collins India.

Nongkynrih, Kynpham Sing. Eating Betel Nut in the House of God (Story). *Pilgrim's India: An Anthology*. Ed. Arundhati Subramaniam. New Delhi: Penguin India, 2011, 171-178.

Nongkynrih, Kynpham Sing. Sundori (Poem). *The Little Magazine* (no. 8, spring 2011): 6.

Renganathan, Mala. Reflections of Terror in Contemporary Women's Writing in India - Bengal and North East. *Journal of North East Researches*, III (3) March 2012: 1-25.

Renganathan, Mala. Women's Theatre in America: A Historical Critical Study. *Literary Miscellany*. 1(1) Jan-July 2012: 15-26.

Sewa, U.G. Destination Meghalaya. IGNOU Module. *Hospitality Management Course for Indira Gandhi National Open University*, New Delhi: pp. 37- 62.

Sewa, U.G. Springtime in Shillong. *Protocol*, Vol IV (No 1,2, 2010).

Syiem, Esther: "Ki Jingsneng Tymmen and the Clan Elder" in *Literatures and Oratures as Knowledge Systems: Texts from Northeast India* ed: Subha C. Dasgupta, Goutam Biswas, S. Das New Delhi: Akansha Publishing House 2011.

Syiem, Esther: *The Oral Discourse in Khasi Folk Narrative*. Guwahati: Eastern Book House 2011.

Honours/Awards/Recognition

Dr. M. Renganathan was selected for Associateship of the UGC Inter-University

Centre for Humanities and Social Sciences (IUC), at Indian Institute of Advanced Study, Shimla from 2012 to 2014.

Other Academic Activities

Prof. E. Syiem (1) Participated in a consultative meeting of the People's Linguistic Survey of India (PLSI) organized by Bhasha Research & Publication Centre, Baroda as representative from North East India and Meghalaya on 8th and 9th August 2011. (2) Convened a workshop as member of the PLSI National Editorial Collective, Baroda, for all coordinators of the PLSI team from North East India and participants from Meghalaya, on behalf of the Depts. of English and Khasi, NEHU, Shillong, in collaboration with Bhasha Research Centre, Baroda on 1st & 2nd Dec 2011 held at the Conference hall of the New NEHU Guest House. (3) Participated in *Bhasha Vasudha: The Global Languages Meet* organised by Bhasha Research and Publication Centre, Baroda on 6th- 8th January 2012. Chaired a session on 7th January on "The Domains and Dominance of National Languages" at UML, Parag Park, Dasharath, Baroda. (4) Participated and read out poems in Symposium on Literature of North East India Today & Poet's Meet organised by Sahitya Akademi at Goa on 10th Nov 2011. Read out poems entitled "To the Rest of India from Another Indian", "*Kthang Kti* (Bitter Hands)" & "*Bordar Narrations -1*". (5) Participated in One Day Poetry Reading to mark 150th Birth Anniversary Celebration of Rabindranath Tagore on 22nd November 2011, at Theatre Hall, Dept. of Cultural and Creative Studies, NEHU. Read out poems entitled "To the Rest of India from Another Indian", "Who Rules the Roost?", "The Portentous Crowing" and "*Bordar Narrations -1*". (6) Delivered two lectures on "Women Writing in North East India" in the Short Term Course in Women's Writing (English) organized by the UGC

Academic Staff College, Gauhati University, Guwahati on 29th Nov 2011. (7) Participated in the “Open Platform: A Conglomeration of Creative Minds” org. by North East Writers’ and Artists’ Conclave (A Mobile Forum Travelling through North East India) Shillong Chapter held at State Central Library Shillong on Jan 20th 2012. Read out poems entitled “*Bordar Narrations –1*” and “To the Rest of India from Another Indian”. (8) Delivered invited lecture at EFLU, Shillong Campus on “Orality in the Literature of the North East” on 27th April 2012.

Dr. M. M. Mazumdar (1) Delivered Rev. Fr. Noel Joseph Kenny Memorial invited lecture at St. Anthony’s College, Shillong on 14th November, 2011. (2) Delivered 12 lectures on Communicative English at Regional Training Institute, Shillong for DRAAOS (Civil and Commercial) for SAS Group I & II from 3-10 May, 2011.

Dr. M. Renganathan (1) Participated in the “Fulbright Alumnae Experiential Workshop” organized by the American Consulate and USIEF in collaboration with NEHU and ICSSR, Shillong, held in NEHU, Shillong on 23-24 September 2011. (2) Chaired an academic session “Contemporary Indian Drama” at the UGC Sponsored National Seminar on “Indian Writing in English: A Reassessment,” organized by Department of English, Maheshtala College, on 13 February 2012, at Jadavpur University, Kolkata (3) Chaired an academic session at the UGC Sponsored National Seminar on “Indian Drama: Tradition and Transition” organized by Department of English and Assamese, HCDG College, at Nitaiphukuri, Sivasagar on 18 & 19 March 2012. (4) Served as Course Content Editor of the Course II (North East Performance Genres) for the Certificate and Diploma Course Programmes in Folk Theatre and Performance

of North East India to be introduced by IGNOU Institute of Vocational Education & Training (IIVET), Shillong. (5) Was a member, Editorial Board, *Literary Miscellany* (International Journal). Bahri Publications. New Delhi.

Dr. S. Bhattacharjee (1) Copyedited *Man and Society: A Journal of North-East Studies*, Vol. VIII Summer 2011 and Winter 2011 issues. (2) Acted as Resource Person at the National Workshop on the 2nd ICSSR Post Doctoral Initiation Programme on 17th-18th March 2011. (3) Delivered Keynote Address at the seminar on The Complex Matrix of Literature, Society and History: The Socially Evolving Writings of Bernard Shaw and Charles Dickens, organized by the Department of English, Union Christian College Barapani on the 2nd of September 2011 under Internal Quality Assurance Cell (IQAC). (4) Delivered 10 Invited lectures at EFLU Shillong between 1st August and 21st August 2011 on Literary Theory: Praxis and Pedagogy. Also delivered a Plenary Lecture entitled “Problems of Teaching English in India” at the U.G.C Sponsored National Seminar on “Knowledge and Skill Development in Teaching English to Rural Undergraduate Students” organized by the Department of English of Lokanayak Omeo Kumar Das College, Dhekiajuli on 4th Nov. 2011. (5) Chaired an Academic Session of the U.G.C Sponsored National Seminar on “Knowledge and Skill Development in Teaching English to Rural Undergraduate Students” organized by the Department of English of Lokanayak Omeo Kumar Das College Dhekiajuli on the 4th Nov. 2011. (6) Delivered Plenary Lecture on “Redefining Marginal Literature: a Postcolonial Perspective” at the UGC Sponsored National Seminar on Indian Writing in English and Marginality, organized

School of Humanities

by Goalpara College on the 3rd and 4th of February 2012. (7) Chaired an Academic Session at UGC Sponsored National Seminar on Indian Writing in English and Marginality, organized by Goalpara College on 3rd and 4th of February 2012.

Ms. N.Ganguly delivered the first Rev. Fr. Noel Joseph Kenny Memorial Lecture on Joseph

Conrad on the 14th of November, 2011 at St. Anthony's College, Shillong.

Ms. S. Choudhury attended a Short Term Course on Research Methodology organized by Academic Staff College, NEHU, Shillong on 8-13 August, 2011.

Department of English (Tura)

Head : Professor Sujata Gurudev
Telephone : 03651-223628
Email : s_gurudev@rediffmail.com

Thrust Areas

Cultural Studies and Translation, Dalit and Ethnic Literature, Indian and Postcolonial Literature, Popular Culture, Film Studies.

Brief Statement of Academic Activities

A Research Journal called *Protocol* was published by the department. Scholars and

professionals from the areas of mass media, graphic design, anthropology, and film studies were invited to the department to present their talks and interact with the students. Regular film and audiovisual shows were held to give supplementary exposure to the students. Further, the department produced plays and dramas to promote social-cultural awareness

Faculty Profile

Professor : Prof. Sujata Gurudev, M.A./M.Phil./Ph.D.(NEHU).
Associate Professor : Dr. Jyotirmoy Prodhani, M.A. (Pune U) Ph.D. (NEHU)
Assistant Professors : Mr. Raj Shekhar Thakur, M.A. (Patna University)
Dr. Angela R. W. Ingtly, M.A. (Gauhati Univ.), M.Phil (Madras Christian College), PGDTE (CIEFL, Shillong), Ph.D. (NEHU)
Dr. Ramona M. Sangma, M. A. (NEHU), Ph.D. (NEHU)
Dr. Jova C. Marak M.A, Ph. D. (NEHU)

Student Intake

Enrolment capacity:	33					
Actual Admission	SC	ST	Gen.	OBC	Male	Female
(a) MA		27	3	-	9	21
(b) M.Phil:	2	4	1	-	2	5

1. Ms. Barbara S. Sangma, A'chik (Garo) Theatre: A case for Indian Folk Theatre. Supervisor: Dr. J. Prodhani.
2. Ms. Lucy Marak, Myths and Archetypes in Garo Folk Narrative: A Select Study. Supervisor: Dr. J. Prodhani.
3. Mrs. Preetinich Barman, The 'Initiated Loss' of Art, Culture and Identity in the Writing of Orhan Pamuk: A Study. Supervisor: Prof. S. Gurudev.
4. Mr. Gopal Ch. Barman, Emerging Dalit Identity & Indian Literature: A Solicit Study of Five Autotrophies. Supervisor: Dr. J. Prodhani.
5. Ms. L.K. Gracy, Exploration of the Self in Golding's Major Fiction. Supervisor: Prof. S. Gurudev.
6. Mr. Alex Mathew, Revisiting Partition Literature: A Selective Study of Khushwant Sing, Chaman Nahal and Bisham Sahni. Supervisor: Dr. J. Prodhani.
7. Ms. Twinkle Suhasini R. Marak, The Rooted Past and Fragmented Present: A study of Chinua Achebe's African Trilogy. Supervisor: Prof. S. Gurudev.
3. S. Alva B. Sangma, Rites of Passage in the Garo Oral Literature. Supervisor: Prof. Sujata Gurudev.

Study Tours/Field Trips of Students

Tour of III Semester Students to Kolkata and Puri in February 2012.

Seminars/Conferences/Symposia/Workshop/Extension Programmes etc.

Attended

Prof. Sujata Gurudev presented a paper on 'Thoughts of a Non Achik Woman' at the National Conference on *Status of A.chik Women* organized by Govt. of Meghalaya and Dept. of Arts and Culture on 10 & 11 Sept., 2011.

Dr. J. Prodhani presented a paper on 'The Status of Koch Rajbanshis Today' at the International Conference of Koch Rajbanshi Sahitya Sabha District Committee, Kokrajhar, BTAD, Assam, Kokrajhar, 24 and 25 September, 2011.

Dr. Angela W. Ingty presented a paper on "Loan Words in the Garo Language" at the 31st Session of the North East India History Association (NEIHA) hosted by the Don Bosco College, Tura from the 14th to 16th February 2011.

Dr. Ramona M. Sangma presented a paper titled "Forms of resistance in Garo Literature" at the RSF-AKF and ICSSR National Seminar on Contemporary Ways and Voices of Resistance/Resilience, English and Foreign Languages University, Hyderabad on 29th -30th June 2012.

Publications

Prof. Sujata Gurudev

1. "To E.N. Lall" in *Protocol: JTCCW*, Vol. IV No. 1 & 2, Winter & Spring, 2010, published in 2011.

Ph.D

1. Naomi Bhuyan, *Axe for the Frozen Sea: Existenzangst in the plays of Eugene Ionesco*. Supervisor: Prof. Sujata Gurudev.
2. Ramona M. Sangma, *A study of Cross Cultural Conflict in V. S. Naipaul's Travel Writings on India: An Area of Darkness, India: A Wounded Civilization and India: A Million Mutinies Now*. Supervisor: Prof. Sujata Gurudev.

School of Humanities

Dr. J. Prodhani

Sl. No.	Name of the Papers	Name of the Journals with ISSN/ISBN No	Year of Publication with Page No.
1	Resonance of Identity in Rajbanshi Poetry	<i>The NEHU Journal</i>	Vol. X No. 1 January, 2012, pp 41-55
2	Colonizing Imagination: Hollywood and the Decentered Artists in Sam Shepard's <i>True West</i>	<i>Journal of Humanities and Social Sciences</i>	Vol 1. No. 1, 2011 pp 7-15.
3	The Dispossessed (poem)	<i>Muse India</i> the literary e-journal	Issue 40, Nov- Dec, 2011
4	The Opera (English Translation of Sheelabhadra's Assamese short story)	<i>Asia Writes</i> http://www.asiawrites.org/2011/01/	Saturday, January 22, 2011
5	The Circle (English Translation of Sheelabhadra's Assamese short story)	<i>Asia Writes</i> http://www.asiawrites.org/2011/04/	Tuesday, April 19, 2011
6	Arrogating the Postmodern: Off Broadway and Sam Shepard	<i>Protocol: Journal of Translation, Creative and Critical Writings</i>	Vol. IV, No. 1 & 2, Spring & Winter, 2010 Pp 55-66 (published in 2011)
7	<i>Creativity and Conflict in the Plays of Sam Shepard</i>	Authors Press, New Delhi, 2012	

Ms. Ramona Sangma

“The Sun and the Moon”, *Kimpret* Vol. II, No. 1. 2010 Translation of Garo Folklore to English.

Dr. Jova ch. Marak

From Literary Naturalism to Hopeful Humanism.
Eastern Book House, Guwahati, 2010.

Violence against Women in A'chik Society.
Literary Endeavour: A Quarterly International Journal of English Language, Literature and Criticism, Vol. I, No-4, January 2011, pp. 128-131.

Department of Garo (Tura)

Teacher-in-charge : Dr. Dokatchi Ch. Marak
Telephone : 03651-220016 (o)
Email : garodepartment@gmail.com

Thrust Areas

The thrust areas of the department are preservation and promotion of the rich tradition of Garo language through translation and documentation in areas of folklore, linguistics and literature.

Brief Statement of Academic Activities

The department commenced the Ph.D. programme from February 2012.

Faculty Profile

Assistant Professors : Dr. Dokatchi Ch. Marak, M.A. (Garo, NEHU), M.A. (Linguistics, NEHU), Ph. D. (NEHU). Specialization: Linguistics
 Dr. Fameline K. Marak, M.A. (Sociology, NEHU), Ph. D. (NEHU). Specialization: Folkloristics
 Dr. Jacqueline R. Marak, M.Ed. (Utkal), Ph. D. (NEHU). Specialization: Fictional Studies

Student Intake

Enrolment capacity: M.A.: 33
 Ph.D.: Variable

Actual Admission:	ST	Male	Female	Total
M.A	33	12	21	33
Ph. D.	7	3	4	7

Degrees Awarded

M.A.	ST (Male)	ST (Female)	Total
	5	1	6
Ph.D.	-	1	1

Courses Conducted

M.A.

1st Semester (Core): History of Garo Language and Literature, Poetry-I-Sacrificial Rites & Invocations, Drama-I, Linguistics-I: Basic Concepts, Definition

and Scope of Linguistics, Garo Morphology & Semantics, Environmental Studies.

2nd Semester (Core): Fiction-I, Literature in Translation, Prose-I, Linguistics-II- Phonetics & Phonology.

2nd Semester (Open): Linguistics-III – Tibeto-Burman Languages of the North-East (Classification and Bodo group of Languages).

3rd Semester (Core): Literary Theory & Criticism, Epic as a Literary Genre, Drama-II.

3rd Semester (Open): Linguistics IV- Language & Society, Folklore-I Definition, scope & different forms of folklore & field techniques.

4th Semester (Core): Poetry-II: Poetry from 1881 to 1994, Folklore-II-Garo Folktales, Folksongs, Proverbs & Sayings, Tragedy as a Literary Genre, Indian Literature in English, Modern Poetry.

Study Tour/ Field Trips of Students

Dr. Dokatchi Ch. Marak took 3rd Semester students for a study tour to Hyderabad and Puri, Orissa from 1st to 15th February 2012. Dr. Fameline K. Marak, along with Retd. Prof. Pravin Chandra Das, Visiting Professor of Gauhati University, took the IV Semester P.G and Ph. D. Students for a field trip to Selbalgre village, West Garo Hills on 23rd March 2012. II Semester P.G and Ph. D. Students went to Balpakram, South Garo Garo Hills for a field study from 9th -11th April 2012 with Mrs Dorothy R. Marak as teacher in-charge.

Seminars/Workshops/Conferences/Extension Programmes etc.

Attended

Dr. Fameline K. Marak presented a paper titled “*Ahaia*: The symbolic Gateway through the

Wangala Festival” at the National Seminar on “Semiotics and Folklore” - 27th -28th Sept’ 2011.

Prof. C.R. Marak presented a paper titled “Motifs In A’chik Folk Literature” at the National Seminar on “Motifs in Folk Literature of the North East”, 5-7 September 2011, organised by North-East Centre for Oral Literature at Agartala.

Publications

Caroline R. Marak, *A’chik Poetry: Traditional and Modern*, Sahitya Akademi, Kolkata/ New Delhi, 2012.

Other Academic Activities

Dr. Fameline K Marak worked on a project with IGNC A-ANWESHA as Co-ordinator for Developing Books for Children in the Languages of the North-East. Translation of stories from six different languages of the North-East, i.e. Assamese, Bodo, Garo, Khasi, Manipuri and Mizo was done under her initiative. The complete translated version in English and Garo will be published by IGNC A-ANWESHA.

Dr Dokatchi Ch. Marak, as one of the contributors, work on a project called Peoples Linguistic Survey of India (PLSI), in collaboration with Bhasa Research and Publication Centre, Baroda, Gujarat. The Research Project is on language varieties spoken in and around the Garo Hills.

Department of Hindi

Head : Dr. M.P. Pandey
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Email : hodhin@nehu.ac.in

Thrust Areas

Modern Hindi Literature and Comparative Study

Brief Statement of Academic Activities

The department organized a Refresher Course on the topic 'Swatantryottar Hindi Kavita' in which 22 teachers participated from all over India. Among them many were from NE region. During the year, many scholars of national stature like

Prof. Gopeshwar Singh, Prof. A.N. Tripathi, and Shri Naresh Saxena visited the department and interacted with the students. The department also conducted a study tour in which the students of 1st and 3rd semester visited several universities and places related to the growth and development of Hindi language and literature.

Faculty Profile

Associate Professors : Dr. D.K. Choubey, M.A., Ph.D, Manipur University. Specialization – Medieval Literature, Comparative Study.

Dr. M.P. Pandey, M.A., Ph.D, Kashi Vidyapeeth, Varanasi. Specialization – Criticism, Poetics.

Assistant Professors : Dr. B.P. Tripathi, M.A., M.Phil, & Ph.D, J.N.U. New Delhi, Specialization – Modern Poetry.

Student Intake

MA

Enrolment capacity: M.A.55, M. Phil. 10, Ph.D. Variable

Actual Admission: MA 34, MPhil 5, PhD 6

Degrees Awarded

	SC	ST	Gen	Male	Female	Total
(a) MA:	-	8	8	1	15	16
(b) M. Phil	-	-	2	1	1	2
(c) Ph.D	-	1	-	-	1	1

M. Phil

1. Akhil C. Kalita, 'Samkalin Kavi Naresh Saxena ki Kavya Samvedana'. Supervisor: Dr. M.P.Pandey.

ki Samvedna'. Supervisor: Dr. M. P. Pandey.

Ph.D

2. Uma Devi, 'Samkalin Dalit Kahanikaron

Filmeca Marbaniang, 'Hindi Tatha Khasi Lokkathaon ka Tulnatmak Adhyayan'.

Supervisor: Dr. D. K. Choubey.

Courses Conducted

M.A.

1st Semester: Hindi Bhasha evam Uska Vikash, Bhartiya Kavyashastra-I, adhunik Kavya (Chhayavad tak) evam Paryavaran Parak Kavya, Hindi Gadya Sahitya-I (Natak evam Nibandh), Aadikalin Hindi Sahitya ka Itihas.

2nd Semester: Bhaktikalin Kavya, Bhartya Kavyashastra-II, Hindi Gadya Sahitya-II (Upanyas evam Kahani), Aadikalin Kavya, Prayojanmoolak Hindi.

3rd Semester: Hindi Sahitya ka Madhayakal, Ritikaleen Kavya, Hindi Natak, Anuvad-Sidhant evam Vyawhar, Lok Sahitya.

4th Semester: Hindi Sahitya ka Adhunikkal, Chhayavadottar Kavya, Paschatya Sahityalochana evam Hindi Aalochana, Bhasha Vigyan, Hindi Nibandh.

Seminars/Conferences/Symposia/Extension Programmes etc

Attended

Dr. D.K. Choubey attended

1. The UGC National Seminar on 'Agyeya aur Hindi Sahitya' organized by J.N. College Pashighat, Govt. of Arunachal Pradesh & UGC, Delhi on 11-12 October, 2011. Title of paper presented - '*Prayog ki Dristi se Agyeya ka Kavya*'.
2. The UGC National Seminar on 'Rashtriya Ekta mein Hindi ki Bhumika' by Rangapara College & Hindi Sahitya Parishad, Tezpur at Rangapara (Assam) on 11-12 November, 2011. Title of paper presented '*Rastra ke Hinditar Bhasha Kshetra aur Hindi*'.

3. National Seminar on 'Purvottar Bharat mein Hindi ke Shikshan-Prashikshan ki Sthiti' by Central Hindi Institute, Shillong and English & Foreign Language University at NEHU Campus, Shillong on 30th August, 2011. Title of Paper presented '*The Problem of Hindi Shikshan and Prashikshan in Meghalaya*'.

Dr. M.P. Pandey:

1. National Seminar on 'Janakavi Nagarjun' organized by Department of Hindi, Rajiv Gandhi University, Itanagar on 20-21 October, 2011. The title of the paper presented was '*Aabhijaty ka Virodhi Jankavi Nagarjun*'.
2. National Seminar on 'Parampara, Adhunikta aur Itihaas-drishti' organized by the Department Baldev P.G. College, Varanasi & Vidyashree Nyaas, on 14-16 January, 2012. The title of the paper presented was '*Parampara aur Adhunikta: Chintan ki Nayee Dristi*'.
3. National Seminar on 'Samkaleen Hindi Kavita mein Bharteeyata' organized by Department of Hindi, Assam University, Silchar & Rajakamal Prakashan, New Delhi, on 15-16 March, 2012. The title of the paper presented was '*Samkaleen Hindi Kavita ki Chetana*'.
4. National Seminar on 'Sarkaree karyalayan mein Hindi ki Upayogita' organized by Meghalaya Rastra Bhasha Prachar Samiti, Shillong on 31st March, 2012. The title of the paper presented was '*Sarkaari Karyalayan mein Hindi ki Upayogita*'.

Publications

Choubey, D.K. 2011, Hindi aur Asomiya Sahitya mein Adhunik Kalin Chetna- *The NEHU Journal*, Vol IX, No. 1, Page 141-148.

- Choubey, D.K., 2011, Anuvad: Ek Parichaya-Purvottar Kshetra ke Bhashaon ke Sandarv mein, *Chintan Srijan*, Issue IV, pp 96-100.
- Choubey, D.K., 2011, Asomiya Bhasha mein Chhayavadi Kavya, *Sodh-Dhara*, vol. V, Issue 7, page 75-83.
- Choubey, D.K., 2011, Assam ka Madhykalin Brajawali Sahitya: Ek Parichaya, *Samanvay Purvottar*, Issue XI, Page 134-139.
- Choubey, D.K., 2011, Purvottar Bhashaon ka Brajawali Sahitya, *Madai*, Sepcial Issue I, Page 181-185.
- Choubey, D.K., 2011, Swadhinata Sangram mein Manipur ke Shahid, *Samanvay Purvottar*, Issue XII, pp 74-80.
- Choubey, D.K., 2011, 'Asahayog Andolan - Asomiya Sahitya Uttar Purvanchaliya Hindi. Urdu Sahitya, Presidency College, Kolkata, page 35-53.
- Choubey, D.K., 2011, *Asomiya aur Hindi Sahitya: Antarang Partal*, Samiksha Prakashan New Delhi.
- Choubey, D.K., 2011, *Assam mein Vaishnav Mat evam Sahitya*, Prakashan Meghalaya Rastra Bhasha Prachar Samiti, published at Guwahati.
- Choubey, D.K., 2011, Hindi Mangal Kavya Parampara mein Vishnu Das ka Sthan. *Prantah Swar*, Vol - I, Issue 1, page 138-142.
- Choubey, D.K., 2011, Premchand evam Saratchandra ke Katha Sahitya mein Stri Patra, *Samanvay Purvottar*, Issue XIII, Page 157-162.
- Choubey, D.K., 2011, Raghuvir Sahaya aur Unka Kavya: Log Bhool Gaye Hain, *Samanvaya Purvottar*, Issue XII, page 199.
- Choubey, D.K., 2011, Tradition of the Ramayana in the Mizo Folk-life, *Marginal Voice*, Vol. I, Issue 1, Page - 27-33.
- Pandey, M.P. 2011, Bhojpuri ka Lalitya-Tatwa aur Hindi ke Rachanakaryon per Uska Prabhav, *The NEHU Journal*, vol. IX, No. 1,
- Pandey, M.P. 2011, 'Kavita ki Nai Jameen ki Talash' Pustak Varta, Mahatma Gandhi Antarrastriya Hindi Vishwavidyalaya, *Vardha*, January-February, p. 26-28.
- Pandey, M.P. 2011, Assam ke Sanskritik Doot: Bhoopen Hazarika. *Samanvaya Purvottar*, Kendriya Hindi Sansthan, Agra, pp 29-33.
- Pandey, M.P. 2011, Tagor ki Vishwa-Dristi. *Assam Pradip* Assam Rajya-Rastrabhasha Prachar Parishad, April-May.
- Pandey, M.P. 2012, Hindi Kahani Aadarsh se Yatharth ki Yatra, *Sahitya-Vartika*, published by Pragatisheel Bhasha evam Sahitya Vikas Samiti, Varanasi, Jan-June, vol. II, Year 1, Page 24-29.
- Pandey, M.P., 2011, *Purvottar ki Sanskritik Panchan*, Manav Prakashan, Kolkata.
- Tripathi, B.P. 2011, 'Jeevanmaya Bhasha ka Bhav-Pravah' *Pragatisheel Vasudha*, page 213-14.
- Tripathi, B.P. 2011, 'Madhyavargeeya Icchayon ka Jwarbhata' *Parikatha*, Nov.-Dec., page 117-119.
- Tripathi, B.P. 2011, 'Pagal Yauvan ka Viplavkari Mahanartan' *Samanvaya Purvottar*, Oct.-Dec., page 74-79.
- Tripathi, B.P. 2011, 'Srijan ka Atmsangharsh' *Parikatha*, July-Aug., page 54-64.
- Tripathi, B.P. 2011, Dhoomil : 'Akrosh ki Nirbheek Jid' *The NEHU Journal*, page 41-53.
- Tripathi, B.P. 2011, Purvottar mein Premchand, *Sodh-Dhara*, December, page 52-58.
- Tripathi, B.P. 2012, 'Yuva Alochna ki Antratma' *Anhad*, January, page 217-230.

Research Project

Ongoing

“Mahapursh Sankardev aur Madhavdev ke Vyaktitwa-Krititwa ki Samksha evam unki Kritiyon ka Lipyantran Sahit Anuvad”, Principal Investigator: Dr. D. K. Choubey, Amount: Rs. 2,11,000/- by UGC, New Delhi.

Other Academic Activities

Dr. D.K. Choubey conducted as Course Coordinator Refresher Course on ‘Swatantryottar Hindi Kavita’, at UGC Academic Staff College, NEHU from 20.5.2011 to 9.6.2011. He also edited *The NEHU Journal* (Hindi issue) Vol. I, Issue IX, 2011 as Guest Editor.

Department of Khasi

Head : Prof. Antoinette Kharmalki
Telephone : 2723301 (o)
Email : antoinette_kharmalki@rediffmail.com

Thrust Areas

The thrust areas of the department include Khasi Literature, Literature in translation, Environmental Awareness in Khasi Literature, Khasi Literary Theory and Criticism, and Folklore in Khasi Literature.

(Redefining the Role of U Rangbah Khasi) in collaboration with the Society for Khasi Studies, Shillong, Ri Khasi Book Agency and the Directorate of Arts and Culture, Meghalaya, Shillong on 25th November, 2011.

Brief Statement of Academic Activities

The department organized a seminar on “Ka Jingpeit Thymmai ia ka Bynta u Rangbah Khasi”

Faculty Profile

Professors : B. War, M.A.(NEHU), M.A. (Delhi U), M.Phil (Delhi U) Ph.D (London),
Specialization: Linguistics
M.B. Jyrwa, M.A. (Gau), M.Ed, TEO (University of Manchester, U.K.),
Ph.D (NEHU), Specialization: Khasi Linguistics.
S. Dkhar, M.A. (NEHU), M.Phil (NEHU), Ph.D (NEHU),
Specialization: Khasi Drama
A. Kharmalki, M.A. (NEHU), M.A. (Delhi U), B.Ed (NEHU), M.Phil (NEHU) Ph.D (NEHU) Specialization: Linguistics.

NEHU Annual Report 2011-2012

Associate Professor : D.R.L. Nonglait, M.A. (NEHU), M.Phil (NEHU), PGDTE (CIEFL), Ph.D (NEHU), Specialization: Literary Criticism on Khasi Fiction.

Assistant Professors : B. Bairo, M.A. (NEHU). Specialization: Fiction.

M. Khyndeit, M.A. (NEHU) M.PHIL (G.U.) Specialization: Poetry.

Student Intake

Enrolment Capacity: M.A: 52. M.Phil: 10. Ph.D: 18

Actual Admission	SC	ST	GEN	MALE	FEMALE	TOTAL
M.A.	-	-	-	9	43	52

Degrees Awarded

	SC	ST	GEN	MALE	FEMALE	TOTAL
M.A. –	-	-	-	9	35	44
M.Phil	-	-	-	4	4	8
Ph.D –	-	-	-	1	-	1

M.Phil

- Ms.Ritilin Khardewsaw, “Ka Jingiakhing kaba Mih na ka Lalot Spah ha ki Sawangka: KaShangkhawiah Ki Rang U Peace Roy Pariat, Yn Map? U L.H.Pde Bad Ka Jingialum Ki Pukni Bhur U Alvan Noel Kharkongor”. Supervisor: Prof. S.Dkhar.
- Mr. Wanpli Kharwanlang, “Ka Jinglong ba Markhongpong Bad ki jingiakhing hapdeng ki Tyngshop-Puron ha ka Khana Mutdur U Thomas Hardy, U Basan Ka Kastarbrij, (Na Ka Translation): Ka Bishar Bniah”. Supervisor: Prof. A.Kharmalki.
- Mr. Pynwandurlang Shabong, “Ka Jingieit bad ka Jingthrew ka Doh: Ka Jingbishar bniah halor Ka Parom U Klew bad Ka Sngi”. Supervisor: Dr.D.R.L.Nonglait.
- Mr.Ronald Peel Kharshiing, “Ka Shongkha Khleh kumba ka Paw ha ki Lai Tylli ki Nobel: Ka Bishar Bniah. Ka Jingkwah U Kpa (1978) – W.Tiewsoh, Ki Palong Ka Jingbiej (1989) – S.Synrem, U Mooiong (1987) – L.H.Pde”. Supervisor: Dr.D.R.L.Nonglait.

- Ms. Baiahunlang Lyngdoh, “Ki Tyngshop-Puron kiba bat ia ka tynrai bad kito kiba kner Sha ka rukom im thymmai: Ka Bishar bniah halor ka jingiakhing Hapdeng jong ki kumba ka paw Ha ki Sawangka U Mondon Bareh,U Mihsngi bad U L.H.Pde, Yn Map?”. Supervisor: Prof. B.War.
- Mr. Erol Myllem Umlong, “Ki Kynthei ha ka Rukom Pyrkhat U Khasi kumba ka paw ha ki Khana Parom bad ha ka Sawangka Ka Nam (2007) jong ka Esther Syiem”. Supervisor: Prof. A.Kharmalki.
- Ms. Lidadora Rieng, “Ka Mynnor Ka Mynta bad Ka Lawei Kumba ka Paw ha ki Thup Poitri U B.R.Kharlukhi: Na la Rympei Na Ki Dewlang Ka Ri Kynjah”. Supervisor: Prof. M.B.Jyrwa.
- Ms. Meralinda Wanniang, “U Thlen katkum ka Jingiohi jong ki Nongthoh: Ka Bishar Bniah halor ka Parom mutdur U D.T.Laloo, Ka Lasubon I-IV, Bad ka jong U Paul Lyngdoh, “U Thlen” ha ka kot Shithiar Ki Khana Lyngkot”. Supervisor: Prof. B.War.

Ph.D

1. Mr. Rolling Stone Wankhar, "Elements of Folklore in Pre-Independence Khasi Poetry (1888-1947): A Critical Study." Supervisor: Prof. B. War.

Courses Conducted

M.A.

Semester I: Linguistics I, Khasi Poetry I, Khasi Literary Criticism, Khasi Fiction I and Khasi Drama I.

Semester II: Khasi Linguistics II, Khasi Drama II, Literary Theory and Criticism, Literature in Translation – I and Khasi Poetry II.

Semester III: Khasi Linguistics III, Khasi Drama III, Culture in Khasi Literature I, Khasi Fiction – II and Literature in Translation – II.

Semester IV: Linguistics IV, Khasi Fiction III, Environmental Awareness and Poetry III, Culture in Khasi Literature – II and Khasi Drama IV.

M.Phil/Ph.D

Research Methodology, Seminar Papers (Option A) Literary Theory and Criticism. (Option B) Literary Themes.

Study Tours/Field Trips of Students

Field trip on 15th October, 2011 to Symper, East Khasi Hills District, under the charge of Mr. M.M. Khyndeit.

Seminars/Conferences/Symposia/Workshops/Extension Programmes

Organised

1. The department organized a seminar on "Ka Jingpeit Thymmai ia ka Bynta u Rangbah Khasi" (Redefining the Role of

U Rangbah Khasi) in collaboration with the Society for Khasi Studies, Shillong, Ri Khasi Book Agency and the Directorate of Arts and Culture, Meghalaya, Shillong on 25th November, 2011.

Attended

Prof. S. Dkhar

1. Presented a paper on "Ka jingpynkhlaiñ ia ka jingpyndonkam ia ka ktien Khasi ha ka Rwai ka siaw, Ki Sawangka bad ki Phlim Khasi ka Pynriewspah ia ka Ktien Khasi" at the Seminar on "Strengthening the Khasi language" held on 13th August 2011, organized by Khasi Authors Society, Shillong, at Don Bosco Youth Centre, Shillong.
2. Attended the National Seminar on "Changing Scenario in Higher Education" and presented a paper on "Preservation of Vernacular Studies the need of the hour: Changing scenario in Higher Education." Organized by IQAC, Lady Keane College, Shillong held on 26-27th August 2011 at College Seminar Hall.
3. Attended the Regional Seminar on "Folktales of the Northeast" and presented a paper on "Undocumented Folktales of Khasi: 1. "A tale of a mysterious girl from Lyngkyrdem"; 2. The Jaiñtia folktale: "Ka Latuthiñ and u Sahlang" and 3. An Urban legend on 'U Balliwell". Held on 28th September 2011 at the Art and Culture Hall, Shillong, organized by the Department of Art and Culture, Government of Meghalaya.
4. Attended the Seminar on "The Naming Ceremony of Traditional Culture" and presented a paper on "The Naming Ceremony of the Khasis: its transition in

the present day". Held on 30th September 2011 at the Art and Culture Hall, Shillong, and organized by the Department of Art and Culture, Government of Meghalaya.

5. Attended the UGC Sponsored Seminar on "Impact of Education in Socio-Cultural Development in Meghalaya" and presented a paper on "Impact of Socio-economic and social development in Meghalaya: its challenges and opportunities." Held on 17th – 18th November 2011 at Raid Laban College Auditorium and organized by Raid Laban College in collaboration with IGNOU Regional Centre, Shillong.

Dr. D.R.L. Nonglait

1. Presented a paper on "Ka Bri U Hynniew Trep (The Khasi Land) in Khasi Folktales" at a seminar on "Folktales of Khasi-Jaintia and Garo Tribes of Meghalaya" organized by the Directorate of Arts and Culture, Government of Meghalaya, Shillong, on 29th September 2011.

Publications

Prof. M.B. Jyrwa

1. *Ale noh Baieit*: Siliguri: Mang Computers, 2012.

Prof. S. Dkhar

1. 2011, Hindi Translation "Ka Saia Nongum" published in the Hindi Journal, *Samanvaya Purvottar*, Kendriya Hindi Sansthaan, Agra, Vol. 10, 2011.
2. 2011, "Tiew Pathai Khubor", "U 'Tiew Lum", "Ha Shadem Jong Pha", "Mei Ramew" and "Ko Lum Khasi" published in *Para Baieit*, Quarterly Literary Journal, Vol-II, Issue- I edited by Bijaya Kumar

Mahapatra, At-Pakanpur, Orissa (pp 4-8 and the back over page).

3. 2011, "Ka Sainpyrkhat halor ka Hok Longtrai ki Nongthoh bad ki Nongpynmih kot" published in *Ka Hok Longtrai Halor Ka Sainpyrkhat* by St. Anthony's College, Don Bosco Press, Shillong.
4. 2011, "Ka Translation Ha Ka Drama Khasi", published in *Ka Thiar Ki Nongthoh, Thup -8* by Khasi Authors' Society, Rilum Offset Printing House, Shillong.

Prof. A. Kharmalki

1. "Ka Nam in Exile: An Analysis" in *Post Colonial Writings in Tribal Languages of India* published by Society for Khasi Studies, Shillong, edited by M.B. Jyrwa, 2011.

Dr. D.R.L. Nonglait

1. "Relevance of Postcolonial Approach in the Study of Khasi Literature" in *Postcolonial Writings in Tribal Languages of India* (2011), edited by Prof. M.B. Jyrwa and published by the Society for Khasi Studies, Shillong.

Mr. M.M. Khyndeit

1. Published an article entitled "*Tiim*: A silent resistance against the colonialism in the context of Khasi folk game" in the book *Post Colonial Writings in Tribal Languages of India*, 2011, published by the Society for Khasi Studies, Shillong.

Honours/Awards/Recognition

Prof. S. Dkhar was awarded the Special AIPC National Award at the 12th Mega Convention of the All India Poetess Conference held on 6th -8th January at Hubli, Karnataka. She was also awarded the State Literary Award 2009 for the book *Na Thwei Pyrkhat U Longshuwa* (A Collection of Folk Poems) on 17th February, 2012.

Department of Linguistics

Head : Dr. Umarani Pappuswamy
Telephone : 272-3310 (o)
Email : umarani@nehu.ac.in

Thrust Areas

The thrust areas of the department are the Tibeto-Burman and Austro-Asiatic languages/ dialects of the North-East of India focusing on Phonetics and Phonology, Morphology, Syntax, Semantics, Lexicography, etc.

Faculty Profile

- Professor** : Juanita War, M.A (English) Gauhati U; M.A (Linguistics) Delhi U; Ph.D (Linguistics) University of Edinburgh. Specializations: Applied Linguistics, Morphology, Psycholinguistics.
- Associate Professors** : Shailendra Kumar Singh, M.A (Linguistics) Delhi U; M.A. (Hindi) Karnataka State Open University, M.Phil and Ph.D (Linguistics), University of Hyderabad. Specializations: Translation, Eco-linguistics, Sociolinguistics, Psycholinguistics, General Linguistics, Contact Linguistics.
- Umarani Pappuswamy, M.A. and M.Phil (Linguistics), Bharathiar University, Ph.D (Linguistics) University of Mysore, Post-Doc, U. Antwerpen. Specializations: Computational Linguistics, Typology, Semantics, Intelligent Tutoring Systems, Artificial Intelligence in Education, Cognitive Linguistics, Dialogue Systems and Discourse Analysis.
- Assistant Professors** : Saralin A. Lyngdoh, M.A. (Linguistics & English), NEHU, M.Phil (Linguistics), Delhi U, Ph.D (Linguistics) Specializations: Syntax, Typology, Language Ideology.
- Barika Khyriem, M.A. (Linguistics), NEHU; M.Phil (Linguistics), Delhi University. Specializations: Phonology, Dialectology, Sociolinguistics.
- Bijoy L. Dhanwar, M.A. (Linguistics), NEHU, M. Phil. University of Hyderabad, Specializations: Tibeto-Burman Linguistics, Typology, Syntax, Lexicography, Historical Linguistics.

Student Intake

Enrolment Capacity: M.A.: 45; M.Phil: 10; Ph.D: Variable.

Actual Admission: M.A.: 44; M.Phil: 7; Ph.D: 2.

Course	SC	ST	Gen	TOTAL		From Meghalaya	From Outside
				Male	Female		
M.A.	-	43	1	12	32	33	11
M.Phil	-	7	-	-	7	5	2
Ph.D	-	1	1	-	2	1	1

Degrees Awarded

Course	SC	ST	GEN			TOTAL	
			Total	Male	Female	Male	Female
M.A.	-	32	1	-	1	6	27
Ph.D	-	1	-	-	-	1	-

Ph D

Goigongpou Gonmei	“Typological Characteristic of Ronmei”	Prof. Juanita War, Supervisor
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Courses Conducted

M.A.

Semester I: Introduction to Linguistics; Morphology; Syntax I; Phonetics and Phonology.

Semester II: Semantics (Part 1); Linguistics and Environment (Part 2); Sociolinguistics; Lexicology and Lexicography; Syntax II; Language Technology and Text Analysis.

Semester III: Generative Phonology; Historical and Comparative Linguistics; South Asia as a Linguistic Area with special reference to North-east India; Readings in Linguistics-I, North-east India and Language Ideology.

Semester IV: Structure of Tibeto-Burman/Austro-Asiatic Languages; Field Method (Dissertation); Language Education;

Translation Theory and Practice; Readings in Linguistics-II.

M.Phil/Ph.D

Research Methodology; Current Trends in Linguistics (Optional 1); Current Trends in North East Linguistics (Optional 2); Advances in Natural Language Processing (Optional 3); Seminar Paper.

Study tours/Field Trips of Students

On 12- 14 May 2011 Dr. Curiously Bareh (Guest Lecturer) and three other faculty members (Prof J. War, Ms. Lyngdoh and Ms. Khyriem) accompanied the IV students to Pasadwar. This trip was part of the Field Methods Course.

Seminars/ Conferences / Workshop/ Extension programmes

Organized

- (i) '1st International Conference on Tense, Aspect and Modality' in collaboration with the Central Institute of Indian Languages, Mysore. Dates: February 3-5, 2012. Venue: Central Institute of Indian Languages, Mysore. Coordinators: Dr. Umarani Pappuswamy and Shri. G.D.P. Sastry, CIIL, Mysore.
- (ii) 'National Workshop on Bodo Machine Translation System'. CDAC Pune on 3-5 August, 2011. Coordinator: Dr. S.K. Singh
- (iii) 'National Workshop on Bodo Translation'. Guwahati Guest House on 12 October, 2011. Coordinator: Dr. S.K. Singh.
- (iv) 'First Regional Workshop of the People's Linguistic Survey of India' held in NEHU, Shillong on 1-2 December 2011 in collaboration with the Departments of English and Khasi and Bhasha Research Centre, Baroda. 'National Workshop on EILMT System'. Coordinator: Dr. S.K. Singh.
- (iv) Problems of Translation in Bodo at the National Workshop on EILMT System. In collaboration with CDAC Pune on 9-13 January, 2012 at Pune.

Umarani Pappuswamy presented the following papers:

1. Classifiers in Some Tibeto-Burman Languages at the 44th International Conference on Sino-Tibetan Languages and Linguistics, Mysore. Oct 7-9, 2011. (co-author with Monali Longmailai, Zam Ngaih Cing and Vidyarati Joshi).
- (i) On Possibility and Necessity in Classical and Modern Tamil at the International Conference on Tense, Aspect and Modality, Mysore, Feb 3-5, 2012.
- (ii) Cultural Differences in Pictograms: A Semiotic Analysis at the National seminar on Semiotics and Folklore. Department of Cultural and Creative Studies, North-Eastern Hill University, Shillong, 27-28 September 2011.

Attended

Shailendra K. Singh presented the following papers:

- (i) Semiotics and Linguistic Landscaping: 21st Century Reality at the National seminar on Semiotics and Folklore. Department of Cultural and Creative Studies, North-Eastern Hill University on 27-28 September 2011.
- (ii) Perspectives of Bodo Machine Translation at the National Workshop on Bodo Machine translation System. CDAC Pune on 3-5 August, 2011.
- (iii) Towards Translating Health and Tourism Domains: A Case Study of Bodo at the National Workshop on Bodo Translation. Guwahati Guest House on 12 Oct, 2011.

Publications

Shailendra K. Singh. 2012. Phonological system in Phom Language. (with Atiqua Bano). *International Journal of Dravidian linguistics*. Vol.41 No. Jan. pp:148-169.

Shailendra K. Singh. 2011. Linguistic Ecology of Manipur: New Linguistic world order and deep multilingualism. In S.K Singh (ed.) *Linguistic Ecology*. Guwahati: Eastern Book House. pp: xiii-xxxv.

Shailendra K. Singh. 2011. Ehnolinguistic Demography of Manipur (With Khawlsongkim Suantak). In S.K Singh (ed.) *Linguistic Ecology*. Guwahati: Eastern Book House. pp: 1-15.

Shailendra K. Singh. 2011. Epilogue (with Khawlsongkim Suantak). In S.K Singh (ed.) *Linguistic Ecology*. Guwahati: Eastern Book House. pp: 285-292.

Shailendra K. Singh. 2011. sampa:dkiyee. (with Singh, U.N, Pal, B.J, Singh, Sucheta) *Longman-English-English Hindi Dictionary*. New Delhi: Dorling Kindersley Pvt. Ltd. pp: vix-xvi.

Shailendra K. Singh. (ed.) 2011. *Linguistic Ecology: Manipur* Guwahati: Eastern Book House.

Funds Received from Agencies other than NEHU

Ministry of Communication & Information Technology 78.11 lakhs.

Research Projects

Ongoing

1. ELMTS-Bodo. Funded by the Ministry of Communication & Information Technology.

Investigator: Dr. S.K. Singh

2. PLSI. Funded by Bhasha Research and Publication Centre. Investigator: Prof. J. War.

Completed

- (i) "Research in Tibeto-Burman and Austro-Asiatic Languages in NE India-Phase 1" UPE Project Area Studies – II in collaboration with the Department of Khasi, NEHU. Total Amount: Rs 30 lakhs. Investigator: Prof. J.War.
- (ii) Digital Language Map of North-East India. Phase I. NEICOD project. Rs. 1.80 lakhs

Investigator: Prof. J.War

- (iii) Multilingual Interactive North-East Lexicon (MINEL). Phase I, NEICOD project. Rs. 1.80 lakhs.

Investigator: Dr. Umarani Pappuswamy.

- (iv) Mother Tongue Survey of India: Phase II Amount: Rs 2 lakhs.

Investigators: Dr. Uma Pappuswamy and Ms.Barika Khyriem.

Honours /Awards/Recognition

Umarani Pappuswamy is Member of the Publication Committee, *Indian Linguistics Journal* published by the Linguistic Society of India for the term January 2012 – December 2014.

Other Academic Activities

Juanita War delivered the keynote address at the PLSI Conference held at Vadodara on "The Domains and Dominance of National Languages" on 6-8 January 2012.

Umarani Pappuswamy

- (1) Served as Associate Editor of the *South Asian Language Review* for the January & June issues of 2011.
- (2) Linguistics in India. Talk given at Foundations of Language Studies in India held in the Central Institute of Indian Languages, Mysore from July 17-19, 2011.
- (3) Endangered Languages in India: The Current Scenario. Seminar, Nanyang Technological University, Singapore on November 9, 2011.

Department of Philosophy

Head : Prof. Jagat Pal
Telephone : 272-3552 (o)
Email : Philodeptnehu@yahoo.co.in

Thrust Areas

Philosophy of Culture with special reference to the tribal thought of the North-Eastern region.

Brief Statement of Academic Activities

The faculty served as resource persons for refresher courses within and outside NEHU,

participated and presented papers at regional, national and international seminars/conferences. The faculty members published a number of papers in books and journals pertaining to their research work.

Faculty Profile

- Professors** : Dr. Jagat Pal, M.A.(Allahabad), Ph.D. (IIT Kanpur). Specialization: Moral Philosophy, Logic, Indian Philosophy, Analytic Philosophy, Philosophy of Language.
- Dr. Binod Kumar Agarwala, M.A., M.Phil.(Delhi), Ph.D. (Lucknow). Specialization: Social & Political Philosophy, Ethics, Hermeneutics, Kant, Gadamer.
- Dr. Vanlalnghak, M.A.(NEHU), Ph.D. (IIT Kanpur). Specialization: Philosophy of Culture, Moral Philosophy, Analytics Philosophy.
- Associate Professors** : Mr. N. Parthasarathy, M.A.(SPGD), M.Phil.(Madras)(On Study Leave). Specialization: Indian Philosophy
- Dr. Xavier P. Mao, M.A. (NEHU), M.Phil.(Delhi), M.Lett.(Sydney)Ph.D.(NEHU). Specialization: Existentialism, Ethics
- Dr. Prasenjit Biswas, M.A., Ph.D.(NEHU). Specialization: Phenomenology & Continental Philosophy, Philosophy of Mind, Philosophy of Tribes of NE India
- Dr. Laxminanrayan Lenka, M.A. (Utkal), M.Phil., Ph.D.(Hyderabad). Specialization: Analytic Philosophy, Philosophical Anthropology, Philosophy of Wittgenstein, Speech Acts, Western Epistemology
- Assistant Professors** : Dr. E. R. Tongper, M.A., M.Phil, Ph.D.(NEHU). Specialization: Philosophy of Religion, Philosophical Theology, Applied Ethics, Gandhian Philosophy

Dr. Basil Pohlong, M.A., Ph.D.(NEHU). Specialization: Philosophy of Religion, Philosophical Anthropology

Mr. Uttam A. Sharma, M.A.(Manipur University). Specialization: Logic and Epistemology

Student Intake

Enrolment Capacity	MA : 52		Ph.D.: Open			
Actual Admission:						
MA:	SC	ST	GEN	MALE	FEMALE	TOTAL
	-	43	4	10	37	47
PhD:	SC	ST	GEN	MALE	FEMALE	TOTAL
		6	4	5	5	10

Degrees Awarded

MA:	SC	ST	GEN	MALE	FEMALE	TOTAL
	-	24	9	11	22	33

Ph.D

1. Ms. Bendangrenla, "An Evaluation of Grice's Intentionalistic Theory of Meaning". Supervisor: Dr. L. N. Lenka
2. Mr. Asongpou, "Meaning of Life: Aristotle and Zeliangrong". Supervisor: Prof. Vanlalnggak
3. Mr. Saheni Loli, "God, Man and Nature: A Philosophical Study of Mao Naga Traditional Religion". Supervisor: Prof. Vanlalnggak
4. Ms. Imchanaro, "Construction of a Logic of Discourse: An Exploration in Speech Acts". Supervisor: Dr. L. N. Lenka

Science, Phenomenology & Existentialism, Philosophy of Post-Modernism, Analytic Philosophy, Contemporary Philosophy of Religion, Tribal Thought and Culture, Modernism & Responses, Philosophy of Culture, Philosophy of Post-Modernism-II, Western Moral Philosophy, Applied Ethics, Philosophy of Wittgenstein

Seminar/Conferences/Workshops/Extension Programmes

Organized

Prof. Vanlalnggak organized a National Seminar on the theme "The Other and the Community: Philosophical Reflections on Identities, Tribes and Worldviews" Sponsored by Indian Council of Philosophical Research, New Delhi, on 18-20 November, 2010, at NEHU, Shillong.

Attended

Prof. Jagat Pal

1. Presented a paper entitled "Learning and Creative Thinking" at an International Seminar on *Lifelong Learning and Skill*

Courses Conducted

MA:

Indian Metaphysics, Western Metaphysics, Symbolic Logic, Philosophy of Religion, Indian Philosophy of Language-I, Ethics & Environment, Indian Epistemology, Western Epistemology, Indian Moral Philosophy, Indian Philosophy of Language-II, Philosophy of Social

School of Humanities

Development, organized by the Department of Adult and Continuing Education, NEHU, Shillong on 17th & 18th October, 2011.

2. Presented a paper entitled "The Navya Nyāya Theory of Word-Meaning" at a National Seminar on the *Navya Nyāya Language*, organized by the Department of Philosophy, North Bengal University, Darjeeling, West Bengal on 12-14 March, 2012.

Prof. B. K. Agarwala

1. Presented a paper titled "Grounding of Vedic Exegesis in a *Sudarāna Cakra* of Indian Hermeneutics" at the ICPR-National Seminar on *Remembering Professor K. Satchidananda Murty*, 21-24 September 2011, Department of Philosophy, Andhra University, Visakhapatnam.

Dr. X. P. Mao

1. Presented a paper at a national seminar, Dimapur, entitled "Non-Violence with reference to Gandhi's Ahimsa: A Philosophical Critique" on 2nd October 2011.
2. Presented a paper titled "Tribal Thought and Culture" on November 15-17, 2011 at the "North-East Philosophy Teachers' Meet" held in Shillong.

Dr. Prasenjit Biswas

1. Presented a paper entitled "Interrogating Development: The North-East Indian Experience" at the National Seminar on *Development, Conflict and Democratic Governance: India's Experience in the North-East* held on 9-10th June, 2011.

2. Presented a paper entitled, "History and temporality: Larval Subjectivity in Tagore's Corpus" at the National Seminar on "Rabindranath Tagore and Contemporary social Science" held on 15-17th September, 2011.

3. Presented a paper entitled "Lotman's Cultural Semiotics: A Post-Structuralist Critique" at the ICSSR, CIIL, Mysore sponsored national seminar on "Semiotics and folklore" held at NEHU on 27th and 28th September, 2011.

4. Presented a paper entitled "Philosophy of Northeastern Tribes" at the ICPR sponsored "Teaching and Research in Philosophy: Problems and Prospects" held at NEHU, Shillong on 15-17th November, 2011.

5. Presented a paper entitled "A Critique of Contemporary Nationalism from Rabindranath Tagore's Perspective" at a national seminar on "Rabindranath Tagore's Educational Philosophy" held on 2-3rd December, 2011 at Women's College, Shillong.

6. Presented a paper entitled, "Self-Model, Phenomenology of Personhood and Evidence from Neuro-Surgery" at the UGC sponsored national seminar on "Perspective on Person and Personal Identity" held at Krishnagar Government College, West Bengal, on 14-15th December, 2011.

7. Presented a paper entitled "The Singularity of Language: Politics of the Impossible and Other contingencies" at the national seminar on "Singularities: Language, Literature, Culture and Philosophy" organized by SLL & CS of

Jawaharlal Nehru University held at JNU, New Delhi on 9-10 January, 2012.

8. Presented a paper entitled, "Anthropology as the double of Phenomenology: Identity as Language among the Tribes of North-East India" sponsored by the ICPR, New Delhi and held at Sree Sankaracharya University, Kalady, Ernakulam, Kerala, on 30-31 January and 1st February, 2012.
9. Presented a paper entitled "Tagore's Idea of Development: A Critique of Dam Building in Northeast India" sponsored by UGC and held at Khoirasol College, Birbhum, West Bengal, on 6-7 March, 2012.
10. Presented a paper entitled "Territoriality, India's Sovereignty and Rights over Resources: Responses to Chinese Claims on Arunachal Pradesh" held at Rajiv Gandhi University, Itanagar on 8-9 March, 2012.
11. Presented a paper entitled, "South-East and South Asian Lines of Flight: Migration of Life-Worlds, Philosophy(ies) and Aporias of Nation State" at the UGC DRS-SAP national seminar on "Modernity and Ethnic Process in India" at Department of Sociology, NEHU, Shillong held on 14-15th March, 2012.
12. Presented a paper entitled, "Moral Personality as Pure Event: Infinity of Desire and the minimalism of self" at the UGC SAP-DRS national seminar on *Moral Philosophy* at Assam University, Silchar, held on 26-27th March, 2012.

Dr. L. N Lenka presented a paper entitled "Can there be a transcendental self?" at an international conference on *Language Mind &*

Reality held at HSS, IIT Bombay, 5-7 March, 2012.

Publications

Agarwala, B K. "Performative culture of tribes and Modernity in India's Northeast", *The NEHU Journal*, Vol X, No. 1, January 2012, pp. 11-40.

Agarwala, B K. "Performative Culture: A Phenomenological Ontology of Culture", *The NEHU Journal*, Vol IX, No. 2, July 2011, pp. 25-48.

Biswas Prasenjit, "Sense and Aporia: reading Neo-Fregeans en route Derrida" in *Indian Philosophical Quarterly*, Vol., 37, No.3-4, July-December, 2011, pp. 65-84.

Biswas, Prasenjit, "Ethnophilosophy: Conceptual Artefacts, Wisdom and Critique of Anthropocentrism in India's Northeast" in Shoba Chakraborty Dasgupta et. al. (eds.), *Literatures and Oratures as Knowledge Systems*, Akansha, New Delhi, 2011, pp.121-46.

Biswas, Prasenjit, "On the Idea of Social Change: Towards a Conceptual Response to Transitions in North-East India" in D. V. Kumar(ed.) *Social Change and Development*, Rawat, Jaipur and New Delhi, 2012, pp. 45-70.

Pal, J. "The Concept of Law", *International Journal of Jurisprudence and Philosophy of Law*, Vol.IV, No.1-2, January-December, 2010, pp 1-14 (late issue).

Honour/Recognition/Award

Prof. Jagat Pal was appointed as Chief Editor of *International Journal of Jurisprudence and Philosophy of Law*, Vol. 4, No. 1 & 2 January-December, 2012. He was a member of Editorial Advisory Board of *Asian Review of Social Sciences* (ARSS), an international peer-reviewed

School of Humanities

journal of social sciences, Sri Raam Publication, Coimbatore, Tamil Nadu.

Dr. L. N. Lenka was a member of Editorial Board *International Journal of Jurisprudence and Philosophy of Law*, Serials Publication, New Delhi.

Other Academic Activities

Dr. Prasenjit Biswas (1) Delivered an invited talk entitled "Heidegger on Language" at the Centre for Philosophy, Jawaharlal Nehru University,

New Delhi, on 14th January, 2012, and (2) Delivered an invited talk entitled "Human right Scenario in North East India" at the National Consultation on 2nd Universal Periodic Review held at National Judicial University, New Delhi, on 9.11.2011.

Mr. A. U. Sharma co-organized the ICPR Lecture Series by Professor (Ms) Francoise Dastur held at the Department of Philosophy, North-Eastern Hill University, Shillong on 24th and 25th of November 2011.

Chapter V

SCHOOL OF LIFE SCIENCES

Dean : Prof. B. K. Sharma (till January 15, 2012)
Prof. A. K. Misra (since January 16, 2012)
Telephone : 0364 2722001 (O), FAX: 0364 2550108
Email : arvindkmisra@nehu.ac.in

The School comprises four academic departments, namely, Biochemistry, Biotechnology & Bioinformatics, Botany and Zoology. The total strength of the faculty during the period under reference was 48. One member of the faculty is currently the Vice-Chancellor of the University and one other member is Cabinet Minister in the Meghalaya Government. During the year 17 research scholars of the School were awarded Ph.D. degree. The faculty of the School published more than 150 research articles/ book chapters

during the year and also attended several conferences/ symposia. Many of them delivered invited lectures and chaired sessions at conferences/ symposia. They received large amount of extramural funds from various research funding agencies. Many faculty members were members of various Project Advisory Councils/ Task Forces of the funding agencies. The School organized a two-day Lecture Series under the UPE-Biosciences programme funded by the UGC on March 14 and 15, 2012.

Department of BioChemistry

Head : Prof. R. Sharma (from afternoon, December 16, 2011)
Prof. A. Alam (till forenoon, December 16, 2011)
Telephone : 2722101 (o)
Email : shamesh@gmail.com

Thrust Areas

Medical and Microbial Biochemistry, Medical Biochemistry and Microbial Biochemistry.

Brief Statement of Academic Activities

The department admitted 21 students for M.Sc. and 8 students for Ph.D. programme. During this

period 21 students successfully completed their M.Sc. and 2 students were awarded Ph.D. degree. 3 students of the department cleared CSIR-NET and 1 cleared GATE. 3 students also received Rajiv Gandhi National Fellowship for SC/ST, 1 got Maulana Azad National Fellowship, 1 CSIR-SRF Fellowship, and 1 NEHU Junior

School of Life Sciences

Research Fellowship. The UGC-SAP (DRS II) programme continued in the department. The department organized a seminar under UGC-SAP

(DRS II). In addition faculty members participated in various seminar/workshops/conference/symposia.

Faculty Profile

- Professors** : A.N. Rai: Ph. D. Dundee University, Scotland.
(On lien as Vice-Chancellor, NEHU since 2010); Microbiology.
R. Sharma: Ph. D. BHU; Development and Aging.
R.N. Sharan: Ph. D. JNU; Cancer & Radiation Biology.
A. Alam: Ph. D.; FTI, Moscow; Immunology.
- Associate Professors** : D. Syiem: Ph. D. NEHU; Protein Chemistry/Enzymology and Medicinal Plant/natural products study.
A.K. Singh: Ph. D. HCU; Microbiology.
M.B. Syiem: Ph. D. NEHU; Microbiology.
- Assistant Professors** : P.K. Ambasht: Ph. D. BHU; Protein Chemistry.
L. Kma: Ph. D. NEHU; Radiation Countermeasures.
S. Bhan: Ph. D. BHU; Medical Biochemistry.
T. Tripathi, Ph. D. JNU; Molecular Biophysics.

Student Intake

Enrolment capacity=M. Sc.: 21; Ph. D. = variable

Actual Admission:	SC/	ST/	Gen.	Male	Female	Total
M. Sc.	Nil	15	6	7	14	21
Ph. D.	Nil	5	3	2	6	8

Degrees Awarded

	SC/	ST/	Gen.	Male	Female	Total
M. Sc.	1	16	4	4	17	21
Ph. D.	Nil	1	1	1	1	2

Ph.D.

- Mr. S. Adhikari, "Studies on thallium toxicity to cyanobacterial strains isolated from a variety of natural habitats: implication for environmental biotechnology". Supervisor: Dr. A. K. Singh.
- Ms. S. Majaw, "Effects of plant extracts on the polyol pathway under hyperglycemic condition". Supervisor: Dr. D. Syiem.

Courses Conducted

M. Sc.

Semester I: Chemistry and Biomolecules; Environmental Biochemistry & Metabolic Pathways-I; Enzymology; Practical.

Semester II: Techniques in Biochemistry; Physiological Chemistry; Microbiology; Practical.

Semester III: Genetics; Medical Biochemistry;

Environmental Biochemistry; Nutritional and Clinical Biochemistry; Practical.

Semester IV: Molecular Biology; Bioenergetics; Immunology; Practical.

Ph. D.

Research Methodology, Topics in Biochemistry, Review of Literature and Seminar.

Seminars/Conferences/Symposia/Extension Programmes, etc.

Organized

The department organized a seminar on "Challenges in Biochemical Research" under the aegis of UGC-DRS-II on 23rd March, 2012.

Attended

1. Akoijam, C, Singh, A.K. and Rai, A.N. (2011) Characterization of free-living cyanobacterial strains and their competence to associate with rice plant present at the 52nd annual conference of Association of Microbiologists of India (AMI-2011) held on Nov. 3-6, 2011 at Panjab University, Chandigarh, India.
2. Nongbri, B.B. and Syiem, M.B. (2011) Diversity analysis and molecular typing of cyanobacteria isolated from various ecological niches in the state of Meghalaya, North-East India. International conference on advances in environmental chemistry (AEC-2011). 16-18 November, 2011. Mizoram University, Mizoram, India. Pp 183-186.
3. Nongbri, B.B. and Syiem, M.B. (2011). Analysis of heavy metal accumulation in water and fish (*Cyprinus carpio*) meat from Umiam Lake in Meghalaya, India. National Seminar on Emerging Trends in Biosciences and Future Prospects, November 29-30, Department of Zoology, Pachhunga University, Aizawl, Mizoram, India.
4. Nongbri, B.B. and Syiem, M.B. (2012). Determination of Cyanobacterial Diversity of Meghalaya by Molecular Typing and their Preservation. International Conference on Challenges in Biotechnology and Food Technology (ICBF-2012), January 9-10, Department of Chemical Engineering, Annamalai University, Tamilnadu, India. (Third prize).
5. Paul, G, Adhikari, S., Sarkhel, P. and Singh, A.K. (2012) Decolouration and adsorption of Congo Red reducing cyanobacteria. Seminar on 'Challenges in Biochemical Research' under UGC-DRS-II, Department of Biochemistry, NEHU, Shillong, 23rd March, 2012.
6. Belho, K, Nongpiur, S.R. and Ambasht, P.K. (2012) Immobilization of acid phosphatase (Type I) from wheat germ on chitosan beads: Optimization and characterization. Seminar on 'Challenges in Biochemical Research' under UGC-DRS-II, Department of Biochemistry, NEHU, Shillong, 23rd March, 2012.
7. Hynniewta, L. and Syiem, M.B. (2011) Assessment of cyanobacterial diversity in association with lichens from Meghalaya. International conference on advances in environmental chemistry (AEC-2011), 16-18 November, 2011. Mizoram University, Mizoram, India. Pp 190-192.
8. Nongrum, N.A. and Syiem, M.B. (2011) Effect of high concentration of divalent copper ion (Cu⁺²) on the cyanobacterium *Nostoc ANTH*. International conference on advances in environmental chemistry

- (AEC-2011). 16-18 November, 2011. Mizoram University, Mizoram, India. Pp 30-33.
9. Sharma, R. (2011). Acetylcholinesterase regulation by dietary restriction in mice brain as a function of age. Brain Storming Meeting on Translational Neuroscience, September 17-18, Brain Research Centre, BHU, Varanasi.
 10. Sharma, R. (2011). Protein carbonylation during aging of mouse brain: its intervention by various modulators. 9th Asia/Oceania Regional Congress of Gerontology and Geriatrics, October 23-27, Melbourne, Australia.
 11. Majaw, S. and Syiem, D. (2012). Effect of *Osbeckia chinnesis* extract on the polyol pathway enzymes of two age groups in diabetic mice. 12th International Congress of Ethnopharmacology-ISE 2012, Feb 17-19, 2012, School of Natural Product Studies, Jadavpur University, India.
 12. Nongrum, S, Kma, L. and Sharan, R.N. (2012) Identification of early radiation response genes using DNA microarray in human peripheral blood lymphocytes exposed to gamma radiation *ex vivo*. Lecture series on 'Biodiversity: Prospects and Concerns', under UPE-Biosciences programme, School of Life Sciences, NEHU, Shillong, 14th – 15th March, 2012.
 13. Saio, V. and Syiem, D. (2012). Effect of *Potentilla fulgens* on lipid peroxidation & antioxidant status in diabetic mice. 12th International Congress of Ethnopharmacology-ISE 2012, Feb 17-19, 2012, School of Natural Product Studies, Jadavpur University, India.
 14. Monsang, W. Sh, Syiem, D. and Sharma, R. (2011). Effects of *Curcuma amada* roxb. on lipid and carbohydrate profiles in alloxan induced diabetic mice. International conference on New horizons in Biotechnology & 8th Annual Convention of the Biotech Research Society, India, Nov 21-24, 2011, National Institute for Interdisciplinary Science & Technology (NIIST), CSIR, Trivandrum, India.

Publications

Published in India

Hynniewta, L. and Syiem, M.B. (2011) Assessment of cyanobacterial diversity in association with lichens from Meghalaya. Proceedings of International conference on advances in environmental chemistry, 16-18 November, 2011. Mizoram University, Mizoram, India, 190-192.

Kharwanlang, B. and Sharma, R. (2011) Molecular interaction between the glucocorticoid receptor and MAPK signaling pathway: A novel link in modulating the anti-inflammatory role of glucocorticoids. *Indian J. Biochem. Biophys.* 48, 236-242.

Nongbri, B.B. and Syiem, M.B. (2011) Diversity analysis and molecular typing of cyanobacteria isolated from various ecological niches in the state of Meghalaya, North-East India. Proceedings of International conference on advances in environmental chemistry. 16-18 November, 2011. Mizoram University, Mizoram, India, 183-186.

Nongrum, N.A. and Syiem, M.B. (2011) Effect of high concentration of divalent copper ion (Cu^{2+}) on the cyanobacterium *Nostoc ANTH*. Proceedings of International conference on advances in environmental chemistry. 16-18 November, 2011. Mizoram University, Mizoram, India, 30-33.

- Sharan, R.N, Turtoi, A, Srivastava, A. and Schneeweiss, F.H.A. (2011) Proteomic and Genomic Approach to Understanding g-radiation Induced Early Cellular Response: Biotechnology in Radiation Counter-measures. In *Biotechnology for Sustainable Development: Achievements and Challenges*, Eds S. E. Hasnain, Rashmi, B. Jha and R. N. Sharan, McGraw Hill Education, Delhi.
- Syiem, D, Lyngdoh, W, Warjri, P, Tariang, D, Dkhar, A. and Deingdoh, A.M.R (2012). Prevalence of diabetes amongst the Khasi and Jaintia population of Meghalaya. *The NEHU Journal*, Vol X, No.1, 73-80.
- Syiem, M.B, Hynniewta, L. and Pinokiyo, A. (2011) *Nostoc* cyanobiont in the cyanolichens, *Sticta weigellii* of eastern Himalayan region: Isolation, physiological and biochemical characterization. *J. Exp. Sci.* 2(9), 36-40.
- Syiem, M.B, Nongrum, N.A, Nongbri, B.B, Bhattacharjee, A, Biata, D.L. and Misra, A.K. (2011) Molecular identification and characterization of a rice field cyanobacteria for its possible use as biofertilizer in acidic environment. *J. Microbiol. Virol.* 1(3), 1-12.
- Syiem, M.B. and Nongrum, N.A. (2011) Increase in intracellular proline content in *Anabaena variabilis* during stress conditions. *J. Appl. Nat. Sci.* 3(1), 119-123.
- Published abroad*
- Akoijam, C, Singh, A.K. and Rai, A.N. (2012) Characterization of free-living Cyanobacterial strains and their competence to colonize rice roots *Biol. Fertil. Soils*, DOI 10.1007/s00374-012-0664-7.
- Becker, S, Sanchez-Baracaldo, P, Singh, A.K. and Hayes, P. (2012) Spatio-temporal niche partitioning of closely related picocyanobacteria clades and phycocyanin pigment types in Lake Constance (Germany). *FEMS Microbiol Ecol*, 80 (2), 488-500.
- Choudhary, Y. and Sharan, R.N. (2011) Altered BRCA1 and BRCA2 responses and mutation of *BRCA1* gene in mice exposed chronically and transgenerationally to aqueous extract of betel nut (AEBN). *Environ. Toxicol. Pharmacol.* 31, 57-69, 2011.
- Dkhar, P. and Sharma, R. (2011) Amelioration of age-dependent increase in protein carbonyls of cerebral hemispheres of mice by melatonin and ascorbic acid. *Neurochem. Intl.* 59, 996-1002.
- Kma, L, Gao, F, Fish, B.L, Moulder, J.E, Jacobs, E.R. and Medhora, M. (2012) Angiotensin Converting Enzyme Inhibitors Mitigate Collagen Synthesis Induced by a Single Dose of Radiation to the Whole Thorax. *J. Rad. Res.* 53, 10-17.
- Sharan, R.N, Odyuo, M.M. & Purkayastha, S. (2011) Oxygen free radicals and its biomedical implications: A mini review. *Mini Rev. in Org. Chem.* 8, 372-376.
- Suchiang, K. and Sharma, R. (2011) Dietary restriction regulates brain acetylcholinesterase in female mice as a function of age. *Biogerontology* 12, 581-589.
- Syiem, D. and Majaw, S. (2011) Effect of different solvent extracts of *Potentilla fulgens* L. on aldose reductase and sorbitol dehydrogenase in normoglycemic and diabetic mice. *Pharmacologyonline* 3, 63-72.
- Warjri, P. and Syiem, D. (2011) Hypoglycemic and antihyperglycemic effects of aqueous extract of *Ixeris gracilis* DC. on normal and alloxan-induced diabetic mice. *Diabetologica Croatica* 40(3), 89-95.

School of Life Sciences

Funds Received

Equipment grant (11th Plan): ~Rs. 13 lakhs

UGC-SAP (DRS-II), New Delhi; Coordinator:
Prof. R. Sharma = Rs. 4 lakhs

DST: ~Rs. 1.5 lakh (Prof. R. Sharma)

UGC: ~Rs. 1 lakh (Prof. R. Sharma)

BRNS (DAE): Rs. 7.5 lakhs (Prof. R. N. Sharan)

DST: Rs. 5 lakhs (Prof. A. Alam)

ICMR: Rs. 1.88 lakhs (Dr. L. Kma)

BRNS (DAE): Rs. 16.5 lakhs (Dr. D. Syiem)

DBT: ~Rs. 25.37 lakhs (Dr. T. Tripathi)

DBT: ~Rs. 1.1 crore (Dr. T. Tripathi)

ICMR: ~Rs. 12 lakhs (Dr. T. Tripathi)

Research Projects

Ongoing and New

Name of the Project	Funding Agency	PI
Dietary and hormonal modulation of protein carbonylation in mice as a function of age	UGC, New Delhi	Prof. R. Sharma
Studies on biomodulators on glucocorticoid receptors in mice	DST, New Delhi	Prof. R. Sharma
Biodosimetry studies using cytogenetic and gene expression profiles in human peripheral blood lymphocytes exposed to gamma radiation ex vivo	BRNS, Mumbai	Prof. R. N. Sharan & Dr. Kma (CI)
Molecular and immune-chemical characterization of tumor associated antigens in mice exposed to nitrosamines	DST, New Delhi	Prof. A. Alam
Flora & Fauna of Kyllengpyndeng Sohiong Mawthabah Uranium rich area of West Khasi Hills, Meghalaya	BRNS, Mumbai	Dr. D. Syiem
Study of relationship between poly-ADP-ribosylation (PAR) of blood lymphocyte proteins and cancers of breast, cervix and head & neck in humans: Exploring the potential of PAR as a biomarker for cancer detection	ICMR, New Delhi	Dr. L. Kma & Prof. R. N. Sharan (CI)
Identification, molecular characterization and structure determination of glutaredoxin system proteins from infectious flukes	DBT, New Delhi	Dr. T. Tripathi
Enhancing functional repertoire of eukaryotic RNA Polymerase II	DBT, New Delhi	Dr. T. Tripathi
Molecular proteomic studies of the glutathione S-transferase protein system of the giant intestinal fluke- <i>Fasciolopsis buski</i>	ICMR, New Delhi	Dr. T. Tripathi

Academic/Professional Collaborations

Two collaborative DBT-funded research projects are running in the laboratory of Dr. T. Tripathi. There are also research collaborations with the following institutes: University of Konstanz, FRG; University of Dundee, UK; Uppsala University, Sweden; University of

California, USA; Institute of Enzyme Research, Japan; Toho University, Japan; Research Centre, Juelich, FRG; Osaka University, Japan; University of Cambridge, UK; Newcastle University, UK; Medical College of Wisconsin, Milwaukee, USA; JNU, New Delhi and BHU, Varanasi.

Honours/Awards/Recognition

Prof. R. Sharma was

1. President of the Association of Gerontology (India).
2. Member, Editorial Board of *Biogerontology* from Springer, The Netherlands.
3. Member, Editorial Board of *International Journal of Developmental Neurosciences*, Elsevier, USA.
4. Member, Editorial Board of *Frontiers in Aging research*, Switzerland.

Prof. R. N. Sharan

1. In a first of its kind, a tripartite agreement between Prof. R. N. Sharan, NEHU and IndSwift Pharmaceutical Ltd. was signed on 24th November 2011 at Shillong for further R&D to make the cancer detection kit, a patented novel invention of Prof. Sharan.

Dr. D. Syiem was a

1. Reviewer for *Journal of Medicinal Plants Research*. www.academicjournals.org/jmpr, ISSN 1996-0875; 2010-12.

Dr. M B Syiem

1. Member of Advisory committee for women & child health nutrition programme under National Council for Science & Technology communications (NCSTC), Dept. of Science & Technology, Ministry of Science & Technology, GOI, New Delhi; 2010-2013.

Dr. T. Tripathi

1. Editorial Review Board member of *International Journal of Biomedical*

Science (IJBS) and Scientific Journals International (SJI).

2. DBT Overseas Associateship Award to visit Justus Liebig University, Giessen, Germany for 3 months; January 2012 to April 2012.

Other Academic Activities

Prof. R. Sharma

1. Chaired an invited session during 9th Asia/Oceania Regional Congress of Gerontology and Geriatrics, in Melbourne, Australia (October 23-27, 2011).
2. Gave invited lecture at the Saurashtra Univ., Rajkot under DST-INSPIRE programme on Nov. 21, 2011.
3. Gave invited lecture in Brain Storming on Neurobiology of Aging at Dept. of Zoology, BHU (Sept 17, 2011).

Dr. D. Syiem

1. Was invited as a speaker and chaired a session in a workshop on Standardizing Cultivation and harvesting methods of NTFPs for their sustainable management in the State of Meghalaya, organized by Regional Centre, National Afforestation and Eco-development Board, NEHU held on 28-29th June, 2011.

Dr. A. K. Singh

1. Delivered a lecture in a training programme on "Training in Molecular Biology" under the DBT state level Biotech Hub project organized by Department of Botany, North-Eastern Hill University, Shillong on Nov. 17-25, 2011.
2. Presented an invited paper at the International Conference on Climate

School of Life Sciences

Change, Forest Resource and Environment (ICCFRE-2011) organized by the Department of Environmental Sciences, University of Kerala, Thiruvananthapuram in collaboration with National Environmentalists Association, Ranchi during 9-11 December 2011.

Dr. S. Bhan

1. Attended the Refresher Course in Botany, conducted by UGC-ASC, NEHU, Shillong in Centre for Advanced Studies in Botany, NEHU, 23rd August to 12th September 2011.

Dr. T. Tripathi

1. Attended a seminar on "Advances in LC-MS" organized by the Shimadzu Inc, on 24th May, 2011.
2. Attended a workshop on Theoretical and Practical Course - "Proteomics: High Throughput Analysis of Proteins and Proteome by Mass Spectrometry" at ICGEB, New Delhi from 10th to 21th October 2011.
3. Delivered a lecture at the National Congress of Parasitology, 2011 held at Anna University, Chennai from 18th November to 20th November 2011.
4. DST-FIST visiting faculty to International Centre for Genetic Engineering and Biotechnology, New Delhi for one month from 11th March 2011 to 11th April 2011.

Dr. M. B. Syiem

1. Was invited as a resource person to a Three day training programme for Biology teachers, initiated by DBT, Government of India, at Lady Keane College, Shillong, Meghalaya on 23rd August 2011.

Dr. P. K. Ambasht

1. Delivered two lectures to M.Sc. Biotechnology students in the School of Biotechnology, Banaras Hindu University, Varanasi, September 19-20, 2011.

Dr. L. Kma

1. Attended a short-term course in Research Methodology (8th August 2011- 13th August 2011) conducted by UGC-ASC NEHU.

Department of Biotechnology and Bioinformatics

Head : Prof. A. Chatterjee

Telephone : 272 2401(o)

Thrust Areas

Molecular Genetics, Applied Microbiology.

Brief Statement of Academic Activities

The department received DST-FIST support for

strengthening infrastructural facility from the Department of Science & Technology, Govt. of India. The extramural support in the form of projects received by the faculties came from DBT, DST, UGC, BARC, DRDO, ICAR, etc.

Faculty Profile

- Professors : A.Chatterjee, M.Sc. (Burdwan) / Ph.D. (BHU)
 S. Rama Rao, M.Sc. / Ph.D. (Jodhpur)
 Kripamoy Aguan M.Sc (IARI). Ph.D. (Univ of Birmingham)
- Associate Professors : S.R. Joshi, M.Sc. / Ph.D. (NEHU)
- Assistant Professor : S Majaw, MSc (Tezpur), Ph.D. (NEHU)
 A Bhattacharjee, MSc./ Ph.D. (NEHU) M.Sc. (Annamalai)
 Neha Chaurasia, M.Sc. (BHU)

Student Intake

Enrolment Capacity: 24
 Actual Admission

	SC	ST	OBC	Gen	Male	Female	From Meghalaya/ From Outside
M.Sc	01	13	02	08	10	14	20/4
Ph.D	-	01	-	05	01	05	01/05

Ph.D.

1. Avdhesh K Rai, "Studies on deregulation of p16, pRb and p53 genes in tumor samples collected from raw betel-nut chewers' under the supervision of Prof A Chatterjee, result declared on 14.10.2011.
2. Lalit M Goswami, "Studies on the status and molecular discrimination of Crustacea-borne zoonoses of trematode origin, with special reference to paragonimiasis in suspected foci of North-East India" with Prof A Chatterjee as Co-supervisor with Prof V Tandon, result declared on 03.02. 2012.
3. Mr Ranjan Kumar Bhagobaty was awarded the degree under the supervision of Dr SR Joshi on the work entitled " Studies on endophytic fungi associated with some medicinal plants of the sacred groves of Meghalaya", result declared on 27th July 2011.

Courses Conducted

I Semester: Cell Biology & Genetics, Biomolecules, Microbiology,

II Semester: Molecular Biology, Immunology, Microbial Technology

III Semester: Animal Cell Science & Technology, Genetic Engineering, Plant Biotechnology

IV Semester: Bioprocess Engineering & Technology, Environmental Biotechnology, Molecular Genetics, Applied Microbiology

The department offered open courses on Microbial Technology, Applied Molecular Genetics and Bioinformatics in Molecular and cellular Biology under CBCS in the 2nd and 3rd semesters.

Study Tours/Field Trips of Students

Final year students of MSc visited Delhi and

Agra for a study tour escorted by Prof. K Aguan and Ms Neha Chaurasia during January-February 2012 and visited several institutes in Delhi.

Seminars/Conferences/Symposia/Extension Programmes, etc

Attended

Prof. S.R. Rao

1. Presented an invited lecture on “Cellular and molecular cytogenetical analysis of orchids from North-East India – A case study of *Cymbidiums*” at the national conference on “Orchids in India: Diversity, Characterization and Resource Development for Community Livelihood” held at National Academy of Sciences, Allahabad on December 21-23, 2011.
2. Presented an invited lecture on the topic “Characterization of genetic diversity between and within populations/species using modern tools and techniques of Biotechnology” at the National Symposium on Assessment and Conservation of Forest Genetic Resources through Biotechnological Interventions” held on 19-20th December 2011 at the Institute of Forest Productivity (IFP), Ranchi.
3. Presented an invited lecture on “Genetic minutiae of some threatened medicinal herbs of Indian Thar desert” at the UGC sponsored National Conference on “Current Status and Opportunities in Medicinal Plants of Thar Desert” held on December 17-18th Dec. 2011 at Mahila P.G. College, JNV University, Jodhpur.
4. Presented an invited lecture on the topic on “Differential climatic conditions

influences plant genome diversity: Implications and future challenges” at the National Conference on “Climate Change and Sustainable Management of Water Resources” held on 17th and 18th March, 2012 at GITAM University, Visakhapatnam.

Dr. S. R. Joshi

1. Kaushik Bhattacharjee and S.R.Joshi, “Phylogenetic rearrangement of *Streptomyces* spp. on the basis of Internal Transcribed Spacer (ITS) region using molecular morphometrics approach” at the National Conference on “Biology and Bioinformatics of Economically Important Plants and Microbes” February 17-19, 2012 at University of North Bengal, Siliguri, West Bengal.
2. Rakshak Kumar, Macmillan Nongkhlaw, Celin Acharya and S R Joshi. “Metal tolerance potential in different growth media by the identified uranium (U)-tolerant bacteria from the sub-surface soil of U rich ore bearing site of Domiasiat in Meghalaya” at the National Conference on “Biology and Bioinformatics of Economically Important Plants and Microbes” February 17-19, 2012 at University of North Bengal, Siliguri, West Bengal.
3. Macmillan Nongkhlaw, Rakshak Kumar and S R Joshi. “Metal transporting genes among bacteria from uranium rich area: Bioprospecting organisms for metal bioremediation” at the National Conference on “Biology and Bioinformatics of Economically Important Plants and Microbes” February 17-19, 2012 at University of North Bengal, Siliguri, West Bengal.

4. Nathaniel A. Lyngwi and S. R. Joshi "Characterization of economically important native *Bacillus* and related genera from 'Sacred Groves' of Meghalaya, India" at the National Conference on "Biology and Bioinformatics of Economically Important Plants and Microbes" February 17-19, 2012 at University of North Bengal, Siliguri, West Bengal.
 5. Khedarani Kojam and Dr. SR Joshi "Screening of exopolysaccharide producing lactic acid bacteria from traditionally fermented foods of Meghalaya" at the International Conference on Microbial Biotechnology for sustainable development, organized by Panjab university, Chandigarh on November 3-6, 2011.
 6. Sharmila Thokchom and S.R. Joshi "Screening of fibrinolytic enzyme using SD-fibrin zymography technique from *Weissella* sp- a lactic acid bacteria characterized form traditional fermented soybean food of North-East India" at the National Seminar on recent Advances in the Development of fermented foods. 8-9 April 2011 at Banaras Hindu University, India.
 7. Archana Nath and SR Joshi "Antimicrobial and antioxidant potential of *Phomopsis* sp, an endophytic fungus isolated from ethnomedicinal plants of North East India" at the Annual Symposium of National Academy of Sciences, Nov, 2011 at University of Kerala.
 8. Lamabam Sophiya Devi and SR Joshi "Antimicrobial potential of silver nanoparticles synthesized using a fungus isolated from soil of North East India" at the Annual symposium of National Academy of Sciences, Nov, 2011 at University of Kerala.
 9. Archana Nath and SR Joshi "Biological activities of endophytic fungi isolated from *Rouwolfia serpentina*- an ethnomedicinal plant of North East India" at the International conference on Mycology and Plant Pathology : Biotechnological Approaches-2012. BHU, Varanasi on 27-29 February, 2012.
 10. Polashree Khaund and SR Joshi "The *Gomphus* Paradox of Meghalaya: Wild edible fungi or a poisonous mushroom? Presented at the International conference on Mycology and Plant Pathology: Biotechnological Approaches-2012. BHU, Varanasi on 27-29 February, 2012.
 11. Delivered a plenary talk on "Diversity of culturable microbes distributed across the different altitudes in soils from Northeast India for sustainable utilization" at the International Conference on Microbial Biotechnology for sustainable development during 52nd Annual Conference of AMI on November 3-6 , 2011(4 Nov 2011)
 12. Delivered an invited talk on "Endophytic microbial diversity for bioactive products and their medicinal relevance" at the Indian National Science Academy Anniversary General Meeting held at University of Tezpur on December 28-30 , 2011
- Dr S Majaw presented a paper on
1. "Effect of *Osbeckia chinensis* extract on the polyol pathway enzymes of two age

groups in diabetic mice” at the 12th International Congress of Ethnopharmacology on “Traditional Medicine and Globalization-The future of Ancient Systems of Medicine”, organized by School of Natural Product Studies, Jadavpur University, Feb 17-19, 2012, Kolkata.

Ms N Chaurasia, Mishra, Y. and Rai, L.C. 2011. Effect of integration of cyanobacterial *pcg* gene on the proteome of cisgenically transformed *Anabaena* sp. PCC 7120" at the SPPS Congress at Stavanger, Norway 2011.

Publications

Published Abroad

1. JA. Shylla, S Ghatani, A.Chatterjee, V.Tandon, (2011) Secondary structure analysis of ITS2 in the rDNA of three Indian paramphistomid species found in local livestock. *Parasitology Res.*, 108:1027-1032, 2011.
2. PK Prasad, LM Goswami, V Tandon , A. Chatterjee (2011) PCR-based molecular characterization and insilico analysis of food-borne trematode parasites *Paragonimus westermani*, *Fasciolopsis buski* and *Fasciola gigantica* from north-east India using ITS2 rDNA. *Bioinformation*, 6: 64-68.
3. Ghatani, S., Shylla J. A., Tandon, V., Chatterjee, A and Roy, B. (2011): Molecular characterization of pouched amphistome parasites (Trematoda:Gastrothylacidae) using ribosomal ITS2 sequence and secondary structures. *Journal of Helminthology*, 86(1):117-24.
4. Gatpoh, E.M., Sharma, S. K., Rajkumari, K., Rao, S.R. (2011). Efficacy of random primer-pair arrays in plant genome analysis: a case study of *Cucumis* for identification of wild and cultivated species. *Genetics and Molecular Research*, (USA) 10(3): 1416-1426.
5. Sharma, S. K., Kumar, S., Rawat, D., Kumaria, S., Kumar, A and Rao, S.R. (2011). Genetic diversity and gene flow estimation in *Prosopis cineraria* (L.) Druce: a key stone tree species of Indian Thar desert. *Biochemical Systematics and Ecology* 39: 9-13.
6. Sharma, S.K., Dkhar, J., Kumaria, S., Tandon, P., Rao, S.R. (2012). Assessment of phylogenetic inter-relationships in the genus *Cymbidium* (Orchidaceae) based on internal transcribed spacer region of rDNA, *Gene* (Elsevier), 495: 10-15. doi:10.1016/j.gene.2011.12.052.
7. Ram, H., Kumar, A., Sharma, S.K., Ojha, A., Rao, S.R. (2012). Meiotic studies in *Withania somnifera* (L.): A threatened medicinal herb of Indian Thar desert. *American Journal of Plant Sciences*. 3 (2); 185-189. DOI:10.4236/ajps.2012.32022.
8. Sharma, S.K., Kumaria S., Tandon, P., Rao S.R., 2012. Comparative karyomorphology of two endemic and critically-endangered species of *Mantisia* (Zingiberaceae). *The Nucleus*. DOI 10.1007/s13237-012-0053-5.
9. Sharma, S.K., Kumaria S., Tandon, P., Rao S.R., 2012. Endomitosis in tapetal cells of some *Cymbidiums* (Orchidaceae). *The Nucleus*, DOI 10.1007/s13237-012-0049-1.
10. Sharma, S.K., Mehra, P., Kumari, J., Kumar S., Kumaria S., Tandon, P., Rao S.R., 2012. Physical localization and probable

- transcriptional activity of 18S-5.8S-26S rRNA gene loci in some Asiatic Cymbidiums (Orchidaceae) from north-east India. *Gene*, 499 (2): 362-366. doi: 10.1016/j.gene.2012.03.007.
11. Sharma, S.K., Bhowmik, S.S.D., Kumaria, S., Tandon, P., Rao, S. R. 2012. Low genetic variation revealed by SPAR methods in two critically endangered and endemic species of *Mantisia* leading to extinction. *Biologia Plantarum* (Springer), 56 (2): 292-300, 2012. DOI:10.1007/s10535-011-0155-y (If: 1.58).
 12. R Kumar, C Acharya and S R Joshi (2011). Isolation and analyses of uranium tolerant *Serratia marcescens* strains and their utilization for aerobic uranium U(VI) bioadsorption. *The Journal of Microbiology*. 49(4), 568-574.
 13. GF Rapsang, R Kumar and SR Joshi (2011) Identification of *Lactobacillus pobuzihii* from *Tungtap*-a traditionally fermented fish food, and analysis of its bacteriocinogenic potential. *African Journal of Biotechnology*. 10(57), 12237-12243.
 14. RK Bhagobaty and SR Joshi (2011) Multi-loci molecular characterization of endophytic fungi isolated from five medicinal plants of Meghalaya, India. *Mycobiology*, 39(2): 71-78.
 15. Neli Lokho Pfoze, Yogendra Kumar, Berington Myrboh, Ranjan Kumar Bhagobaty and S R Joshi (2011) *In vitro* antibacterial activity of alkaloid extract from stem bark of *Mahonia manipurensis* Takeda. *Journal of Medicinal Plants Research*. 5(5), 859-86.
 16. RK Bhagobaty and SR Joshi (2011) Metabolite profiling of endophytic fungal isolates of five ethno-pharmacologically important plants of Meghalaya, India. *Journal of Metabolomics and Systems Biology*. 2(2): 20-31.
 17. RK Bhagobaty and SR Joshi (2011) Fungal endophytes of five medicinal plants prevalent in the traditionally preserved 'sacred forests' of Meghalaya, India. *Forest Science and Technology* 7(4): 151-154.
 18. LS Devi and SR Joshi (2012) Antimicrobial and Synergistic Effects of Silver Nanoparticles Synthesized Using Soil Fungi of High Altitudes of Eastern Himalaya. *Mycobiology*, 40(1):27-34.
 19. RK Bhagobaty and SR Joshi (2012) Enzymatic activity of fungi endophytic on five medicinal plant species of the pristine sacred forests of Meghalaya, India. *Biotechnology and Bioprocess Engineering* :17:33-40.
 20. Archana Nath, Prajwal Raghunatha and SR Joshi (2012) Diversity and biological activities of endophytic fungi of *Emblca officinalis*, an ethnomedicinal plant of India. *Mycobiology*: 40(1): 8-13.
 21. RK Bhagobaty and SR Joshi (2012) Antimicrobial and antioxidant activity of endophytic fungi isolated from ethnomedicinal plants of the "Sacred forests" of Meghalaya, India. *Mikologia Lekarska*: 19 (1): 5-11.
 22. Yu-Shuen Tsai1, Kripamoy Aguan2, Nikhil R. Pal, I-Fang Chung (2011). Identification of Single and Multiple Class specific signature from gene expression profiles by Group-Marker Index. *PLoS One* 6(9): e24259. 23. Yi-Cheng Chen, Kripamoy Aguan, Chu-Wen Yang, Yao-Tsung Wang,

- Nikhil R Pal and I-Fang Chung (2011). Discovery of Protein Phosphorylation Motifs through Exploratory Data Analysis. *PLoS One* 6(5):24. Katano M, Numata T, Aguan K, Hara Y, Kiyonaka S, Yamamoto S, Miki T, Sawamura S, Suzuki T, Yamakawa K and Mori Y (2011). The juvenile myoclonic epilepsy related protein EFHC1 interacts with the redox-sensitive TRPM2 channel linked to cell death. *Cell Calcium* 51(2):179.
25. Syiem, D. and Majaw, S. 2011. Effect of different solvent extracts of *Potentilla fulgens* L. on AR and sorbitol dehydrogenase in normoglycemic and diabetic mice. *Pharmacologyonline* 3: 63-72, 2011.
 26. Barh D, Jain N, Tiwari S, Parida BP, D'Afonseca V, Li L, Ali A, Santos AR, Guimarães LC, de Castro Soares S, Miyoshi A, Bhattacharjee A, Misra AN, Silva A, Kumar A, Azevedo V. [2011] A novel comparative genomics analysis for common drug and vaccine targets in *Corynebacterium pseudotuberculosis* and other CMN group of human pathogens. *Chemical Biology & Drug Design*, 78(1):73-84.
 27. Atanu Bhattacharjee, BJ Myllemngap, D.Velmurugan (2012) 3D-QSAR studies on fluoroquinolones derivatives as inhibitors for tuberculosis. *Bioinformation* 8(8): 381-387.
 28. Mishra, Y., Hall, M., Chaurasia, N., Rai, L.C., Jansson, S., Schröder, P.W., Sauer, U.H. 2011. Expression, purification, crystallization and preliminary X-ray crystallographic studies of alkyl hydroperoxide-reductase (AhpC) from cyanobacterium *Anabaena* sp. PCC 7120. *Acta Crystallogr Sect F Struct Biol Cryst Commun.*, F67, 1203-1206.
- Published in India*
1. George F Rapsang and S R Joshi (2012). Bacterial diversity associated with *tungtap*, an ethnic traditionally fermented fish product of Meghalaya. *Indian Journal of Traditional Knowledge*. 11 :134-138.
 2. Sharmila Thokchom and SR Joshi (2012) Microbial and chemical changes during preparation in the traditionally fermented soybean product *Tungrymbai* of ethnic tribes of Meghalaya. *Indian Journal of Traditional Knowledge*. 11:139-42.
 3. Debmalya Barh, Shoaib Ahmad, and Atanu Bhattacharjee (2012). In Silico and Ultrahigh-Throughput Screenings (uHTS) in Drug Discovery: an Overview (2012). *Pharmaceutical Biotechnology*. 2nd ed. Wiley publication.
 4. Debmalya Barh, Eugenia Ch Yiannakopoulou, Preetam Ghosh, Emmanuel O Salawu, Vasco Azevedo, Atanu Bhattacharjee Insilico disease models.(2012) 1st edition. Springer publications.
- Funds Received**
1. Department of Biotechnology (Project) = Rs. 255.771 lakhs
 2. Department of Atomic Energy - BRNS, Mumbai (Project) = Rs. 8.56 lakhs
 3. Dept of Biotechnolog,- Govt. of India MSC Support Programme = Rs. 23.49 lakhs
 4. Department of Information Technology, Govt. of India(Project) = Rs. 59.97 lakhs

5. Indian Council of Agricultural Research/ NAIIP/World Bank (Project)= Rs. 27.8 lakhs
6. DST - Ministry of Science and Technology (Project)= Rs. 44.0 lakhs
7. DST - Ministry of Science and Technology (FIST) = Rs. 51.0 lakhs
8. UGC, Govt. of India (Project)= Rs. 7.07 lakhs

Research Projects

New

1. Development of AChE-inhibitor for Alzheimers Disease: screening, designing, synthesis and biological validation using chemical library & North East Indian Plants". Funding Agency: Department of Biotechnology, Govt. of India. Amount Received: Rs. 94.63 lakhs. Principal Investigator: Dr K Aguan.
2. Allelic loss of mitotic checkpoint genes and their expression level in oral and esophageal cancer samples of raw betel-nut chewers in Meghalaya". Funding Agency: Department of Science & Technology, Govt. of India. Amount Received: Rs 44.0 Lakhs. Principal Investigator: Dr A Chatterjee.

Ongoing

1. Status and PCR-based Molecular discrimination of Paragonimiasis and other Crustacea-born Trematode Zoonoses in Northeast India. Funding Agency: Department of Biotechnology, Govt of India. Principal Investigator: Mrs. V. Tandon and A Chatterjee, Amount Received: 24.18 Lakhs.
2. Loss of heterozygosity on specific chromosomal arms and influence of single nucleotide polymorphisms in XRCC1

- and XPD genes in oral and esophageal cancers induced by raw betel-nut in Meghalaya". Funding Agency: Department of Biotechnology, Govt of India Principal Investigator: Dr A Chatterjee Amount Received: 18.25 Lakhs.
3. Purification and characterization of bioactive natural antioxidant, immunomodulator and anticancer products from medicinal plant, (Name), of North Eastern region of India. Funding Agency: Department of Biotechnology, Govt of India. Principal Investigator : Dr A Chatterjee. Amount Received: Rs. 64.12 lakhs.
4. Characterization of metal tolerant microbes from soils of Domiasiat-Wakhyn area of Meghalaya. Funding Agency: Bhabha Atomic Research Centre, BRNS, Mumbai. Principal Investigator: Dr SR Joshi. Amount Received: Rs 8.56 lakhs.
5. Microclimatic characterization and microbial indicator database creation for Cherrapunjee and adjoining Sacred Groves of Meghalaya. Funding Agency: Department of Information Technology (MC & IT) Govt of India. Principal Investigator: Dr SR Joshi. Amount Received: Rs 12.54 lakhs.
6. Development of web based microbial database (bacteria, actinomycetes and fungi) of North-East India. Funding Agency: Department of Information Technology (MC & IT) Govt of India. Principal Investigator: Dr SR Joshi. Amount Received: Rs 47.43 lakhs.
7. Isolation, characterization and anti-cancer property of endophytic fungal metabolites from north-eastern India. Funding

School of Life Sciences

Agency: Department of Biotechnology, Govt of India. Principal Investigator: Dr SR Joshi. Amount Received: Rs 26.02 lakhs.

8. Biosystematics of the genera *Vigna*, *Cucumis* and *Abelmoschus*. Funding Agency: ICAR/NAIP. Principal Investigator: Dr SR Rao. Amount Received: Rs 27.8 lakhs.
9. Exploration and Germplasm Collection of *Citrus* from the North-Eastern India and Characterization of Genetic Variability Using Cellular and Molecular Approaches. Funding Agency: University Grants Commission. Principal Investigator: Dr SR Rao. Amount Received: Rs 7.07 lakhs.
10. Characterization of Rhizobia Associated with Native and Wild Legumes of Northeast India with Special Emphasis on Meghalaya. Funding Agency: Department of Biotechnology, Govt of India. Principal Investigator: Dr SR Rao. Amount Received: Rs 23.0 lakhs.
11. The use of Biodiversity as a source of new chemical entities against defined molecular targets for the treatment of tuberculosis. Funding Agency: Department of Biotechnology, Govt of India. Principal Investigator: Dr A Bhattacharjee. Amount Received: Rs 38.95 lakhs.

Academic/Professional Collaborations

1. A collaborative research work in the field of microbiology on characterization of novel metal tolerant gene(s) has been going on between Dr Celin Acharya of BRNS-BARC and Dr SR Joshi.
2. A collaborative research work in the field of microbiology-endophytes on characterization of novel endophytes and their anti-cancer properties has been going on between Dr A Chattopadhyay of Visva-Bharati and Dr SR Joshi.
3. A collaborative research work with All India Institute Medical Sciences (Neurology Dept.) New Delhi and Prof K Aguan is on.
4. A collaborative research work in the field of bioinformatics between Dr. A. Bhattacharjee and Prof. Velmurugan, Centre for advanced studies in Crystallography and Biophysics, Chennai.
5. Prof A Chatterjee has a collaborative research on Purification and characterization of bioactive natural antioxidant, immunomodulator and anticancer products from *Dioscorea alata* L., of North Eastern region of India with Dr. N. Mandal of Bose Institute and Prof. Tapas Choudhury of Univ. of North Bengal.
6. Prof A Chatterjee has a collaborative research on Studies on antitumor and radioprotective potential of *Potentilla fulgens* Wall ex Hook and characterization of its active compounds with Prof. U Banerjee of NIPER, Chandigarh.

Department of Botany

Head : Prof. N. Venugopal
Telephone : 2722201, 2722202 (o)
Email Id : headbotany@nehu.ac.in

Thrust Areas

Plant Diversity Assessment and Conservation.

Brief Statement of Academic Activities

The faculty members of the department were engaged in several academic activities during the period under report like organization of refresher courses, workshops, training programmes, invited lectures and other events to mark/celebrate specific days. During the academic session 2011-2012, 8 students were admitted to PhD programme of the department, 6 students were awarded Ph.D. degrees, and grants worth Rs. 418.761 lakhs were received through different research projects. The department was identified as one of the units in

the University for financial support by the Department of Biotechnology, Government of India for strengthening of infrastructure for Biotechnology teaching and research and also for Biotech Hub. The department conducted the following three training programmes: In-Silico approaches in Biotechnology Research: September 5-9, 2011, Techniques in Molecular Biology: November 17-25, 2011, and Molecular tool in Biotechnology teaching and research: March 19-30, 2012. The department also conducted two Refresher Courses on Plant Diversity and Conservation: 17th March - 6th April, 2011 and Biodiversity, conservation, structure and function: 23rd August - 12th September, 2011.

Faculty Profile

Professors

Name of the Faculty	Masters		Doctorate		
	Degree	Univ.	Degree	Univ.	Specialization
Dr. P. Tandon	M. Sc.	Lucknow	Ph. D.	Jodhpur	Plant Physiology, Biochemistry and Biotechnology
Dr. A. K. Misra	M. Sc.	Meerut	Ph. D.	Meerut	Cell and Molecular Genetics
Dr. N. K. Chrunghoo	M. Sc.	Kashmir	Ph. D.	Kashmir	Plant Physiology, Plant Molecular Biology
Dr. R. C. Laloo*	M. Sc.	Gauhati	Ph. D.	Gauhati	Ecology
Dr. M. S. Dkhar	M. Sc.	NEHU	Ph. D.	NEHU	Microbiology and Microbial Ecology
Dr. N. Venugopal	M. Sc.	Madras	Ph. D.	Madras	Plant Anatomy and Reproductive Biology

School of Life Sciences

Name of the Faculty	Masters		Doctorate		
	Degree	Univ.	Degree	Univ.	Specialization
Dr. S. K. Barik	M. Sc.	Berhampur	Ph. D.	NEHU	Forest Ecology and Management, Bio-diversity Conservation and EIA
Dr. Uma Shankar	M. Sc.	Agra	Ph. D.	NEHU	Ecology, Biodiversity and Conservation

*On E.O.L to Govt. of Meghalaya as a cabinet minister

Associate Professors

Dr. Y. Kumar	M. Sc.	Agra	Ph. D.	NEHU	Plant Taxonomy and Biosystematics
Dr. L. Kharlukhi	M. Sc.	NEHU	Ph. D.	IARI	Plant Physiology
Dr. H. Kayang	M. Sc.	NEHU	Ph. D.	NEHU	Mycology, Plant Pathology, Microbiology, Microbial Ecology
Dr. S. Kumaria	M. Sc.	NEHU	Ph. D.	NEHU	Plant Physiology and Biotechnology
Dr. P. Ramanujam	M. Sc.	NEHU	Ph. D.	NEHU	Plant Ecology Algal Ecology

Assistant Professors

Dr. M. C. Das	M. Sc.	NEHU	Ph. D.	NEHU	Plant Physiology and Biotechnology
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Student Intake

Enrolment capacity: M. Sc. Botany: 30

M.Sc. Plant Molecular Biology: 10

Ph. D.: Variable

Actual Admission

Degree	SC/OBC	ST	G	University quota	M	F	Meghalaya	Outside
M. Sc. (Botany)	Nil	26	01	3(ST)	16	14	19	11
M. Sc.(PMB)	Nil	06	03	1(ST)	02	08	09	01
Ph. D. (Botany)	Nil	06	02	-	02	06	04	04

M= Male, F= Female, G= General

Degrees Awarded

Degree	SC	ST	General	Male	Female	Meghalaya	Outside	Total
M. Sc.(Botany)	Nil	21	07	10	18	25	03	28
Ph. D.	01	04	01	04	02	05	01	06

Ph.D.

Name of the Candidate	Title of Thesis	Supervisor
Mr. John Zothanzama Sailo	Studies on the wood rotting fungi of Meghalaya	Supervisor: Prof. M. S. Dkhar Jt. Supervisor: Dr. H. Kayang
Mr. Panna Das	Studies on the arbuscular mycorrhizal fungi associated with <i>Michelia champaca</i> Linn. and their potential on its growth	Supervisor: Dr. H. Kayang
Ms. Nabanita Devadasan	Isolation and functional characterization of the waxy locus in common buckwheat (<i>Fagopyrum esculentum</i> Moench)	Supervisor: Prof. N. K. Chrunghoo
Mr. David Lalsama Biate	Molecular typing of some native cyanobacteria and <i>Rhizobium</i> strains	Supervisor: Prof. A. K. Misra
Mr. Jeremy Dkhar	Analysis of genetic diversity and Phylogentic relationship in the genus <i>Nymphaea</i> using DNA profiling	Supervisor: Prof. P. Tandon Jt. Supervisor: Dr. S. Kumaria
Ms. Haribashai Swer	Studies on soil microbial populations and their activities as affected by crop rotation and organic treatments under experimental conditions	Supervisor: Prof. M.S. Dkhar

Study Tours/Field Trips of Students

Name of Teachers in-charge: Prof A. K. Misra and Prof. Uma Shankar

- I. Places of visit: South India (Chennai, Mysore, Bandipur, Madumalai, Ooty, BR Hills and Bangalore).
- II. Duration: 15 days from January 16-30, 2012
- III. Purpose of visit: To survey the vegetation types in South India

Seminars/Conferences/Workshops/Extension Programmes

Organized

Prof. Arvind K. Misra organized DST-INSPIRE winter camp during December 13 to 17, 2011

Prof. S.K. Barik organized the following two workshop-meetings at NEHU, Shillong: (1) "Sacred forest ecosystem services" on 23rd April,

2011, sponsored by MoEF, Govt. of India, and (2) "Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools" on 12th May, 2012.

Attended

Prof. Pramod Tandon

- Delivered the keynote address on 'Biodiversity of Northeast India-Conservation and sustainable utilization' at the National Seminar on 'Status of Biodiversity in India: Conservation and Social Relevance with Reference to NE India' on 8th August 2011 at Don Bosco College, Tura. He also chaired the session on Invited Lectures.
- Delivered the Plenary Lecture 'Biodiversity of Northeast India: Key to Survival and Economic Well-being' at the

School of Life Sciences

National Conference on “Water, Energy, and Biodiversity with special reference to North-East Region”, organized by the Institution of Engineers (India), Tripura State Centre and National Institute of Hydrology, Roorkee during August 20-22, 2011 at Agartala, Tripura.

- Delivered an invited lecture ‘Plant Resources of India-Potentials for Future Development’ at the 81st Annual Session of National Academy of Sciences, India and the Symposium on ‘Sustainable Management of Biodiversity using Science & Technology’ on 24 November 2011 at University of Kerala, Thiruvananthapuram.

Prof. N. K. Chrungoo

- Delivered a Plenary lecture on ‘The “omics” revolution in post genomics era: Manipulating Complex Pathways for improved nutritional quality of plant proteins’ at the national Symposium “Bioinformatics: Challenges in the post-genomic era” held at University of Jammu, Jammu Tawi on Feb. 2, 2012.
- Delivered a lecture “Diversity and sustainable utilization of underutilized crops” at Dept. of Bioresource and Biotechnology, BGSB University, Rajouri, J&K on June 11, 2011.
- Delivered the Late Prof. R. R. Das Memorial lecture on “Biodiversity for Food and Agriculture: Prospects and Challenges Ahead” at Jiwajee University, Gwalior on November 15, 2011.
- Delivered a lecture “Underutilized crops: Current status and prospects for utilization

to meet challenges of food and nutritional security” at Bose Institute, Kolkatta, during TIFAC meeting, on the thematic area “Food and Nutritional Security” on June 6-7, 2011.

- Delivered a talk “Understanding carotenoid metabolism in saffron crocus: Implications for quality improvement of saffron” during the Brain storming meeting on “National mission on Saffron” at University of Kashmir, Srinagar on October 17, 2011.
- Continues as the Asia pacific representative on the Editorial Board of the journal FAGOPYRUM.
- Continues as the Asia pacific representative on the Executive committee of IBRA, the Internal Buckwheat research Association.

Nominated as

- ☞ Member, DBT Task force on Biotechnology based programmes for women.
- ☞ Member, Board of studies in Biotechnology, D. Y. Patil University, Pune.

Prof. Pramod Tandon

- Appointed Member, National Advisory Council, Government of India.
- Acted as a resource person at the Brainstorming Session organized by the Technology Information, Forecasting and assessment Council, Department of Science & Technology.

Prof. N. Venugopal

- Presented a paper on ‘Impact of climatic factors on the periodicity of cambial

activity and seasonal production of xylem in relation to phenology in *Morus alba* Linn. growing in sub-tropical wet forest of Meghalaya, North-East India' in the Lecture Series on Biodiversity: Prospects and Concerns organized by School of Life Sciences, Under UPE (Biosciences) Programme, North-Eastern Hill University, Shillong on March 14-15, 2012.

Prof. S.K. Barik

- Presented an invited paper on Assessment of impact of climate change and adaptive strategies in northeastern region of India at the 1st Mountain Summit organized by ICIMOD and held at Nainital on 21st May, 2011.
- Presented a key note paper on quantifying ecosystem services in sacred forests of India at the MoEF sponsored workshop-cum-meeting on sacred forest ecosystem services held at MoEF, Delhi on 25th July, 2011.
- Presented a plenary paper on strategies for biodiversity conservation: a scientific perspective on biodiversity inventory and sustainable utilization at the National Conference on Water, Energy and Biodiversity held at Agartala on 20th-22nd August, 2011.
- Presented a key note paper on ecosystem level carbon sequestration in the humid tropical and montane subtropical forests of north-east india at the Brain Storming workshop on recent trends in CO₂ Capture and Sequestration research in India held at NEERI, Nagpur on 15-16 September, 2011.
- Presented an invited paper on utilization of bioresources at the International

Symposium on Natural Resource-based livelihood improvement held at Shillong on 24th March, 2012 organized by Department of Geography, North-Eastern Hill University, Shillong and GIZ, Germany.

- Delivered a Planary talk on Gap Plant dynamic in Tropical Forest at YETI, I.I.T., Guwahati on 13 December, 2011.

Dr. Papiya Ramanujam

- Presented a paper on 'Diversity and productivity of algae in different water bodies of Meghalaya' at the National seminar on Status of Biodiversity in India, organized by Department of Botany and Zoology, Don Bosco college, Tura on August 8- 9, 2011.
- Presented a paper on 'Diversity of algae in different water bodies of Meghalaya'' at the National seminar on Algae and Algal products, organized by Sathyabama University, Seaweed research and Utilization Association and Krishnamurthy Association of Algology, Chennai on September 22 -24, 2011.

Dr. Meera C. Das

- Presented a paper entitled 'Cryopreservation of pharmaceutically important orchid *Dendrobium chrysanthum* using encapsulation-vitrification method' at the National Conference on Biodiversity: Changing Patterns and Conservation Strategies hosted by Department of Botany, Deen Dayal Upadhyay Gorakhpur University, Gorakhpur on November 26-28, 2011.
- Presented a paper entitled 'Regeneration potential from explants of *D. lituiflorum*, A threatened orchid of North East India' at

the National Symposium on Impact of Plant Tissue Culture on Advances in Plant Biology and XXXIII PTCA (1) Annual Meet hosted by St. Xavier's College and Loyola Centre for research & Development, Ahmedabad on January 19 -21, 2012.

Publications

Published in India

1. Chatterjee, S., S. Ghosh, J. Sarma, S.K. Barik, B.K. Tiwari and K.C. Das (2011) Community Conserved areas in north-east India: some observations in Assam, Meghalaya and Arunachal Pradesh. *The Indian Forester* 137 (8): 48-61.
2. Daimei P. and Y. Kumar (2011) Occurrence of *Hedychium* Koenig (Zingiberaceae) in Tamenglong District of Manipur, Northeast India. *Pleione* 5(1): 23-31.
3. Khongsai, M., Saikia, S. P. and Kayang, H. (2011) Ethnomedicinal plants used by different tribes of Arunachal Pradesh. *Indian Journal of Traditional Knowledge* 10 (3): 541-546. (India).
4. Mayashree B. Syiem, Natasha A. Nongrum, B. Bashisha Nongbri, Amrita Bhattacharjee, David L. Biate and Arvind K. Misra (2011) Molecular Identification and Characterization of a Rice Field Cyanobacterium for its Possible Use as Biofertilizer in Acidic Environment, *Research & Reviews: A Journal of Microbiology & Virology*, 1(3):1.
5. Songachan L.S and Kayang. H (2011) Diversity and species composition of arbuscular mycorrhizal fungi in *Flemingia vestita* under shifting and continuous cropping system. *Nebio: A journal of Environment and Biodiversity*, Vol II (4): 1-8 (India). (ISSN: 0976-3597-print version).
6. Thapa, N., K. Upadhaya, R. Baishya and S.K. Barik (2011) Effect of plantation on plant diversity and soil status of tropical forest ecosystems in Meghalaya, Northeast India. *International Journal of Ecology and Environmental Sciences* 37(1):61-73.
7. Bharali, S., J. Deka, P. Saikia, M. L. Khan, Ashish Paul, O. P. Tripathi, L. B Singha and Uma Shankar (2012) *Pinus merkusii* Jungh et de Vries - a vulnerable gymnosperm needs conservation. *NeBio* 3(1): 93-94.
8. Majumdar, K., B. K. Datta, and Uma Shankar (2012) Ten new additions of tree species to the Flora of Tripura state, North East India: distributional range extension and geographic map. *NeBio* 3(1): 17-24.
9. Ramanujam, P., Hygina Siangbood, M. Das and Ophilia Shylla (2012) Diversity of Algae in different water bodies of Meghalaya. *Indian Hydrobiology*: 14(2).
10. Sharma, S.K., S. Kumaria, P. Tandon and S.R. Rao (2012) Comparative karyomorphological treatise of two endemic and critically-endangered species of Mantisia (Zingiberaceae). *Nucleus* DOI 10.1007/s13237-012-0053-5.
11. Sharma, S.K., S. Kumaria, P. Tandon and S.R. Rao (2012) Endomitosis in anther's tapetal cells of some Cymbidiums (Orchidaceae). *Nucleus* DOI 10.1007/s13237-012-0049-1.
12. Sharma, S.K., S. Kumaria, P. Tandon and S.R. Rao (2012) Synaptic variation derived plausible cytogenetical basis of rarity and

endangeredness of endemic *Mantisia spathulata* Schult. *Nucleus*. DOI 10.1007/s13237-011-0033-1.

13. Uma Shankar (2012) Effect of seed abortion and seed storage on germination and seedling growth in *Aquilaria malaccensis* Lamk. (Thymelaeaceae). *Current Science*: 596-604.
14. Uma Shankar and I. L. Synreim (2012) Variation in morphometric traits of fruits and seeds of *Prunus nepaulensis* Steud. in Meghalaya, India. *Tropical Ecology* 53(3): 273-286.
6. Das, M. C., S. Kumaria and P. Tandon (2011) Storage and high conversion frequency of encapsulated protocorm like bodies of *Cymbidium devonianum* (orchid). *Journal of Horticultural Science and Biotechnology* 86 (6) 611-615.
7. Dkhar, J., S. Kumaria and P. Tandon (2011) *Nymphaea albavar. rubra* is a hybrid of *N. alba* and *N. odorata* as evidenced by molecular analysis. *Annales Botanici Fennici* Vol 48:317-324.
8. Khongsai, M., Saikia, S. P. and Kayang, H. (2011) Ethnomedicinal plants used by different tribes of Arunachal Pradesh. *Indian Journal of Traditional Knowledge* 10(3): 541-546.
9. Majumdar, K., B. K. Datta, and Uma Shankar (2011) Community structure and population status of *Drosera burmanii* Vahl. With new distributional record in Tripura, India. *Journal of Ecology and the Natural Environment* 3(13): 410-414.
10. Pfoze, N. L., Y. Kumar and B. Myrboh (2011). Survey and assessment of floral diversity on wild edible plants from Senapati district of Manipur, northeast India. *Journal of Biodiversity and Environmental Sciences*, 1(6): 50-62.
11. Pfoze, N. L., Y. Kumar, B. Myrboh, R. K. Bhagobaty, and S. R. Joshi (2011) *In vitro* antibacterial activity of alkaloid extract from stem bark of *Mahonia manipurensis* Takeda. *Journal of Medicinal Plant Research*, 5(5): 859-861.

Published Abroad

1. Baishya, R. and Barik, S.K. (2011) Estimation of tree biomass, carbon pool and net primary production of an old-growth *Pinus kesiya* Royle ex. Gordon forest in north-eastern India. *Annals of Forest Science* 68: 727-736.
2. Bhowmik, S. S. Das, S. Kumaria and P. Tandon (2011) Long-term conservation through cryopreservation of immature seed of *Mantisia spathulata* and *Mantisia wengeri*; two endangered plants of North-East India. *CryoLetters* 32 (6): 498-505.
3. Dang, J.C., S. Kumaria, S. Kumar and P. Tandon. (2011) Micropropagation of *Ilex khasiana*, a critically endangered and endemic holly of Northeast India. *AoB Plants*. doi:10.1093/aobpla/plr012.
4. Das, Bibhuti B. and M. S. Dkhar (2011) Rhizosphere Microbial Populations and Physico Chemical Properties as Affected by Organic and Inorganic Farming Practices. *American-Eurasian Journal of Agriculture and Environmental Science*, 10 (2): 140-150.
5. Das, M. and P. Ramanujam (2011) Metal

12. Sharma, S.K., S. Kumaria, P. Tandon and S.R. Rao (2011) Single Primer Amplification Reaction (SPAR) methods reveal the intra-specific natural genetic variation in five species of *Cymbidium* (Orchidaceae). *Gene* 483: 54–62.
13. Siangbood, H. and P. Ramanujam (2011) A report on thermophilic Cyanophyta (Cyanobacteria) from Jakrem Hot Spring, Meghalaya. *International Journal on Algae*: 2:13:178-185.
14. Songachan L.S and H. Kayang (2011) Diversity and species composition of arbuscular mycorrhizal fungi in *Flemingia vestita* under shifting and continuous cropping system. *Nebio: A journal of Environment and Biodiversity*, Vol II (4): 1-8 (India). (ISSN: 0976-3597-print version).
15. Songachan, L. S and H. Kayang (2011) Diversity of arbuscular mycorrhizal fungi in pine forest of Meghalaya, North East India. *Mycosphere* 2(4): 497 - 505. (Thailand). (ISSN: 2077 7019).
16. Songachan, L. S., Lyngdoh, I. and H. Kayang (2011) Colonization of arbuscular mycorrhizal fungi in moderately degraded sub-tropical forest stands of Meghalaya, north-east India. *Journal of Agricultural Technology* 7(6):1673-1684.
17. Swer, H. M. S. Dkhar and H. Kayang (2011). Fungal population and diversity in organically amended agricultural soils of Meghalaya, India. *Journal of Organic Systems*, vol 6(2): 3 -12.
18. Yanthan M., David L. Biata and A. K. Misra (2011) Taxonomic resolution of actinorrhizal *Myrica* sp. from Meghalaya (India) through nuclear rDNA analyses. *Functional Plant Biology*: 38:738-746. doi:10.1071/FP10248
19. Adhikari, D., S.K. Barik and K. Upadhaya (2012) Habitat distribution modelling for reintroduction of *Ilex khasiana* Purk., a critically endangered tree species of north-eastern India. *Ecological Engineering'* 40:37-43.
20. Chettri, A., S.K. Barik, B. Singh, D. Adhikari and M.K. Lyngdoh (2012) *Cornus kousa* F. Buerger ex Hance subsp. *Kousa* (Cornaceae), a new record from India. *Taiwania* 57 (1): 77-81.
21. Das, B. B. and M. S. Dkhar (2012) Organic amendment effects on microbial population and microbial biomass carbon in the rhizosphere soil of soybean. *Communication in soil science and plant analysis*. DOI: 10.1080/00103624.2012.689401.
22. Dkhar, J., S. Kumaria, S. R. Rao and P. Tandon (2012) Sequence characteristics and phylogenetic implications of the nrDNA internal transcribed spacers (ITS) in the genus *Nymphaea* with focus on some Indian representatives. *Plant Systematics and Evolution* 298:93-108 DOI 10.1007/s00606-011-0526-z.
23. Gogoi, K., S. Kumaria and P. Tandon (2012) Ex situ conservation of *Cymbidium eburneum* Lindl.: a threatened and vulnerable orchid, by asymbiotic seed germination. *3 Biotech* DOI 10.1007/s13205-012-0062-8 ISSN 2190-572X.
24. Kalita, V., H. Choudhury, S. Kumaria and P. Tandon (2012) Vitrification-based cryopreservation of shoot-tips of *Pinus kesiya royle* ex. Gord. *CryoLetters* 33 (1): 58-68.

25. Kehie, M., S. Kumaria and P. Tandon (2012) Osmotic stress induced - capsaicin production in suspension cultures of *Capsicum chinense* Jacq. cv. Naga King Chili (accepted on March 26, 2012) *Acta Physiologiae Plantarum* DOI10.1007/s11738-012-0991-1.
26. Kehie, M., S. Kumaria and P. Tandon (2012) In vitro plantlet regeneration from nodal segments and shoot tips of *Capsicum chinense* Jacq. cv. Naga King Chili *3 Biotech* 2:31–35 DOI 10.1007/s13205-011-0025.
27. Lyngdoh, I. and H. Kayang (2012) Impact of coal mine drainage on water quality and microbial ecology of streams in Jaintia Hill. Meghalaya. *International Journal of Current Research*, Vol 4 (02): 02-07. (ISSN: 0975-833X).
28. Manners, V., S. Kumaria and P. Tandon (2012) Propagation of *Vanda coerulea* via *in vitro* asymbiotic seed germination. *Seed Technology* 33 (2): 79-87.
29. Mohanty P, Das M C, Kumaria S, Tandon P (2012) High-efficiency cryopreservation of the medicinal orchid *Dendrobium nobile* Lindl. *Plant Cell Tiss Organ Cult* 109:297-305.
30. Nongrum, I., S. Kumar, S. Kumaria and P. Tandon (2012) Genetic variation and gene flow estimation of *Nepenthes khasiana* Hook. F- A threatened insectivorous plant of India as revealed by RAPD markers. *Journal of Crop Science and Biotechnology* 15 (2): 101-105 DOI No. 10.1007/s12892-011-0070-y.
31. Panna Das and H. Kayang (2012) Root fungal associations in *Gaultheria fragrantissima*. *Journal of Agricultural Technology* 8 (1):133-141.
32. Paul S., S. Kumaria and P. Tandon (2012) An effective nutrient medium for asymbiotic seed germination and large-scale *in vitro* regeneration of *Dendrobium hookeria-num*, a threatened orchid of northeast India *AoB Plants* DOI: 10.1093/aobpla/plr032.
33. Pfoze, N. L., Y. Kumar and B. Myrbohm (2012) Survey and assessment of ethnomedicinal plants in Senapati district of Manipur state, Northeast India. *Phytopharmacology*, 2(2): 285-311.
34. Sharma, K. and S.K. Barik (2011), Coal mining impact on vegetation of the Nokrek Biosphere Reserve, Meghalaya, India, *Biodiversity* 12(3): 154-164.
35. Sharma S. K., J. Dkhar, S. Kumaria, P. Tandon and S. R. Rao (2012) Assessment of phylogenetic inter-relationships in the genus *Cymbidium* (Orchidaceae) based on internal transcribed spacer region of rDNA *Gene* 495 (2012) 10–15.
36. Sharma S. K., S. S. D. Bhowmik, S. Kumaria, P. Tandon and S. R. Rao (2012) Low genetic diversity as revealed by SPAR methods possibly leads to extinction of two critically-endangered and endemic species of *Mantisia*. *Biologia Plantarum* 56 (2): 292-300.
37. Sharma, S.K., P. Mehra, J. Kumari, S. Kumar, S. Kumaria, P. Tandon, and S.R. Rao (2012) Physical localization and probable transcriptional activity of 18S-5.8S-26S rRNA gene loci in some Asiatic *Cymbidiums* (Orchidaceae) from north-east India. *Gene* 499: 362–366.
38. Songachan L.S and H. Kayang (2012) Diversity and distribution of arbuscular mycorrhizal fungi in *Solanum* species

- growing in natural condition. *Agricultural Research* (Springer Publisher) in press. ISSN: 2249-720X (print version).
39. Barik, S.K. and Adhikari, D. (2012) Predicting the geographical distribution of an invasive species (*Chromolaena odorata* L. (King) & H.E. Robins) in the Indian subcontinent under climate change scenarios. In *Invasive alien plants: an ecological appraisal for the Indian subcontinent* (Bhatt, J. R., Singh, J. S., Singh, S. P., Tripathi, R. S. & Kohli, R. K. eds.), CABI, UK pp 77-88.
 40. Chungoo, N. K., S. Ch. Sangma, V. Bhatt and S.N. Raina (2011) *Fagopyrum*, Wild Crop Relatives: Genomic and Breeding Resources. In *Wild Relatives of Cereals*, Vol 1 (Kole, C. ed.) Springer, Heidelberg, Berlin, New York, pp 293-308.
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 42. Das, Panna and H. Kayang (2011) Arbuscular Mycorrhizal Fungi from the Acidic Soils of Meghalaya, North East India. In *Status and conservation of biodiversity in North East India* (Chaudhury M. D., Sharma G.D., Chaudhury S. and Dastaludar, A. eds.), Swastik Publisher, New Delhi. Pp 230 – 244.
 43. Tandon, P. and S. Kumaria (2011). Orchid resources of the northeast India and their sustainable utilization. In: *Biotechnology for Sustainable Development – Achievements and Challenges* (Hasnain S.E., Rashmi, Jha B., Sharan R.N. eds.), Tata McGraw Hill Education Private Limited, New Delhi, pp 183-191.
 44. Uma Shankar, A. S. Yadava, J. P. N. Rai and R. S. Tripathi (2011). Status of alien plant invasions in north-eastern region of India. In *Invasive alien plants: an ecological appraisal for the Indian subcontinent* (Bhatt, J. R., Singh, J. S., Singh, S. P., Tripathi, R. S. & Kohli, R. K. eds.), CABI, UK pp 174-188.
 45. Zothanzama, J., M. S. Dkhar and H. Kayang (2011) Biodegradation of wood substrata by common species of wood rotting fungi of Meghalaya. In *Advances in Environmental Chemistry*, Excel Indian Publishers, New Delhi, pp 305.
 46. Kumaria S. and A. K. Misra (2012) Application of Molecular Markers in Plant Tissue Culture. In *Plant Tissue Culture: Totipotency to Transgenic* (Sharma H.P, Dogra J.V.V. and Misra A.N. eds.) Agrobios (India), Jodhpur, pp 431-444.
 47. Sen Arnab and A. K. Misra (2012) *Frankia* and Actinorhizal Symbiosis, In Microorganisms in Sustainable Agriculture and Biotechnology (Satyanarayan, Johri and Prakash eds.), Springer, pp 113-126.
 48. Venugopal, N. and P. Ahuja (2012) Phenology, pollination and breeding behavior of *Panax wangianus* S. C. Sun (Araliaceae)- a valuable medicinal plant in the sub-tropical forests of Meghalaya, North-East India. In Tropical Ecosystems: Structure, Function and Services (Nagarajan B., Kunhikannan C., Sasidharan K. R. and Krishnakumar, N. eds.) Institute of Forest Genetics and Tree Breeding (ICFRE), Coimbatore, pp 261-270.

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Funds Received

Source	Amount (in Rs. Lakhs)
Department of Biotechnology, Ministry of Science and Technology, Government of India	389.966
Board of Research in Nuclear Sciences (BRNS), Mumbai	16.445
MoEF	23.950

Grand Total = Rs. 430.361 lakhs

Research Projects

Completed

Title of the project	Name of the Principal Investigator(s)	Funding agency
Conservation of <i>Panax</i> species in north-east India: Characterization of niche and genetic variability, mapping of potential distributional area, establishment of field gene bank and micropropagation.	Prof. S. K. Barik (PI) and Prof. P. Tandon, Prof. A. K. Misra (Co-Investigators)	Department of Biotechnology, Ministry of Science and Technology, Government of India
Studies on Diversity and Productivity of algal communities from some selected streams of Meghalaya and effect of various anthropogenic activities.	Dr. Papiya Ramanujam	UGC, New Delhi
Development of molecular markers for characterization of accessions of buckwheat (<i>Fagopyrum</i> spp) and quinoa (<i>Chenopodium</i> spp.), two important underutilized crops from Indian Himalayas.	Prof. N. K. Chungoo	DBT, New Delhi

New

Title of the project	Name of the Principal Investigator(s)	Funding agency	Funds received
Establishment of a DBT Centre at NEHU for Empowerment of North Eastern Human Resource for Biotechnology Activities	Prof. P. Tandon (PI) Prof. N. K. Chungoo (Co-PI)	Department of Biotechnology, Ministry of Science and Technology, Government of India	56.14 (Total Grant: Rs. 94.56)
Establishment of State Bio-Tech Hub	Prof. P. Tandon (Coordinator) Prof. N. K. Chungoo (Co-Coordinator)	Department of Biotechnology, Ministry of Science and Technology, Government of India	134.72 (Total Grant: Rs. 304.03)
Functional Characterization of an endosperm specific promoter <i>p1028</i> from common buckwheat and transfer of <i>Bwleg1</i> gene coding for the buckwheat 26 kDa lysine rich seed storage protein to rice for nutritional enhancement of its grain proteins	Prof. N. K. Chungoo (PI)	DBT, Govt. of India	22.85

School of Life Sciences

Title of the project	Name of the Principal Investigator(s)	Funding agency	Funds received
Phytochemical profiling, molecular characterization and conservation of <i>Flemingia vestita</i> : Endemic medicinally important plant of Northeast India	Dr. Suman Kumaria (PI)	Department of Biotechnology, Ministry of Science and Technology, Government of India	11.11 (Total Grant: Rs. 30.39)
Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools	All India Coordinator: Prof. S. K. Barik Sub-Project I (Coordinator: Prof. P. Tandon PI: Prof. S. K. Barik Co-PI: Prof. N. Venugopal Dr. H. Chaudhury Dr. M.C. Das (Rs. 103.298 lakh) Sub-Project 2: Prof. N.K. Chrungoo (PI) and K. Upadhaya and Dr. S. Kumaria (Co-PI) (Rs. 82.578 lakh) Sub-Project 15: Prof. S.K. Barik (Coordinator), Prof. N.K. Chrungoo (Joint Coordinator) (Rs. 82.17 lakh)	Department of Biotechnology, Ministry of Science and Technology, Government of India	104.486 (Total Grant: Rs 268.678)
Sacred Grove Ecosystem Service Assessment In Meghalaya	Prof. S. K. Barik (PI) and K. Upadhaya (Co-PI)	MoEF	(Total Grant: Rs. 49.33)

Ongoing

Title of the project	Name of the Principal Investigator(s)	Funding agency	Funds received (Rs. in Lakhs)
All India Coordinated research project on Reproductive Biology of Four Rare, endangered and Threatened (RET) Tree species namely: <i>Aquilari malaccensis</i> (Thymelaeaceae), <i>Gymnocladus assamensis</i> (Caesalpinaceae);, <i>Ilex khasiana</i> (Aquifoliaceae); and <i>Illicium griffithii</i> (Illiciaceae) of North East India particularly in Arunachal Pradesh and Meghalaya	Prof. N. Venugopal	MoEF (Sanctioned on 25.11.2010)	12.35 (Total Grant: Rs. 41.27)
Assessment of Flora and Fauna Biodiversity for the Nongtra Limestone Mine Site and Surrounding Areas	Prof. S.K. Barik.	Lafarge Umiam Mining Pvt. Ltd., for a period of 1 year	12.5 (Total Grant: Rs. 12.5)

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Title of the project	Name of the Principal Investigator(s)	Funding agency	Funds received (Rs. in Lakhs)
Assessment of Floral and Faunal diversity at the Nongtra Limestone mine Site and its Surrounding Area for three seasons	Prof. S.K. Barik	Lafarge Umiam Mining Pvt. Ltd., for a period of 2 year	15.0 (Total Grant: Rs. 15.0)
Bio-informatics Centre	Prof. P. Tandon (Co-ordinator)	Department of Biotechnology, Ministry of Science and Technology, Government of India	Approximately Rs 25 lakhs yearly
DBT Mission for Quality Planting Material Production and Utilization for the North East.	Prof. P. Tandon (Co-ordinatore and Prof. S. K. Barik (Principal Investigator)	Department of Biotechnology, Ministry of Science and Technology, Government of India	(Total Grant: Rs. 104.5)
DBT programme on strengthening of Infrastructure for Biotchnology, teaching training and research	Prof. N. K. Chrungoo (P.I) Prof. Veena Tandon (Co-PI) Prof. Ramesh Sharma (Co-PI) Prof. A. Chatterjee (Co-PI)	DBT	Rs. 30.00 lakhs
Establishment of DBT's Rural Bioresource Complex in North-East India	Prof. P. Tandon (Project Coordinator) and Prof. S. K. Barik	DBT, New Delhi	(Total Grant: Rs. 373.75)
Flora and fauna of Kylleng Pynden Sohiong Mawthabah uranium rich areas of West Khasi Hills, Meghalaya	Dr. H. Kayang	Board of Research in Nuclear Sciences (BRNS), Mumbai	16.445 (Total Grant: 29.735)
Micropropagation of <i>Nardostachys grandiflora</i> and <i>Malaxis wallichii</i> -Two threatened medicinal plants of Northeast India.	Prof. P. Tandon (PI) & Dr. S. Kumaria (Co-PI), Dr. H. Choudhury (Co-PI)	Department of Biotechnology, Ministry of Science and Technology Government of India	5.66 (Total Grant: Rs. 28.59)
Role of Earthworms in soil microbial diversity and leaf litter breakdown in two forest stands of Meghalaya	Prof. M. S. Dkhar (PI) Dr. H. Kayang (Co-PI)	UGC, New Delhi	

Academic Collaboration

The faculty members of the department has been collaborated with several national and international institutes like (1) International: Concordia University, Montreal, Canada; International Centre for Integrated Mountain Development, Kathmandu (ICIMOD); Kfw and Gtz, Humberg, Germany; National Institute of Agrobiological Sciences, Tsukuba, Japan; UNDP;

University of Ljubljana, Slovenia under the Indo-EU S & T Cooperation. (2) National: Andhra University, Andhra Pradesh; Assam University, Silchar; Bose Institute, Kolkata; CPRI, BSI, NBPGR, Shillong; ICAR Complex for NER, Umiam; JNU, New Delhi; Mizoram University, Aizawl; Nagaland University, Kohima; NBRI, Lucknow; NERIST, Itanagar; RFRI, Jorhat; State Council of Science and Technology, Sikkim; TERI, New Delhi; Tocklai experimental station of Tea

Research Association, Tocklai; Tripura University, Tripura; University of Agricultural Science, Bangalore; University of Bangalore, Bangalore; University of Delhi, Delhi; University of Kashmir, Kashmir.

Honours/Awards/Recognition

Prof. P. Tandon was conferred with Professor Saligram Sinha Memorial Lecture Award (2011) of National Academy of Sciences, India for his outstanding contributions.

Other Academic Activities

Prof. A. K. Misra chaired a session at the Conference on Biotechnology and Bioinformatics at Bengal University, Siliguri, February 17, 2012.

Prof. N. K. Chrungoo was the Asia Pacific representative on the Editorial Board of the journal *FAGOPYRUM* and the Asia Pacific representative on the Executive Committee of the Internal Buckwheat Research Association. He was nominated member, DBT Task force on Biotechnology based programmes for women and member, Board of Studies in Biotechnology, D.Y. Patil University, Pune.

Prof. Pramod Tandon was appointed member, National Advisory Council, Government of India. He acted as a resource person at the Brainstorming Session organized by the Technology Information, Forecasting and Assessment Council, Department of Science & Technology, Government of India for formulation of "Technology Vision 2035" held at Bose Institute, Kolkata on 6-7 June 2011. On this occasion he delivered an invited talk on 'India's Food and Nutritional Security'. He also chaired the session on Disaster Relief: What needs to be done? at the International Trauma Care 2011 held at the North East Council Auditorium, Shillong on 22 August, 2011 and

delivered an invited talk on 'Plant Resources of India: Perspectives in Global Scenario' at Lachoo Memorial College of Science & Technology, Jodhpur on 3 March 2012.

Prof. S. K. Barik was appointed All-India Coordinator in the research project on Preventing Extinction and Improving Conservation Status of Threatened Plants Through Application of Biotechnological Tools by DBT, Government of India (75 Scientists and 37 Institutions). He was also appointed All-India Coordinator in the research project on Sacred Grove Ecosystem Services Assessment by MoEF, Government of India, All-India Coordinator in the research project on Terrestrial Carbon Sequestration BY DBT, Government of India, ENVIS Committee member by MoEF, GOI, National MAB Committee, Member, DBT Task Force on Environmental Biotechnology and Biodiversity Conservation, Member, Ecosystem Research Expert Committee of MoEF, Government of India, National Chief Technical Adviser to Indo-German Development cooperation Project on Participatory Natural Resource Management Project in Tripura, Technical Adviser to UNDP project on Biodiversity-based livelihood improvement in Arunachal Pradesh, Member, Meghalaya State Biodiversity Board. He continued to be Associate Editor, *Tropical Ecology*, Member of the Editorial Board, *Journal of Biodiversity*, Member, Executive Council, International Society for Tropical Ecology.

Prof. N. Venugopal was nominated as member, State Expert Appraisal Committee, Forest & Environment Department, Government of Meghalaya.

Prof. Uma Shankar completed six months' tenure of the DBT Overseas Associateship at Concordia University, Montreal, Canada from February 16 to August 15, 2011.

Department of Zoology

Head : Professor R.N.K. Hooroo (till 4th August, 2011)
Professor B. Kharbuli (from 5th August, 2011)
Telephone : 272 2301/04 (O)
Email : zoology@nehu.ac.in

Thrust Areas

The thrust area of the department is “Faunal Diversity and Ecophysiology” in various disciplines such as (i) Diversity of helminth parasites and entomopathogenic nematodes in N. E. region- with emphasis on molecular taxonomy of zoonotic parasites and bioprospection of anthelmintic efficacy of plants used in traditional medicine systems, (ii) Biodiversity of freshwater zooplankton and fishes and limnological studies in N.E. region, (iii) Adrenergic signal transduction in pineal gland, hormonal regulation of oxidative metabolism, and breeding biology of endangered fishes, amphibians and birds, (iv) Mode of action of cisplatin an anticancer drug, and efficacy of putative anticancerous plants and animals from N.E. region, and (v) Biodiversity, ecology, breeding, and development of amphibians from N.E. region.

Faculty Profile

Professors : V. Tandon, M.Sc. (Hons.), Ph.D. (Panj.) (Parasitology)
B. K. Sharma, M.Sc. (Hons), Ph.D. (Panj.) (Limnology & Biosystematics)
B. B. P. Gupta, M.Sc., Ph.D. (BHU) (Endocrinology)
S. B. Prasad, M.Sc., Ph.D. (BHU) (Cell Biology & Immunology)
R. N. K. Hooroo, M.Sc., Ph.D. (NEHU) (Developmental Biology)
B. Kharbuli, M.Sc., Ph.D. (NEHU) (Animal Physiology)
N. Saha, M.Sc., Ph.D. (NEHU) (Biochemical Adaptation and Metabolic Regulation)
S. N. Ramanujam, M.Sc. (Bangalore), Ph.D. (NEHU) (Fish Biology)

Brief Statement of Academic Activities

During the year, 30 students were admitted to M.Sc. programme and 17 students to Ph.D. programme. The department organized the “National Seminar on Faunal Diversity and Ecophysiology” and Lecture Series on “Biodiversity: Prospects and Concerns” under UPE-Biosciences Programme, School of Life Sciences, NEHU. The department also organized 35th Refresher Course on “Advances in Zoology”. The department completed the final year of DSA scheme under the UGC Special Assistance Programme to promote higher research with special reference to the N.E. region. The department received grants worth Rs. 3.8 crores under extramural research projects sponsored by the DST, DBT, DAE-BARC, DIT, UGC and MoE&F. 5 research scholars received the UGC Meritorious Fellowship, 1 student qualified in the NET conducted by the CSIR-UGC and 2 students qualified for GATE.

School of Life Sciences

- Associate Professors** : A. K. Yadav, M.Sc. (Agra), Ph.D. (NEHU) (Parasitology & Ethnopharmacology)
 A. S. Dixit, M.Sc. (Gorakh), Ph.D. (BHU) (Endocrinology)
 B. Roy, M.Sc. (NBU), Ph.D. (NEHU) (Parasitology)
 B. Keshan, M.Sc., Ph.D. (Cal.) (Insect Endocrinology and Molecular Biology)
 S. Ghosh, M.Sc., Ph.D. (Cal.) (Genetics)
- Assistant Professors** : S. Choudhury, M.Sc., Ph.D. (NEHU) (Entomology)
 S. R. Hajong, M.Sc., Ph.D. (NEHU) (Entomology)
 B. Das, M.Sc. (Berhampur), Ph.D. (NEHU) (Biological Chemistry)

Student Intake

Enrolment capacity: M.Sc.: 30
 Ph.D.: Variable

Actual Admission

Degree	SC	ST	OBC	General	Male	Female	Meghalaya	Outside	Total
M.Sc.	-	29	-	1	12	18	17	13	30
Ph.D.	1	8	2	6	7	10	7	10	17

Degrees Awarded

Degree	SC	ST	OBC	General	Male	Female	Total
M.Sc.	-	24	-	-	10	14	24
Ph.D.	-	4	1	1	3	3	6

Ph.D.

1. Ms. C. Malsawmtluangi, "The helminth faunal spectrum of rodent hosts from bamboo growing areas in Mizoram, Northeast India". Supervisor: Prof. V. Tandon.
2. Mr. Lalit Kumar Goswami, "Studies on the status and molecular discrimination of crustacea-borne zoonoses of trematode origin, with special reference to paragonimiasis in suspected foci of Northeast India", Supervisor: Prof. V. Tandon.
3. Mr. Biplab Kumar Saha, "Studies on breeding biology of an endangered frog, *Rana leptoglossa* (Cope, 1868)" Supervisor: Prof. B. B. P. Gupta.
4. Ms. K.R. Mary Martha, "Studies on biochemical and structural changes in mitochondria in relation to combination treatment with dietary ascorbic acid and cisplatin in tumor-bearing mice", Supervisor: Prof. S.B. Prasad.
5. Mr. H.T. Lalremsanga, "Studies on the ecology, breeding behavior and development of ranid and microhylid anurans prevalent in Mizoram, Northeast India", Supervisor: Prof. R.N.K. Hooroo.
6. Ms. Lucy Mary Jyrwa, "Effect of osmotic, hyper-ammonia and desiccation stresses on gluconeogenesis in the air-breathing catfish, *Clarias batrachus*", Supervisor: Prof. N. Saha.

Courses Conducted

M.Sc.

Semester I: Cell Biology & Immunology, Biological Chemistry & Molecular Biology, Genetics & Developmental Biology.

Semester II: Animal Physiology, Parasitology & Entomology, Techniques in Biology.

Semester III: Endocrinology & Reproductive Biology, Aquatic Biology & Fisheries, Animal Diversity.

Semester IV: Biosystematics & Evolution, Ecology & Environmental Biology, Special Paper*.

*Special Papers offered: Biochemical Adaptation and Metabolic Regulation, Endocrinology and Reproductive Physiology, Fish Biology, Helminth Parasitology, Insect Physiology, and Molecular Cell Biology and Immunology

Study Tour/ Field Trips of Students

Dr. (Mrs.) S. Ghosh and Dr. Jamesteward L. Khongsngi took the M.Sc. 3rd Semester students on study tour to Kolkata and Digha, and visited various academic and research institutes relevant to the courses in M.Sc. from 10th to 20th January, 2012.

Seminars/Conferences/Symposia, etc.

Organized

1. A "National Seminar on Faunal Diversity and Ecophysiology" was organized on 28-29 March, 2012.
2. The 35th Refresher Course on "Recent Advances in Zoology", was conducted from 28th November to 18th December, 2011.
3. Lecture Series on Biodiversity: Prospects and Concerns, 14-15 March, 2012 was organized under UPE-Biosciences

Programme, School of Life Sciences, NEHU.

Attended

Prof. V. Tandon attended

- (i) National Workshop on "Women in Scientific Research-Examining the Challenges and Identifying their Needs", NEHU, Shillong, October 21-22, 2011 and delivered the lead talk on "Women in Scientific Research- the present perspectives".
- (ii) "23rd National Congress of Parasitology: Recent Advances in Neglected Tropical Diseases", Anna University, Chennai, November 18-20, 2011 and delivered a plenary talk on "Ocular Parasitoses: the lesser known and emerging diseases".
- (iii) 81st Annual session of NASI and National Symposium on "Sustainable management of Biodiversity using Science & Technology at University of Kerala, Thiruvananthapuram, November 24-26 and chaired a session on 'Eco-services'.
- (iv) 12th International Congress of Ethnopharmacology (ISE 2012), Jadavpur University, Kolkata, February 17-19, 2012 and Pre-conference Workshop on "Publishing Your Research Works in Impact Journals" on February 17, 2012, delivered an invited lecture on "Genistein: A Natural Anthelmintic?" and chaired Session IV (Oral Presentations).
- (v) "National Seminar on faunal diversity and Ecophysiology" at North-Eastern Hill University, Shillong, February 28-29, 2012 and chaired the Technical Session I; (vi) Lecture Series on "Biodiversity: Prospects and Concerns" – SLS UPE Biosciences Programme, NEHU, Shillong, March 14-15,

2012 and chaired the 1st Session.

- (vi) The 1st National Symposium on Fish Parasites “Fish helminthes: from biodiversity to biotechnology” at Rajiv Gandhi University, Itanagar, March 19-20, 2012 and delivered the Keynote Address- “Fish-borne Helminth Parasitoses in Northeast India: An Overview”.

Prof. B. K. Sharma attended

- (i) National Seminar on ‘Faunal Diversity and Ecophysiology’, 28-29 February, 2012 organized by the Department of Zoology, North-Eastern Hill University, Shillong, acted as “Convenor”, chaired a session and presented a paper entitled “Diversity of Phytoplankton of a sub-tropical reservoir of Mizoram, Northeast India”.
- (ii) “National Symposium on “Research in Animal science: Development and evaluation, North Bengal University, Siliguri, March 18-19, 2012, chaired a session, delivered an invited lecture on “Water, Aquatic Ecosystems and Animal Research” and presented a paper entitled “Deepor Beel (a Ramsar site): a globally interesting hot-spot and an ideal natural depository for Rotifer Biodiversity”.

Prof. S.B. Prasad attended the “12th International Congress of Ethnopharmacology: Traditional Medicine and Globalization- The future of ancient systems of medicine” at Jadavpur University, Kolkata, India, February 17 – 19, 2012, and presented a paper entitled “Zootherapy with blister beetle, *Mylabris cichorii* and its isolated compound, cantharidin against murine tumor model”.

Prof. N. Saha attended the “International Seminar on Bioresources and Human Sustenance”, 20-22 October, 2011, Cotton

College, Guwahati, chaired a session and gave an invited talk on “Influence of environmental stresses on the production of nitric oxide and expression of inducible nitric oxide synthase in air-breathing catfish (*Heteropneustes fossilis*)”.

Dr. A.K. Yadav attended

- i. 1st International Congress on Natural Products, Prince of Songkla University, Sonkla, Thailand, 17-18, October, 2011 and delivered a keynote lecture on “Novel anthelmintics from plants used in the traditional remedies in India”.
- ii. 23rd National Congress of Parasitology, Anna University, Chennai, 18-20 November, 2011, chaired a scientific session and delivered a plenary lecture on “Horsehair worms (Nematomorpha): a poorly studied group of parasites in Indian sub-continent”.
- iii. 12th International Congress of Ethnopharmacology organized by the International Society for Ethnopharmacology at Jadavpur University, Jadavpur, 17-19 February, 2012 and chaired a scientific session and presented a paper on “Ethnopharmacological Studies on Traditional Anthelmintic Plants of North-east India”.

Dr. B. Keshan attended the 18th International Conference (Post ISCBC) prospective and challenges in Chemical and Biological Sciences: Innovative Cross Roads, 28th-30th January, 2012 at Institute of Advanced study in Science and Technology (IASST), Guwahati and presented a paper entitled “Developmental and tissue specific variations in hsp90 and vitellogenin mRNA expressions under heat stress in

silkworm, *Bombyx mori*".

Dr. S.R. Hajong attended the International Conference of Entomology from 17th to 19th Feb 2012 at Punjabi University, Patiala, and presented a paper entitled "on a collection of cicada (Homoptera: Aphididae) from Meghalaya".

Publications

Publications in India

Challam, M., Roy, B. and Tandon, V. (2012). In vitro anthelmintic efficacy of *Carex baccans* (Cyperaceae): ultrastructural, histochemical and biochemical alterations in the cestode, *Raillietina echinobothrida*. *Journal of Parasitic Diseases* 36(1): 81-86.

Gogoi, D., Verma, A.K., Prasad, S.B., Joseph, M.S., Singh, R.K. and Singh, S.P. (2011). Ligand based virtual screening on some of the anticancer phytochemicals to develop a novel inhibitor of Catenin against cancer. *Patkai* 1: 1-17.

Iongwai, P.S., Kharbuli, B., War, S. A., Khathing, D. T. and Jha. S. K. (2011). Assessment of seasonal variation of elements from river of West Khasi Hills Meghalaya. *Species Extinction in Meghalaya*. Eds. Marngar, D and Lyngdoh, R.D. DVS Publisher. Chapter 9, pp. 81-89.

Keshan, B. (2011). Molecular basis of endocrine control of insect molting and metamorphosis. *NBUJ. Anim. Sci.* 5:1-8.

Kharbani, H. and Hajong, S. R. (2011). Ant Fauna in a Forest Ecosystem of West Khasi Hills, Meghalaya. In: *Species Extinction in Meghalaya* Eds.: Marngar, D and Lyngdoh, R.D., DVS Publishers, Guwahati, pp. 60-68.

Kharbangar, M. and Kharbuli. B. (2011). Current Environmental Status of West Khasi Hills, Meghalaya. *Species Extinction in Meghalaya*. DVS Publisher Chapter 3, pp 29-37.

Lalthanzara, H., Ramanujam, S. N. and Jha, L.K. (2011). Population dynamics of earthworm in relation to soil Physico-chemical parameters in agroforestry systems of Mizoram, north-east India. *J. Environ. Biol.* 32: 599-605.

Ramanujam, S. N., Devi, M. M. and Dey, S. (2011). Diversity of Fish Fauna in Meghalaya : In Himalayan Aquatic Biodiversity Conservation & New Tools in Biotechnology (Ed. Bhatt *et. al.*) TransMedia Publication, pp. 167-179.

Roy, B., Dasgupta, S., Manivel, V., Parameswaran, P.S. and Giri, B.R. (2012). Surface topographical and ultrastructural alterations of *Raillietina echinobothrida* and *Ascaridia galli* induced by a compound isolated from *Acacia oxyphylla*. *Veterinary Parasitology* 185: 322-326.

Saha, B. K. and Gupta, B. B. P. (2011). The development and metamorphosis of an endangered frog, *Rana leptoglossa* (Cope, 1868). *International Journal of Advanced Biological Research*, 1(1): 67-76.

Saha, B. K. and Gupta, B. B. P. (2011). Studies on annual activity cycle of gonads and breeding behavior of the endangered frog, *Rana leptoglossa* (Cope, 1868). *International Journal of Science and Nature* 2(3): 683-691.

Sharma, B. K. and Sharma, S. (2011). Faunal diversity of *Cladocera* (Crustacea: Branchiopoda) of Nokrek Biosphere Reserve, Meghalaya, northeastern India. *Journal of Threatened Taxa* 3 (10): 2120-2127.

Sharma, B. K. and Sharma, S. (2011). Testate amoebae (Protozoa, Rhizopoda) of Deepor Beel (a Ramsar site), Assam, northeast India. *Journal of Threatened Taxa* 3 (7): 1947-1950.

Sharma, B. K. and Sharma, S. (2011). Zooplankton

diversity of Loktak Lake, Manipur, India. *Journal of Threatened Taxa* 3 (5): 1745-1755.

Singh, N. S. Dixit, A. S. and Sougrakpam, R. (2011). A report on the presence of three avian lice (Insecta: Phthiraptera) in different regions of North-East India. *JBNHS* 108: 65-67

Srivastava, A. K and Kharbuli, B. (2011). Spatial relationship between adult anopheline profusion and environmental factor in Meghalaya. *Species Extinction in Meghalaya*. DVS Publisher, Chapter 14, pp. 128-141.

Swargiary A. and Roy, B. (2011). Kinetics of Acetylcholinesterase inhibition in *Fasciolopsis buski* and *Raillietina echinobothrida* by shoot extract of *Alpinia nigra*, an indigenous medicinal plant. *Plant Medicine* 3(2): 145-150.

Verma, A.K., Swargiary, A., Prasad S.B. and Arjun, J. (2012). Homology modeling of phosphoenolpyruvate carboxykinase of *Ascaris suum*. *Journal of Pharmacy Research*, 5(2): 1248-1255.

Yadav, A. K. and Lalramliana. (2012). Evaluation of the efficacy of three indigenous strains of entomopathogenic nematodes from Meghalaya, India against mustard sawfly, *Athalia lugens proxima* Klug (Hymenoptera: Tenthredinidae). *Journal of Parasitic Diseases*, Doi: 10.1007/s12639-012-0099-y.

Yadav, A. K. and Lalramliana. (2012). Soil moisture effects on the activity of three entomopathogenic nematodes (Steinernematidae and Heterorhabditidae) isolated from Meghalaya, India. *Journal of Parasitic Diseases* 36: 94-98.

Yadav, A. K. and Temjenmongla.. (2011). Anticestodal activity of *Houttuynia cordata* leaf extract against *Hymenolepis diminuta* in experimentally infected rats. *Journal of*

Parasitic Diseases 35:190-194.

Published Abroad

Badets, M., Whittington, I., Lalubin, F., Allienne, J.-F., Maspimby, J.-L., Bentz, S., Du Preez, L. H., Barton, D., Hasegawa, H., Tandon, V., Imkongwapang, R., Ohler, A., Combes, C. and Verneau, O. (2011). Correlating Early Evolution of Parasitic Platyhelminths to Gondwana Break-up. *Systematic Biology* 60(6): 762-781.

Brahma, B., Prasad, S.B., Verma, A.K. and Rosangkima, G. (2011). Study on the antitumor efficacy of some select medicinal plants of Assam against murine ascites dalton's lymphoma. *Pharmacologyonline*, 3: 155-168.

Choudhury, M. G and Saha, N. (2012). Influence of environmental ammonia on the production of nitric oxide and expression of inducible nitric oxide synthase in the freshwater air-breathing catfish (*Heteropneustes fossilis*). *Aquatic Toxicology* 116-117: 43-53.

Dey, S., Singh, S., Chakraborty, R., Chaudhury, S., Hooroo, R. N. K. and Sharma, D. K. (2011). Scanning Electron Microscopic studies on Thoracic Sensilla of different larval stages in the "Muga" silk moth, *Antheraea assamensis*, and their role in feeding behavior. *Sericologia*, 51(3): 315-331.

Hoti, S. L. and Tandon, V. (2011). "Ocular Parasitoses and their Immunology". 'Review for the Parasitosis Series'. *Ocular Immunology and Inflammation* 19(6): 385-396.

Iongwai, P. S., Jha, S. K., Kharbuli, B., War, S. A. and Das, A. K. (2011). Measurement of elemental concentration in some edible plants collected from Mawthabah area, West Khasi Hills, Meghalaya, India and assessment of their daily intake. *Pollution Research*: 30 (4): 457-462.

- Jha, S. K., Gothankar, S., Iongwai, P. S., Kharbuli, B., War, S. A. and Puranik, V. D. (2011). Intake of ²³⁸U and ²³²Th through the consumption of foodstuffs by tribal populations practicing slash and burn agriculture in an extreme high rainfall area. *Journal of Environmental Radioactivity*: 103: 1-6.
- Kawashima, H., Sugito, K., Yoshizawa, S., Uekusa, S., Furuya, T.i, Ikeda, T., Koshinaga, T., Shinojima, Y., Hasegawa, R., Mishra, R., Igarashi, J., Kimura, M., Wang, X., Fujiwara, K., Ghosh, S. and Nagase, H. (2012). DNA hypomethylation at the ZNF206-exon 5 CpG island associated with neuronal differentiation in mice and development of neuroblastoma in humans. *International Journal of Oncology*, 40:31-39.
- Liang, P., Song F., Ghosh S., Morien E., Qin M., Mahmood S., Fujiwara K., Igarashi J., Nagase H. and Held W. A. (2011). Genome-wide survey reveals dynamic widespread tissue-specific changes in DNA methylation during development. *BMC Genomics*, 12:231.
- Malsawmtluangi, C., Prasad, P.K., Biswal, D.K. and Tandon, V. (2011). Morphological and molecular identification of the metacestode parasitizing the liver of rodent hosts in bamboo growing areas of Mizoram, northeast India. *Bioinformation* 7(8): 393-399.
- Manorama, M. and Ramanujam, S. N. (2011). Length-weight relationship of freshwater fish, *Puntius shalynius* Yazdani and Talukdar (Cypriniformes: Cyprinidae), in Meghalaya, India. *J. Appl. Ichthyol.*, 27: 1404–1405.
- Martha, K.R.M., Rosangkima, G., Lonchar, A., Rongpi, T. and Prasad, S.B. (2011). Cisplatin- and dietary ascorbic acid-mediated changes in the mitochondria of Dalton's lymphoma-bearing mice. *Fundamental and Clinical Pharmacology*, Doi: 10.1111/j.1472-8206.2011.01019.x.
- Myllemngap, B. K., and Ramanujam, S. N. (2011). Ichthyodiversity in the coal mining and adjacent Non-Coal Mining Drainages of Jaintia Hills, India. *Asian Fisheries Science*, 24: 177-185.
- Sharma, B. K. (2011). Zooplankton communities of Deepor Beel (a Ramsar site), Assam (N. E. India): ecology, richness, and abundance. *Tropical Ecology* 52(3): 293-302.
- Sharma, B. K. (2011). Zooplankton diversity of two floodplain lakes (pats) of Manipur, northeast India. *Opuscula Zoologica Budapest* 42(2): 185-197 + appendix.
- Singh, N. S. and Dixit, A. S. (2012). Involvement of endogenous circadian rhythm in photoperiodic ovarian response of subtropical tree sparrow, *Passer montanus*. *IMRJ*. 2(2): 66-72.
- Suchiang, P. and Gupta, B. B. P. (2011). Effects of partial and full feed restriction on the plasma levels of thyroid hormones and testicular activity in the male air-breathing catfish, *Clarias gariepinus* during different phases of the breeding cycle. *International Journal of Biology*, 3(2): 32-42.
- Suchiang, P. and Gupta, B. B. P. (2011). Variations in the plasma levels of thyroid hormones and testicular activity in the male air-breathing catfish (*Clarias gariepinus*) over the Annual Cycle. *International Journal of Biology*, 3(3): 144-154.
- Verma, A.K. and Prasad S.B. (2012). Bioactive component, cantharidin from *Mylabris cichorii* and its antitumor activity against Ehrlich ascites carcinoma. *Cell Biology and Toxicology*, 28: 133-147.
- War, S. A., Nongkynrih, P., Khathing, D. T.,

Iongwai, P. S. and. Dkhar, L. M (2012). Assessment of the radiological hazards of sand sediments collected from streams and streamlets of the uranium deposit areas in West Khasi Hills District, Meghalaya, India: *Environmental Earth Sciences* 65: 1695-1703.

Yadav, A. K. and Temjenmongla. (2012). Efficacy of *Lasia spinosa* leaf extract in treating mice

infected with *Trichinella spiralis*. *Parasitology Research* 110:493-498.

Yadav, A. K. and Tangpu, V. (2012). Anthelmintic activity of ripe fruit extract of *Solanum myriacanthum* Dunal (Solanaceae) against experimentally induced *Hymenolepis diminuta* (Cestoda) infections in rats. *Parasitology Research* 110:1047-1053.

Sequences submitted to the Genbank and accession numbers received:

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Species	GenBank Accession No.	Region Amplified
<i>Homalogaster paloniae</i>	GU133056	ITS2
<i>Calicophoron calicophorum</i>	GU133057	ITS2
<i>Orthocoelium streptocoelium</i>	GU133058	ITS2
<i>Fischoederius cobboldi</i> (Cow)	GU133059	ITS2
<i>Fischoederius cobboldi</i> (Goat)	GU133060	ITS2
<i>Fischoederius elongatus</i> (Goat)	GU133061	ITS2
<i>Fischoederius elongatus</i> (Cow)	GU133062	ITS2
<i>Gastrothylax crumenifer</i> (Cow)	HM159382	ITS2
<i>Carmyerius spatiosus</i> (Cow)	HM159381	ITS2
<i>Velasquezotrema tripurensis</i> (Cow)	HM159383	ITS2
<i>Hymenolepis diminuta</i>	FJ939132	ITS2
<i>Taenia taeniaeformis</i>	FJ939133, FJ939134, FJ939135	ITS1, ITS2, CO1
<i>Microphallid sp.</i>	FJ966109, FJ966110, FJ966111	28S, ITS1, ITS2
<i>Lytocestus birmanicus</i>	FJ957901	ITS2
<i>Lytocestus. indicus</i>	J957902	ITS2
<i>R. echinobothrida</i>	JN797628	ITS2 sequence

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Species	GenBank Accession No.	Region Amplified
<i>Heteropneustes fossilis</i>	HQ201957	glutamine synthetase (GS02) mRNA, complete cds, 1638 bp
<i>Heteropneustes fossilis</i>	HQ184029	glutamine synthetase (GS01) mRNA, 1374 bp
<i>Monopterusuchia</i>	JQ040529	heat shock cognate 70 (hsc70) mRNA, partial cds, 728 bp
<i>Heteropneustes fossilis</i>	JN021561	arginase type 1-like (ARG1) mRNA, partial sequence, 991 bp
<i>Monopterusuchia</i>	JN872212	Heat shock protein 90-beta (hsp90b) mRNA, partial cds, 566 bp
<i>Monopterusuchia</i>	JN675904	Heat shock protein 90-alpha-like (hsp90a) mRNA, partial sequence, 1148 bp
<i>Monopterusuchia</i>	JN643724	Glyceraldehyde 3-phosphate dehydrogenase (GAPDH) mRNA, partial cds, 736 bp
<i>Monopterusuchia</i>	JN120311	Heat shock 70 kDa protein (hsp70) mRNA, partial cds, 513 bp

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<i>Monopterus couchia</i>	HQ667788	Glutamine synthetase (GS01) mRNA, partial cds, 541 bp
<i>Clarias batrachus</i>	JQ740737	Glutamine synthetase (GS01) mRNA, complete cds, 1389 bp
<i>Clarias batrachus</i>	JQ740738	Glutamine synthetase (GS02) mRNA, complete cds, 1677 bp
<i>Clarias batrachus</i>	JQ753330	<i>Clarias batrachus</i> ornithine carbamoyl transferase (OTC) mRNA, complete cds, 1256 bp
<i>Clarias batrachus</i>	JQ794876	Argininosuccinate lyase (ASL) mRNA, complete cds, 1737 bp
<i>Heteropneustes fossilis</i>	JQ825142	Ornithine carbamoyl transferase (OTC) mRNA, complete cds, 1204 bp
<i>Clarias batrachus</i>	JQ680981	Arginase type 1 mRNA, partial cds, 1008 bp

Funds Received

Source	Amount received in 2011-2012 (Rs. in lakhs)
DST, New Delhi	34.1
DBT, New Delhi	284.81
Ministry of Environment and Forests, New Delhi	11.0
Department of Information Technology, Ministry of Communications & Information Technology	18.84
BRNS-BARC	16.5
ICMR-ICAR coordinated Joint project	17.01

Research Projects

Completed

Title of the project	Name of the Principal Investigator(s)	Funding agency	Duration	Sanctioned fund (Rs. in lakhs)
Status of amphistomiasis and molecular taxonomy of amphistome parasites in mammalian livestock in Northeast India	Prof. V. Tandon (PI)	DBT, New Delhi	4 years 2008-2012	26.00
Ichthyofaunal diversity and studies on the biology of some indigenous ornamental fishes of Meghalaya	Prof. S. N. Ramanujam	MoE&F, New Delhi	3.5 years (2008-2012)	16.63
Role of proximate factors in timing the seasonal breeding in Passeriformes finches of North-East	Dr. A. S. Dixit (PI)	DST, New Delhi	3 years (2008-2011)	37.96
Molecular aspect of stress endocrinology: cross-talk between signaling molecules and gene expression in fat body and ovary following temperature stress in silkworm, <i>Bombyx mori</i>	Dr. B. Keshan (PI)	DST, New Delhi	3 years (2009-2012)	17.05

School of Life Sciences

Ongoing

Title of the project	Name of the Principal Investigators (s)	Funding agency	Duration	Sanctioned fund (Rs. in lakhs)
All India Co-ordinated Project on Capacity Building In Taxonomy-Helminths and Nematodes (AICOPTAX)	Prof. V. Tandon (PI)	MoEF, New Delhi, Ministry of Environment and Forests, GOI	IX- through XIth plan; (2000-2012)	5. 00 (per annum)
North-East Parasite Information and Analysis Centre (NEPIAC): <i>an in silico approach</i>	Prof. V. Tandon (PI), Mr. D. K. Biswal, (Co-PI) NEHU, Dr. S. Ramachandran (Co-PI), Institute of Genomics and Integrative Biology, Delhi	Department of Information Technology, Ministry of Communications & Information Technology, GOI	3.5 years (2008-2012)	135.00
Bio-Informatics Centre (DIC) of Department of Biotechnology, Ministry of Science & Technology, GOI	Prof. V. Tandon (Deputy Coordinator)	DBT, New Delhi	1999-Continuing	Rs. 20.00 lakh per annum

Title of the project	Name of the Principal Investigators (s)	Funding agency	Duration	Sanctioned fund (Rs. in lakhs)
BRIC - III Biodiversity Informatics: Data Capture and Management "Establishment of Portal for Indian Bioresource Information Network (IBIN)"	Prof. V. Tandon, [Project Coordinator: Dr. K.N. Ganeshaiah University of Agricultural Sciences, GKVK, Bangalore and Dr. P.S. Roy, Dean Indian Institute of Remote Sensing (NRSC), Dehradun]	DBT, New Delhi (under the programme on "National Bioresource Development Board, NBDB)	3 years (2011-2014)	31.84
Next Generation Sequencing and Genome Information of Parasite Biodiversity of medico-veterinary significance in North-East India	Prof. V. Tandon (PI) and Prof. Alok Bhattacharya (PI, JNU)	DBT, New Delhi (DBT-NER twinning programme)	3 years (2011-2014)	78.80
Molecular characterization of food-borne trematodes and cestodes prevailing in Northeast India	Prof. V. Tandon (PI) and Dr. B. Roy, Prof. A. Chatterjee (NEHU) and Dr. R. Laha (ICAR) (Co-PIs)	ICMR-ICAR coordinated Joint project on Zoonoses	3 years (2011-2014)	17.01 (per annum)
Flora and fauna of Domiasiat area, West Khasi Hills, Meghalaya	Prof. B. Kharbuli (PI)	BRNS-BARC	2 years (2011-2013)	16.5 (per annum)

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Title of the project	Name of the Principal Investigators (s)	Funding agency	Duration	Sanctioned fund (Rs. in lakhs)
Influence of hyper-ammonia stress on the expression of multiple glutamine synthetase genes, mRNAs for ornithine urea cycle enzymes and mitogen activated protein kinases in air-breathing catfish, <i>Heteropneustes fossilis</i>	Prof. N. Saha (PI)	DST, New Delhi	3 years (2010-2013)	38.31
Histopathological and enzymatic studies on toxicity of Cu and Cd in the catfish, <i>Heteropneustes fossilis</i> (Bloch) in relation to pH variation	Prof. S. N. Ramanujam	UGC, New Delhi	3 years (2011-2014)	8.6
Comparative Proteomic and Transcriptomic Analyses of PEPCK under the influence of <i>Flemingia vestita</i> -derived Phytoestrogen (Genestein)	Dr. B. Das (PI and Project Coordinator), Prof V. Tandon (NEHU) and Dr. A. Sharma (ICGEB, New Delhi)	DBT, New Delhi	3 years (2010-2013)	147.85
Analysis of Molecular signalling proteins and epigenetic factors responsible for regulation of PEPCK Expression	Dr. B. Das (PI and Project Coordinator), Prof V. Tandon (NEHU) and Prof. K. Satyamoorthy, Manipal University)	DBT, New Delhi (DBT-NER twinning programme)	3 years (2011-2014)	85.44

New

Title of the project	Name of the Principal Investigators (s)	Funding agency	Duration	Sanctioned fund (Rs. in lakhs)
Taxonomy of Indian Freshwater Cladocera (Crustacea: Branchiopoda) with special emphasis on faunal and ecosystem diversity in different states of North Eastern India' (AICOTAX Project)	Prof. B K Sharma (PI)	Ministry of Environment & Forest	3 years (2011-2014)	17.35

School of Life Sciences

Title of the project	Name of the Principal Investigator(s)	Funding agency	Duration	Sanctioned fund (Rs. in lakhs)
Molecular characterization in the expression of mRNAs for ornithine-urea cycle enzymes and enzyme proteins, multiple glutamine synthetase genes and signaling cascades under hyper-ammonia stress in the air-breathing walking catfish, <i>Clarias batrachus</i>	Prof. N. Saha (PI), and Dr. M. K. Santra, NCCS, Pune (Co-PI)	DBT, New Delhi	3 years (2011-2014)	69.10
Insect hormones and insulin signaling in silkworm, <i>Bombyx mori</i> under fed and starved conditions: a study at molecular level	Dr. B. Keshan	DBT, New Delhi	3 years (2011-2014)	55.57
Epigenetic status of pro/anti apoptotic activity of age-related genes involved in breast cancer	Dr. B. Das (PI and Project Coordinator), Dr A Katak, BBICI; Dr Sandip Mishra, ILS, Guwahati and Prof K. Satyamoorthy, Manipal Univ.	DBT, New Delhi (DBT-NER twinning programme)	3 years (2012-2015)	123.66

Academic/Professional Collaboration

Prof. V. Tandon collaborated with Dr. Rathinam and Dr. Gowri Priya of Aravind Eye Hospital, Madurai on identifying the causative agent of ocular granuloma in human subjects (in focal areas of Tamil Nadu), in which a cercaria (larval stage) of trematode flukes that occur in fish or avian hosts is suspected to be implicated; Prof. A. Bhattacharya of JNU, New Delhi for Next Generation sequencing of zoonotichelminth-parasites in NER under the DBT's NER Twinning Programme.

Prof. N. Saha collaborated with Prof. D. Häussinger, Director, Department of Gastroenterology, Hepatology and Infectious Disease, Heinrich-Heine University of Düsseldorf, Düsseldorf, Germany in the field of molecular mechanism of bile acid excretion and hepatic encephalopathy; and with Dr. Manas

Kumar Santra, Scientist D, National Centre for Cell Science, Pune on DBT's Twinning Project for the NE entitled "Molecular characterization in the expression of mRNAs for ornithine-urea cycle enzymes and enzyme proteins, multiple glutamine synthetase genes and signaling cascades under hyper-ammonia stress in the air-breathing walking catfish, *Clarias batrachus*"

Dr. A.K. Yadav collaborated with Dr. Andreas Schmidt-Rhaesa, University of Hamburg, Hamburg, Germany on Biodiversity of Indian Nematomorph species and communicated one joint research paper, "*Chordodes shillongensis* (Nematomorpha: Gordiida), a new species of horsehair worm from Meghalaya, North-East India" to *Current Science* (Bangalore) in February, 2012.

Dr. S.R. Hajong and Prof. B. Kharbuli collaborated with Dr. Falko Drijfhout, Keele University on the

GC-MS characterization of cuticular hydrocarbons in *Apis cerana indica* (Fab.).

Dr. B. Das collaborated with Dr. Amit Sharma, ICGEB, New Delhi, for crystallography of PEPCK; Prof. K. Satyamoorthy, Director, Manipal Life Science Centre, Manipal University, Manipal, Karnataka, for Epigenetic analysis of PEPCK promoter and Dr Sandip Mishra, ILS, Bhubaneswar, Odisha, for anti/pro apoptotic genes in breast cancer.

Honours/Awards/Recognition

Prof. V. Tandon (i) received the “Lifetime Achievement Award” conferred by Anna University and Indian Society for Parasitology, November 19, 2011 at Anna University, Chennai.

Prof. B. K. Sharma received “Prof. G. K. Kulkarni Gold Medal” for the year 2011 by Zoological Society of India.

Dr. B. Das received the DBT Overseas Associateship award for the year 2012.

Other Academic Activities

Prof. V. Tandon (i) was invited as Chief Guest at the DBT-sponsored Institutional “Biotech Hub Workshop” organized by Lady Keane’s College, Shillong, June 23, 2011; (ii) delivered a lecture on “This Wormy World : Diversity of Food-borne Parasitic Zoonoses in Northeast India” organized by the Jail Road Boys’ Higher Secondary School, Shillong, August 12, 2011; (iii) delivered a lecture

on “Molecular Taxonomy: A unified approach from Classical towards Modern” at the 12-day training Programme (March 19-30, 2012) on “Molecular tools in Biotechnology Teaching and Research”, organized under the ‘DBT- State-level Biotech Hub Project, Department of Botany, NEHU, Shillong.

Prof. R.N.K. Hooroo (i) attended as a Core Faculty and delivered lectures in the DST-SERB 5TH School in Herpetology at North Orissa University, Odisha, organized by the Department of Science and Technology on March 5th -9th 2012.

Prof. N. Saha (i) acted as co-ordinator for 35th Refresher Course on “Recent Advances in Zoology”, November 28 to December 18, 2011.

Dr. A.K. Yadav delivered an invited lecture on “Applications of Scanning Electron Microscopy in Life Sciences” at the Workshop on Scanning Electron Microscopy in Life Science Research, Sophisticated Analytical Instrumentation Facility, NEHU, Shillong.

Dr. A.S. Dixit (i) delivered two lectures as faculty in the DST sponsored SERC School in Chronobiology, 1-14 October, 2011, C. C. S University, Meerut.

Dr. S.R. Hajong attended UGC sponsored Refresher Course in Zoology held from 16th Jan to 06th Feb.2012 at Academic Staff College, University of Lucknow.

Chapter VI

SCHOOL OF PHYSICAL SCIENCES

Dean : Prof. H.K. Mukerjee
Telephone : 272 2501/2503/2714
Email : himadri@nehu.ac.in

The School of Physical Sciences consists of the departments of Chemistry, Mathematics, Physics and Statistics. The faculty members of the School made significant

research contributions during the year and also received extra financial support from DST-FIST and UGC-SAP. Many faculty members had national and international collaborations.

Department of Chemistry

Head : Prof. B. Myrboh from 1.4.2011 to 16.2.2012
Prof. R.A. Lal from 17.2.2012 onwards
Telephone : 2722601 (o)
Email : ralal@rediffmail.com

Thrust Areas

Organometallic Chemistry, Coordination Chemistry, Computational Chemistry, Theoretical Reaction Kinetics, Synthetic Organic Chemistry.

Brief Statement of Academic Activities

37 M.Sc. and 8 Ph.D. students were admitted during the year. 9 Students were awarded Ph.D. degree, 2 students qualified for the CSIR NET

Fellowship and 3 students got CSIR-SRF. 4 students were awarded the Rajiv Gandhi Fellowship. The UGC continued to support the department under the SAP-DSA programme. The department has also received DST assistance under FIST. A Refresher Course entitled "Highlights on Structure and Reactivity in Chemistry" was conducted by the Department during the period 23rd March to 11th April 2012 with Dr. T.S. Basu Baul as the Coordinator.

Faculty Profile

Professors : K. Ismail, M.Sc./Ph.D. (AMU)
B. Myrboh, M.Sc./Ph.D. (NEHU)

R. H. Duncan Lyngdoh, M.Sc. (NEHU); Ph.D. (IIT Madras)
 R. A. Lal, M.Sc./Ph.D. (BHU)
 K. Mohan Rao, M.Sc. (S. V. Univ.); Ph.D. (IIT Kanpur)

- Associate Professors : A. Lemtur, M.Sc./Ph.D. (NEHU)
 A. K. Chandra, M.Sc./Ph.D. (Burdwan Univ.)
 Ghanashyam Bez, M.Sc./Ph.D. (Gauhati Univ.)
 H. Askari, M.Sc./Ph.D. (AMU)
 T. S. Basu Baul, M.Sc. (Jabalpur); Ph.D. (N. Bengal)
- Assistant Professors : R. L. Nongkhaw, M.Sc./Ph.D. (NEHU)
 E. K. Rymmai, M.Sc./Ph.D. (NEHU)
 D. P. S. Negi, M.Sc. (Roorkee); Ph.D. (IIT Roorkee)
 S. Mitra, M.Sc. (Vidya Sagar); Ph.D. (IACS, Kolkata)
 M. K. Sahoo, M.Sc. (Utkal); Ph.D. (Comenius, Czechoslovakia)
 Biplab Sarkar, M.Sc. (N. Bengal); Ph.D. (IIT Guwahati)
 Amarta Kumar Pal, M.Sc. (Calcutta); Ph.D. (Kalyani)

Student Intake

Enrolment capacity	M.Sc.:	36		Ph.D.:	Variable		
Actual Admission	SC	ST	GEN	MALE	FEMALE	TOTAL	
M.Sc.:	1	32	4	19	18	37	
Ph.D.:	-	3	5	8	-	8	

Degrees Awarded

	SC	ST	GEN	MALE	FEMALE	TOTAL
M.Sc.:	02	15	04	10	11	21
Ph.D.:	-	04	05	08	01	09

- (a) Mr. Aziz Ahmed, "Spectral, Electrochemical and Structural Studies of Some Copper and Molybdenum Complexes of Malonoyl-, Succinoyl- and Adipoyl-Dihydrazones". Supervisor: Prof. R. A. Lal.
- (b) Mr. Donborlang Kharbhii, "Redox Tuning of some Metalloporphyrins in Micellar Medium". Supervisor: Dr. A. Lemtur.
- (c) Mr. Madhusudhan Saha, "Green Synthetic Approach to Octahydroquinazolines and Bis-Octahydroquinazolines and Study of their Biological Activities". Supervisor: Dr. R. L. Nongkhaw, Joint Supervisor: Dr. J. N. Vishwakarma.
- (d) Mr. Shaemningwar Moyon, "Solvatochromism and Photophysical Properties of Alloxazine Derivatives in Homogeneous Solvents and Supramolecular Assemblies". Supervisor: Dr. Sivaprasad Mitra.
- (e) Mr. Jahar Dey, "Studies on the Micellization Behaviour of Surfactants in Selected Solvent Media". Supervisor: Prof. K. Ismail.
- (f) Mr. Gunajyoti Das, "Theoretical Investigation on Codon-Anticodon

Interactions and their Significance for the Genetic Code”, Supervisor: Prof. R.H. Duncan Lyngdoh.

- (g) Mr. Tovishe Phucho, “Synthesis of Substituted pyrimidine derivatives and related heterocycles”, Supervisor: Dr. R.L. Nongkhlaw.
- (h) Ms. Kh. Jogeshwari Devi, “Theoretical Studies on the Kinetics, Thermochemistry and Reactivity for Some Selected Radicals Addition and Hydrogen Abstraction Reactions of Atmospheric Importance”, Supervisor: Dr. A.K. Chandra.
- (i) Mr. A. Munaf Kharbuli, “Quantum Chemical Studies on the Oxidation of Alkene and Carbonyl Substrates by Ozone, Peracids and Peroxides”, Supervisor: Prof. R.H. Duncan Lyngdoh.

Courses Conducted

M.Sc.

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

Semester II: Inorganic Chemistry-II, Organic Chemistry-II, Physical Chemistry-II, Molecular Spectroscopy, Laboratory Course in Inorganic Chemistry. Topics in Organic Synthesis, Computer Programming in Chemistry, Organometallic Chemistry, Bioorganic Chemistry, Chemistry of Surfactants.

Semester III: Inorganic Chemistry-III, Organic Chemistry-III, Physical Chemistry-III, Applications of Spectroscopic Methods, Laboratory Course in Physical Chemistry, Environmental and Analytical Chemistry, Photochemistry, Bioinorganic Chemistry, Natural Products Chemistry, Principles and

Applications of Fluorescence Spectroscopy.

Semester IV: Inorganic Chemistry-IV, Organic Chemistry-IV, Physical Chemistry-IV, Seminar, Project Work in Inorganic, Organic and Physical Chemistry.

Ph.D

Research Methodologies in Chemistry, Spectroscopic & Crystallographic Techniques in Chemistry, Advanced Inorganic Chemistry, Advanced Organic Chemistry, Advanced Physical Chemistry and Advanced Quantum Chemistry.

Seminars/Conferences/Symposia/Extension Programmes, etc.

Organised

The department organized a Two Day National Symposium (supported by UGC, CSIR, DST and NEHU) on “Current Trends in Computational Chemistry” on 16-17 March 2012 with Dr. A. K. Chandra as the Convener.

Attended

Prof. K. Ismail delivered (i) an invited talk on “Some recent contributions to the chemistry of surfactants” at the National Conference on Chemistry, Chemical Technology and Society held on 11-12 November 2011 at Tezpur University and (ii) a plenary lecture on “Some interesting mixed counterion surfactant systems” at the 15th National Conference on Surfactants, Emulsions and Biocolloids held on 27-29 December 2011 at Tripura University.

Prof. R. H. Duncan Lyngdoh delivered (i) an invited lecture on “Stability, structure and inter-conversions of isomers on the (C₄H₄)⁺ energy surface” at the National Conference on Frontiers in Chemical Sciences” hosted by the Department of Chemistry, Manipur University, Imphal, on

20-21 March 2012; (ii) An invited lecture on “A chemist’s world view” at the Seminar for International Year of Chemistry at Union Christian College, Barapani, Shillong, on 4 August 2011; and (iii) an oral presentation on “Role of codon-anticodon pairing for the four-fold codon degeneracy of glycine: Some computational elucidations” at the International Conference on Chemistry for Sustainable Development (ICCS-21011) held at Punjab University, Chandigarh, on 2-4 December 2011.

Dr. T. S. Basu Baul delivered (i) an invited talk on “Exploring the relationship between molecular architecture and cytotoxic potentials of some organotin(IV) 2/4-[(E)-2-(aryl)-1-diazenyl]benzoates” at the Chemical Research Society of India International Year of Chemistry, Eastern Zonal Meeting, 2011, Department of Chemistry, North Bengal University, Darjeeling, on 22-24 July 2011; (ii) a lecture on “Chemistry, in vitro cytotoxicity and docking studies of organotin(IV) 2/4-[(E)-2-(aryl)diazenyl-1-yl]benzoates: a perspective” at the National Conference on Recent Trends in Chemistry (RTC-2012), Department of Chemistry, Sikkim Manipal Institute of Technology, Rangpo, Sikkim, 23rd-25th January, 2012, (iii) a talk on “Structure-based design and synthesis of a novel series of new organotin(IV) 2-/4-[(E)-2-(aryl)-1-diazenyl]benzoates endowed with anticancer activities” at the 18th International Conference (Post ISCBC-2012) on Perspective and Challenges in Chemical and Biological Sciences: Innovation Cross Roads, Institute of Advance Study in Science and Technology, Guwahati, 28-30 January, 2012 and (iv) a talk on “Organotin(IV) 2/4-[(E)-2-(aryl)diazenyl-1-yl]benzoates: architecture versus cytotoxic potential” at the International Symposium on Advances in Chemical Sciences-2012, Department of Chemistry, Indian Institute of

Technology, Guwahati and The Royal Society of Chemistry, UK, on 30 January, 2012.

Dr. G. Bez delivered an invited lecture entitled “Enzymatic kinetic resolution of acrylates and its application in stereoselective organic synthesis” at the UGC sponsored National Seminar on Emerging Trends in Chemical Sciences in Gauhati University, Guwahati, Assam held on March 30-31, 2012.

Dr. D. P. S. Negi delivered an invited lecture entitled “Semiconductor nanoparticles: Quantum size effect and sensing properties” at the National Workshop on Emerging Trends in Nano Chemistry 2011 at St. Anthony’s College, Shillong on 20-21 September 2011.

Publications

Published in India

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K. Sarjit Singh and K. Mohan Rao*. 2011. Reactivity studies of h⁶-p-cymene ruthenium (II) carboxylato complexes towards azide some neutral ligands. *J. Indian Chem. Soc.*, 88, 497-504.

Kh. J. Devi and A. K. Chandra*. 2012. Theoretical study of the gas-phase reactions of CHF₂OCHF₂ (HFE-134) with Cl atoms, *Curr. Sci.* (Invited article; Special Section: Environmental and Atmospheric Chemistry) 102, 470.

M. Bihani, P.P Bora, G Bez* and H. Askari*. 2012. Mechanochemistry (grinding): An efficient route to synthesis of 6-amino-4 alkyl/aryl-3-methyl-2,4-dihydropyran[2,3-c]pyrazole-carbonitrile. *Org. Chem. An Indian J.*, 8, 245-248.

M. Rajbangshi, B. M. Laloo and B. Myrboh*. 2012. A convenient one-pot three component

synthesis of 1,4-dihydropyridines using basic alumina as a catalyst in aqueous media under microwave irradiation. *Org. Chem.: An Indian J.* 8, 206-210.

M. Saha, E. Karim, R. L. Nongkhlaw* and J. N. Vishwakarma. 2012. A facile microwave assisted one-pot strategy for the synthesis of bis-hexahydroquinazolin-5(6H)-ones, *J. Indian Chem. Soc.*, 89, 117-120.

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V. Rao Anna, K. T. Prasad, P. Wang and K. Mohan Rao*. 2012. Study of half-sandwich mono and dinuclear complexes of platinum group metals containing pyrazolyl pyridine analogues: Synthesis and spectral characterization. *J. Chem. Sci.*, 565-575.

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A. K. Chandra and Th. Zeegers-Huyskens. 2012. A theoretical investigation of the interaction between substituted carbonyl derivatives and water: Open or cyclic complexes? *J. Comput. Chem.* 33, 1131.

A. Kumar, R. Borthakur, A. Koch, O. B. Chanu, S. Choudhury, A. Lemtur* and R. A. Lal*. 2011. Synthesis and characterization of heterobimetallic molybdenum and nickel complexes derived from polyfunctional

disalicylaldehyde oxaloyldihydrazone. *J. Mol. Struct.*, 999, 89-97.

B. M. Laloo, H. Mecadon, Md. R. Rohman, I. Kharbangar, I. Kharkongor, M. Rajbangshi, R. L. Nongkhlaw* and B. Myrboh*. 2012. Reaction of selenium dioxide with aromatic ketones in the presence of boron trifluoride etherate: A protocol for the synthesis of triarylethanones. *J. Org. Chem.*, 77, 707-712.

B. Sarkar and A. J. C. Varandas. 2011. A study of the geometrical phase effect on scattering processes: Validity of the extended Longuet-Higgins formalism for a four-fold Jahn-Teller type model system, *Chem. Phys.*, 389, 81-87.

G. Das and R. H. Duncan Lyngdoh*. 2012. Role of wobble base pair geometry for codon degeneracy: Purine-type bases at the anticodon wobble position. *J. Mol. Model.* DOI 10.1007/s00894-012-1385-4.

H. Mecadon, Md. R. Rohman, I. Kharbangar, B. M. Laloo, I. Kharkongor, M. Rajbangshi and B. Myrboh*. 2011. L-proline as an efficient catalyst for the multi-component synthesis of 6-amino-4-alkyl/aryl-3-methyl-2,4-dihydropyrano[2,3-c]pyrazole-5-carbonitriles in water. *Tetrahedron Lett.*, 52, 3228-3231.

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J. Dey and K. Ismail*. 2012. Aggregation of sodium dodecylsulfate in aqueous nitric acid

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- J. Dey, U. Thapa and K. Ismail*. 2012. Aggregation and adsorption of sodium dioctylsulfosuccinate in aqueous ammonium chloride solution. Role of mixed counterions *J. Colloid Interface Sci.*, 367, 305 – 310.
- K. Mohan Rao, J. Benet-Buchholz, F. Maseras, A. Llobet Nora Planas, G. Christian, S. Roeser and E. Mas-Marzá. 2012. Substitution reactions in dinuclear Ru-Hbpb complexes: an evaluation of through-space Interactions. *Inorg. Chem.* 51, 1889–1901.
- K. Vanlaldinpuia and G. Bez*. 2011. Useful methods for the synthesis of isopropylidenes and their chemoselective cleavage. *Tetrahedron Lett.*, 52, 3759-3764.
- Kh. J. Devi, and A. K. Chandra*. 2011. Kinetics and thermochemistry of the gas-phase reactions of 4-ethylpyridine with OH radical: ADFT study. *Comput. Theor. Chem.* (Invited article; Special Issue: Theoretical Chemistry of Atmospheric Processes), 965, 268.
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- M. K. Sahoo*, B. Sinha, M. Marbaniang and D. B. Naik. 2011. Degradation and mineralization of Calcon using UV_{365}/H_2O_2 technique: Influence of pH. *Desalination* 280, 266-272.
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- M. Saha, N. Das, J. Jamir, G. Singh and A. K. Pal*. 2011. A convenient and greener synthesis of bis(indolyl)methanes in surfactant medium under microwave irradiation. *Org. Chem. An Indian J.*, 8, 121-126.
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- heterometallic trinuclear copper(II) and zinc(II) complexes derived from bis(2-hydroxy-1-naphthaldehyde)oxaloyldihydrazone. *J. Mol. Struct.* 1007, 257.
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- S. Chanda, D. Das, J. Das and K. Ismail*. 2012. Adsorption characteristics of sodium dodecylsulfate and cetylpyridinium chloride at air/water, air/formamide and air/water-formamide interfaces. *Colloid Surf. A*, 399, 56-61.
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- S. Gloria, P. Wang and K. Mohan Rao*. 2012. Spectral and structural studies of platinum group metal complexes of 3-(di-2-pyridylaminomethyl)benzamide and formation of mutual intermolecular hydrogen bonding in some complexes. *Z. Anorg. Allg. Chemie.*, 638, 634-640.
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- S. L. Nongbri, B. Das and K. Mohan Rao*. 2012. Isolation and spectral studies of water soluble rhodium and iridium complexes with pyridyl diketone ligands bonded through δ^2 -N)⁰O, δ^4 -N)⁰O and δ^3 -N-C-N modes. *J. Coord. Chem.* 65, 875–890.
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- T. S. Basu Baul, A. Mizar, G. Ruisi and E.R.T. Tiekink. 2012. Diorganotin(IV) complexes of

methyl 2-{{(E)-8-oxo-5,8-dihydroquinolin-5-ylidene}hydrazino} benzoate. *Z. Anorg. Allg. Chem.*, 638, 664-668.

T. S. Basu Baul, A. Paul and A. Linden. 2011. Synthesis, characterization and crystal structures of 2-[(E)-2-(4-hydroxy-3,5-dimethylphenyl)-1-diazenyl]benzoic acid and its polymeric and monomeric triorganotin(IV) complexes, *J. Organomet. Chem.*, 696, 4229-4235.

T. S. Basu Baul, A. Paul, L. Pellerito, M. Scopelliti, A. Duthie, D. de Vos, R.P. Verma, and U. Englert. 2012. An in vitro comparative assessment with a series of new triphenyltin(IV) 2-/4-[(E)-2-(aryl)-1-diazenyl]benzoates endowed with anticancer activities: Structural modifications, analysis of efficacy and cytotoxicity involving human tumour cell lines, *J. Inorg. Biochem.*, 107, 119-128.

T. S. Basu Baul, S. Kundu, H. Höpfl and E.R.T Tiekink. 2012. Supramolecular aggregation patterns in mononuclear organomercury carboxylates, *Z. Kristallogr.*, 227 158-166.

T. Sahoo, S. Sardar, P. Mondal, A. K. Paul, B. Sarkar and S. Adhikari. 2011. Effect of surface modes on the six-dimensional molecule-surface scattering dynamics of H₂-Cu(100) and D₂-Cu(111) systems. *J. Phys. Chem. A*, 115, 5256-5273.

T.S. Basu Baul, A. Paul and E.R.T. Tiekink. 2012. Bis { 2-[(E)-(5-tert-butyl-2-hydroxy phenyl)diazenyl]benzoato } dimethyltin(IV), *Acta Crystallogr.*, E67, m1383-m1384.

T.S. Basu Baul, P. Verma and P. Singh. 2011. Molecular docking of dichlorodiorgano[N-(2-pyridylmethylene)arylamine]tin(IV) complexes with some enzymes, *J. Comput. Method. Mol. Design*, 1, 11-23.

V. Rao Anna and K. Mohan Rao*. 2012. Syntheses, spectral and structural characterization of ζ^5 - and ζ^6 -cyclic δ -perimeter hydrocarbon platinum group metal complexes containing pyridazine-NHC analogues. *Polyhedron* 34, 176-180.

V. Rao Anna, R. Pallepogu, Z.-Y. Zhou and K. Mohan Rao*. 2012. Novel platinum group metal complexes bearing bidentate chelating pyrimidyl-NHC and pyrimidyl-NHC thione ligands: Syntheses, spectral and structural characterization. *Inorg. Chim. Acta.* 387, 37-44.

Funds Received

- (i) DST/DAE/BRNS/CSIR/UGC/DIT: Rs 45.77 lakhs (for 8 projects)
- (ii) UGC-SAP-DSA Phase-III Programme: Rs. 04.20 Lakhs
- (iii) National Symposium on Current Trends in Computational Chemistry (CTCC-2012) : Rs. 1,75,000/-

Research Projects

Completed

- (1) "Construction and multisite commissioning multiple fluorescence correlation spectrophotometers (a single molecule biophotonic tool)". Co-Investigator: Dr. S. Mitra. Sponsored by Department of Information & Technology, Ministry of Communications & Information Technology, Govt. of India, New Delhi.
- (2) "Fluorescence studies on representative intramolecular photoprocesses in homogeneous and continued environment". Principal Investigator: Dr. S. Mitra. Sponsored by DAE/ BRNS, Mumbai.

School of Physical Sciences

New

1. "Theoretical studies on the kinetics, thermochemistry and reactivity of some selected radical reactions of atmospheric importance". Principal Investigator: Dr. A. K. Chandra. Sponsored by CSIR, New Delhi.
2. "Syntheses, reactivity and structural studies of platinum group metal complexes containing h^5 and h^6 -cyclic hydrocarbons and multidentate nitrogen bases". Principal Investigator: Prof. K.M. Rao. Sponsored by CSIR, New Delhi.
3. "UV light and transition metal-catalyzed degradation and mineralization studies of some azo dyes by hydrogen peroxide". Principal Investigator: Dr. M.K. Sahoo. Sponsored by UGC, New Delhi.
4. "Computational elucidations on codon-anticodon pairing and the genetic code". Principal Investigator: Prof. R.H. Duncan Lyngdoh. Sponsored by CSIR, New Delhi.
5. "Studies on the synthetic utility of selenium dioxide: development of new methodologies for carbon-carbon coupling in organic synthesis and related work", Principal Investigator: Prof. B. Myrboh. Sponsored by UGC, New Delhi.

Ongoing

1. "Spectroscopy and dynamics of photoinduced processes in homogeneous and biomimetic Environments". Dr. S. Mitra. Sponsored by UGC, New Delhi.
2. "Comparative studies on degradation and mineralization of some azo dyes by radiolysis and photolysis". Principal Investigator: Dr. M.K. Sahoo. Sponsored by BRNS, Mumbai.

3. "Studies on fluoride contamination of drinking water in the region and development of a cost effective method for defluoridation using indigenous materials". Principal Investigator: Prof. K. Ismail. Sponsored by DRDO.
4. "New synthetic aspects and catalytic study of late transition metal complexes bearing homo and heteroscorpionate and N-heterocyclic carbenes as ligands". Principal Investigator: Prof. K.M. Rao. Sponsored by UGC, New Delhi.

Academic Collaboration

Prof. K. Ismail had academic collaboration with (i) Dr. P.A. Hassan and Dr. V.K. Aswal, Bhabha Atomic Research Centre, Mumbai (ii) Dr. S. Mahiuddin, North-East Institute of Science and Technology, Jorhat, Assam.

Prof. R.A. Lal was in collaboration with Dr. A. Kumar, Faculty of Science and Agriculture, The University of West Indies.

Prof. K. M. Rao had academic collaboration with Dr. Therrien Bruno, Institut de Chimie, Université de Neuchâtel, Switzerland, and Dr. Yuriy Mozharivskyj, McMaster University, Ontario, Canada.

Dr. A. K. Chandra had research collaboration with the Quantum Chemistry Group of the University of Leuven, Belgium.

Dr. T.S. Basu Baul had academic collaboration with Università di Palermo, Italy; Virije Universiteit Brussel, Belgium; University of Zurich, Switzerland; Pharmachemie BV, Haarlem, The Netherlands; Università di Camerini, Italy; The University of Texas at San Antonio, USA; University of Malaya, Malaysia; University of the District of Columbia, USA; Universiti Sains Malaysia, Malaysia.

Dr. M. K. Sahoo collaborated with Dr. D. B. Naik, BARC, and with Prof. B.S.M. Rao, the National Centre for Free Radical Research, Pune University.

Dr. S. Mitra has research collaboration with D. Kumar, BITS, Pilani and Dr. A. Bhasikuttan, BARC, Mumbai and S. Jenkins, College of Chemistry and Chemical Engineering, Hunan Normal University, Changsha, Hunan 410081,

China.

Major Infrastructure Facilities

A Single Crystal X-Ray Diffractometer was procured from Oxford Diffraction Ltd., (M/S Agilent Technologies, U.K.) costing Rs. 1,49,60,268/= (inclusive of transportation and other charges) out of DST-PURSE Programme of the University.

Department of Mathematics

Head : Professor S.S. Khare
Telephone : 2722711, 2722719
Email : kharess@rediffmail.com

Thrust Areas

Algebra, Algebraic and Differential Topology, Cosmology, Number Theory, and Fluid Mechanics.

Faculty Profile

Professors :

Sl. No.	Name of the faculty	Degree	Specialization	Institution
1	Prof. S.S. Khare	D.Phil.	Algebraic and Differential Topology	Allahabad University
2	Prof. M.B. Rege*	Ph.D.	Ring Theory	Bombay University
3	Prof. H.K. Mukerjee	D.Phil.	Algebraic and Differential Topology	Allahabad University

* Retired on November 30, 2011.

Associate Professors :

4	Dr. P.K. Saikia	Ph.D.	Number Theory	Allahabad University
5	Dr. M. Ansari	Ph.D.	Theory of Relativity and Cosmology	Gorakhpur University
6	Dr. A.K. Das	Ph.D.	Theory of Finite Groups	N.E.H.U.
7	Dr. K.K. Singh	Ph.D.	Fluid Mechanics	Gorakhpur University

School of Physical Sciences

Assistant Professors

8	Dr. Sanghita Dutta	Ph.D.	Algebraic Differential topology, Rings of Continuous Functions	N.E.H.U.
9	Dr. A.M. Buhphang	Ph.D.	Ring Theory	N.E.H.U.
10	A. Tiken Singh	M. Phil.	Algebraic and Differential Topology	N.E.H.U.
11	John Paul Jala Kharbhih	M.Sc.	Rings of Continuous Functions, Numerical Analysis, Computer Programming.	N.E.H.U.

Student Intake

Enrolment Capacity: M.Sc.: 36, M. Phil/PhD.: unspecified

Actual Admission

	SC	ST	Gen	Male	Female	Total
M.Sc.	-	30	6	25	11	36
Ph.D.	-	1	2	3	-	3

Degrees Awarded

M.Sc:

SC	ST	Gen	Male	Female	Total
-	19	2	16	5	21

M.Phil

Sl.No.	Candidate's Name	Title of Research	Supervisor's Name
1.	Miss Mertan Sumer	Scalar Field Models of Dark Energy	Dr. M. Ansari

Ph.D

Sl.No.	Candidate's Name	Title of Research	Supervisor's Name
1.	Mr. Jibitesh Dutta	Acceleration and Gravitational Thermodynamics in Brane Gravity based Phantom Cosmology	Dr. M. Ansari

Courses Conducted

M.Sc.

1st Semester: Linear Algebra, A.M.E.S., Analysis I, Classical Mechanics, O.D.E.

2nd Semester: Analysis II, Algebra I, Topology, P.D.E., Fortran Programming

3rd Semester: Programming in C and

Applications, Computer Prac., C.F.T., E.N.T., Theory of field extensions, Tensor analysis and Riemannian Geometry.

4th Semester: C.N.A., Ring Theory, Algebraic Topology, Theory of Relativity, Discrete Mathematics.

M.Phil.: Fluid dynamics, Nonlinear dynamical systems, Mathematical Methods, p-adic

Analysis, Discrete Mathematics, Research Methodology, Advanced Ring Theory, Advanced Group Theory, Character Theory.

Ph.D.: Research Methodology, Fluid dynamics, Magnetogasdynamics, Commutative Algebra, Rings of continuous functions.

Seminars/Conferences/Workshops/Extension Programmes

Organized

The department organized an Advanced Instructional School in Algebraic Topology from June 13 to July 2, 2011, at NEHU, Shillong. It also organized a Refresher Course in Mathematics from 22nd March to 11th April, 2012 on the topic “Mathematics, Statistics and Computer Science”.

The Indian National Mathematical Olympiad-2012 (INMO-2011) was held in the department on February 5, 2012. It was preceded by an orientation camp held in NEHU Campus from January 28 to February 4, 2012. Mr Manjil Saikia from Tezpur, Prof. M.B. Rege, and Mr. Kh. H. Singh (both from Shillong) lectured in this camp which was attended by INMO Candidates and some school and college teachers.

Publications

Published in India

Khare S.S., Span of the Wall manifolds, *Journal of the Indian Mathematical Society*, Vol. 79, No. 1-4(2012), 73-80.

Khare S.S., Span of specific manifolds, *The Mathematics Students*, Vol. 81, No. 1-4(2012), 1-25.

Ansari M., Implications of One-Loop Quantum correction in the Background Geometry of 5-dimensional Kaluza-Klein Cosmology. *Journal of The Tensor Society, Lucknow*, Vol. 4: 77-86.

Ansari M., Dirac Equation in a 5-Dimensional

Kaluza-Klein Theory, *Indian Journal of Pure and Applied Math. (INSA) New Delhi*, Vol. 41, No. 6: 715-736.

Published Abroad

Das A.K., On generalized commutativity degree of a finite group, *Rocky Mountain Journal of Mathematics*, Vol.41, Num. 6, 2011, pp 1987—2000.

Das A.K., A characterisation of certain finite groups of odd order, *Mathematical Proceedings of the Royal Irish Academy*, 111A (2), 2011, pp 69-78.

Das A.K., On the diameter and girth of zero-divisor graphs of posets, *Discrete Applied Mathematics*, Vol.160, 2012, pp 1319—1324.

Singh K.K., “Self-similar flow of a non-ideal gas with increasing energy behind a magnetogasdynamics shock wave under a gravitational field”, *Journal of Theoretical and Applied Mechanics*, Vol. 45, No. 2, 2011, pp 501-513.

Singh N.J. and Mukerjee H.K., Homology Curve Complex, *Advances in Pure Mathematics*, Vol. 2, March (2012), 119-123.

Subedi T. and Buhphang A.M., On weakly regular rings and generalizations of V-rings, *International Electronic Journal of Algebra*, Vol. 10(2011), 162-173.

Subedi T. and Buhphang A.M., On strongly regular rings and generalizations of semi-commutative rings, *International Mathematical Forum*, Vol. 7 (2012), No. 16, 777-790.

Fund Received

University Grants Commission (SAP-DRS-I) Grant to Mathematics Department, NEHU, Rs. 18.4 lakhs.

University Grants Commission (BSR) Grant to Mathematics Department – Rs. 20 lakhs.

NBHM (DAE) Library grant to Mathematics Department, NEHU, Shillong –Rs. 10 lakhs.

Research Projects

Ongoing

National Board for Higher Mathematics, Department of Atomic Energy Research Project “Some Classification Problems in Higher and Lower Dimensional Topology”. Principal Investigator: Prof. H.K.Mukerjee.

Academic Collaboration

Dr. A.K. Das collaborated with Prof. M. R. Pournaki, Department of Mathematical Sciences, Sharif University of Technology, Tehran, Iran, and School of Mathematics, Institute for Research in Fundamental Sciences (IPM), Tehran, Iran.

Other Academic Activities

Prof. S.S. Khare gave a lecture on “On Abel Prize 2011 to John Willard Milnor: A brief description of his significant work” during the Advanced Instructional School in Algebraic Topology, June 13 to July 2, 2011, at NEHU, Shillong; gave an invited talk on “Vector fields on Dold and Wall manifolds” at the Univ. of Boston on July 20, 2011; gave an invited talk “On fractals and their applications” at the National Conference on Mathematical Sciences organized by P.U. College, University of Mizoram and Mizoram Mathematical Society from Nov. 24-25, 2011; delivered a talk on “A critical appraisal of Mathematics today and need of a futuristic approach: special reference to NE region” at the NE-regional conference on Mathematics Education at I.I.T. Guwahati during Nov. 25-26, 2011; delivered a talk on “Fun with Mathematics” on Dec. 2, 2011 at Lady Keane College Shillong; delivered a lecture “On Fibonacci numbers and

their occurrence in nature” at the seminar on “Some cultural aspects of Mathematics” organized by Math. Deptt., Union Christian College, Umiam on Sept. 9, 2011; delivered a talk on “Span of specific manifolds” at the Annual Conference of I.M.S., Swami Ramanand Teerth Marathawada, Nanded, Maharashtra on Dec. 27-30, 2011; delivered four talks on “Introduction to Algebraic Topology”, two talks on “Fractional differintegration and its applications” and two talks on “Taxicab Geometry” at Swami Ramanand Teerth Marathawada, Nanded, Maharashtra during his stay as Visiting Fellow on Jan. 1-7, 2012; gave two talks on “Enjoyment with Mathematics” and “Playing with Mathematics” at the workshop on “Different perspective in Teaching of Mathematics at School” organized by Math. Deptt. St. Mary’s College, Shillong on Mar. 19-21, 2012.

Prof. H.K. Mukerjee gave three lectures during the Advanced Instructional School in Algebraic Topology, June 13 to July 2, 2011, at NEHU.; visited IIT, Mumbai for three weeks during Feb 2012 and delivered a lecture on “Plumbing”; gave four invited lectures at the ATM workshop on Geometry and Topology, held at IIT Mumbai on Feb. 20-27, 2012; gave one invited lecture on the role of NEHU in mathematics education in North-East India at the North East Regional Conference on Mathematics Education, 25-26 Nov. 2011.

Prof. M.B. Rege gave four invited lectures at the Olympiad training Camp at ISI Kolkata, on Jan. 23-27, 2012.

Dr. A.K. Das delivered an invited talk titled “On divisor graphs of partially ordered sets” at the “National Conference on Frontiers in Mathematics – 2011”, held at the Department of Mathematics, Gauhati University, from September 29th to 30th, 2011.

Department of Physics

Head : Prof. B.M. Jyrwa
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Thrust Areas

Solid State Physics, High Energy Physics, Laser Physics, and Nuclear Physics.

Brief Statement of Academic Activities

During the academic session 2011-12 the department started Ph.D. course work. In addition to teaching M.Sc. and Ph.D. courses,

faculty members were engaged in guiding research for Ph.D. scholars as well as carrying out their own research works. The faculty members visited various reputed national and international institutions to carry out their research collaborations and giving talks on their research contributions.

Faculty Profile

- Professors** :
- Dr. P. Shukla, M.Sc. (IIT, Delhi), Ph.D. (Temple) (Solid State Physics, Theory)
 - Dr. P.N.Pandita, M.Sc. (Kashmir), Ph.D. (Kashmir) (High Energy Physics, Theory)
 - Dr. B.M. Jyrwa, M.Sc. (NEHU), Ph.D. (NEHU) (Nuclear Physics, Theory)
 - Dr. P. Nongkynrih, M.Sc. (NEHU), Ph.D. (NEHU) (Nuclear Physics, Experiment)
 - Dr. S. Kumar, M.Sc. (BHU), Ph.D. (Utkal) (High Energy Physics, Theory)
 - Dr. D.T. Khathing*, M.Sc. (Delhi), D. Phil. (Calcutta) (Nuclear Physics, Experiment) *on lien; VC, Central University of Jharkhand
- Associate Professors** :
- Dr. M.C. Mahato, M.Sc. (Ranchi), Ph.D. (IISc. Bangalore) (Solid State Physics, Theory)
 - Dr. S.S. Khatri, M.Sc.(NEHU), Ph.D. (NEHU) (Laser Physics, Experiment)
 - Dr. Y.N. Tiwari, M.Sc. (Patna), Ph.D (Patna), LL.B.(Patna) (Atomic & Molecular Physics, Theory)
 - Dr. A. Saxena, M.Sc. (Rohilkhand), M.Phil. (Meerut), Ph.D. (NEHU) (Nuclear Physics Experiment)
 - Dr. A.K. Biswas, M.Sc. (IIT Kharagpur), Ph.D. (IP, Bhubaneshwar) (High Energy Physics Theory)
- Assistant Professor** :
- Dr. S.S. Pohlong, M.Sc. (NEHU), Ph.D. (NEHU) (Solid State Physics, Theory)

School of Physical Sciences

Student Intake

Enrolment capacity: M.Sc.: 32, Ph.D.: Variable

Actual admission:	SC	ST	GEN	MALE	FEMALE	TOTAL
M.Sc:	-	29	3	24	8	32
Ph.D:	-	2	1	3	-	3

Degrees Awarded

	SC	ST	GEN	MALE	FEMALE	TOTAL
MSc:	01	26	02	18	11	29

PhD

1. Mr. Regenal Son Kharwanlang, Hysteresis in Ferromagnetic Random Field Ising, XY, and Heisenberg Models, Supervisor: Prof. P. Shukla.
2. Mr. Lobisor Kurbah, Hysteresis in Anti-Ferromagnetic Random Field Ising Model, Supervisor: Prof. P. Shukla.
3. Mr. Samrat Dey, A study of Microscopic Superfluidity By Quantum Dynamics of Dopants in ⁴He Nanodroplets and Related Aspects, Supervisor Prof. Satish Kumar, Jt. Supervisor: Prof. Y.S. Jain (retd.).

Courses Conducted

MSc.

Semester I - Classical Mechanics, Quantum Mechanics I, Mathematical Physics, Laboratory I.

Semester II - Electrodynamics, Electronics, Quantum Mechanics II, Laboratory II

Semester III - Nuclear Physics I, Solid State Physics I, Atomic and Molecular Physics, Laboratory III, Environment

Semester IV - Thermal Physics, Computational Techniques and Numerical Methods, Computational Techniques-Laboratory, Optional papers on Solid State Physics II, High Physics, Laser Physics, and Nuclear Physics II.

Ph.D

Research Methodologies in Physics, Advanced Statistical Mechanics, and Advanced Nuclear Physics,

Seminars/Conferences/Workshops/Extension Programmes

Attended

Prof. B.M. Jyrwa attended and presented a paper "Excitation functions and isotopic effects in (n,p) reactions for stable iron isotopes from reaction threshold to 20 MeV" in DAE Symposium on Nuclear Physics, 56 (2011), December 26-30, 2011, Department of Physics, Andhra University, Visakhapatnam, Andhra Pradesh, India.

Maibam D, Y. Sharma, A. Saxena, D. Walia, E. Diengdoh, A.K. Rapmai, presented a paper on "Measurement of Potential Alpha Energy Concentration in some Schools in Shillong City" at the 17th National Symposium on SSNTDs and their applications, Vadodara, 17-19 October, (2011).

Walia D, D. Maibam, Y. Sharma, A. Saxena, Trune Pao and Andrew C. Lyngdoh, presented a paper titled "Radon Levels in Potable Ground Water of Shillong Agglomeration" 17th National Symposium on SSNTDs and their applications, Vadodara, 17-19 October, (2011).

Walia D, D. Maibam, Y. Sharma, A. Saxena and Trune Pao, presented a paper titled "Potential Radiation Hazards due to Radon Concentration

in Groundwater of Shillong Agglomerate” at the 99th Indian Science Congress, Bhubaneswar, 3-7 January, (2012).

Saxena A, D. Walia, D. Maibam, Y. Sharma and W. Khonglah, presented a paper titled “Measurement of Radon activity concentration and Radium content in soil samples of Nongrah, Shillong” at the 99th Indian Science Congress, Bhubaneswar, 3-7 January, (2012).

Maibam D, Y. Sharma, A. Saxena, D. Walia, E. Diengdoh and A.K. Rapmai, presented a paper titled “Potential Alpha Energy Concentration in some Schools of Shillong City” at the 99th Indian Science Congress, Bhubaneswar, 3-7 January, (2012).

Publications

Published Abroad

Jeremaiah Joseph J., Damewan Suchiang, B.M. Jyrwa, (2012), Excitation functions and isotopic effects in (n,p) reactions for stable iron isotopes from reaction threshold to 20 MeV, *Annals of Nuclear Energy*, 43: 208-212.

Reenbohn W.L., S.S. Pohlong, and Mangal C. Mahato, (2012), Periodically driven underdamped periodic and washboard potential systems: Dynamical states and stochastic resonance, *Physical Review E*, 85: 0311144-1 - 0311144-12.

Saikia S., A.M. Jayannavar and M.C. Mahato, (2011), Stochastic resonance in periodic potentials, *Physical Review E*, 83: 06112-1 - 06112-9.

War S.A., P. Nongkynrih, D.T. Khathing, P.S. Iongwai, and L.M. Dkhar, (2012), Assessment of the radiological hazards of sand sediments collected from streams and streamlets of the uranium deposit areas in West Khasi Hills District, Meghalaya, India, *Environmental*

Earth Science, 65: 1695-1703.

Published in India

Jeremaiah Joseph J, and B.M. Jyrwa, (2012), Poschl Teller model for the total cross-section of neutron scattering from ²³²Th, *Indian Journal of Pure & Applied Physics*: 289-294.

Funds Received

BRNS-DAE = Rs.7,62,725/-

Research Projects

Completed

Radon monitoring in groundwater of the Northeastern India region to study the Neotectonic activities and health hazard, BRNS-DAE, Dr. Atul Saxena.

Ongoing

EXFOR COMPILATION of NUCLEAR DATA, BRNS-DAE, Prof. B.M. Jyrwa Study of transport properties in driven periodic systems, BRNS-DAE, Dr. M.C. Mahato.

Academic Collaboration

Dr. A. Saxena collaborated with R.J. Buenker and H.P. Liebermann, Bergische University, Wuppertal, Germany, and D. Walia, Department of Environmental Science NEHU, Shillong. Prof. Satish Kumar collaborated with Dr. P.K. Patra, Centre for Science Education NEHU, Shillong.

Prof. B.M. Jyrwa collaborated with Radio Chemistry Division and Nuclear Physics Division, BARC, Trombay, Mumbai.

Other Academic Activities

Prof. B.M. Jyrwa acted as Technical Convener of DST INSPIRE programme during December 2011. Prof. P. Shukla visited TIFR as Visiting Professor during December 17-31, 2011.

School of Physical Sciences

Dr. S.S. Khatri delivered a series of two talks on “Experimental Methodology and Techniques” in Department of Physics, St. Edmund’s College, Shillong on 22.3.2012 and 30.3.2012. He also served as a member of Organising Committee for the DST-INSPIRE sponsored 3rd winter camp organized by NEHU

on December 13-17, 2011.

Dr. Y.N. Tiwari attended a conference on “Global Meet for a Resurgent Bihar” in Science Education Section” 17-19 February, 2012. Dr. A. Saxena was a Ph.D. viva voce examiner in the department of Physics, Gauhati University.

Department of Statistics

Head : Prof. G. Das.
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Email : hodsta@nehu.ac.in.

Thrust Areas

Statistical Inference, Design of Experiments, Sample Survey, Statistical Ecology, Demography Econometrics.

Faculty Profile

Professors : G Das, M.A. (Delhi Univ.), Ph.D. (NEHU). Specialization: Sample Survey, Statistical Ecology
S.M. Bendre, M.Sc., M.Phil., Ph.D. Pune Univ.)(on lien).

Associate Professors : M.K. Das, M.Sc., Ph.D. (Dibrugarh Univ.). Specialization: Bayesian Inference.
T.K. Chakrabarty, M.Stat. (Agra Univ.), Ph.D.(Manipur Univ.).Statistical Demography.
B.K. Gupta, M.A. (Econ) Rohilkand Univ. M.Sc (Stat). A.M.U, Ph.D, (Gauhati Univ.) Survey Sampling, Econometrics and Demography.

Lecturer (Sl. Gr.) : R. Singh, M.Sc.(Stat) Ph.D (Stat)(Patna Univ.).Econometrics, Poverty and Human Development.

Assistant Professors : S.K. Jha, M.Sc., Ph.D (Patna Univ), Specialization: Discrete Probability Distribution, Operation Research.

Student Intake

Enrolment Capacity
M.Sc = 25 PG Diploma = 10

Actual Admission

	SC	ST	GEN	OBC	MALE	FEMALE	TOTAL
M.Sc.	Nil	12	1	2	10	5	15
Ph.D	Nil	1	Nil	2	2	1	3

Degrees Awarded

	SC	ST	GEN	OBC	MALE	FEMALE	TOTAL
M.Sc.	Nil	7	Nil	4	9	2	11
PG Diploma	Nil	2	1	Nil	2	1	3

Courses Conducted

M.Sc.

Semester – I: Mathematical Analysis, Linear Algebra, Probability Theory, Distribution Theory I, Distribution Theory II, Distribution, Computing & Programming (Practical)

Semester – II: Sample Survey, Statistical Inference I, Linear Models & Regression Analysis, Sample Survey(Practical), Statistical Inference I & Regression Analysis (Practical), Introduction To probability Theory and Distributions, Introduction to Sample Survey, Linear Programming.

Semester – III: Design of Experiments, Statistical Inference II, Statistics for National Development & Environmental Statistics, Design of Experiments (Practical), Statistical Inference II (Practical), Introduction to Design and Analysis of Experiments, Introduction to Econometrics, Biometry/Survival Analysis.

Semester – IV: Applied Multivariate Analysis, Time Series Analysis & Forecasting, Stochastic Processes, Applied Multivariate Analysis (Practical), Time Series Analysis and Forecasting (practical), Project Work, Statistical Computing, Population Dynamics and Demography, Population Dynamics and Demography (Practical).

Seminar/Conferences/Symposia/Workshop/Extension Programmes

Attended

Singh, R. (1) presented a paper entitled 'Principal Components Regression as Solution of Multicollinearity' at the IJEB 2nd International Conference on Economic and Business Issues' at New Delhi on 19th – 20th December, 2011. (2) Presented a paper entitled 'Development of Econometrics' at the IJEB 2nd International Conference on Economic and Business Issues' at New Delhi on 19th – 20th December, 2011. (3) Presented a paper entitled 'Career Growth of Married Indian Women at the 'National Roving workshop on Women in Scientific Research – Examining the Challenges & Identifying their Needs' organized by Department of Anthropology, NEHU, Shillong on 21st – 22nd October 12011. (4) Presented a paper entitled 'Social Problems of Working Women in India' at the 'National Roving Workshop on Women in Scientific Research – Examining the Challenges & Identifying their Needs' organized by Department of Anthropology, NEHU, Shillong on 21st – 22nd October 2011.

Gupt, B.K. presented a paper entitled, "Generalized Allocations Under A Superpopulation Model" at a National Conference on 'Statistical Theory and its

Practice' organized by the Department of Statistics, Gauhati University, on 23 – 24, December, 2011. He also presented a paper entitled, "Resource Protective and Producible modes in North East" (Jointly with Y.Satya), in TIES-2012, at the 22nd Annual Conference of 'The International Environmetrics Society' held on January 3 – 6, 2012 at C.R. Rao Advanced Institute of Mathematics Statistics and Computer Science (AIMSCS), Hyderabad, India.

Publications

Published in India

Handique, B.K., Das, G. (2011) Spatial Statistical analysis for delineating timber species Diversity hotspots at compartment level, *International Journal of Geomatics and Geosciences*, Vol. 2, Issue 2, pp 655 – 663.

Singh, R. (2011), 'Solution of Multicollinearity by Generalized Inverse Regression', *The IUP Journal of Computational Mathematics*, Vol IV,

No. 4, pp. 39 – 49.

Singh, R. (2011) 'Alleviation of Poverty in India', *Journal of Social & Economic Policy*, Vol.8, No.1, pp. 43 – 53.

Singh, R. (2011), 'Two Famous Conflicting Claims in Econometrics', *Asian-African Journal of Economics & Econometrics*, Vol 11, No. 1 pp. 185 – 186.

Singh, R. (2011), 'A Survey of Distributed lags', International, *Journal of Business Management, Economics & Information Technology*, Vol 3, No. 1, pp 7 – 17.

Published Abroad

Singh, R. (2011), 'New Computational Formulae of Gender related & Human Development Indices for improvement over the Existing Formulae', *The International Journal of Environmental, Cultural, Economics & Social Sustainability*, Vol.7, No. 1 pp 255 – 262.

Chapter VII

SCHOOL OF SOCIAL SCIENCES

Dean : Prof L. S. Gassah
Telephone : 2723001 2723002 (o)
Email : lsgassah@gmail.com

The School of Social Sciences consists of departments of Cultural and Creative Studies, History, Law, Political Science, and Sociology. The School has a total strength of 44 faculty members. Departments of Political Science, History, and Sociology offered postgraduate courses in their respective disciplines and the Department of Cultural and Creative Studies offered the same in Folkloristics

and P G. diploma in Music and Painting. The Department of Law offers a Five Year Integrated Programme of B.A., LL.B (Honours). The various departments organized seminars, workshops and Refresher Courses during the year. The departments of Political Science, History and Sociology received grants from the UGC under SAP.

Department of Cultural and Creative Studies

Head : Professor Desmond L. Kharmawphlang
Telephone : 2723374, 2723371 and 2723372 (o)
Email : desmondkharmawphlang@gmail.com

Thrust Areas

The thrust areas of the department are folkloristics, performing arts and visual arts.

Faculty Profile

Professors : Desmond L. Kharmawphlang, Ph. D., English (NEHU)
P. Jhingan, Ph.D., Linguistics (JNU) (Retd. on 31st October 2011)
Associate Professors : S. K. Nanda, Ph.D., Sociology (JNU)
L. Syiem, Ph.D., Music (NEHU)
Assistant Professor : B. Kalita, M.F.A., Painting (M.S. Univ. of Baroda)

Student Intake

Enrolment capacity: (1) PG Diploma Music - 20

School of Social Sciences

	(2)	PG Diploma Painting	-	10
	(3)	M.A. Folkloristics	-	30
	(4)	Ph. D.	-	Varies from year to year

Actual Admission

	SC	ST	OBC	Gen	Male	Female	From Meghalaya	From Outside
M.A. Folkloristics	1	25	1	-	14	13	21	6
P.G. Diploma: Music	-	12	-	-	8	4	12	-
Painting	-	7	-	1	5	3	8	-
Ph.D.	-	4	1	2	2	5	3	4

Degree Awarded

	SC	ST	OBC	Gen	Male	Female	Total
(a) PG Diploma: Music	-	12	-	-	7	5	12
Painting	1	8	-	1	5	5	10
(c) Ph.D.	-	3	-	-	-	3	3

Courses Conducted

M.A. in Folkloristics

Semester-I: Introduction to Folkloristics, History of Folklore Studies, Introduction to Semiotics, Folklore Theories-I, Field Studies and Methods.

Semester-II: Folklore Theories-II, Folk Literature-I, Public Sector Folklore, Introduction to Visual Arts, Urban Folklore (Optional-II).

Semester-III: Ethnomusicology, Folk Literature-II (Optional-III), Introduction to Performing Arts, Folklore of North-East India-I, Social Folk Custom.

Semester-IV: Material Culture; Language, Culture and Society; Narratology, Folklore of North-East India-II, Dissertation.

P.G. Diploma in Painting:

Semester-I: Brief History of Indian Classical Music and its Development, Introduction to General Musical Terms, Introduction to Indian Classical Music, Practical Training in Indian Classical Music, Introduction to Western Musical Notation.

Semester-II: Study of Selected Musical Instruments, Songs of Meghalaya, Rhythmic Pattern of Music of Meghalaya, Proficiency in Western Musical Instruments.

P.G. Diploma in Music:

Semester-I: Fundamental of Visual Arts, Introduction to Indian and Chinese Art, Drawing and Colour Application, Sculpture, Introduction to Traditional Folk Art and Craft of Northeast India.

Semester-II: Introduction to Western Art, Print Making, Creative Painting, Enamel Painting in Glazing Technique, Introduction to Indian and Western Aesthetics.

Study Tour/Field Trips

The students of Folkloristics and the P.G. Diploma students of Music and Painting were taken on a field trip to Nongkrem, Smit on 9th November 2011 under the guidance of Dr. S. K. Nanda and Professor P. Jhingan to gather first-hand information about the Nongkrem Dance Festival celebrated by the Khasi tribal

community in Meghalaya. In January 2012, the M.A. Folkloristics students were taken on a 14-day study tour to Bombay and Goa under the guidance of Mr. Bedanta Kalita so as to enable the students to acquaint themselves with the folklore and other oral traditions and literature of different communities in this part of India.

Seminars/Conferences/Symposia/Extension Programmes etc

Organised

A national seminar on Semiotics and Folklore was organized by the department on September 27-28, 2011 at the Old Guest House premise, NEHU, Shillong. Prof. Prabodh Jhingan was the director and Prof. Desmond L. Kharmawphlang was the coordinator of the seminar. Besides, to mark the 150th Birth Anniversary Celebration of Rabindranath Tagore, the department organized a One Day Poetry Reading Programme at the departmental theatre hall on 22nd November 2011.

Attended

Prof. Desmond L. Kharmawphlang presented a paper titled "The Reckoning of Khasi Folk Theatre" at the Workshop organized by the Indira Gandhi National Centre for the Arts (IGNCA), New Delhi on April 4-7, 2011. He presented a paper on "Origin Myths of the Khasis" at the International Conference on Kunlun and Creation Myths held in Quinghai, China on July 16, 2011.

Dr. S.K. Nanda presented a paper titled "Folklore, Semiotics and Society" at the national seminar on Semiotics and Folklore organized by the department at the Old Guest House premise, NEHU, Shillong on 27th & 28th September 2011.

Publications

Published in India

Nanda, S. K. 2011. "Ethnicity, Nationalism and Nation-Building in India: A Reappraisal", *Source: A Journal of Humanities and Social Sciences*, Vol. 1, Issue 1, August, pp.126-155.

Nanda, S. K. 2012. "Microfinance for Rural Development: Gender and Cultural Issues". In J. U. Ahmed (ed.) *Agriculture and Rural Development: A Foretaste*, Guwahati: DVS Publications, pp. 55-75.

Syiem, Lapyngshai. 2011. *My Father Composer: Soulful Melodies*. Shillong: La-Riti Publications.

Research Projects

Ongoing

"Rice Myth of North East India", Area Studies research project under UPE. Prof. Desmond L. Kharmawphlang, Principal Investigator, Prof. P. Jhingan and Dr. L. Syiem, Investigators.

Other Academic Activities

Prof. D. L. Kharmawphlang chaired a panel on "Vernacular Religions of India" at the annual conference of the Association for Asian Studies held in Honolulu, USA on April 2, 2011; delivered lectures at the Refresher Course in English organised by the Department of English and the Academic Staff College, Manipur University, Manipur on June 13-14, 2011; chaired a session of the Indian Folklore Conference held at Central University of Jharkhand, Ranchi on December 13, 2011; was appointed as mentor for the Tata Fellowships in Folklore with effect from January 2012.

Dr. S. K. Nanda joined as a member of the Editorial Advisory Board of *Source: A Journal of Humanities and Social Sciences* published annually by Don Bosco College, Tura, West Garo Hills, Meghalaya.

School of Social Sciences

Department of History

Head : Prof. F.A. Qadri
Telephone : 2723019 (o)
Email : qadrifa@yahoo.co.in

Thrust Areas

The department's thrust area is Northeast India.

Brief Statement of Academic Activities

During the period under report the faculty members of the department were involved in

several academic programmes like organizing seminars, field and study tours, conducting Refresher Course for College/University teachers, and holding dialogues with colleagues engaged in undergraduate teaching within the region.

Faculty Profile

- Professors** :
- D.R. Syiemlieh, M.A/M.Phil/Ph.D. (NEHU). Modern Indian History & Modern Northeast India (on lien)
 - M. Momin, M.A/M.Phil/Ph.D. (JNU). Ancient Indian History & Early Northeast India.
 - M. Sharma, M.A (Gau)/Ph.D. (NEHU). Modern Indian History & Modern Northeast India.
 - F.A. Qadri, M.A/M.Phil/Ph.D. (AMU). Medieval Indian History & Northeast India.
- Associate Professors** :
- C.A. Mawlong, M.A (NEHU)/PG Dip. in Archaeology. Archaeology & Early Northeast India (IoA, New Delhi)/Ph.D. (NEHU)
 - V.R. Rengsi, M.A/M.Phil/Ph.D.(NEHU). History of Sciences & Non-Indian History.
 - T. Gurung Nag, M.A/M.Phil/Ph.D. (NEHU). Modern Indian History & Northeast India.
 - A.K. Thakur, M.A/Ph.D. (BU, Muzaffarpur). Medieval Indian History & Northeast India.
 - S.N. Lamare, M.A/Ph.D. (NEHU). Modern Indian History & Modern Northeast India.
 - A. Passah, M.A./M.Phil/Ph.D. (NEHU). History of South East Asia & Modern Northeast India.
 - A. Mathur, M.A./Ph.D.(Rohilkhand University). Ancient Indian History, Culture & Archaeology.
- Assistant Professor (Senior Scale)** :
- M.S.N. Rahman, M.A/Ph.D. (Calcutta). Medieval Indian History & Islamic History & Culture.

Student Intake

Enrolment Capacity: MA=50, MPhil=10, PhD=Variable

Actual Admission

	SC/OBC	ST	GEN	Male	Female	Total
M.A.	1	47	02	21	29	50
M.Phil	-	02		01	01	02
Ph.D	-	05	02	04	03	07

Degrees Awarded

	SC	ST	GEN	Male	Female	Total
M.A.	0	31	0	11	20	31

Ph.D.

Sl. No.	Name of the Candidate	Title of Research	Supervisor
1.	Mr. Anjan Saikia	"Ryot Sabha in Assam: A Study of Peasant Nationalism, 1900-1947".	Prof. M. Sharma
2.	Mr. Hayder Hussain	"Immigrants in Assam (1826-1905): A Historical Study"	Prof. F.A. Qadri
3.	Mr. Malsawmliana Hmar	"Megalithic Monuments of Mizoram: an Ethno Archaeological Study."	Dr. C.A. Mawlong.
4.	Mr. Lalrinnunga Hmar	"Migration and Social Formation of the Mizo"	Dr. V.R. Rengsi

Courses Conducted

M.A

Semester I: Historical Methods-I; Prehistoric to Ancient Societies; Modern Indian Society; Economy and Society in Ancient India; British Expansion and Imperial Policy in India; Technology in the Making of Early China; Social Movement in USA; Rise of Islam and the Early Caliphate; Economy and Society in Medieval India.

Semester II: Historical Methods-II; Feudalism; Ancient Indian Polity and Society; Colonialism, Imperialism and Economic Change in India; History of the Graeco-Roman Civilization; Colonialism in South East Asia; (Open Course): Society, Technology and History: Prehistoric Age to Industrial Revolution; Polity and Society in Medieval India; The Umayyad and Abbasid Empires.

Semester III: Capitalism and Imperialism - I; Religion and Society in Ancient India; Indian Nationalism; Political Ideas and Institutions during the Sultanate Period; History of Ideas in Modern India; (Open Courses) Social Forces and Social Mobilization; Introduction to Gender History.

Semester IV: Capitalism and Imperialism - II; Social and State Formations; Archaeology: Methods and Approaches; Colonialism, Communalism and Secularism; Political History of the Mughal Empire; Contemporary India; Socio-Economic History of N.E.I. - The Early Period; Christianity in North East India.

M.Phil/PhD: Research Methodology, History and Theory, Oral Tradition.

Study Tours/Field Trips of Students

Mr. David Laldinpuia and Ms. Laithangpuii,

research scholars took the students on a study tour to Delhi, Jodhpur and Jaisalmer between 14.3.and 24.3.2012.

Dr. C.A. Mawlong took the 4th Semester students on a visit to the Don Bosco Museum of Indigenous Cultures, Mawlai on 3rd June 2011, as part of the requirement of the course on Archaeology: Methods and Approaches.

Seminars/Conferences/Workshops/Extension Programmes

Organised

Refresher Course in History from 21st November to 11th December 2011 on History of Ideas and Intellectual History. Dr. S. N. Lamare acted as the Course Coordinator.

Attended

Prof. Mignonette Momin: (i) National Seminar on "Understanding Agrarian History of North East India, organized by the Department of History, Dibrugarh University in collaboration with ICHR-NERC at Dibrugarh University, Dibrugarh, on 11-13 March 2012. Presented a paper titled "Land Tenure, Land Rights and Agriculture in Kamarupa as Reflected in Inscriptions". (ii) National Seminar on "Sir Edward Gait and the Development of Regional History in Assam", organized by ICHR-NERC at Gauhati University, Guwahati on 21-22 March 2012. Presented a paper titled "Edward Gait and the Discovery of Assam".

Prof. Manorama Sharma: 1. Presented a paper entitled "Sources and Methodologies: Can there be a Dichotomy between the Two?" at the National Seminar on 'Reconstructing Histories: Memories, Traditions and Customs' organized by the Department of History, Tripura University from 6th-7th Feb.2012. 2. Presented a paper entitled "Through the Veil of Centuries: A

Woman Speaks" at the 32nd Annual Conference of the North East India History Association held at Tripura University, Agartala, 17th -19th November, 2011. 3. Participated as resource person in a National Seminar on "Traditional Knowledge system of the people of North-East India: Antiquity and Evolution" organized by the Mangaldoi College, 3rd - 4th February, 2012 and presented a paper on "Science and technology: from pre-history to modern age." 4. Delivered Keynote address in the J.B. College Women Cell organized UGC sponsored National Workshop on an "Indian Women Balancing Home and the World" on 20th & 21st January 2012.

Prof. F. A. Qadri (i) International Seminar on Indo-Iranian Heritage in the Context of Sufism as a Bond of Culture between India(NE)-Iran-Afghanistan-Turkey and Central Asia, organized by the Department of Arabic and Persian, Gauhati University, Guwahati, February, 2-4,2012 and presented a paper entitled "Iranian and Central Asian Influence on North East India".

(ii) National Seminar on Reconstructing Histories: Memories, Traditions and Customs, organized by ICHR-NERC and Department of History, Tripura University, Agartala, February, 5-7, 2012 and presented a paper entitled "Reflections on Zikr and Zari of Azan Faqir". (iii) Indo-Turkish International Seminar on Encounter Between Two Civilizations: India and Turkey in Historical Perspective, ICHR, New Delhi, February 15-17, 2012 and presented a paper entitled: Silsilah-i-Khwajigan: Sufi Principles and their interpretations and explanations by Indian Naqshbandis".

(iv) National Symposium on Historiography of south India and Deccan, organized by ICHR-SRC. Bangluru, February, 21, 2012 and presented a paper entitled "Mughal Persian Sources and

the History of South India and the Deccan”.

Dr. Cecile A. Mawlong presented a paper entitled “Uncovering the Khasi Past: The Colonial Legacy” at a National Seminar on Sir Edward Gait and Development of Regional History in Assam, organized by Northeast Regional Centre, ICHR, Guwahati, 21-22nd March 2012.

Dr. T. Gurung Nag presented a paper entitled “Gurkha Displacement from Burma in 1942: Nepali Diaspora and Rehabilitation in India” at an International Seminar on Nepali Diaspora organized by the Department of Anthropology, NEHU, Shillong, 28-30th November 2011. She also presented a paper titled “Edward Gait’s formulation of the Ahom System of Administration: A Critique” at a National Seminar on Sir Edward Gait and Development of Regional History in Assam, organized by Northeast Regional Centre, ICHR, Guwahati, 21-22nd March 2012.

Dr. A.K. Thakur 1. Presented a paper entitled “Cultural Development in Buddhism of Arunachal Pradesh: Probing through Arts” at the UGC-SAP-DRS sponsored national seminar on “Pre-Colonial History and Traditions of Arunachal Pradesh: Tawang and West Kameng District”, organized by Department of History, Rajiv Gandhi University, Itanagar, 28th March, 2012. 2. Presented a paper entitled “Transition in Peasant Societies of Arunachal Pradesh: A Probe in the Post Independence Developments” at the Indian Council of Historical Research (North East Centre) and Department of History, Dibrugarh University, Dibrugarh, Assam, sponsored National Seminar on “Understanding Agrarian History of North East India” on 12th and 13th March, 2012. 3. Presented a paper entitled “What are to be Reconstructed as Histories? Production Processes” at the Indian Council of Historical Research (North

Eastern Centre), Guwahati and Tripura University sponsored national seminar on “Reconstructing Histories: Memories, Traditions and Customs”, organized by Dept. of History, Tripura University, Agartala, 6-7 February, 2012. 4. Presented a paper entitled “Studying Technology of Hill Societies of Northeast India: Problems and Perspectives” at the 32nd Annual Conference of the North East India History Association, 17-19 November, 2011, organized by Dept. of History, Tripura University, Agartala. 5. Presented a paper entitled “Re-reading Iron in Northeast India: Beyond Nationalist and Communal Approaches” at the I.C.H.R. and U.G.C. sponsored National Seminar on “Historiography on Science and Technology in Ancient India (C. 2500 B.C. – 1200 A.D.)” organized by University Department of Ancient Indian History, Culture & Archaeology, T.M. Bhagalpur University, Bhagalpur, Bihar, 19th-20th September 2011. 6. Presented a paper entitled “History and its Curriculum in Changing Times: An Overview” at the UGC sponsored National Seminar on “Historical Studies in the Context of Globalization: Rational for Restructuring of Curriculum”, organized by Khagarijan College, Nagaon, Assam, 30th and 31st July, 2011. Also presided an academic session during the seminar.

Dr. S. N. Lamare presented a paper entitled “Ethnicity, Modernisation and Acculturation: the Jaintia perspective” at the UGC-SAP-DRS sponsored National Seminar on Modernity and Ethnic Processes in India organized by the Department of Sociology, North-Eastern Hill University, on 14th and 15th March 2012.

Dr. A. Passah (1) presented a paper entitled ‘Media, Democracy and Gender: Some Perspectives’ at the National Conference on

“Role of Media in a Democracy” organised by Synod College, Shillong, 9th -10th June 2011. (2) Presented a paper entitled “Missionaries, Medicine and Healthcare in the Khasi-Jaintia Hills: Some perspectives” at the ICHR, Guwahati sponsored National Seminar on “Medical History of North East India” organised by the Department of History, Assam University, Diphu Campus, Diphu 27th-28th September 2011. (3) Presented a paper entitled ‘Impact of Marriage on Career and Profession,’ at the National Roving Workshop, on “Women in Scientific Research-Examining the Challenges identifying their Needs” catalyzed and supported by National Council for Science and Technology Communication, DST, New Delhi, Coordinated by Department of Chemistry, Nagaland University, Lumami and Hosted by Department of Anthropology, NEHU, Shillong, 21st -22nd October 2011. (4) Presented a paper entitled ‘It’s still a Man’s World: Patriarchal Nuances in Matrilineal Meghalaya,’ at the International Seminar on “Changing Patriarchies and Gendered Constructs: Gender History in Northeast India” jointly organised by Dept. of History, Assam University, Silchar, in collaboration with Maulana Azad Kalam Azad Institute of Asian Studies, Kolkata, Indian Council of Historical Research, NERC, Guwahati and Indian Council of Social Science Research, NERC, Shillong, 18th-20th January 2012. (5) Presented a paper entitled ‘Fragmented Memories, Traditions and Customs: Some Insights on the Social History of the Khasi-Jaintia,’ at the National Seminar on “Reconstructing Histories: Memories, Traditions and Customs” jointly organized by the Department of History, Tripura University, Agartala and Indian Council of Historical Research, NERC, Guwahati, 6th-7th February 2012. (6) Presented a paper entitled ‘Agrarian

Landscape in Khasi-Jaintia Hills- Some Perspectives,’ at the Indian Council of Historical Research (North East Centre) and Department of History, Dibrugarh University, Dibrugarh, Assam, sponsored National Seminar on “Understanding Agrarian History of North East India” on 12th and 13th March, 2012.

Dr. M.S.N. Rahman 1. Presented a paper entitled Ambedkar’s Fight against Untouchability at the National Workshop on Untouchability and Dr. Ambedkar, sponsored by University Grants Commission, New Delhi, organised by Dr. Ambedkar Study Centre, Dhing College, Dhing, Nagaon, Assam on 28 September, 2011. 2. Presented a paper entitled Syncretism as Reflected in the Writings of Sayyid Sultan, a 17th Century Bengali Poet from Sylhet, XXXII Annual Conference of North East India History Association, held at Tripura University, Agartala, Tripura, on 17-19 November, 2011. 3. Presented a paper entitled Tagore’s view on Education, National Seminar on Tagore’s Educational Philosophy and its Relevance in Contemporary India, organised by Women Collage, Shillong held in December 2-3, 2011. 4. Presented a paper entitled Impact of Sufism on Indian Society and Culture, at the UGC Sponsored National Seminar on Indigenous Traditions & Historical Forces (Impact of Bhakti Movement on Indian Nationalism), organised by the Department of Political Science, Baruipur College in collaboration with R.K. Mission Residential College, Narendrapur, South 24 Parganas, West Bengal, and held on 17th & 18th January, 2012. 5. Presented a paper entitled Sufism in Medieval India: Syncretism and Cultural Harmony, at the UGC sponsored National Seminar organized by Ramakrishna Mission Vidyamandir, Balur, Howrah, West Bengal, held on 24th and 25th February, 2012.

Publications

Published in India

F.A. Qadri, Shaikh 'Abd al-Rashid Jawnpuri, *The Encyclopaedia of Islam*, E.J.Brill, Leiden, The Netherlands, 2011, pp.6-7.

Gurung, T. Migration and Settlement of Nepalis in North-East India: A Historical Perspective in Kumar, D.V. (ed), *Social Change and Development: Emerging Issues in the North-East India*. Jaipur: Rawat Publication 2012. pp. 203-224.

Gurung, T. The Zenana Mission of the American Baptist Mission in Nineteenth Century Colonial Assam. *Quest: Journal of Vivekananda Cultural Centre*, Guwahati, Vol. V. (No.2, January 2012): pp.54-76.

Lamare, S N. "Oral Sources and the Jaintias: Some Thoughts: in *Proceedings of North East India History Association*, 31st Session, Don Bosco College, Tura, Meghalaya, 2010 (Published in October, 2011).

Mathur, Aparna. Dharma, Artha and Politics in Ancient India in A.K. Sinha (ed.), *Mind and Soul of India*, Anamika, New Delhi, 2012, pp.79-84.

Passah, Amena N, No Labour, No Battle: A Relook at the Khasi-Jaintia and Garo Labour Corps of World War 1, in *Proceedings of North East India History Association*, 31st Session, Shillong, 2011.

Sharma, Manorama, "Rethinking Gender History in North East India", *Proceedings of North East India History Association*, 31st Session, Tura 2012 (NEIHA, Shillong, 2011). Pp. 16-24.

Sharma, Manorama, "Social Change and Women: Has she Acquired a New Identity in North –East India?" in D.V. Kumar (Ed), *Social Change and Development* (Rawat Publications, New Delhi, 2012). pp.130-145.

Thakur, Amrendra Kr (2011), "Chakmas and Hajongs in North East India", in Ruma Bhattachrya (ed.), *Identity Issues in North East India*, Akanksha-Pub. House, New Delhi.

Thakur, Amrendra Kr (2011), "Cultural Crescendo in Medieval Bihar: Prospects of Study", *Proceedings of Bihar Itihas Parishad*, 6th session, Muzaffarpur, 2005, published Muzaffarpur, 2011, pp. 305-314.

Thakur, Amrendra Kr (2011), "Ecology, Technology and Societies of Arunachal Pradesh", *Proceedings of North East India History Association*, 31st session, Tura, 2010, published Shillong, 2011, pp. 103-114.

Thakur, Amrendra Kr (2011), "Tribal Technology of North East India: Arunachal Pradesh", in *Indian Journal of History of Science*, Vol. 46, No. 2, June 2011, pp. 355-362 (Indian National Science Academy, New Delhi) ISSN: 0019-5235.

Funds Received

Source	Purpose	Amount (in lakhs)
UGC	For Research Projects under SAP-DSA Programme	Rs. 6,02,424/-

Research Projects

Completed

M. Momin completed the project titled "Comparisons and Contrasts in Rituals and

Symbols: Cultural Patterns in Pre-British Northeast India", under the UGC-SAP-DSA programme of the Department of History, North-Eastern Hill University, Shillong.

Ongoing

Dr. A.K. Thakur

1. Under UGC-SAP-DSA, Project, Department of History, NEHU, Shillong, "Religion and Society in Arunachal Pradesh from Pre-Modern to Contemporary Times".
2. With Prof. D. R. Syiemlieh under University with Potential for Excellence, Area Studies Programme, Department of History, NEHU, Shillong "Trade and Markets in North East India: Arunachal Pradesh and Meghalaya Perspective".
3. Under Indian National Science Academy, New Delhi "Technology of the Tribes of North East India with special Reference to Arunachal Pradesh". The final report of the project is going to be submitted within a few months.

Dr. S.N. Lamare

Name of the Project under SAP-DSA: Totems, Taboos and Rituals in Khasi and Jaintia Society

New

Projects under SAP/ DSA: SAP Coordinator: Prof. Mignonette Momin

Theme: Religion and Society and Intellectual History

1. Prof. D.R. Syiemlieh: "Response and Revival: Christianity among the Hill Tribes of North East India."
2. Prof. Mignonette Momin: "Comparisons and Contrasts in Rituals and Symbols: Cultural Patterns in Pre-British Northeast India."
3. Prof. F.A. Qadri: "Sufi Legends and Islam in North East India."

4. Dr. Cecile Mawlong: "Megaliths, Rituals and the Making of a Social Landscape."
5. Dr. V.R. Rengsi: "Christianity and Mizo Society."
6. Dr. A.K. Thakur: "Religion and Society in Arunachal Pradesh from Pre-Modern to Contemporary Times".
7. Dr. S.N. Lamare: "Totems, Taboos and Rituals in the Khasi and Jaintia Society."
8. Dr. M.S.N. Rahman: "Religion and Society in Barak-Surma Valley (16th-18th Centuries)."

Theme: Gender and Intellectual History

1. Prof. Manorama Sharma: "Between Myth and Reality: Gender Relations in Assam in the Nineteenth and Twentieth Centuries."
2. Dr. T.G. Nag: "The American Baptist Women Missionaries in Northeast India: A Study of their Role in Education and Health of Indigenous Women."
3. Dr. Amena Passah: "Khasi-Jaintia Woman: Some Insights on Past and Present Roles and Status."

Honours/Awards/Recognition

Prof. F.A. Qadri was nominated by the Government of India to the National Council for Promotion of Urdu Language, New Delhi, as a member for a second term 2011-14. He was also nominated to the Indian Council of Historical Research, New Delhi, as a member for a second term 2011-14 and to the Indian Historical Records Committee, New Delhi, as a member for a six year term 2011-16.

Other Academic Activities

Prof. M. Sharma (a) Delivered an invited lecture on “Interrogating Land Policies and Land Rights in Colonial Assam: The Need of a Gender Critique” at Vivekananda Kendra Institute of Culture, Guwahati, on 29th April, 2011. (b) Delivered an invited lecture on “Netaji Subhas Chandra Bose and North East India” on 11th June, 2011 at Chinsura, Hooghly, West Bengal on the invitation of Sabhu Ghosh Smriti Raksha Committee. (c) Delivered two lectures on “Research Methods in Social Science and Data Analysis Technique - Gender Research” in the Refresher Course organized by the UGC-Academic Staff College, Gauhati University on 26th November, 2011. (d) Delivered two lectures on “Middle Class Politics in Assam: State and Identity in NE India” in the Refresher Course in Political Science, organized by the UGC-

Academic Staff College, Gauhati University on 9th July, 2011.

Dr. F.A. Qadri chaired the 2nd Academic Session of Indian Historical Records Committee, A.M.U. Aligarh, 3 November, 2011 and the 3rd academic session of the Indo-Turkish International Seminar on, ‘Encounter Between Two Civilizations: India and Turkey in Historical Perspective, ICHR, New Delhi, 15-17 February, 2012.

Dr. V.R. Rengsi lectured on “Technology and Society” at Vidyasagar University, West Bengal on 26th March 2012.

Dr. A. Passah delivered the Keynote Address at St. Edmund’s College, Shillong on 16th May 2011 on “Social Work and its Response to Social Injustices” as the 2nd Marjorie and Valentine Miranda Lecture and Seminar.

Department of Law

Head : Dr. J. J. Mozika
Telephone : 2723801 (o)
Email : j_mozika@yahoo.co.in

Brief Statement of Academic Activities

The department organized various competitions like debate, quiz and moot courts among the students during the academic year.

Faculty Profile

Associate Professors : Dr. J.J. Mozika, Ph.D (Law), University of North Bengal.
Dr. C. Rout, M.A. (Pol.Sc.), LL.M (Commercial Law), Ph.D (Law) Utkal University, Bhubaneshwar.

Assistant Professors : Dr. R.K. Mishra, LL.M (Law School, B.H.U.), P.G. Diploma in Criminology, Lucknow University, Ph.D, BHU
Dr. A.K. Singh, LL.M (B.H.U.), Ph.D.(Law)

School of Social Sciences

Dr. Naveen Kumar, LL.M (Jamia Milia Islamia), Ph.D.(Law)
 Dr. Ranjit Sil, LL.M, Ph.D.(Law) University of Burdwan.
 Mr. Shishir Tiwari, LL.M (BHU), M.Phil in International Law (JNU)
 Mrs. Preeti Gupta, M.Sc. LL.M. (Indian Law Institute, New Delhi).

Student Intake

Enrolment Capacity: 60 + 1 supernumerary

Actual Admission	SC	OBC	ST	Gen	Male	Female	Total
	2	1	46	12	25	36	61

Seminars/Conferences/Symposia/ Workshops/Extension Programmes etc

Dr. J.J. Mozika presented a paper titled "Regulatory Authority for Private Educational Institutions" at the International Seminar on Privatisation of Higher Education and Entry of Foreign Universities in India: The Legal Challenges, 26-27 Nov, 2011 organised by Department of Law, University of North Bengal. She also presented a paper titled "Assuring Food Safety and Safety Standards: The Legal Framework" at the National Seminar on The Food Safety Standards and Public Health: A Boon to Right to Life, 11-12 Feb, 2012 organised by Department of Law, University of Rajasthan in collaboration with University Law College, University of Rajasthan, Jaipur.

Dr. Chintamani Rout (1) attended the UGC Sponsored National Seminar at Burdwan University, Burdwan, held on 30-31 July, 2011 on Human Rights in 21st Century: Issues and challenges and presented a paper on "Poverty alleviation, right to development and human rights including right to food and shelter". (2) Presented a paper entitled "Social Legislations for working women – legal possibilities" at the National Roving workshop on "Women in Scientific Research – Examining the challenges and Identifying their needs" on 21-22 October, 2011 organized by Department of Anthropology,

NEHU, Shillong. (3) Presented a paper entitled "Right to establish Educational Institutions as a right to occupation" at the International Seminar on privatization of Higher education and Entry of Foreign Universities in India: the legal challenges organized by Department of law, University of North Bengal on 26-27 November, 2011. (4) Presented a paper titled "Democratic decentralization and local self govt, a need" at the National Seminar on Law, Justice and Social Transformation in India held on 17th and 18th day of December, 2011 in the premises of Madhuserdan Law College (Utkal University), Cuttack Odisha. (5) Attended the UGC sponsored National Seminar on Intellectual Property Rights issues and challenges and presented a paper on "Rights of owner of photograph under the copyright Act, 1957" held on 21-22 December, 2011 at P.G. Department of law, Berhampur University Berhampur, Odisha. (6) Presented a paper titled "Position and status of Child: Legal protection and judicial emancipation" at the UGC National Seminar on "Child rights in India; law, policy and emerging challenges" held at Faculty of Law, Jai Narayan Vyasa University, Jodhpur on 28-29 December, 2011. (7) Presented a paper titled "Protection of women under the Domestic Violence Act" at the UGC sponsored National Seminar on Crime against Women – A human Right perspective held on 21-22 January 2012 at L.R. Law College,

Sambalpur University. (8) Presented a paper entitled "Speedy Justice Through Alternative Dispute Resolution' at the National Consultation on "Current challenges and reforms in civil and criminal justice delivery system on 28th January, 2012 at Symbiosis Law School, Pune in collaboration with Law Commission of India and Gokhle Institute of Economics and Politics, Pune. (9) Presented a paper entitled "Lokpal Bill and Democratic Accountability" at the National Seminar on Lokpal in India: Issues and challenges on 4th February, 2012, organized by Amity Law School at Amity University Rajasthan, Jaipur. (10) Presented a paper entitled "Alternative Dispute Resolution system – its advantages in disposing civil justice delivery system' at the National Seminar on Civil Justice Delivery system: Its Efficacy and remedies in India, held on 11th & 12th February, 2012, organized by the Indian Institute of Legal Studies, Dagapur, Siliguri, Darjeeling. (11) Presented a paper entitled "ADRS in Justice Delivery system; Mediation and Conciliation as a mode of ADR" at the National Conference on changing facet of business and commercial law, 18th-19th February, held at Army Institute of Law, Mohali. (12) Presented a paper on "The need for establishment of Counter Terrorism Center in India" at the National Seminar on "Terrorism – Issues and Challenges" held on 17th-18th of March – 2012 at L.R. Law College, Sambalpur, University, Sambalpur.

Dr. A.K. Singh (1) Attended the National Seminar on "Human Rights in 21st Century: The Issues and Challenges" held on 30th and 31st July, 2011 in the Department of Law, University of Burdwan, West Bengal. The title of paper was "Human Rights and Disabled: Myth and Reality". (2) Attended the seminar on "Rural Good Governance and Citizens Partnership" on

5th September, 2011 in the Department of Law, Assam University Silchar. The title of the paper was "Good Governance and Role of Education". (3) Attended the International Seminar on "Privatisation of Higher education and Entry of Foreign universities in India: The Legal Challenges, organized by North Bengal University, Darjeeling, West Bengal on November, 26-27, 2011. The title of the paper was "A Critical analysis of the Policies regarding Controlling of Higher Education in India". (4) Attended the National Seminar on "Right to information: Emerging issues, Challenges and impacts" organized by Ideal Institute of Management and Technology & School of Law, Karkardooma Institutional Area, Delhi on January 24, 2012. The title of the paper was "Changing Dimension of Democratic Spirit in India Through Right to Information.

Dr Naveen Kumar (1) Presented a paper on "Protecting human Rights of children through Compulsory Elementary Education: Issues and Concerns" at the UGC Sponsored National Seminar On Human Rights In 21st Century: The Issues and Challenges, organised by the Department of Law, University of Burdwan held on 30-31 July, 2011. (2) Presented a paper entitled "Implementation of Compulsory Education and Human rights of Children in India: A Legal Perspective" at the National Seminar on Securing Group Rights: Human Rights Experiences from Asia and Africa held on 7th and 8th February 2012, organised by MMAJ Academy of International Studies, Jamia Millia Islamia, New Delhi in collaboration with Policy Research Institute of African Studies Association of India. (3) Participated in the National Workshop on Human Rights and Fundamental Rights organised by Braja Mohan Thakur Law College, Kamala Bhawan, Purnea on 8th and 9th January 2012.

School of Social Sciences

Dr. Ranjit Sil presented a paper titled “Impact of Entry of Foreign Universities in Knowledge Economy: The Indian Context” at the International Seminar on “Privatization of Higher

Education and Entry of Foreign Universities in India: The Legal Challenges”, organized by Department of Law, University of North Bengal, from 26th to 27th November, 2011

Publications

Author (s)	Year	Title	Name of Journal	Volume/ Issue/Pages
1. Dr. A.K. Singh		“A Discourse on Comparative Liability of Victims under the Indian Criminal Justice System” in <i>Vidhik Chetna</i> a Research journal of Juridical Science”		Vol. IV pg no. 82-286, 2011.
		“Scientism of Investigation of Crime: A Boon or Bane” <i>Chotanagpur Law Journal</i> ,		Vol. 3 No. 3, 2011, pp. 42-49.
		“Education the Catalyst of Rural Development” <i>The Legal Analyst</i>		Vol 1 No. 2, pp. 70-75, 2011
		“Right of Fetus to be Born vis-à-vis Discretion of Mother: A Socio-legal Discourse” <i>Ideal Law Journal</i>		Vol. II, 2011, pp. 57-68. IIMT & School of Law, New Delhi.
	2012	“Justice and Truth: An Analysis with Special Reference to Criminal Justice System in India” <i>the Banaras Law Journal (BLJ)</i> ,		Vol. 39, pp. 235-242.
		“Poverty and the law in India: An Analysis with Special reference to NREGA” in <i>Chotanagpur Law Journal</i>		Vol. 4, No. 4, 2011-2012, pp. 163-169.

Author (s)	Year	Title	Imprint
Mozika, J.J.,	2011	“Public-Private-Partnership in Healthcare Finance and Healthcare Administration”,	in Prof. B.P. Dwivedi et al (ed.), <i>Public Health Law</i> , University of North Bengal, Darjeeling, pp. 14-24.
		“Surrogate Motherhood and Law”	in R. Bandopadhyay& R.D. Dubey (ed.), <i>Law and Gender: A Quest for Justice</i> , Alfa Publications, New Delhi, 2012, pp. 149-162.

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Author (s)	Year	Title	Imprint
Dr. R.K. Mishra	2012	"Hindu Jurisprudence on Gender Equality: An Analysis", <i>The Legal Analyst</i> ,	Vol. 1, No. 1, 2011, pp. 42-49.
		"Whether Computer Programme should be Patented in India? An Analysis", <i>The Legal Analyst</i> ,	Vol. 1, No. II, 2011, pp. 115-123.
		"Intellectual Property Rights and Role of Judiciary in the Development Society in India", in P.K. Pandey, <i>Intellectual Property Law</i> , New Delhi, APH Publishing Corporation	pp. 277-296.
Dr. A.K. Singh		"Right to Health and Enforcement: National and international perspective" in the book <i>Public Health Law</i> (ed) Bishna Prasad Dwivedi, Gangotry Chakraborty and others, published by the Department of Law, University of North Bengal	1 st Edition, 2011, pp.35-42.
		"Women Empowerment and Matrilineal Society: An Analysis with Special Reference to Meghalaya", in the book <i>Law and Gender: A Quest for Justice</i> (ed.) Dr Rathin Bandopadhyay and R D Dubey,	Alfa Publication, New Delhi, pp.229-269.
	2012	Unorganised Labourers and Human Rights in India" in the book <i>Human Rights</i> (ed) Dr. P.K Pandey	A P H Publishing Corporation, New Delhi, pp. 89-96.
Dr. Ranjit Sil		"Women As Domestic Workers And Recognizing Their Right To Work" in an edited book, <i>Gender Justice & Women Empowerment</i> edited by Sanjoy Kumar Singh.	Radha Publications, New Delhi, pp. 359-372.
Preeti Gupta		"Postgraduate Legal Education in India – A Review".	<i>Shri Ji Socio Legal Journal</i> , 1 (2) 2011, pp. 76-82.

Department of Political Science

Head : Professor A. K. Baruah
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Thrust Areas

Contemporary Issues in Indian Politics and
 Politics of North East India

Faculty Profile

Professors

Name	Degrees	Institution	Specialization
Prof. A.K. Baruah	M.A. & Ph.D	Punjab University	Political Theory, Indian Govt. & Politics and North East India
Prof. R. Borgohain	M.A., M.Phil & Ph.D	JNU, Gauhati University	Gender Issues
Prof. L.S. Gassah	M.A., M.Phil & Ph.D	N.E.H.U.	Govt. & Politics in North East India
Prof. B.J. Deb	M.A.(Double), LLB & Ph.D	Gauhati University	Environmental Politics

Associate Professors

Name	Degrees	Institution	Specialization
Dr. K. Debbarma	M.A., M.Phil & Ph.D	N.E.H.U.	Human Rights, Migration Politics in NEI & Development
Dr. H. Srikanth	M.A., M.Phil & Ph.D	Hyderabad University	Political Theory, Political Economy, Social Movements
Dr. P. Malngiang	M.A., M.Phil, Ph.D & LLB, PGDTL	N.E.H.U. Institute of Taxation, Kerala	Govt. & Politics in North East India
Dr. S. Sen Gupta	M.A., M.Phil & Ph.D	N.E.H.U.	Indian Government & Politics.
Dr. R. K. Satpathy	M.A., M.Phil & Ph.D.	Sambalpur University, NEHU	International Politics, Political Theory and Electoral Politics.
Dr. Munmun Majumdar	M.A., M.Phil & Ph.D.	JNU	South- East Asia and South-West Pacific
Dr. T.T. Haokip	M.A. & Ph.D	N.E.H.U.	Foreign Policy and Public Administration.

Assistant Professors

Name	Degrees	Institution	Specialisation
Dr. B.K. Mahapatra	M.A. M.Phil & Ph.D.	Delhi University Jawaharlal Nehru University	International Politics

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Name	Degrees	Institution	Specialisation
Dr. V. Bijukumar	M.A. M.Phil & Ph.D	University of Kerala, JNU	Political Theory, Comparative Politics, Indian Politics, Political Economy, Democratic Theory.
Dr. S. Bhattacharjee	M.A., M.Phil & Ph.D	Jawaharlal Nehru University	International Politics

Student Intake

Enrolment capacity: M.A.= 52; M.Phil. & Ph.D= Depending on availability of seats.

Actual Admission: (MA): ST=49, GEN=2, OBC=1, MALE=24, FEMALE=28, TOTAL=52

PhD.: ST=09, GEN=1, OBC=0, MALE=05, FEMALE=05, TOTAL=10

Degree Awarded

M.A

SC	ST	GEN	MALE	FEMALE	TOTAL
Nil	36	1	9	28	37

M.Phil

SL.No.	Name of the Candidate	Topic of Research	Name of Supervisor
1	Airpeace Well Rani	Municipal Administration in Meghalaya with special reference to the Shillong Municipal Board	Prof. L. S. Gassah
2	Mary Magdalyne Kurbah	Electoral Politics in Meghalaya: A Study of the 2008 Assembly Elections in Mawlai Constituency	Dr. R. K. Satpathy
3	E. Plieladdalin Nongsiej	Violence against Women in Meghalaya with reference to East Khasi Hills	Dr. K. Debbarma
4	Bijaya Konwar	Election Manifestoes of Asom Gana Parishad: An Analysis	Dr. V. Bijukumar
5	Chalsung Sungte	Role of Hmar National Union in Hmar politics	Dr. T. T. Haokip
6	Baiadalynti Christine Lanong	Khun Hynniewtrep National Awakening Movement: A Study	Dr. P. Malngiang

Ph.D

SL.No.	Name of the Candidate	Topic of Research	Name of Supervisor
1	Timmekim Haokip	Electoral Politics in the Hill Areas of Manipur: A Study of the 2002 Assembly Elections	Dr. P. Malngiang
2	Haans J. Freddy	Human Rights Abuses in Tamil Areas of Sri Lanka	Dr. K. Debbarma
3	S. Thianmuanlal Ngaihte	Role of the Paite Elites in the Construction of Paite and Zomi Identities in Manipur.	Dr. H. Srikanth
4	Thongkholal Haokip	India's Look East Policy and Northeast India	Dr. B. K. Mohapatra

Courses Conducted

M.A.

First Semester: Liberal Political Theory, Theory

of International Politics, Major Concepts and Issues in Public Administration, Political System, State Politics in India with special reference to North-East Politics (I)

Second Semester: Marxist Political Theory, Problems of International Politics, State Politics in India with special reference to North-East Politics (II)

Optional: Third World Political Theory, Administrative Theory, East and South-East Asian Political Systems, West Asian Political Systems

Open Courses: Government and Politics in N. E. India, Democracy in India, Modern Indian Political Ideas

Third Semester: Contemporary Political Theory, Research Methodology (I)

Optional Core Courses: Issues in Women's Studies, International Law and International Organisation, South Asian Political Systems, African Political Systems

Open Courses: Globalisation, Politics of Social Movements, Women and Political Theory, Development Administration, Issues in Environmental Politics

Fourth Semester: Major Debates in Political Theory, Comparative Politics, Research Methodology (II)

Optional Core Courses: Political Ideology, Political Sociology, Foreign Policy of Major Powers, Indian Political Economy, Human Rights

Syllabus for M. Phil/Ph.D Course Work

Compulsory: Research Methodology, Issues and Processes in the Politics of North East India

Optional: Any One from the following:

Issues in Indian Politics, Women and Politics in North East India, Critical Perspectives on Knowledge and Power, Advanced Studies in International Politics, Environmental Politics.

Seminars, Conferences and Workshops/ Extension Programmes

Organised

B. J. Deb organised a National Seminar on "Environmental Management in North East India" on 5-6 June 2011 in Raitong Building, Shillong as President of North East India Council for Social Science Research, Shillong.

K. Debbarna organized a SAP National Seminar on "Gender and Politics in North East India" on 20th and 21st March 2012 in the Department of Political Science, NEHU, Shillong.

B. K. Mohapatra organized a National Seminar on Border Haats and Economic Development of Meghalaya: Emerging Scenarios & Benefits on 29-30 March 2012.

Attended

A. K. Baruah (1) presented a paper on "Objectivity in Social Science" at a Research Methodology Workshop in Social Science organized by ICSSR-NERC, Shillong on 14 September, 2011. (2) Presented a key note on "Human Rights and Insurgency: Challenges in North East India" at the National Seminar on Human Rights and Insurgency: Challenges in North East India, 16th & 17th March 2012. (3) Presented a joint paper titled "Youth Movement and Gender: An Analysis of Assam Movement (1979-85)", at the SAP National Seminar organized by Department of Political Science, NEHU on Gender and Youth in the Politics of North-East India, on 20th March 2012 in Shillong. (4) Presented a paper on "Violent Protest and State Responses" at the National Seminar on Genesis of the Violent Politics in different parts, especially in the southern part of West Bengal organized by the Department of Political Science, Sarsuna-College, Kolkata, 23rd March, 2012.

K. Debbarma presented a paper on "Human Rights Issues in North East India" at the National Seminar on Governance and Development, organized by ICSSR, New Delhi in ICSSR-NERC, NEHU, Shillong on 9th and 10th June 2011.

H. Srikanth (1) presented a paper titled "Multiculturalism and Aboriginal Critique" at the Silver Jubilee International Conference of Indian Association for Canadian Studies on Multiculturalism and Its Discontent: Canada and India on January 29-31, 2012 at Jodhpur. (2) Presented a paper titled "Resolving Sino-Indian Border Dispute: A Marxist Approach" at the National Seminar on Voices from Borders: India's Response to China's Claims over Arunachal Pradesh, held on March 8-9, 2012 in Itanagar. (3) Presented a paper titled "Understanding Student Movement in Northeast India" at the SAP National Seminar, Department of Political Science, NEHU on Gender and Youth in the Politics of North-East India, on 20th March 2012 in Shillong. (4) Presented a paper titled 'Problems and Prospects of Research Writing in Hills of Northeast India' at the Round Table on Research Writing by organized by EPW-TISS on November 25-26, 2011, in University of Hyderabad, Hyderabad. (5) Presented a paper titled "Dilemmas of Development in Hill States of Northeast India" at the National Seminar on Development, Conflicts and Democratic Governance: India's Experience in the North East, organized at ICSSR-NERC, on June 10-12, 2011 at Shillong. (6) Presented a paper titled "United Andhra or Separate Telengana?: Politics of Regionalism in Andhra Pradesh" at the National Seminar on Politics of Regionalism in Northeast India, organized by Government T. Romana College, June 16-17, 2011 at Aizawl. (7) Presented a paper titled "Social Forces and Changing Land Relations in Khasi Hills" at the

Associates' Seminars, Indian Institute of Advanced Studies, Shimla, on July 22, 2011.

R. K. Satpathy presented a paper on "Youth as Social Force: Communitarian Perspective to the Understanding of Young Mizo Association" at the SAP National Seminar in the Department of Political Science, NEHU, Shillong on March 21, 2012.

Susmita Sen Gupta presented a paper on "Political Participation of Women & Youth in Meghalaya: An Enquiry into Contrasting Roles" at the SAP National Seminar on Gender and Youth in the Politics of North East India, organized by SAP, Department of Political Science, March 20-21, 2012, held at Committee Room, New Guest House, NEHU, Shillong.

Munmun Majumdar (1) presented a paper titled "ASEAN and Conflict Management in the Spratlys" at the Third Global International Studies Conference in Porto, Portugal, The World in Crisis: Revolution or Evolution in the International Community? 17-20 August 2011. (2) Presented a paper titled "China, Myanmar Axis and India's Look East Policy" on 5-September-2011, at the Conference on Provost, Security and Intelligence, 5-6 September 2011, HQ EAC IAF. (3) Presented a paper titled "Paracel and Spratly Islands: An Appraisal" at the HQ, EAC and Centre for Air Power Studies, New Delhi, Seminar on China as a Strategic Challenge, 28-November-2011. (4) Presented a paper titled "Myanmar/Burma, India and US" at the International Conference on India and US Relations in the 21st Century: Building Global Partnerships, Advanced Centre for American Studies, Osmania University, Hyderabad, from 11-13 January 2011. (5) Presented a paper titled "ASEAN and Conflict management" at the 54th Annual Conference of Indian Political Science Association, Emerging Nature of Indian Politics, Lucknow 28-30 December-2011.

T. T. Haokip presented a paper on "Globalization and Tribes of Manipur" at a National Seminar on Globalization and Manipur sponsored by UGC & ICSSR-NEC at Imphal on 17-18 December 2011.

B. K. Mohapatra (1) presented a paper on "Ending Gender based Violence against Women & Girls: Strategies and Perspectives" at a national seminar on Eliminating rising tide of Crime against Women and Children in the North East: Police Pro-activism and Legal Remedies organized by Rotary Club of Shillong and National Commission for Women, New Delhi, November 22, 2011, Shillong. (2) Presented a paper on "India-US Strategic Partnership and the Challenges of Enhanced Cooperation" at the International Conference on Emerging Issues of Convergence and Divergence in Indo-US relations in the 21st Century on 11-13 January 2012, at ACAS, Osmania University, Hyderabad. (3) Presented a paper on "Australia - India Relations and the Asia Pacific: A Strategic Shift or A Long Term Policy Goal" at the Sixth Biennial International Conference of IASA, on 19-21 Jan 2012, New Delhi. (4) Presented a paper on "Indian Diaspora and Political Participation in United Kingdom - Issues & Perspectives" at the International Conference on Empire, Nation and Diaspora: Mapping the Trajectories of Transformations in Indian Diaspora, Feb 20-23rd, 2012 at Hyderabad Central University, Hyderabad. (5) Presented a paper on "Globalisation, Challenges of Maritime Security in South Asia- Exploring Strategies for People's Participation" at the SAP-DRS Seminar on India's Security Policy: Shifting paradigms & Emerging Frontiers of Cooperation, March 26-27, 2012, Dept of Political Science and International Relations, Pondicherry University, Pondicherry.

V. Bijukumar (1) presented a paper on "Quest for Social Justice in India: Positive Discrimination and Beyond" at the Workshop on Positive Discrimination organised by Women's College, Shillong, on 25-26 November, 2011. (2) Presented Paper on "Postcolonial Modernization and Ethnicity: An Intersectionality Analysis" at the National Seminar on Modernity and Ethnic Processes in India organized by Department of Sociology, NEHU, Shillong, on 14-15 March, 2012. (3) Presented Paper on "Understanding Gender: An Intersectionality Perspective" at the National Seminar on Gender and Youth in the Politics of North-East India, organized by Department of Political Science, NEHU, Shillong, on 20-21 March, 2012.

Publications

Baruah, A. K., "Agenda for Assam: Need for a Critical Perspective" in J. K. Das (ed.) *Agenda for Assam and the North East: Issues and Trends*, EBH Publishers: Guwahati, 2012, Vol.I, pp.1-10.

Bijukumar, V., Equality and Social Justice: Situating Ambedkar's Perspective" in Sabita Devi (ed.), *Dr. B. R. Ambedkar: Messiah of the Dalits*, Nagaon (Assam): Krantikaal Prakashan, 2011, pp. 36-60.

Deb, B. J., (eds.), 2011, *Freedom Struggle in North East India*, Omsons Publications, New Delhi.

Deb, B. J., "The Indian State and Human Rights in North East India" in R. N. Prasad (ed.), *Human Rights in India*, 2011, New Delhi: Kanishka Publishers, pp. 205-208.

Debbarma K., "Demography and Social Change in the Tribal Society of Tripura", in Kumar D V (ed.), *Social Change and Development*, Rawat Publications, New Delhi, 2012, pp. 305-317.

Haokip, T. T., "Ethnopolitical Ecology of languages in Manipur" *Linguistic Ecology: Manipur*, Shailendra Kumar Singh (ed.), Eastern Book House, 2011, pp.224-248.

Majumdar, Munmun, (2011) Engaging Myanmar through India's Look East Policy: How Far have we gone? *Foreign Policy Research Centre Journal*, No 8, pp155-166.

Mohapatra, B.K., *Informatics For Peace & Development in South Asia: Perspectives of SAARC* LAMBERT Academic Publishing GmbH & Co.

Mohapatra, B.K., *New Information Technologies, India and the North-South Relations* LAMBERT Academic Publishing GmbH & Co.

Srikanth, H. & Thianlalmuan Ngaihte, (2011) Ethnicity and Ethnic Identities in Northeast India, *Man and Society: A Journal of Northeast Studies*, Vol. VIII (Summer): 125-133.

Srikanth, H., (2011) Native Indians Quest for Self-government in Canada, *Indian Journal of Canadian Studies*, Vol. XIV (1): 64-83.

Srikanth, H., (2011) New Social Forces and Changing Land Relations among the Khasis in Meghalaya, *Man and Society: A Journal of Northeast Studies*, Vol. III, (Winter): 27-39.

Srikanth, H., (July-Sept, 2011) United Andhra or Separate Telengana?, *The Indian Journal of Political Science*, Vol. LXXI (3), 781-790.

Srikanth, H., Reviewed Gorky Chakraborty's book, *Assam's Hinterland: Society and Economy in the Char Areas*, in *Northeast Researches*, Vol. II, No. 1, 2012, pp. 117-121.

Other Academic Activities

A. K. Baruah delivered a lecture on "Objectivity in Social Science" at a Refresher Course in

Research Methodology organized by UGC-Academic College, Guwahati University on 26 November 2011. He delivered the keynote at the International Seminar on "Re-Envisioning States Reorganization in India" in Banaras Hindu University, 21-22 February, 2012. He delivered a keynote at the Seminar on "Insurgency and Human Right" in Sibsagar College, Joysagar on 16 March 2012. He delivered a lecture on "Youth Movement in North East India" in Refresher Course on Tribal Studies: Trends and Challenges organized by Department of Anthropology, NEHU on 21 March 2012.

K. Debbarma presided over 2 academic sessions at the Workshop on Positive Discrimination in Women's College, Shillong on 25th and 26th November 2011, organized by Women's College, Shillong.

R. K. Satpathy delivered a talk on "Civil Society in the Context of Mizoram in the Orientation Programme of the Academic Staff College, Mizoram University, Aizawl on February 24, 2012. He delivered a keynote address at the national seminar on "Global Climate Change: Sea Level Rise in Bangladesh and Security Implication on India in M.S. College, Baramba, Odisha on March 4, 2012.

Munmun Majumdar delivered a lecture on "Human Rights in the Asian Context", UGC Orientation Programme on 19-July-2011. She spoke on "Positive Discrimination" at the UGC workshop on Positive Discrimination, 25 November 2011. She went as a Visiting Faculty to the Centre for South and South East Asian Studies, Calcutta University, from 31 January 2012 to 2 February 2012. Delivered a lecture on

School of Social Sciences

“Arab Spring” at the UGC Orientation Programme on 24 February 2012.

Political Science on “Indian Politics Trends and Issues” from November 14 to December 3, 2011 held in Academic Staff College, NEHU, Shillong.

S. Sengupta coordinated a Refresher Course in

Department of Sociology

Head : Prof. Nikhlesh Kumar
Telephone : 2723040 (o)
Email : hodsoc@nehu.ac.in

Thrust Area

Social Change

Faculty Profile

Professors : Nikhlesh Kumar, M.A. (Delhi), Ph. D. (NEHU); Sociology of Occupations and Professions; Medical Sociology.
 C.L. Imchen, M.A., M.Phil., Ph. D. (JNU); Political Sociology; Polity Formation and Indigenous Peoples.

Associate Professors : Lanu Aier, M.A., M. Phil., Ph. D. (NEHU); Political Sociology; Sociology of Religion; Ethnic Relations
 A. K. Nongkynrih, M.A., M. Phil., Ph. D. (NEHU); Sociology of Kinship and Marriage, Voluntary Organisations and Rural Development
 D. V. Kumar, M.A., M. Phil., Ph.D. (JNU); Sociology of Modernisation and Ethnicity
 B. Panda, M.A., M.Phil. (Hyd.), Ph. D. (IIT/ Kanpur); Sociology of Development; Voluntary Organisations, NGOs

Assistant Professors : Rekha M. Shangpliang, M.A., M. Phil., Ph.D. (NEHU); Sociology of Environment

Student Intake

Enrolment Capacity:	M. A.: 50	M.Phil: 06	Ph.D: 36			
Actual Admission	SC	ST	Gen	Male	Female	
MA	Nil	50	Nil	12	38	
M. Phil	Nil	02	03	Nil	05	
Ph. D	Nil	03	01	Nil	04	
Degrees Awarded	SC	ST	Gen	Male	Female	Total
MA	Nil	38	Nil	17	21	38

Courses Conducted

M. A.

Semester I: Sociological Theories – I, Methodology of Social Research – I, Sociology of Family and Kinship, Indian Society – I, Indian Society – II.

Semester II: Sociological Theories – II, Methodology of Social Research – II, Sociology of Religion, Indian Society – III, Open Course.

Semester III: Economy and Society, Political Sociology, Sociology of Development, Tribal Movements in India, Open Course, Open Course.

Semester IV: Social Change, Sociology of Environment, Anthropological Theories, Industrial Sociology.

M.Phil/Ph.D:

Designing Sociological Research, Sociological Concepts, Advanced Sociological Theory.

Seminars/Conferences/Workshops/Extension Programmes

Organised

The department organised, under the UGC-SAP-DRS Phase-III and sponsorship of ICSSR-NERC, a National Seminar on Modernity and Ethnic Processes in India on 14-15 March, 2012. Convener: Dr. D.V. Kumar.

Attended

Prof. C.L. Imchen presented a paper titled “Indigenous Peoples, Ethnic Groups and Ethnic Processes” at the National Seminar on Modernity and Ethnic Processes in India on 14th March, 2012 in the Department of Sociology, NEHU.

Dr. I.L. Aier presented a paper titled “The Naga

Club: Reconstruction from Socio-Oral History of Ethnogenesis, Ethnicity and Resultant Political Permutations” at the National Seminar on Modernity and Ethnic Processes in India on 14th March, 2012 in the Department of Sociology, NEHU.

Dr. A.K. Nongkynrih presented a paper titled “Education in Meghalaya: A Sociological Assessment” at the seminar on “Impact of Education in Socio-Cultural Development in Meghalaya”, organised by Raid Laban College, Shillong, 18th November, 2011. He also presented a paper titled “Formation and transmission of Identity”, on 14th March, 2012 at the National Seminar on Modernity and Ethnic Processes in India on 14th March, 2012 in the Department of Sociology, NEHU.

Dr. D.V. Kumar presented a paper titled “Urbanisation and Modernisation” on 11th December, 2011 at the 36th All India Sociological Conference held from the 11th December to 13th December 2011 at Jawaharlal Nehru University, New Delhi. He also presented a paper titled “Ethnicity, Nationalism and Modernity: Exploring the Linkages” on 15th March, 2012 at the National seminar on Modernity and Ethnic Processes in India held on 14th March 2012 at North-Eastern Hill University, Shillong.

Dr. B. Panda presented a paper on “Community Participation and Sustainable Development” on 6th March, 2012 at the seminar on “Issues in the Sustainable Development of Meghalaya” organised by William Carey University, Shillong, on 5-7 March, 2012. He also presented a paper titled “Generating Livelihood and Promoting Socio-Economic Status of Women through Microfinance Initiatives: A Study of SHGs in Meghalaya” on 30th March, 2012 at the National Seminar on “Labour and Employment Trends in North-Eastern Region Challenges &

Opportunities” organised by North-East Research Centre, V. V. Giri National Labour Institute, Noida on 30-31 March, 2012.

Dr. Rekha M Shangpliang presented a paper titled “Development and Conflict over Natural Resources: Roots of Environmental Change among the Khasis of Meghalaya” on 14th March, 2012 at the National Seminar on Modernity and Ethnic Processes in India held on 14-15 March, 2012.

Publications

Published in India

Aier, I. L. 2012. “The Ongoing Naga Traditional Authority under state structure” in Kumar, D. V. (ed): *Social change and development: Emerging issues in the North-East India*. New Delhi: Rawat Publications, pp.225-234.

Imchen, C.L. 2012. “Construction of Tribal Identity from a Socio-Historical Perspective”, in Kumar, D.V. (ed): *Social change and development: Emerging issues in the North-East India*. New Delhi: Rawat Publications.

Kumar, D.V. 2012. “Ethnicity and Social Change: The Context of Mizos” in Kumar, D.V. (ed.) *Social change and development*. Jaipur: Rawat Publishers, pp. 167-182.

Kumar, D.V.(ed) 2012. *Social change and development*. Jaipur: Rawat Publishers.

Nongkynrih, A.K. 2012. “Development, Environment, and Broom Grass: A Sociological Perspective”, in Nathan Dev and Xaxa Virginus (eds.): *Social exclusion and adverse inclusion*. New Delhi: Oxford University Press.

Nongkynrih, A.K. 2012. “Tribes and Their Environment: A Sociological Interpretation”, in *Eco-Theology and Spirituality*, III: 42-60.

Panda, B. 2012. “Non-Governmental Organizations and Social Change” in Kumar, D.V.

(ed) *Social change and development*. Jaipur: Rawat Publications. pp. 318-335.

Shangpliang, Rekha, 2012. “Development and Conflict - The legacies of Forest Management Policies in India: A case study in Khasi and Jaintia Hills” in Kumar, D.V(ed), *Social change and development*. Jaipur: Rawat Publishers. pp. 336-348.

Funds Received

ICSSR, NERC, Shillong, Rs 50,000

UGC-SAP-DRS III, Rs 5.20 lakh

Research Projects

Completed

Dr. I.L. Aier completed the project titled “Political Parties and Tribal Ethnic Element: A Study in Neo-Social Force and Power Activism” funded by SAP-DRS Phase III, during 2011-2012. Amount sanctioned Rs. 40,000/-.

Dr. A.K. Nongkynrih completed the project titled “A Study of Social Transformation and Tribes of North-East India: The Views of Tribal Youths (Phase –III)- Collection of Secondary materials and analysis; and Tribes of North-East India: The Views of Tribal Youths (Phase –III) – Collection of Secondary materials and analysis; and tabulation of field-data and data entry. “ funded by SAP-DRS Phase III, during 2011-2012, amount sanctioned Rs.55,000/-.

Dr. D.V. Kumar completed a project entitled “Modernity, Ethnicity and Nationalism: Exploring the Linkages” funded by SAP-DRS Phase III, during 2011-12 amount sanctioned Rs. 35,000/-.

Dr. B. Panda completed a project entitled “Role of International NGOs in promoting Development: A case study of two International NGOs in Orissa” under UGC- SAP DRS Phase III, during 2011-2012, amount sanctioned Rs. 25,000/-

Dr. Rekha M. Shangpliang completed a project entitled "Water Scarcity in Rural Areas of East Khasi Hills District: A Case Study of Mawsynram Village". Source: SAP-DRS, Phase III, during 2010-2012, amount sanctioned Rs.16000/-.

Ongoing

Dr. Rekha M. Shangpliang is continuing with her project titled "Forest and the livelihood of Women Folk in a Khasi Village of Ri-Bhoi District under SAP-DRS, Phase III, during 2011-2012, amount sanctioned Rs. 29,000/-

Honours/Awards/Recognition

Dr. A.K. Nongkynrih was appointed as a member on the Board of the Indigenous Peoples Assistance Facility of the International Fund for Agricultural Development, Rome (2010 – 2013); Planning Committee, Khasi Hills Autonomous District Council, Shillong, (2011); State Advisory Group on Community Action of National Rural Health Mission, Department of Health and Family Welfare, Government of Meghalaya, 2011; State Level Monitoring Committee on Twenty Point Programme, Government of Meghalaya, Programme Implementation and Evaluation Department (2010); Advisory Committee on Codification of Customary Laws, Khasi Hills Autonomous District Council, Shillong, (2010); and Advisor of Regional Cooperation for People's Empowerment, Guwahati (2010-2012).

Other Academic Activities

Prof. Nikhlesh Kumar delivered two lectures on "Importance of Research Methodology in Social Science Research" on 1st March, 2012 at the workshop on Research Methodology in Social Science sponsored by ICSSR-NERC, Shillong and organised by the Equal Opportunity Cell, Tezpur University, Tezpur.

Dr. A.K. Nongkynrih delivered a lecture on "Nature and Conservation" at Mawphlang Day, organised by the Mawphlang Sustainable Tourism Society, 21st May 2011, Mawphlang; delivered a lecture on "Tourism in Meghalaya: A Social Perspective", organised by the Institute of Hospitality Management, Government of Meghalaya, 4th June 2011, Shillong; delivered a lecture on "Socialisation and College Students", organised by Sankardev College, 8th June 2011, Shillong; delivered a talk on "Tourism and Society" in Tourism Awareness Programme for NGO participants from Meghalaya organised by the Institute of Hotel Management, Shillong, 5th September 2011; delivered a talk on "Socio-Economic and Political Issues and Challenges in the Context of North – East India", organised by Church Auxiliary for Social Action (CASA) North East India, 8th September 2011; delivered a lecture on "Research Methodology", organised by Indian Council for Social Science Research North- Eastern Regional Centre, Shillong, 14th to 16th November, 2011; delivered a lecture on "Training and Capacity Building of NGOs and CBOs on Community Based Disaster Risk Management", organised by the Office of the Deputy Commissioner, East Khasi Hills, Government of Meghalaya, 31st January 2012, Shillong; delivered a lecture on "Ka Iewduh", organised by the University of Gastronomic Sciences, Italy and the Martin Luther Christian University, 6th February 2012, Shillong; delivered a lecture on "Disaster Management – Local Institutions in Disaster Preparedness and Management", organised by Department of Adult and Continuing Education, North – Eastern Hill University, 9th February, 2012, Shillong; delivered the ICSSR- NERC Special Lecture on "Tribal Societies in a Modernising World" at the Don Bosco College, Tura, 30th March 2012.

Chapter VIII

SCHOOL OF TECHNOLOGY

Dean : Prof. S. Choudhury
Telephone : 2723601(o), 2723602(o) 2723606(Fax)
Email : sushabhan@yahoo.com

The School of Technology was established in 2006. It consists of the departments of Electronics & Communication Engineering, Information Technology and Basic

Sciences & Social Sciences. During the year under report the faculty members were actively involved in teaching and collaboration research.

Department of Basic Sciences and Social Sciences

Head : Dr. A. Sinha (up to 21.02.2012)
Prof. P. V. Koparkar (from 22.02.2012)
Telephone : 27236-41/-42 (o)
Email : hodbsss@gmail.com

Thrust Areas

The thrust areas of the department are Basic & Applied Mathematics, Basic & Applied Physics, Chemical Science & Technology, Basic & Applied Environmental Sciences, and Biotechnology.

Faculty Profile

Professor : Prof. P.V. Koparkar, M. Sc., Ph. D. (N.U.) (Physics)
Associate Professors : Dr. A.K. Das, M.Sc. (IIT, Kgp), Ph.D. (CU) (Physics) A. B. Chetry, M.Sc. (GU) Chemistry
Assistant Professors : Dr. M.D. Kushwaha, M.A. (BhU), Ph.D. (BHU) (Maths)
Dr. M.M. Singh, M.Sc. (BHU), Ph.D. (PU) (Maths)

Shri Sainkumar M.N. Mawiong, M.Sc. (Maths) M. Phil. (NEHU)
Dr. Jibitesh Dutta, M.Sc. (Maths), (NEHU), Ph. D. (NEHU)
Dr. Regenal S. Kharwanlang, M.Sc. (Physics NEHU), Ph. D. (NEHU)
Dr. A. Sinha, (Higher Grade) M.Sc. (Chemistry LU), Ph.D. (NEHU)
Dr. (Mrs.) Jyoti Narayan, M.Sc. (Chem KU), M. Phil. (KU), Ph.D. (KU)
Dr. Phrangstone Khongjee, M.Sc. (Statistics NEHU), Ph. D. (NEHU)
Dr. Hiranjit Choudhury, M.Sc. Statistics NEHU), Ph.D. (NEHU)
Dr. Krishna Upadhaya, M.Sc. (Env. Science NEHU), Ph.D. (NEHU)
Smt. Evapynhun Giri, M.A. (English NEHU), M. Phil. (NEHU)

Courses Conducted

The Core Courses of Basic Sciences, Humanities and Social Sciences were taught by the teachers of the department to the students of B. Tech of ECE and IT departments, School of Technology as per the details given below:

Semester I: Professional Communication Skills, Digital English Language Laboratory, Engineering Mathematics I, Engineering Physics, Engineering Physics Laboratory, Basic Electrical Engineering, Basic Electrical Laboratory, Engineering Mechanics, Workshop Practice in ECE and IT departments.

Semester II: Engineering Mathematics II, Engineering Chemistry, Engineering Chemistry Laboratory, Basic Electronics, Basic Electronics Laboratory, Engineering Graphics, Computer Systems and Programming, Computer Programming Laboratory and Elements of Environmental Sciences in ECE & IT departments.

Semester III: Engineering Mathematics III, both for ECE & IT, Engineering Economics and Financial Accounting for IT only, Discrete mathematics in IT department only.

Semester IV : Statistics and Random Processes, in both ECE & IT departments.

Semester V: Industrial Economics and

Management, for ECE only, Management Information System for IT only.

Semester VII: Professional Ethics and IPR, in ECE and IT departments, Bio-informatics for IT.

Seminars/Conferences/Workshops/Extension Programme

Organized

- (i) Hands on Training programme on "Synthesis and Characterization of Nanomaterials", August 8-13, 2011 organised by the department in collaboration Sinsil International, Bombay. Dr. J. Narayan was the Programme Coordinator.
- (ii) Workshop on "Scientific Computing and Applications", September 13-14, 2011, organised by the department in collaboration with Scube Scientific Software Solutions, New Delhi and Microtech, Kolkata, India. Dr. Phrangstone Khongji was the Convener.
- (iii) Two day workshop on "ROT and SIT configuration of EDUSAT networks in the North Eastern Region", November 2-3, 2011, organized by NEHU, Shillong in collaboration with Consortium for Educational Communication, New Delhi. Prof. P. V. Koparkar was the Convener.

Attended

Prof. P. V. Koparkar presented a paper at the (i) "National Seminar on ICT in Education", organised by Department of Education, NEHU, Shillong on 15-17 September 2011. Topic: Fast track to the future of the North East: Information & Communication Technologies (ICT). (ii) "International Seminar on Lifelong Learning & Skill Development" organized by the Department of Adult and Continuing Education, NEHU, Shillong on 17 - 18 October 2011. Topic: Community Radio: A powerful medium for lifelong learning. (iii) "National Symposium on Instrumentation (NSI-36)" organised by the Instrumentation Society of India, I.I.Sc, Bangalore and Invertis University, Bareilly during 20-22 October 2011. Topic: An Integrated Automatic Hydro-meteorological Monitoring System.

Dr. K. Upadhaya attended the (i) "Workshop on Mainstreaming climate change adaptation in afforestation programme of North East India", organized by Regional Centre, National Afforestation and Eco-Development Board, North-Eastern Hill University, Shillong, 18-20th August, 2011. Paper: Selection of tree species for afforestation suitable for climate change adaptation and mitigation. (ii) "Brainstorming session on Forest people interface in Meghalaya", organized by Regional Centre, National Afforestation and Eco-Development Board, North-Eastern Hill University, Shillong, 26th March, 2012. Topic: Sacred grove and biodiversity conservation in Meghalaya.

Dr. R. S. Kharwanlang presented a paper titled Understanding wasp-waisted hysteresis loop in geological rocks at the "National Conference on Condensed Matter Physics, in Condensed matter days-2011", organized by Department of Physics, Gauhati University, Guwahati, on August 24-26, 2011.

Dr. J. Narayan presented a paper titled "Participation of Women in Science & Technology Industry: Challenges and Prospects" at the "National Roving Workshop on Women in Scientific Research- Examining the Challenges & Identifying Their Needs", organized by DST- ICSSR-NEHU, Shillong, on October 21-22, 2011.

Publications

Published in India

Bhatnagar P, Narayan J and Koparkar P.V. 2011. Going Green: Bioplastics, as an Alternative to Fossil Fuel Based plastics. *Proceedings Revmostra*. pp. 50-57.

Iongwai PS, Jha SK, Kharbuli B, War SA, and Das AK. 2011. Measurement of elemental concentration in some edible plants collected from Mawthabah area, West Khasi Hills, Meghalaya, India and assessment of their daily intake. *Poll Res*. 30(4): 457-462.

Narayan J, Bhatnagar P and Koparkar P.V. 2011. Nanotechnology - detection of environmental pollution. *Proceedings Revmostra*. pp. 37-42.

Odyuo N, Upadhaya K and Jamir S A. 2012. Mount Saramati: Ideal site for biodiversity conservation and ecotourism in Nagaland, northeast India. pp. 72-81. In: *International Environmental Economics- Biodiversity and Ecology* (Ed. R K Mandal), Discovery Publishing House Pvt. Ltd., New Delhi.

Thapa N, Upadhaya K, Baishya R and Barik SK. 2011. Effect of plantation on plant diversity and soil status of tropical forest ecosystems in Meghalaya, northeast India. *International Journal of Ecology and Environmental Sciences*. 37 (1): 61-73.

Upadhaya K, Choudhury H and Odyuo N. 2012. Floristic Diversity of Northeast India and its

Conservation. pp. 61-71. In: *International Environmental Economics- Biodiversity and Ecology* (Ed. R K Mandal), Discovery Publishing House Pvt. Ltd., New Delhi.

Published Abroad

Kalita V, Choudhury H, Kumaria S and Tandon P. 2012. Vitrification-based cryopreservation of shoot-tips of *Pinus kesiya* Royle ex. Gord. *CryoLetters*. 33 (1): 58-68.

Adhakari D, Barik S K and Upadhaya K. 2012. Habitat distribution modeling for reintroduction of *Ilex khasiana* Purk., a critically endangered tree species of northeastern India. *Ecological Engineering*. 40: 37-43.

Kharwanlang R S and Shukla P. 2012. Analysis of wasp-waisted hysteresis loops in magnetic rocks. *Phys Rev E*. 85,011124.

Dutta J and Debnath U. 2012. Reconstruction of Potentials as well as Dynamics of Scalar Fields in DGP Braneworld Model. *International Journal of Theoretical Physics*. 51 (2): 639-651.

Dutta J and Chakraborty S. 2011. Generalized Second Law of Thermodynamics for Interacting Dark Energy in the DGP Braneworld. *International Journal of Theoretical Physics*. 50(8): 2383-2390.

Research Projects

New

- (i) "Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools". Sponsored by Department of Biotechnology, Ministry of Science and

Technology, Government of India. {(i) S. K. Barik et al. PI) and H. Choudhury et al., (Co-PI). Sanctioned on 23/3/ 2012. Amount: Rs. 103.2985 lakhs; Duration: 5 years.}

- (ii) "Phytochemical profiling, molecular characterization and conservation of *Flemingia vestita*: Endemic medicinally important plant of Northeast India". Sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India under "Twinning programme for the NE - 2012". {(i) S. Kumaria and S. Shailajan (PI) and H. Choudhury, S. Pednekar and S. Menon (Co-PI). Sanctioned on 2/5/2012. Amount: Rs. 30.39 lakhs; Duration: 2 years.}

- (iii) "Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools". Sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India. {(i) N. K. Churungoo et al. (PI) and K. Upadhaya et al., (Co-PI). Sanctioned on 23/3/2012. Amount: Rs. 82.578 lakhs; Duration: 5 years.}

Ongoing

- (i) "Micropropagation of *Nardostachys grandiflora* and *Malaxis wallichii*, two threatened medicinal plants of Northeast India". Sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India. {(i) P. Tandon (PI), S. Kumaria (Co-PI) and H. Choudhury (Co-PI). Sanctioned in 2010. Amount: Rs. 28.05 lakhs; Duration: 3 years

Academic Collaboration

Dr. H. Choudhury collaborated with (i) Prof. P. Tandon and Dr. S. Kumaria of Department of

School of Technology

Botany, NEHU, Shillong on Micropropagation of *Nardostachys grandiflora* and *Malaxis wallichii*, two threatened medicinal plants of Northeast India, (ii) Prof. S.K. Barik, Prof. N. Venugopal and Dr. M. C. Das of Department of Botany, NEHU, Shillong, and Dr. A. Chettri, Sikkim University, Gantok, Sikkim and Dr. K. K. Singh, GBPIHED (Sikkim Unit) Sikkim on Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools and (iii) Dr. S. Kumaria of Department of Botany, NEHU, Shillong and Dr. S. Shailajan, Dr. S. Pednekar and Dr. S. Menon of Herbal Research Lab., Ramnarain Ruia College, Mumbai, Maharashtra on Phytochemical profiling, molecular characterization and conservation of *Flemingia vestita*: Endemic medicinally important plant of Northeast India.

Dr. K. Upadhaya collaborated with Prof. N. K. Chrungoo and Dr. S. Kumaria of Department of Botany, NEHU, Shillong, and Dr. P. Kumari of BSI, Howrah, West Bengal on Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools.

Infrastructure Facilities

Established the Nanotechnology Laboratory with facilities for synthesis and characterization of nano materials. Also established Mechanical workshop practice laboratory and Basic Electrical Engineering laboratory for the students of ECE and IT departments.

Other Academic Activities

Prof. P. V. Koparkar was the Coordinator/ Convener of the following schemes on behalf

of the University pertaining to the XI Plan merged scheme (a) Remedial Coaching Scheme for SC/ST/OBC and Minority students at UG level in the School of Technology (b) Instrument Maintenance Facility and (c) Basic Facilities for Women. The EDUSAT facility was provided by CEC, New Delhi, from its installation in the premises of School of Technology, NEHU, Shillong.

Dr. M. M. Singh was a mentor and delivered a series of lectures at DST sponsored programme 'INSPIRE', organised by and held at NEHU, Shillong, December 13-17, 2011.

Dr. A. Sinha was faculty coordinator of *Anakalypsi 2011*-the first Techno-Cultural Event of School of Technology, held on April 26 -29, 2011., MATI, EOS, Singapore, March 26-30, 2012.

Dr. H. Choudhury (i) delivered a series of lectures to the M. Sc. Biotechnology students on "Recombinant DNA Technology" at the National Institute of Pharmaceutical Education & Research (NIPER), Guwahati, on May 6-7, 2011 at Gauhati Medical College (GMC) Complex, Guwahati. (ii) Was faculty coordinator for the events- Revmostra, Photography & Videography and Budget War, and Editor, Reviewer and Publication-in-Charge of the proceedings-"REVMOSTRA"- a paper presentation event during *Anakalypsi 2011* held on April 26-29, 2011.

Dr. K. Upadhaya (i) was Editor and Reviewer of the proceedings-"REVMOSTRA" during *Anakalypsi 2011*, April 26-29, 2011.

Department of Electronics and Communication Engineering

Head : Dr. Lairenlakpam Joyprakash Singh
Telephone : 272 3661/272 3662(o)
Email : hodece@nehu.ac.in

Thrust Areas

Nanotechnology, Wireless Sensor Networks, MEMS and Sensor Design, Speech and Image Processing, and Optical Communication.

Brief Statement of Academic Activities

The department admitted 59 students in vertical entry and 6 in lateral entry respectively for

B.Tech. in ECE during the year. 41 students successfully completed their B.Tech. Two projects: 1. Development of Prosodically Guided Phonetic Engine for Searching Speech Databases in Indian Languages and 2. Development of Speech based Multi-Level Person Authentication System were sanctioned during the year under report.

Faculty Profile

Professors : S. Choudhury, M. Tech. (Tezpur), Ph.D. (J.U)
Associate Professors : L. Joyprakash Singh, M.Tech. (Tezpur), Ph. D. (Jadavpur),
 S. Kabir Dutta, M. Tech. (MIT, Manipal),
 S. C. Arya, Ph. D. (ISM Dhanbad)
Assistant Professors : J. Binong, B.E. (Bhavnagar),
 R. K. Mudoi, M.Tech. (Tezpur),
 F. Pyrtuh, M.Tech. (IIIT, Allahabad),
 J. Swarnakar, M.E. (Jadavpur)
STA : F. Pyngrope, Diploma (Kolkata)
 L. B. Rathod, Diploma (Govt. Polytechnic, Kanpur)
 B. D. Gupta, B.Sc. Electronics (St. Edmonds, Shillong)

Student Intake

Enrolment Capacity: B.Tech.: 66 (60 Vertical Entry and 6 Lateral Entry)

Actual Admission:	SC	ST	GEN	OBC	MALE	FEMALE	Total
B.Tech.: Vertical	8	24	24	4	40	20	60
Lateral	0	4	2	0	5	1	6

Degrees Awarded

	SC	ST	GEN	OBC	MALE	FEMALE	Total
B.Tech.:	8	3	21	9	33	8	41

School of Technology

Courses Conducted

B.Tech.

Semester II:	Basic Electronics, Basic Electronics Laboratory
Semester III:	Analog Electronic Circuits – I, Digital Electronics, Signals and Systems, Electrical Network Theory, Analog Electronic Circuits – I Laboratory, Digital Electronics Laboratory
Semester IV:	Electromagnetic Theory, Analog Electronic Circuits – II, Digital Systems Design, Linear Integrated Circuits and Systems, Analog Electronic Circuits – II Laboratory, Digital Systems Design Laboratory, Linear Integrated Circuits Laboratory
Semester V:	Microprocessor, Electronics Measurements and Instrumentation, Principles of Communication Systems, Power Electronics, Basic Control Engineering, Microprocessor Laboratory, Electronics Measurements and Instrumentation Laboratory, Communication Systems Laboratory
Semester VI:	Advanced Microprocessors, Digital Signal Processing, Microwave Engineering, Computer Communications and Networks, Antenna , Advanced Microprocessor Laboratory, Digital Signal Processing Laboratory, Microwave Engineering Laboratory.
Semester VII:	Embedded Systems and Microcontrollers, Introduction to VLSI Design, Digital Communication, Advanced Digital Signal Processing, Digital Image Processing, Embedded Systems and Microcontrollers Laboratory, VLSI Design Laboratory, Digital Communication Laboratory and Minor Project
Semester VIII:	Satellite and Optical Communication Systems, Mobile Communications, Cipher System, Nanotechnology and Major Project.

Seminars/Conferences/Workshops/Extension Programmes

Organised

Prof. S. Choudhury, as Chairman, organized Techno-Cultural Festival *ANAKALYPSI 2011* on 26-29 April 2011, in the School of Technology, NEHU, Shillong.

Dr. L. J. Singh, as Sectional President of the

section on Information and Communication Sciences and Technology (including Computer Sciences), organized ICT programmes at the 99th session of the Indian Science Congress, January 3-7, 2012 hosted by KIIT University and NISER, Bhubaneswar.

Attended

Ms. Fidalizia Pyrtuh attended and presented

paper titled “Smart and Intelligent Library System Using Advanced Communication Technology”, at the National Seminar on Information Communication Technology in Education, organized by Department of Education, NEHU, Shillong, held on 13th-15th, September 2011 at NEHU, Shillong.

Publications

Prof. S. Choudhury

Published Abroad

- a) Design and Development of a Flexible Reliable Smart Gas Detection System, *International Journal of Computer Applications*, vol-31, October, 2011.
- b) Implementation of Self Diagnostic and Power Management Protocols on Wireless Gas Sensor Nodes”, *International Journal of Engineering Science and Technology (IJEST)*, Vol2, No.4, April 2011, pp 2582-2589.
- c) Thermoelectric power in ultrathin films, quantum wires and carbon nanotubes under classically large magnetic field: Simplified theory and relative comparison,” *Physica B Elsevier* (vol-405,472-498).
- d) Simple theoretical analysis of the Fowler–Nordheim field emission from microstructures and quantum wires of opto electronic materials, *Superlattices and Microstructures* Vol-50 (2011) 609–627.
- e) (with Dipanjan Bhattacharya) “Design of a Pliable Wireless Gas Sensing and Alarming System”, 2012 International Congress on Informatics, Environment, Energy And Applications (IEEA 2012), March 17-18, 2012, Singapore, Published by Elsevier.

Published in India

Subhash C. Arya and Fidalizia Pyrtuh, “Smart and Intelligent Library System Using Advanced Communication System”, in proceedings of National Seminar on Information Communication Technology in Education, organized by Department of Education, NEHU and held on 13th-15th, September 2011 at NEHU, Shillong.

Funds Received

Prof. S. Choudhury received Rs 7 lakhs from development fund of ECE and IT Departments for organizing techno-cultural Fest, *Anakalypsi 2011* at SOT, NEHU, Shillong. Dr. L. J. Singh also received Rs. 30.15/- lakhs and Rs. 57.92/- lakhs under two projects funded by Department of Information Technology (DIT) and Department of Electronics and Information Technology (DietY) both under the Ministry of Communication and Information Technology (MCIT), GoI, on December 23, 2011 and March 28, 2012 respectively.

Research Projects

Completed

Prof. S. Choudhury completed a project entitled “High Performance Polymer-Single Wall Carbon Nanotube Composites for Potential Applications to Space Electronics” sponsored by AICTE and sanctioned in his earlier place of working. Principal Investigator: Prof. Sushabhan Choudhury.

New

Development of Prosodically guided phonetic engine for searching speech databases in Indian languages funded by DIT, MCIT, GoI. Principal Investigator: Dr. L. J. Singh.

Development and Deployment of Speech based

School of Technology

Multi-Level Person Authentication System funded by DietY, MCIT, GoI. Principal Investigator: Dr. L. J. Singh.

Major Infrastructure Facilities

Prof. Sushabhan Choudhury has set up the state of the art centralized research lab in the field of nanotechnology.

Honours/Awards/Recognition

Prof. S. Choudhury has been selected (a) a counselor for National Assessment and Accreditation Council (NAAC) and National Board of Accreditation (NBA), (b) Member of

the UGC Expert Committee in the field of Electronics, Electrical and Computer Sc. to evaluate major and minor projects.

Other Academic Activities

Dr. L. J. Singh was a member of the Jury for the selection of Young Scientist Award in the section of ICT on October 14, 2011, at KIIT University, Bhubaneswar. He delivered a presidential talk on "Computer Ethics and Society Today" on January 3, 2012 in the 99th Session of ISC at KIIT University, Bhubaneswar.

Department of Information Technology

Head : Bubu Bhuyan
Telephone : 0364-2723611 (o)
Email : hodit@nehu.ac.in b.bhuyan@gmail.com

Thrust Areas

The thrust areas of the department are Information Security, Networking, Algorithm, Data mining and Computational Biology.

Faculty Profile

Associate Professor : I. Hussain, M. Tech (IT)
Reader : B. Bhuyan, M. Tech (IT), Ph D (Engg) in CSE
Assistant Professors : S. Roy, M. Tech (IT)
A. K. Maji, M. Tech (IT)
S. Neog, M. Tech (IT)
S. Das, M. Tech (IT)
S. C. Sahana, M. Tech (IT)

Student Intake

Enrolment Capacity: 60

Actual Admission:	SC	ST	Gen	Male	Female	Total
	9	21	30	53	07	60

Degrees Awarded

B.Tech: SC: 07, ST: 07, GEN: 36, MALE: 39, FEMALE: 11

Courses Conducted

Semester II – Computer Systems and Programming (both for I.T. and ECE students), Computer Programming Laboratory (both for I.T and ECE students).

Semester III – Discrete Mathematics, Data structure & Algorithm (both for I.T. and ECE), Numerical Lab, Data Structure Lab (both for I.T. and ECE).

Semester IV– Formal Languages and Automata Theory, Computer Graphics & Multimedia, System Programming, Computer Organization & Architecture, Computer Graphics & Multimedia Lab, System Programming Lab, Computer Organizational & Architecture Lab.

Semester V– Object Oriented Programming and Methodology, Operating System, Data Communication, Object Oriented Programming (C++, Java) Lab, Operating System Lab

Semester VI- Computer Network, Compiler Design, Algorithm Analysis and Design, Information Theory and Coding, Relational Database System, Computer Network Lab, Compiler Design Lab, Database Lab.

Semester VII- Professional Ethics & IPR, Web Technology, Software Engineering, Data Mining, Distributed Systems, Artificial Intelligence, Internet and Application Technologies, Web Technology Lab, Software Engineering Lab, Visual Programming Lab, Minor Projects

Semester VIII- Marketing Strategies and Planning, Mobile Communications, Internet Protocol, E-Commerce, Mobile Computing, Major project.

Seminars/ Conference/Workshops/Extension Programmes

Organised

The department organized a five-day Winter School on Soft Computing, Pattern Recognition Image Processing on October 20 – 24, 2011 in collaboration with ISI, Kolkata.

Publications

B. Bhuyan et al, “Implementaion of Automatic Variable Key (AVK) with Chaos Theory and Studies thereof”. *IUP Journal of Computer Science*, October 2011 issue.

M Sora, S Roy & SI Singh, “FLoMSqueezer: An Effective Approach For Clustering Categorical Data Stream”. *Intl. Journal of Comp. Sc. Issues*, vol 8, no 6, pp 284-291, 2011.

Funds Received

Rs 12.84 lakhs for a DIT sponsored project.

Rs. 45 lakhs from DIT, Govt. of India

Research Projects

New

1. Development of New Algorithms for Variable Key Cryptography. Funding agency: Ministry of Communication and Information Technology, DIT, GOI. Principal Investigator: B. Bhuyan, Reader, Department of IT. Co-investigator: S. Roy, Assistant Professor, Department of IT.
2. “QoS provisioning in wifi based Long Distance Wireless networks for Hilly Terrain Areas” at a total outlay of Rs 67.08 Lakhs. Principal Investigator: I. Hussain, Associate Professor, Department of IT.

School of Technology

Co-investigator: S. Dutta, Associate
Professor, Department of ECE.

Other Academic Activities

A. K. Maji participated in the UGC sponsored
3rd Refresher Course on Information

Communication Technology (ICT) at Academic
Staff College, Burdwan University, from 10th
March 2012 to 30th March 2012 and obtained
“A” grade.

Chapter IX

ADMINISTRATIVE DEPARTMENTS

Campus Development Department

University Engineer : Mr. A.M. Kharmawphlang
Telephone : 2722061(o)

The following construction projects were at various stages of completion during the year under report:

1. Construction of Cultural Park
2. Construction of Laboratory Complex
3. Construction of Auditorium Building
4. Construction of Butterfly Park
5. Approach road towards Bio Park
6. Service Connection to NEICoD Building
7. External Electrification with service connection
8. Buildings for new departments
9. Raising of additional floors over the existing buildings for School of Technology

College Development Council

Director : Dr. C. R. Diengdoh
Telephone : 0364-2721201, 1202, 1203 (O)
E-mail : dircdc@nehu.ac.in/cdcnehu@gmail.com

The College Development Council is an intermediary between the University and the affiliated colleges admitted to its privileges. It provides the colleges with the required help, guidance and advice. It also provides a forum for taking necessary steps for the continuous promotion, coordination and raising the standards of education in colleges.

The Council is the Principal Advisory Body to the Executive Council and the Academic

Council in all matters relating to affiliation. It is constituted every two years and has representatives comprising university officials, faculty members, representative of the State Government, principals and teachers of affiliated colleges.

The University has 63 affiliated colleges, of which 32 are permanently affiliated and 31 are provisionally affiliated. The University also considers affiliating Minority Educational

Administrative Departments

Institutions located anywhere in the country as per the provisions of the National Commission for Minority Educational Institutions (NCMEI) Act. The temporary affiliation of four colleges is discontinued and hence the latter are deleted from the University website.

The Council is the liaising body for the UGC in guiding the affiliated colleges recognized under Section 2(f) and 12(B) of UGC Act with all the procedural formalities to send proposals to the UGC for obtaining funds under different schemes for the overall development of colleges.

The colleges visited by various Inspection Teams during the year are (i) St. Anthony's College, Shillong, (ii) Umshyrpi College, Shillong (iii) Durama College, Tura, (iv) Bormanik College, Upper Shillong, (v) Mairang Presbyterian Science College, Mairang (vi) Synod College, Shillong, (vii) Khatar Daloi Law college, Jowai, (viii) Sankardev College, Shillong, (xi) St. Edmund's College, Shillong, (x) Sngap Syiem Memorial College, Mawkyrwat, (xi) Union Christian College, Umiam Khwan, (xii) Jaintia Eastern College, Khliehriat, (xiii) Tura Law College, Tura, (xiv) NEIGRIHMS, Shillong, (xv) Goodwill College, Shillong, (xvi) Nabon Synod College, Shillong, (xvii) Bissau College, Shillong, (xviii) Women's College, Shillong, (xix) Tikrikilla College, Tikrikilla, (xx) Regional College of Higher Education, Dispur, Guwahati; (xxi) K. L.

Bajoria College, Shillong, (xxii) B.B.S. College, Shillong (xxiii) Khrawsing Christian College, Mawngap, (xxiv) Nongstoin College, Nongstoin.

In 2011-12, an All India Survey on Higher Education conducted by the Ministry of Human Resource Development in consultation with UGC and NUEPA to provide a database on higher learning was carried out for the University and its affiliated colleges. In Feb-March 2012, 17 colleges who are recipients of UGC funding of special scheme of construction of Women's Hostels were visited for physical verification purposes. Thomas Jones Synod College, Jowai received One-Time Catch-up Grant from UGC under funding scheme for non 12(B) colleges.

Two colleges were reassessed and reaccredited by NAAC, Bangalore: (i) Synod College, Shillong, with an 'A' Grade (ii) Union Christian College, Umiam Khwan with a 'B' Grade. Don-Bosco College, Tura, West Garo Hills also received NAAC accreditation 'B'.

The College Development Council held its meeting on 13th April 2011, where important matters related to college development were discussed. 46 principals of affiliated colleges attended the 'Principals' Conference on Academic Reforms' which was held on 24th June, 2011 on the 'Implementation of Semester System' in the affiliated colleges, examination system and new UGC guidelines on affiliation of colleges.

Examination Department

Controller of Examinations : Professor K. Ismail
Telephone : 0364 2721211 / 1212 (o)
Email : offcoe@nehu.ac.in

During the year under review, the Examination Department could declare the undergraduate results in time thereby facilitating the admission process into the postgraduate programme of the University. Efforts are being made to computerize the postgraduate results through the University Management System as and when implemented.

The Examination Department is mandated to operate round the year on all matters relating to Under Graduate and Post Graduate examinations including Professional Courses, MPhil and PhD programmes. With the increase in the number of affiliated colleges and students in the Post Graduate Programmes, the Examination Department is gearing up to meet the new challenges. The Choice Based Credit System (CBCS) is in its 4th year of operation and the Examination Department was able to generate computerized Grade Card for all PG Examinations. Similarly, computer generated Grade Cards have been devised and issued in respect of MPhil, PhD and BTech programmes also.

Under the Choice Based Credit System, evaluation of answer scripts has been done internally with the cooperation of all faculty members of the University which has resulted in timely declaration of the PG results. Under the direction of the UGC, the grading is being switched over from 10 Point to 7 point scale from the academic session 2012 onwards.

In the current year, the Examination Department

has started conducting examinations for the newly established Department of Social Welfare which is being serviced in St. Edmund's College, one of the affiliated colleges of the University.

The University under the direction from the UGC has initiated steps for introduction of the semester system at the Under Graduate level in affiliated colleges which is most likely to be implemented from the academic session of 2013 and the department is gearing up for its implementation.

The 19th Convocation of the University was held on 30th September 2011 in which, degrees for the year 2011 were conferred and awarded. In terms of the academic calendar of the University, the University convocation is scheduled in the month of first week of November each year. However, the same was advanced to September 2011 in view of the acceptance of the Hon'ble Vice President of India to grace the occasion. The Examination Department was put on war footing to ensure announcement and declaration of all results within 15th September 2011 which was successfully accomplished.

The University has withdrawn the facility of reevaluation of all PG, BA-LLB and B.Tech answer scripts from the academic session 2011 onwards. In lieu thereof, the provision of self-scrutiny of answer scripts have been introduced.

Pursuant to the Government of India's directives issued from time to time, the University has now

Administrative Departments

introduced bilingual certificates to all students who have qualified for the degree from this University.

The Examination Department has been receiving substantial number of requests from external agencies for verification and authentication of certificates / documents of this University in respect of students of this University seeking

employment. The department has made special efforts to respond to the requests expeditiously.

In view of the austerity measures under the direction of the Government of India, Examination Department is making special efforts for curtailment of expenditure with regard to UG and PG Examinations.

Finance Department

Name of the Finance Officer : Mr. Taliremba, IDAS
Telephone : 2721021 (o)
Email : fo@nehu.ac.in

The receipts and payment amount of the University for the year 2011-12 is as follows:

Receipt in Rs.		Payment in Rs.	
Non-plan grants from UGC	1086218000	Salary and wages	822885876
Internal receipt	69599762	Pension	142904886
Interest on SB A/c of other Funds	2583188	Revenue	260940961
Plan/UPE	246000000	Capital	16384043
Ministry of Women and Child Development (working women hostel)	2760020	Salary and wages	9292840
Other special assistance schemes and sponsored programmes	51420784	Revenue	68693388
Capital	227605582		
Other special assistance Capital	68924577		
Revenue	38914059		

Planning Department

Officer-in-Charge : Dr. J. N. Nayak, Deputy Registrar

Telephone : 2721053

Email : jnnayak@nehu.ac.in

The Planning Department of the University was established in 1978 with the main objectives of designing as well as monitoring the implementation of vision plan for the overall development of the University, for the academics, infrastructure development and welfare activities.

amount of Rs. 12,380.00 lakhs under the Head “General Development” was approved for the University, out of which the University has already received Rs. 11,902.00 lakhs up to 31.3.12 under the aforesaid plan period. The UGC allowed the University to utilize the balance of fund till September 2012.

During XI Plan Period (1.4.2007 to 31.3.2012) an

Item	UGC Allocation (In lakhs)	Expenditure upto 31.3.2012 (In lakhs)	Balance out of Allocation as on 01.04.2012 (In lakhs)
Building	Rs. 9326.00	Rs. 8514.14	Rs. 812.14
Equipments	Rs. 400.00	Rs. 224.92	Rs. 176.92
Books & Journals	Rs. 200.00	Rs. 170.81	Rs. 30.81
Staff Salary	Rs. 1669.00	Rs. 130.15	Rs. 1539.15
Campus Development	Rs. 400.00	Rs. 295.16	Rs. 105.16
Central facilities			
Others	Rs. 385.00	Rs. 169.66	Rs. 216.66

The item ‘Building’ has two separate approved amounts viz. (i) “Spill Over (approval of Rs.2000.00 lakhs)” and (ii) New Item (approval of Rs.7326.00 lakhs) for “Setting up of Faculty of Engineering under NCMP”. In addition to this an amount of Rs.517.50 lakhs was approved under the Head “Merged Scheme” and Rs.800.00 lakhs for payment of fellowship for disbursing fellowship to Research Scholars undergoing M.Phil/Ph.D. courses.

Under the Merged scheme the UGC allocated funds for 17(seventeen) different items. Viz.(1) Travel Grants (2) Conference/Seminars (3) Publication Grant (4) Appointment of Visiting Professors (5) Day Care Centre (6) Adventure of Sports (7) Instrument Maintenance Facility (8) Construction for Women’s Hostel (9) Basic facility for Women (10) Faculty Improvement Programme (11) Equal Opportunity Cell (12)

Coaching Scheme for SC/ST & Minorities (13) Establishment of Career & Counseling Cell (14) Facilities for differently abled person (15) Teacher Preparation in Special Education (TEPSE) (16) Visually Handicapped Teachers and (17) Internal Quality Assurance Cell (IQAC).

In addition to the XI Plan Grants mentioned above, the University also received an allocation of Rs. 30 crores for North Eastern India Centre for Diversity (NEICOD), (2) Rs. 389.84 lakhs for 100 seated Guest House (3) Rs. 4000.00 lakhs for development of Tura Campus and (4) Rs. 3300.00 lakhs for Faculty of Engineering & Management.

An amount of Rs. 30 crores was allocated under the project “University Potential for Excellence”. Further the XII Five Year Plan (2012-2017) proposal amounting to Rs.405.44 lakhs has already been submitted to the UGC for consideration.

Chapter X

CENTRAL SERVICES

Academic Staff College

Director : Prof. Rakesh Mohan
Telephone : 2721401/2721402; 2550103 (Fax)
Email : asc@nehu.ac.in; ascnehu@gmail.com

Thrust Areas

The UGC-Academic Staff College (UGC-ASC) has been established to upgrade the knowledge and skills of faculty members of the institutions of higher education, under the Faculty Development Programme of the UGC, New Delhi. The UGC-ASC organizes Refresher Courses (RCs) and Orientation Programmes (OPs) for the faculty of universities and colleges located in the North-Eastern region as well as in other parts of the country. The RCs and OPs are conducted in subjects approved by the UGC in order to update and acquaint the participating teachers with the latest developments and recent trends in the respective subjects. The OPs and RCs are designed to empower the teachers with depth of knowledge to enhance their teaching skills as well as capabilities.

Besides, UGC-ASC conducts Short-Term Courses and Principal Workshops for the faculties, research scholars, academic administrators as well as principals of affiliated colleges.

Brief Statement of Academic Activities

During 2011-12, the UGC-ASC conducted a total of 5 OPs, 15 RCs, 1 Workshop and 4 Short-Term Course, and trained a total of 615 participants belonging to various universities and colleges. Further, the UGC-ASC established a Computer Laboratory with 24 state of the art PCs and associated peripherals. The UGC-ASC has taken up a new initiative to have a one day Interactive Session of the respective departmental Refresher Course participants with the faculty members of the concerned department on academic reforms.

Faculty Profile

Professor : Director: Prof. Rakesh Mohan, M.Sc., Ph.D., BCKV, Mohanpur
Reader : Quendarisa Kharbuli, M.Sc., Ph.D. (Zoology), NEHU
Assistant Professor : Kuheli Biswas Das, M.Sc., Ph.D. (Zoology), NEHU

Courses Conducted

The UGC-ASC conducted the following courses during the year 2011-12:

Orientation Programme	Duration
14 th Orientation Programme	2/5/2011 to 29/5/2011
15 th Orientation Programme	2/5/2011 to 29/5/2011
16 th Orientation Programme	4/7/2011 to 31/7/2011
17 th Orientation Programme	13/2/2012 to 11/3/2012
18 th Orientation Programme	23/2/2012 to 21/3/2012

Refresher Courses	Duration
Refresher Course in Library and Information Science	27/4/2011 to 17/5/2011
Refresher Course in Hindi	20/5/2011 to 9/6/2011
Refresher Course in Education	30/5/2011 to 19/6/2011
Refresher Course in Botany	23/8/2011 to 12/9/2011
Refresher Course in Economics	12/9/2011 to 2/10/2011
Refresher Course in Geography	31/10/2011 to 20/11/2011
Refresher Course in Political Science	14/11/2011 to 4/12/2011
Refresher Course in History	21/11/2011 to 11/12/2011
Refresher Course in Commerce	21/11/2011 to 11/12/2011
Refresher Course in Zoology	28/11/2011 to 18/12/2011
Refresher Course in Philosophy	20/2/2012 to 11/3/2012
Refresher Course in Tribal Studies	12/3/2012 to 1/4/2012
Refresher Course in Chemistry	22/3/2012 to 11/4/2012
Refresher Course in Mathematics	22/3/2012 to 11/4/2012
Refresher Course in English	22/3/2012 to 11/4/2012

Short-Term Course/ Workshop	Duration
Short-Term Course for Academic Administrators	20/6/2011 to 25/6/2011
Workshop for Principal	24/6/2011
Short-Term Course in Research Methodology I	8/8/2011 to 13/8/2011
Short-Term Course in Research Methodology II	8/8/2011 to 13/8/2011
Short-Term Course in Disaster Management	7/2/2012 to 9/2/2012

Other Activities

Prof. Rakesh Mohan

- a) Delivered two lectures in the UGC sponsored Refresher Course in Environmental Sciences, UGC Academic Staff College, University of Burdwan, 17th October, 2011.
- b) Delivered two lectures in the UGC

sponsored Refresher Course in Social Sciences, UGC Academic Staff College, University of Hyderabad on 2nd November, 2011.

- c) Delivered two lectures in the UGC sponsored Orientation Programme, UGC Academic Staff College, Banaras Hindu University, on 30th January, 2012.

Central Services

- d) Attended the meeting with Peer Team members of NAAC for assessing the Academic Staff College, Maulana Azad National Urdu University, on 6th February, 2012.

Dr. Quendarisa Kharbuli

- a) Attended the National Seminar on 'Information Communication Technology (ICT) in Education' organized by the

Department of Education, NEHU, Shillong on 13th – 15th September, 2011.

Dr. Kuheli Biswas Das

- a) Attended the UGC-sponsored Refresher Course in Zoology on "Recent Trends in Zoology" organized by the UGC-Academic Staff College, NEHU, Shillong, 17th March - 6th April, 2011.

Bioinformatics Centre

Coordinator : Prof. Pramod Tandon .
Deputy Coordinator : Prof. Veena Tandon
Telephone : 2722312/1241/1242
Email : tandonveena@gmail.com

Thrust Areas

The Bioinformatics Centre (BIC) has been set up and funded by the Department of Biotechnology (DBT), Ministry of Science & Technology under the Biotechnology Information System Network (BTIS) Programme since November 1999 with a view to catering to the needs of the scientific community in the far-flung northeastern region of the country and to augmenting their research activities through information inputs. Rich in great variety of flora and fauna, the north-eastern part of the country has been identified as one of the bio-diversity 'hotspots'. Being a part of the national Bioinformatics Network, the Centre's mandate is Biodiversity Informatics and it serves as an information base in various areas of Biosciences. Some of the important areas of research are molecular characterization, genome organization and expression in plants, animals and microbes, oncology, parasitology, crop

improvement, microbial genetics etc. The most important area of research relevant to the northeastern region being biodiversity, the facilities of the Centre are extensively used for preparation of databases. Besides, extensive work on parasite genomics, proteomics and metabolomics, evolutionary bioinformatics and phylogeny have also been initiated, apart from providing support to all disciplines of research in biotechnology.

Courses Conducted

- i) DBT-sponsored State Biotech Hub Workshop on "In silico approaches in Biotechnology Research" September 05-09, 2011.
- ii) Training course in "Bioinformatics: A Practical Approach in Genomics and Proteomics" during September 26-29, 2011.

Publications

Malsawmtluangi C., Prasad P. K., Biswal D. K.,

and Tandon V. (2011) Morphological and molecular identification of the metacestode parasitizing the liver of rodent hosts in bamboo growing areas of Mizoram, Northeast India. *Bioinformation* 7(8): 393-399.

Tandon V., Biswal D. K., Prasad P. K. and Malsawmtluangi C. (2011) Reconstructing the Phylogenetic Relationships of the Cyclophyllidean Cestodes: A Case Study Using ITS2 rDNA and Sequence-Structure Alignment. In: Fred, A; Filipe, J; Gamboa, H. (Eds). *Biomedical Engineering Systems and Technologies, Communications in Computer and Information Science. Volume 127, 1st edition.* Springer-Verlag; Part 5, 309-321, DOI: 10.1007/978-3-642-18472-7_24.

Research Projects

Completed

b) "North-East Parasite Information and Analysis Centre (NEPIAC): an *in silico* approach" – Veena Tandon (PI), Devendra

Kumar Biswal (Co-PI) and S Ramachandran (Co-PI) in collaboration with IGIB, New Delhi and TCGA, New Delhi sanctioned by DIT (MCIT, GOI) (2008-2011).

Ongoing

- c) Collaborative project with JNU, New Delhi on "Next Generation Sequencing and Genome Information of Parasite Biodiversity of medico-veterinary significance in North-East India" to Veena Tandon (PI), Devendra Kumar Biswal (Co-PI) and Alok Bhattacharjee (PI) under DBT NER Twinning Programme (2011-14) vide sanction no. BT/48/NE/TBP/2010 dated March 14, 2011.
- d) Establishment of Portal for Indian Bioresource Information Network (IBIN) under National Bioresources Development Board (NBDB, DBT) (2011-2014) vide sanction no. BT/PR14571/NDB/52/187/2010 dated March 04, 2011.

Central Library

Librarian : Dr. I. Majaw

Telephone : 2721251 (o)

The NEHU Central Library continues to strengthen its book and journal collection with a keen intent to further improve library services by adopting the latest ICT available for libraries. During the year, apart from its printed book and journals, the Library provided links and organized the access to rich collection of e-resources available through the UGC INFONET Digital Library Consortium, INDEST-AICTE Consortium and DeLCON-Consortium. Statistics indicate that the total

number of full-text articles downloaded during the year was 2,03,516 with usage ranking at number 17 compared with other universities. Though the library's main objective is to support the information requirement of its academic community, it also extended its library facilities to other users from outside the university totaling more than 300 during the year. Library extension service as part of improving and modernization of college libraries was also taken. In this direction, a two-day User Awareness

Central Services

Programme on UGC-Infonet Digital Library Consortium and the National Library and Information Services Infrastructure for Scholarly Content (N-LIST) was conducted by the Central Library, NEHU, Shillong in collaboration with INFLIBNET Centre, Ahmedabad on 25th - 26th August 2011 at the NEHU Guest House Auditorium, NEHU Campus, Shillong. A total of 125 participants registered for the programme, and they included 10 College Principals, 34 College Librarians, 16 Assistant Professors, 2 Technical Officers, 51 Library Staff, 2 Research Scholars, 5 Students and 5 Officers of NEHU Central Library. Further, to fulfill the professional commitment, the library officers and staff provided exposure and training to MLISc students as part of the practical job diary and internship programme.

The library's proposal to implement Radio Frequency Identification (RFID) System materialized with the financial support from Plan Grant for Central Facilities. After following prescribed evaluative procedures the approved RFID system was implemented in the library on a new integrated library management system known as Koha. Data from the old system (LibSys) have been successfully migrated to the new environment. Once tagging and printing of SMART cards is completed, user-services will improve immensely which will benefit both library users and staff.

Other Details

- (I) Library Budget : Rs. 211.97 lakhs
- (II) Library Collection : Rs. 2, 67,467 Vols.
- (III) Data Bank
(Government
Publications &
Reports) : 248 Vols.

- (III) Books added during the Year : 5214 Vols.
- (IV) Periodical Subscription (Print)
 - (i) Foreign Journals : 150
 - (ii) Indian Journals : 149
 - Total : 299**
- (V) Revenue collected during the year by the Library : Rs. 1,79, 744/- lakhs

Enrollment, Usage and Other Services

- (I) Enrollment : 1534
- (II) Daily Average No. of Books issued/return/renewal : 423
- (III) No. of users who availed consultation services : 312
- (IV) Average internet users : 491 per day
- (V) Photocopying services : 1,48,612 copies
- (VI) Printing Services : 4827 copies
- (VII) Resources sharing under UGC INFONET Digital : 130 articles

Library Consortium Inter Library Loan Services using JCCC dispatched to universities

- (VIII) NEHU usage of UGC INFONET Digital Library : 2,03,516 articles
- Consortium e-journals depicted by total articles downloaded during the period.

Other Activities

- a. The Reference Section was reorganized with outdated and unusable documents removed from the shelves to create space for new and relevant documents.
- b. Wifi Internet Connectivity has been introduced in the newspaper and magazines section to ensure that e-resources available in NEHU could be accessed by library users through their portable devices from inside the library even during Saturdays and holidays thus increasing the usage of e-resources by library users.
- c. Valuable, rare and out of copyright books under the North-East Collection have been digitized (table of contents only) and uploaded into the NEHU Digital Repository for visibility as part of information dissemination.
- d. To equip the staff of the library with the skills to familiarize on the new system, sectional trainings were conducted in the library during the month of February-March 2012.
- e. Shri Manoj Rana, Assistant Librarian presented a paper entitled "Open Access Initiative: an Overview" at the National Seminar on "Information and Communication Technology in Education" organized by Dept. of Education, NEHU and Meghalaya Information and Technology Department, Government of Meghalaya on 13th -15th of September, 2011 at NEHU, Shillong. He also attended the "UGC – Sponsored Refresher Course in Library and Information Science" on 27th April – 17th May, 2011 at UGC-Academic Staff College, NEHU, Shillong and a three day "Green Belt Course on Six Sigma Methodology" organized by SQC and OR Unit of Indian Statistical Institute, Bangalore at St. Anthony's College, Shillong, Meghalaya, India on 5th – 7th March 2012.
- f. Shri F.R. Sumer, Deputy Librarian, attended a Training-cum-workshop on Statistical Package for Social Sciences (SPSS) organised by ICSSR-NERC, Shillong on 13th - 22nd February 2012 at ICSSR-NERC, NEHU Campus, Shillong. Also attended a 1 day meeting related with the signing of MOU between UGC INFONET Digital Library Consortium and Elsevier (India) on 2nd May 2011 at New Delhi, Delhi, India.

Library (Tura Campus)

Officer-in-charge : A.J. Singh, Asstt. Librarian
Telephone : 223107(o)

During 2011-2012 the Campus Library achieved outstanding progress. The Library continued to offer services like reference, circulation, bibliographic services,

OPAC, online access to e-journals & databases and Internet browsing facilities to the students, research scholars, faculty members and non-teaching staff of the campus. The details are

Central Services

given below.

Total Allocation	= Rs. 8.07.00 lakhs
Total Collection	= 2050 books
Total Journals	= 96
Total Members	= 365
Total Number of Xerox Exposures	= 26,668

Other Activities

- (i) Library provided orientation training to its new borrowers in the use of OPAC and introduced the library resources to them.
- (ii) It started Bibliographic Services on Demand to students and research scholars to speed up the research activities on the campus.

Computer Centre

Head : Professor P. Shukla
Telephone : 272-3751 (o)
Email : shukla@nehu.ac.in

Thrust Areas

Providing computation facility to faculty members, research scholars and students of the University; developing and maintaining software for the University; and conducting training programmes in computer related subjects.

Student Intake

Enrolment capacity: 80

	OBC	SC	ST	Gen	Male	Female	From Meghalaya	From Outside
Windows & MS-Office	2	1	96	8	43	64	107	Nil
C-Programming	3	6	3	20	20	12	32	Nil
Data Analysis	5	0	18	6	6	23	29	Nil
HW & Networking	0	0	22	2	22	2	24	Nil
MatLab	1	0	1	4	6	0	6	Nil
Visual Basic	0	0	4	0	3	1	4	Nil

Faculty Profile

Professors : Prof. P.Shukla, M.Sc. (IIT, Delhi), Ph.D.(Temple), *FNASc*

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Associate Professor	: Dr. T.K. Sinha, Ph.D. (NEHU)
Senior System Analyst	: Mr. P.P.Dey, B.Tech. (REC Warangal)
System Analyst	: Ms. Baphimon Rynjah, B.Tech. (JNTU College of Engineering, Kakinada), M.B.A. (IIT, Chennai)

Publications

Kharwanlang, R.S. and Prabodh Shukla, Analysis of wasp-waisted hysteresis loops in magnetic rocks, *Phys Rev E* 85, 011124(2012); cond-mat arXiv:1201.0065.

Khurbah, Lobisor and Prabodh Shukla, Hysteresis in the antiferromagnetic random-field Ising Model at Zero Temperature, *Phys Rev E* 83, 061136 (2011); cond-mat arXiv:1201.0586.

Pati, A. P., Bimal Debnath and T. K. Sinha, Prevention of Non-Performing Assets in Banks:

An Application of Artificial Neural Network, *PRAJNAN: Journal of Social and Management Sciences*, Vol XL, No. 4 2011-2012, pp. 271-288.

Other Activities

Professor P. Shukla visited Tata Institute of Fundamental Research as Visiting Professor on Dec 17-31, 2011. He served on expert committee of the UGC for major and minor research projects, and UGC-CSIR expert committees for NET.

Counseling and Placement Cell

Officer-in-Charge : Prof. S. Choudhury
Telephone : 2723606 (o)
Email : placement@nehu.ac.in

The Cell carried out the following activities during the year under report:

1. Organized a workshop on "Development of Industrial Oriented Skills" in the School of Technology, NEHU, Shillong from 11th to 14th April, 2011.
2. Tech Mahindra conducted a campus interview for the 8th Semester students of ECE & IT on 27th June, 2011 in the School of Technology NEHU, Shilong.
3. Skill enhancement lectures on "Perfect Graphs and one of Its Real Life Application

Abstract" were delivered by Prof. Rajpat Kumar Pal, Dean, School of Technology, Assam University, Silchar on 10th October, 2011 in the School of Technology, where students of the School participated.

4. A Two Day Hands-On Workshop on Enhancement of life Skills for students of M.A Education, M. Ed & Research Scholars was held on October 18-19, 2011 in the Community Hall. A total of 134 students participated in the workshop.
5. Recruitment drive by the Indian Army for

Central Services

- 3rd Year students of IT & ECE students was held on the 10th December, 2011 in the School of Technology.
6. Fujitsu Selection conducted a one-day recruitment drive on 24th Feb, 2012 for the students who passed out and final year students of School of Technology where a total number of 73 students appeared for the drive.
8. Infosys Bangalore conducted a recruitment drive for the 4th Semester students of Education, English & Linguistics departments on 4th April, 2012 in Education Department, NEHU, Shillong.

Equal Opportunity Cell

Officer-in-Charge : Smti. P. Warjri, Deputy Registrar
Telephone : 0364-2721063 (o)

Brief Statement of Activities

The Cell implemented all Government of India orders, the UGC guidelines and other instructions issued from time to time on the subject of reservation, etc. in coordination with Establishment-I & II Sections and the Office of

the Dean of Students' Welfare. The Cell also compiled data on the following positions of SCs/ STs at teaching and non-teaching levels and admission to various courses/degrees as on 31.03.2012:

(A) Teaching staff

Sl.No.	Name of the post	Total Post		In Position out of Total Filled						
		Sanctioned	Filled	Gen.	OBC	SC	ST	PWD	Total	Vacant
1.	Assistant Professor	204	139	119	3	4	13	Nil	139	65
2.	Associate Professor	146	95	89	Nil	1	5	Nil	95	51
3.	Professor	92	55	53	-	1	1	Nil	55	37
4	PRO/REA	1	-	-	-	-	-	-	1	1

(B) Non-Teaching staff

Sl.No.	Name of the post	Total Post		In Position out of Total Filled						
		Sanctioned	Filled	Gen.	OBC	SC	ST	PWD	Total	Vacant
1.	Group-A	69	60	60	-	-	-	-	60	9
2.	Group-B	185	137	134	-	1	1	1	137	48
3.	Group-C	614	483	482	-	-	-	1	483	131
4	Group-D	179	93	93	-	-	-	-	93	86

(A) Admission to various courses/degrees

Sl. No	Course/Degree	In Position out of Total Filled						Total	Vacant
		Filled	Gen.	OBC	SC	ST	PWD		
1.	UG	184	61	12	17	94	-	184	-
2.	PG	962	78	8	4	872	-	962	-
3.	M.Phil	30	5	2	6	17	-	30	-
4.	Ph.D.	150	37	13	5	95	-	150	-
5.	Others	39	5	-	-	34	-	39	-

Data and Voice Network (NDVN)

Officer-in-charge : Professor R. N. Sharan
Telephone : 272-2121 (o)
NDVN Facility numbers : 272-6195, 272-6196, 272-6197 and 255-1297
Email : admin@nehu.ac.in
Other Staff

Technical Officer : Mr. Ivan Lyngdoh
System Analyst : Mr. S. Nongkhlaw

The NEHU Voice and Data Network (NDVN) Facility, commissioned in 2003 as VSAT Facility, continued to provide data (Internet) and voice (telephony) access in a convergence mode to all academic and administrative departments

besides other facilities/buildings on the campus. Data connections of approximately 400 nodes comprising 30 numbers of 48-port Layer 2 (L2) switches were provided during the year to most departments having computer lab facilities.

Hindi Cell

Officer-In-Charge : Dr. Jay Narayan Nayak
Telephone : 2721053/2721106/2721107

In pursuance of the Official Language Policy of the Government of India and to promote the progressive use of Rajbhasha, a Hindi Cell is established in this University.

An Official Language Implementation Committee has been constituted in the

University for proper implementation of Rajbhasha Policy and to review the same from time to time. The Year 2011-12 was an eventful year as 3 new posts, i.e., one post of Hindi Officer, one post of Hindi Translator and one post of Hindi Typist have been created in this

University as per the directive of University Grants Commission.

During the year under report a Hindi Training programme for the employees of this University was conducted under the aegis of the Government of India's Hindi Teaching Scheme. Nine employees have completed Hindi Praveen course and three employees Hindi Prabodh course. All of them were awarded cash incentive as per the Government of India's Order.

The Departmental Official Language Implementation Committee held all the

mandatory meetings in every quarter. The Quarterly Report regarding progressive use of Hindi was forwarded to the Ministry of Human Resource Development and Ministry of Home Affairs, Govt. of India in time. Besides this two Hindi workshops were conducted at Shillong and Tura campuses. The "Hindi Divas" and a Hindi month were celebrated at both the campuses during September 2011. Several Hindi programmes and competitions for the employees were also held. The winners of the competitions were awarded consolation prizes.

Internal Quality Assurance Cell

Director : Professor S.K. Mishra

Telephone : 2723175 (o)

The University Grants Commission under XI Plan made a policy decision that all higher educational institutions may establish Internal Quality Assurance Cell (IQAC) to maintain the momentum of quality consciousness. The IQAC is conceived as a mechanism to build and ensure a quality culture at the institutional level. The IQAC is meant for planning, guiding and monitoring Quality Assurance (QA) and Quality Enhancement (QE) activities of the institution. Accordingly, the IQAC, NEHU aims at systematization of the efforts and measures of the University towards academic excellence. The following are the functions performed by the IQAC, NEHU during 2011-12:

1. The IQAC expanded its establishment and the office of the Director, IQAC was separated from the Computation, Management and Data storage room of the IQAC.

2. The Data storage and Computation facilities were created by procuring a Desktop Computer and Laser printer.
3. The IQAC assisted the University in preparing the roster of teachers in various categories (SC/ST/OBC/Unreserved) as well as preparing the advertisement for recruitment of the teaching staff in the University in accordance with the roster.
4. The IQAC assisted the University in collecting, collating and rationalizing the requirements of different Schools/Departments/Centres of Studies as well as the departments of Examination and Administration for preparing the XII Plan of the University for submission to the University Grants Commission.
5. The IQAC enriched the database on the Journal Impact Factor in different

- disciplines. It also assisted the teachers for assessing their API and enhancing their information regarding the Journal Impact Factor (and individual's h-index), whenever such assistance was required.
6. The IQAC assisted the University in preparing the introduction to the Semester System at the Under-Graduate level in its affiliated colleges.
 7. The IQAC assisted the University in scrutinizing and rationalizing the proposals of the Memoranda of Understanding (MOUs) of the University (originating from different departments) and the institutions in India/abroad desirous of having such MOUs with NEHU.

National Service Scheme

Programme Coordinator : Dr. Jemino Mawthoh
Telephone : 2721151, 2721152, and 2721153
Tele Fax : 2721151
Email : nss.nehu@gmail.com

The National Service Scheme (NSS) of Government of India envisages to utilize the free time of Higher Secondary schools, colleges and university students for socially productive works. An important feature of the NSS is that its programmes are organized by the student volunteers themselves under the guidance of their teachers as Programme Officers. The work undertaken by the college units are divided into Regular Activities and Special Camping. The current enrolment strength has reached 19,158 comprising volunteers from 2 PG units, 37 colleges, 23 higher secondary schools, 1 medical institute and SOS Children's Village with 91 NSS Programme Officers. The NSS, NEHU organized the following programmes during the year:

1. **Republic Day Parade Camp.** It was organized at NES A, Mawlai and the volunteers participated in such camps held in Bhubaneswar and New Delhi.
2. **Youth Exchange Programme in China.** Under this Mr. Shining Star Kharbuli and Ms. Nasima Choudhury, NSS volunteers of Shillong College, were nominated by the Ministry of Youth Affairs & Sports to visit China as members of the Indian Youth Delegation on 20th – 29th September, 2011.
3. **Youth Festival.** The NSS volunteers participated in such festival organized in Shillong and Mangalore.
4. **Summer Camp.** 14 NSS volunteers along with one Programme Officer of Synod College attended a NSS Mega Summer Camp at Pune on 18th – 28th June 2011.
5. **Adventure Programme.** The NSS volunteers participated in adventure programmes organized in Manali, Roing (Arunachal) and Nagaland.

Central Services

6. **National Integration Camp.** The NSS volunteers attended the camps held in Raigad (Maharashtra), Agartala, Imphal, Karnataka, and Calicut.
7. **Special Camps.** During the year 23 Special Camps were conducted as an integral part of NSS programmes under the theme "Healthy Youth for Healthy India".
8. **Disaster Management Programme.** The volunteers participated in such programmes held at Nongstoin College, Jaiaw Students' Field, Umiam, Synod College, State Central Library, and Civil Hospital in Shillong.
9. **Training Workshops.** The volunteers attended such workshops held at Sriprerempudur, Bhubaneswar, Tezpur University, Gauhati, Agartala and Shillong.
10. **Blood Donation Camp.** 9 such camps were organized during the year in different colleges of Shillong and Tura in which 146 volunteers participated and 146 units of blood were collected.
11. **Creation of Community Assets.** The volunteers with their manual labour contributed to the creation of community assets in different parts of Meghalaya.
12. **The NSS Day.** The 42nd NSS Foundation Day was celebrated on 27th September 2011. The Hon'ble Deputy Chief Minister & Minister of Sports & Youth Affairs, Govt. of Meghalaya, Shri. B.M. Lanong graced the occasion as Chief Guest. The University Level NSS Awards were also presented on the occasion.
13. **Other Activities.** The volunteers organized various other programmes like Anti-Terrorism Day, International Day for Biological Diversity, slogan writing competition, World No Tobacco Day, AIDS Awareness Campaign, World Blood Donors' Day, International Day against Drug Abuse and Illicit Trafficking, International Youth Day, World Environment Day, etc. during the year under report.

Publication Unit

Officer-in-Charge : Prof. T.B. Subba
Telephone : 2226316(o)
Email : tbsubba@nehu.ac.in

The NEHU Publication Unit was established with a view to promoting and undertaking publications in various academic areas and for different target groups of the University. It has mainly concerned itself with the publication of the University and some undergraduate

textbooks, supplementary reading materials, reference books, research works, particularly those relating to Northeast India, Endowment Lectures delivered in the University and official publications like the University Calendar, Acts and Statutes, Ordinances, the Annual Report,

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NEHU News (Quarterly) and *The NEHU Journal* (biannual). Apart from these, NEHU Publication Unit is also functioning as the official printer of the University with the printing press attached to it.

At present, the Unit has been undertaking almost all the printing jobs assigned to it by various departments and centres of the University. The Unit has acquired a double colour demy offset printing machine and will acquire other printing equipment to be able to undertake all the printing jobs emanating from all the departments and sections of the University. This is part of the Unit's endeavour to modernize the press. On the distribution front, though the Unit has tried to enter into contracts with some of the major distributors and book sellers in the city and the neighbouring states the process is slow but steady. Printing works of the following were undertaken during the period 2011-2012:

Printing of items relating to the Examination

Department.

Printing of items relating to the Printing and Stationery Section, NEHU.

Printing of *NEHU News* (Vol.10. No.1, Vol.10. No.2 and Vol.10. No.3)

Printing of *The NEHU Journal*, Vol.9. No.1, Vol. 9. No. 2.

Printing of study materials and booklets of the Centre for Distance Education, NEHU.

Printing of *NEHU Prospectus* (2011-12).

Printing of items relating to the 19th Convocation.

Printing of annual accounts of Finance Department (English and Hindi versions).

Printing of SOT placement brochure.

Printing of draft and final *Annual Report (2010)* with layout and cover design).

Publication of *European Perception of the Medieval North East* by Aniruddha Ray.

Sophisticated Analytical Instrument Facility

Head : Professor B. B. P. Gupta
Telephone : 2721801(o), 2550212 (FAX)
Email : gupta@nehu.ac.in

Scientific Staff

Professor* : R. P. Bajpai, M. Sc. (Phys., AMU), Ph. D. (Glasgow)
Sr. Scientific Officer : Taposh Chakraborty, M. Sc. /Ph. D. (Physics, NEHU)
Scientific Officers : Sudip Dey, M. Sc./Ph. D. (Zoology, NEHU)
Begonia Dkhar, M. Sc. (Zoology, NEHU), Ph. D. (GU)
Debashish Dey, M. Sc. (Chemistry, NEHU), Ph. D. (RDU)

Central Services

P. S. Dkhar, M. Sc. (Biochemistry, NEHU), Ph. D. (Biophysics, NEHU)
S. K. Prasad, M. Sc. (Biochemistry, NEHU)
J. M. Sohtun, M. Sc. (Biochemistry, NEHU)

*Temporarily attached to SAIF (Retired on 31st July, 2011).

Thrust Areas

The Department of Science and Technology (DST) has provided facilities for sophisticated analytical instruments to researchers through its Sophisticated Analytical Instrument Facilities (SAIF) Programme so that the non-availability of these instruments in their institutes may not come in the way of scientists in pursuing R&D activities requiring such facilities and they are able to keep pace with developments taking place globally. It provides facilities like scanning and transmission electron microscopic studies of biological and material science samples; 1-D and 2-D NMR spectra of biological and chemical samples in liquid/solution phase; Trace element analysis in biological, chemical and industrial samples; Mass spectra of compounds, and supply of liquid nitrogen to academic, research and industrial institutions.

Seminars/Conferences/Symposia/extension programmes/ workshops/ Training etc.

Organised

- (i) Workshop on “Basic Principles of Transmission Electron Microscopy and its Applications in Material Sciences” from 13th to 15th March, 2012.
- (ii) Workshop on “Application of NMR in Chemical and Biological Sciences” from 20th to 23rd March 2012.
- (iii) Workshop on “Basic Principles of Scanning Electron Microscopy and its applications in Material Sciences” from 27th to 29th March, 2012.
- (iv) One day “Agilent’s measure of

Confidence Seminar” on 14th September, 2011.

Publications

Published Abroad

Dey, S. and S. Singh, 2011. A Scanning Electron Microscopic Study on the Sensory System of Abdominal Cuticle and Prolegs in Different Larval Stages of *Antheraea assamensis*, an Endemic Silk Moth Species of North East India *Journal of Advanced Microscopy Research*, 6, 232-239.

Prasad, S. K., S. Dey and O. P. Singh, 2011. A Scanning and Transmission Electron Microscopic Study on the Effect of Environmental Acid Stress on a Hill Stream Fish (*Brachydanio rerio*) Gill. *Journal of Advanced Microscopy Research*, 6, 255-262.

Dey, S., S. Singh, R. Chakraborty, S. Chaudhury, R. N. K. Hooroo and D. K. Sharma, 2011. Scanning Electron microscopic studies on thoracic sensilla of different larval stages in the ‘MUGA’ silk moth, *Antheraea Assamensis*, and their role in feeding. *Séricologia*, 51, 315-340.

Dey, S. and S. M. Kharbuli, 2011. *Electron microscopy and related studies on a hill stream fish*. Lambert Academic Publishing, ISBN: 3846537586.

Funds Received from Agencies other than NEHU

DST, Govt. of India, New Delhi,
Non Plan : Rs.14,00,000.00
Plan : Rs.87,83,284.00
Total Revenue
Earned : Rs.22,79,446.00

Sports Department

Teacher-in-charge : Dr. L. Cajee
Telephone : 2723212 (o)

The Sports Department organised the NEHU Games 2012 from 26th to 30th March 2012. Ms. Ampareen Lyngdoh, Minister of Urban Affairs, Government of Meghalaya was the Chief Guest at the opening function and declared the NEHU Games 2012 open. Shri. B.M. Lanong, Deputy

Chief Minister, Government of Meghalaya, was the chief guest at the closing ceremony and gave away the trophies. The various games organized included basketball, volleyball, table tennis, badminton, carom, and chess.

Students' Welfare

Dean Students' Welfare : Prof. R. N. Sharan
Telephone : (0364) 272 1181; 1182
Email : dsw@nehu.ac.in
Provost : Prof. D.K. Nayak
Telephone : (0364) 272 1183
Email : dknak@gmail.com

The office of the Dean of Students' Welfare continues to serve as the nodal agency for students' services and their welfare. The major concerns of the office have been the management of the Halls of Residences of the post-graduate, under-graduate and research students, generating and issuing of computerized identity cards to all students, organizing academic study tours through the

departments, co-ordination of students' sports and cultural activities, conduct of elections to the Students Union, award of Ph.D. / M. Phil. / Non-Net Fellowships and post-graduate scholarships, grant to outstanding students, and grant of Students' Aid to economically weak students. This office also facilitates admission of foreign students.

Residence in Hostels

The number of Students who were given hostel accommodation during the year 2011-2012 is as follows:

		ST	SC	GEN	OBC	Total
R. S.	Men	99	12	63	23	197
	Women	92	18	56	32	198
P. G.	Men	304	3	48	17	372
	Women	353	6	22	11	392

		ST	SC	GEN	OBC	Total
U. G.	Men	198	60	135	48	441
	Women	285	15	40	18	358
Foreign Students	Men			7		7
	Women					
TOTAL		1331	114	371	149	1965

Central Services

Study Tour

The office coordinated the study tours of the following thirteen academic departments of Shillong Campus: (I) History, (II) Economics, (III) Adult & Continuing Education, (IV) Hindi,

(V) Statistics, (VI) Anthropology, (VII) Botany, (VIII) Biotechnology & Bioinformatics, (IX) Cultural & Creative Studies, (X) Geography, (XI) Environmental Studies, (XII) Library & Information Science, and (XIII) Zoology.

Women's Cell

Chairperson : Prof. S. M. Sungoh
Telephone : 2721071 (o)
Email : smsungoh@yahoo.com

During the year under report the Cell organized two lectures on "Legal Awareness on rights of Women" for students in the Department of Education on September 6, 2011. The Chairperson of the Cell participated in the

discussion on Women's Education: Issues and Efforts for Convergence at a regional conference organized by the Government of Meghalaya, Directorate of Social Welfare, Shillong on 7-8 February 2012.

Health Centre

NEHU Health Centre has two branches - one at Permanent Campus, Mawlai, Shillong and the other at Bijni Complex, Laitumkhrah, Shillong

catering to the health needs of teaching, non-teaching staff along with their dependents and the students.

The Health Centre has the following staff members

Chief Medical Officers : Dr. M. Marwein and Dr. I. Hussain
Medical Officers : Dr. C. Mukhim and M. B. G. Momin

The following facilities are available at the Health Centre:

1. **Consultation** : Medical Officers are available for consultation at fixed hours as well as for emergency consultation outside duty hours.
2. **Pharmacy**: The required medicines are purchased from the wholesale suppliers and stocked at the medical store. These medicines are issued to the patients based on the prescription by the doctors.
3. **Dressing Room** : Dressing, injections and minor surgical procedures are carried out in the dressing room.
4. **Laboratory** : Bio-Chemical and clinical pathology tests for blood and urine analysis are performed in the Health Centre.

5. **In-patient Treatment** : Patients requiring in-patients treatment are referred to the hospitals/Specialist within Shillong thereafter outside Shillong depending upon the necessity.
6. **Ambulance** : Ambulance service is provided during emergency for transporting the severely sick patients from residents to Clinic/Hospitals.
7. **Emergency Duty**: The resident Medical Officers and resident Nurse are doing emergency duty outside duty hours whenever needed.
8. **Sports** : First Aid Service is provided at sports tournament organized by the University.

Chapter XI

MEMBERS OF STATUTORY BODIES

The Academic Council

Ex-Officio-Members

- (i) Vice-Chancellor,
- (ii) Pro-Vice-Chancellor
- (iii) Deans of Schools
- (iv) Dean of Students' Welfare
- (v) Heads of Departments and Centres of Studies
- (vi) Librarian
- (vii) Principals of Colleges maintained by the University
- (viii) All Professors other than the Heads of Departments and Centres, to be nominated by the Vice-Chancellor.

Prof. A.N. Rai *Chairman*
Vice-Chancellor
NEHU, Shillong

Prof. D.R. Syiemlieh *Member*
Pro-Vice-Chancellor
Shillong Campus.

Prof. E.D. Thomas *Member*
Pro-Vice-Chancellor
Tura Campus

All Professors

All Heads of Departments/Centres

Dean Students' Welfare Prof. R.N. Sharan

Librarian Dr. I. Majaw.

Six Principals of colleges admitted to the privileges of the University

1. St. Mary's College
2. Union Christian College
3. Shillong College
4. Tura Govt. College
5. Shillong Law College
6. Don Bosco college

Five teachers of the University, by rotation according to seniority of which two are Associate Professors and three Assistant Professors

Associate Professors

1. Dr. I.L. Aier, Department of Sociology
2. Dr. K. K. Singh, Department of Mathematics

Assistant Professors

1. Dr. N. K. Singh, Department of Geography
2. Ms. N. Ganguly, Department of English
3. Shri R. S. Thakur, Department of English, Tura

Four persons, not being employees of the University or of a college and nominated by the Visitor

1. Dr. R.Venkata Rao, Vice-Chancellor, National Law School of Indian University, Bangalore
2. Prof. Ralte Lalthantlunaga, Vice-Chancellor, Mizoram University, Aizawl

Members of Statutory Bodies

- | | | | |
|----|---|----|--|
| 3. | Prof. Kasturi Dutta, Senior Scientist and Professor, Environmental Sciences, JNU, New Delhi | 3. | Shri Abhijit Choudhury, St. Edmund's College |
| 4. | Prof. A. K. Roy Chaudhuri, Director, S. N. Bose National Centre for Basic Sciences, Kolkata | 4. | Shri K. D. Ramsiej, Shillong College |
| | | 5. | Shri Louis Pyngrope, Lady Keane's College |
| | | 6. | Shri Herbran Syiem, St. Anthony's College |

Six teachers of the colleges admitted to the privileges of the University

1. Dr. Bipin Kumar Thakur, Mendipathar College
2. Shri B. D. Majaw, Sankardev College

Permanent Invitee(s)

1. The Director, College Development Council
2. The Controller of Examinations
3. The Registrar, Secretary (Ex-Officio)

The Board of Research Studies

Vice-Chancellor, Ex-Officio Chairman

Prof. A.N.Rai
Vice-Chancellor
NEHU, Shillong.

Pro-Vice-Chancellors, Members

Prof. D.R. Syiemlieh
Pro-Vice-Chancellor
NEHU, Shillong Campus.

Prof. E.D. Thomas,
Pro-Vice-Chancellor
NEHU, Tura Campus.

Dean of Schools, Ex-Officio Members

1. Dean, School of Life Sciences, Shillong.
2. Dean, School of Humanities, Shillong.
3. Dean, School of Physical Sciences, NEHU, Shillong.
4. Dean, School of Social Sciences, Shillong.
5. Dean, School of Economics Management & Information Sciences,
6. Dean, School of Human and Environmental Sciences.
7. Dean, School of Education
8. Dean, School of Technology.

Heads of Departments and Centre of Studies, Ex-Officio Members

All Professors other than the Heads of Departments and Centres, Ex-Officio Members

Six Associate Professor nominated by the Vice-Chancellor, three of which are from Humanities & Social Sciences and three from Sciences-Members

1. Dr. (Mrs) J.J. Mozika, Department of Law, Shillong
2. Dr. A.P. Pati, Department of Commerce, Shillong.
3. Dr. J. Mawthoh, Department of Adult & Continuing Education, Shillong.
4. Dr. D. Paul, Department of Environmental Studies, Shillong.
5. Dr. P.K. Saikia, Department of Mathematics, Shillong.
6. Dr. A.K. Dixit, Department of Zoology, Shillong.

Four external experts, two representing Humanities and Social Sciences and two representing Sciences are appointed by the Vice-Chancellor

1. Prof. Akhilesh Choube, Department of Education, Lucknow University, Lucknow.
2. Prof. Kapil Kapoor, (Formerly Rector, JNU), B.2/332, Ekta Gordens, No. 9, ZP Extension, New Delhi - 110092.
3. Prof. L.C. Rai, Department of Botany, Banaras Hindu University, Varanasi-5
4. Prof. Diptiman Sen, Centre for High Energy Physics, Indian Institute of Science, Bangalore - 560012.

Secretary (Ex-Officio), Registrar, NEHU, Shillong.

The Executive Council

<p>Prof. A.N. Rai Vice-Chancellor, NEHU. Fax No: 03642550076 Ph.No: 2721001/2721002/2550074(R) <i>e-mail: vcnehu@nehu.ac.in</i></p>	<p>Chairman</p>	<p>Principal Tura Law College, Tura</p>	<p>Member</p>
<p>Prof. E.D. Thomas Pro-Vice-Chancellor, NEHU, Tura Campus, Tura.</p>	<p>Ex-officio-Member</p>	<p>Director Higher & Technical Education, Govt. of Meghalaya, Shillong. Fax No: 22286015 Ph: 2226015 (M) 9863028845. <i>e-mail: dhitemeghalaya@yahoo.com</i></p>	<p>Member</p>
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<p>Dr. M.K. Das Department of Statistics, NEHU, Shillong.</p>	<p>Member</p>	<p>Dr. D.K. Singh Professor of French, Banaras Hindu University Varanasi-221005 Tel. No: 0542-2369092/09336935545(M) <i>E.Mail: dksingh15@rediffmail.com</i></p>	<p>Visitor's Nominee</p>
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The University Court

Chancellor, Ex-Officio Chairman

Prof. M.G.K. Menon,
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Vice-Chancellor, Ex-Officio Member

Prof. A.N. Rai
Vice-Chancellor,
NEHU, Shillong

Pro-Vice-Chancellor, Ex-Officio Member

Prof. D.R. Syiemlieh
Pro-Vice-Chancellor,
NEHU Campus,
NEHU, Shillong.

Pro-Vice-Chancellor, Ex-Officio Member

Prof. E.D. Thomas
Pro-Vice-Chancellor,
NEHU, Tura Campus

Dean, Students Welfare, Ex-Officio Member

Prof. R.N. Sharan
Dean, Students' Welfare.

Registrar, Ex-Officio Secretary

Shri Lambha Roy

Librarian, Ex-Officio Member

Dr. I. Majaw

Proctor, Ex-Officio Member

Dr. H. Kayang

Finance Officer, Ex-Officio Member

Shri Taliremba

Deans of Schools, Ex-Officio Members

1. Dean,
School of Humanities
2. Dean,
School of Life Sciences

3. Dean,
School of Physical Sciences

4. Dean,
School of Social Sciences

5. Dean,
School of Economics,
Management & Information Sciences

6. Dean,
School of Human and
Environmental Sciences

7. Dean, School of Technology

8. Dean,
School of Education

All Professors, Ex-Officio Members

Professor other than the Heads of Departments and Centres, Ex-Officio Members

Heads of Departments who are not Professors, Ex-Officio Members

Two Associate Professors who are not Heads of Departments and two Assistant Professors appointed by rotation in the manner prescribed by Ordinances.

1. Dr. M. K. Das, Associate Professor
Department of Statistics

2. Dr. L.R. Saha, Associate Professor
Department of RDAP

1. Shri. N. Parthasarathy,
Assistant Professor
Department of Philosophy

2. Dr. S.N. Sharma, Assistant Professor
Centre for Distance Education

Seven Principals of colleges in the State of Meghalaya.

1. Principal,
Bormanik College, Shillong.

2. Principal,
St.Dominic College, Shillong.

3. Principal,
Shillong Engineering & Management,
Shillong.

4. Principal,
Wiliamnagar College, Wiliamnagar.

5. Principal,
Christian Academy College, Shillong.

6. Principal,
Mawlai Presbyterian College, Shillong.

7. Principal,
KL Bajoria College, Shillong.

Four teachers from affiliated colleges of the State of Meghalaya.

1. Ms.Devaleena Bhattacharjee
Sl.Grade Lecturer,
Lady Keane College, Shillong.

2. Smti. R. Merika Nongtdu
Head, History Department
Jaintia Eastern College, Jaintia.

3. Dr.(Ms) Jaya G. Choudhury, Lecturer
St.Mary's College, Shillong.

4. Shri Omprakash Sharma, Lecturer
Tura Law College, Tura.

Four Lok Sabha members are nominated by the Speaker and two Rajya Sabha are nominated by the Chairman of Rajya Sabha

LOKSABHA

1. Shri Gurudas Dasgupta
15 Canning Lane
New Delhi – 110001
OR
78, Chelta Road,
Kolkata – 700 027
2. Shri Ramen Deka
158 South Avenue
New Delhi – 110 011
3. Smti. Rancee Narah
M-16, South Extension
Part-II
New Delhi – 110 049
4. Shri Sushil Kumar Singh
27, Old Court Hostel
New Delhi
OR
“Singh Kjothi”,
Old GT Road
Aurangabad – 824 101

RAJYASABHA

1. Shri Rishang Keishing
Mantri Pukhri,
Imphal Manipur,
&
12, Talkatora Road, New Delhi-110001.
2. Shri Matilal Sarkar
Village Milan Sangha
P.O.A.D.Nagar, Agartala, Tripura.
&
Flat No.107 & 504,
V.P.House, Rafi Marg,
New Delhi-110001.

Ten members representing learned professions and special interests are nominated by the Visitor

1. Prof. T.P. Singh
Ex Dean, Faculty of Law,
Barkatullah University, Bhopal-462026.
2. Prof. L.K. Maheshwari
Vice-Chancellor, BITS and Director of
BITS, Pilani Campus, Pilani-333031
3. Dr. Biswajit Dhar
Professor & Head of the Centre,
Indian Institute of Foreign Trade,
New Delhi-110016
4. Shri Dileep Padgaonkar
Ex-Managing Editor, *Times of India*.
5. Prof. G.C.Khilmnani
Professor of Medicine,
All India Institute of Medical Sciences,
New Delhi-110029
6. Professor S. Parasuraman
Director, Tata Institute of Social Sciences,
P.O. Box-8313, Mumbai-400088
7. Shri Satish Chander Gupta, Chairman and
Managing Director, United Bank of India,
11, Hemant Basu Sarani Kolkata-700001
8. Prof. P. Balaram
Director, Indian Institute of Science,
Bangalore, Gulmohar Marg, 560012
9. Dr. Mangala Rai
Director General, Indian Council of
Agricultural Research, New Delhi-110012
10. Dr. Mohandas A.
Professor Emeritus, NCAAH Cochin
University of Science & Technology Fine
Arts Avenue, PB No.2341, Cochin-
682016,

Not more than five persons are nominated by the Visitor

1. Prof. R.S. Dubey
Department of Bio-Chem
BHU, Varanasi-221005
2. Prof. Anil K. Singh
Professor, Indian Institute of Technology,
Mumbai.
3. Prof. G. Padmanabhan
Department of Biochemistry, Indian
Institute of Science, Bangalore – 560 012
4. Vice-Chancellor, Shri Mata Vaishno,
Devi University, Sub-Post Office, Katra
Jammu & Kashmir-182320

Two persons nominated by the Chancellor

1. Prof. Amit Ghosh
Emeritus Scientist, ICMR National
Institute of Cholera and Enteric Diseases
P-33, CIT Scheme XM Beliaghata
Kolkata -700010.
2. Mrs. Manju Sharma
B9/6496[FF] Vasant Kunj, New Delhi 110070.

Not more than two persons are nominated by the Chief Rector

1. Shri I.K. Sangma
Retd. Secretary of MBOSE Meghalaya
C/o, Tetengol, Tura.
2. Smti. M. Marwein
Retd. Joint Director, HTE, Meghalaya
C/o, Jaiawlangning, Shillong-793002.

Two members of the Non-Teaching Staff nominated by the Vice-Chancellor

1. President, Non-Teaching Staff
Association, NEHU, Shillong.
2. General Secretary, Non-Teaching Staff
Association, NEHU, Shillong.

Two representatives from the State of Meghalaya nominated by State Government

1. Shri W. Synrem, IES
Director, Higher & Technical Education,
Department of Education, Shillong.
2. Shri. J.D. Sangma,
Director Elementary & Mass Education,
Shillong.

Member of the Executive Council, who are not otherwise members of the Court

1. Director of Higher and Technical
Education, Government of Meghalaya,
Shillong.
2. Principal,
Seng Khasi College, Shillong.
3. Principal, Tura Law College Tura
4. Prof. L.K. Maheshwari
Vice-Chancellor, BITS and Director of BITS
Pilani Campus, Pilani -33303, Rajasthan
5. Prof. G. C. Khilnani
Professor of Medicine, All India Institute
of Medical Sciences New Delhi -110029
6. Dr. D.K. Singh
Professor of French Banaras Hindu
University, Varanasi-221005
7. Dr. Mohandas A.
Professor Emeritus, NCAAH Cochin
University of Science & Technology Fine
Arts Avenue, PB No.2341, Cochin-
682016,
8. Prof. S.S. Singh
Director, National Law Institute
University Bhopal – 462044, Madhya
Pradesh
9. Prof. Virginius Xaxa
Professor of Sociology, University of
Delhi, Delhi - 110007.