SIKKIM UNIVERSITY

(A central university established by an Act of Parliament in 2007)



Annual Report 2012-13

6th Mile, Samdur, PO. Tadong Gangtok 737 102 www.sikkimuniversity.ac.in

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From the Vice-Chancellor's Desk

I joined Sikkim University half way through the year under report, on 15th of October. When I arrived I saw some very encouraging and a few disheartening developments. One of the heartening things was a highly disciplined and committed teaching and administrative staff with a very high level of work ethics. Secondly, most of the employees were young and energetic. Thirdly, the University community was mixed in terms of caste, creed and religion. Finally, there was hardly any discrimination based on caste or sex and there was no incidence of ragging. On the darker side, the University was kind of isolated from the local society and the state government. The local people did not consider the University as their university and even created hurdles in the smooth functioning of the University when it was not according to their liking. The recruitment of many administrative staff was half completed and pending for more than six months and there was no sign of campus land. The University's Executive Council had even approved the purchase of two pieces of land in the vicinity of Gangtok for the purpose of building the University campus. Above all, the statutory posts except that of the Librarian were vacant, leaving the University administratively weak and vulnerable.

While the good aspects continued through the year some of the handicaps of the University could be partly overcome during the year under report. The University was transferred 265.94 acres of land on January 25, 2013 and the remaining 34.06 acres are being transferred soon. The University could complete the half-done recruitment process in the case of some administrative staff without any resistance from any quarters and there were less adverse remarks on the University in the local newspapers than in the previous years. The local people and the state government generally seemed to have accepted the University.

In view of the above I look forward to a bright future for our university. A lot more can be done to make the youths of the country in general and that of the state in particular more employable, more committed to the nation, and more confident once we move to our own campus. When we actually do that there will be other challenges but those challenges will be worth taking on in the name of institution building, which is nation building too.

T. B. Subba

About Sikkim University

Sikkim University was established as a central university by an Act of Parliament on 2nd July, 2007 to fulfill the following objectives:

- (I) To disseminate and advance knowledge by providing instructional and research facilities in such branches of learning as it may deem fit,
- (ii) To make provisions for integrated courses in humanities, natural and physical sciences, social sciences, forestry and other allied disciplines in the educational programmes of the University,
- (iii) To take appropriate measures for promoting innovations in teaching-learning process, inter-disciplinary studies and research,
- (iv) To educate and train manpower for the development of the State of Sikkim, and
- (v) To pay special attention to the improvement of the social and economic conditions and welfare of the people of that State, their intellectual, academic and cultural development.

Mission Statement

The University aims to be the hub of higher education in the Eastern Himalayas, focussing on both access and quality of higher education at an affordable cost for the poor but deserving students of the country in general and Sikkim in particular.

Visitor and Chief Rector

- Sri Pranab Mukherjee, Hon'ble President of India, is the Visitor of the University.
- Shri B.P. Singh, Hon'ble Governor of Sikkim, was the Chief Rector of the University during the year under report.

Location and Means of Transport

The University is currently functioning from hired buildings in and around Gangtok. The University has already started the process of campus building on a 300 acre land at Yangang in South Sikkim, which is 28 kms from Singtam, which is same as the distance between Singtam and Gangtok. On the northern fringe of the campus is a tourist village with traditional houses, ultra-modern conferencing facilities, children's park, etc. and on its western front lies the upcoming skywalk at a height of about 11 thousand feet asl atop Bhaledhunga overlooking the University campus. Bhaledhunga is a prime destination of the adventure tourists and accessible from the campus through a trek route.

The nearest airport for visiting the University is Bagdogra, off Siliguri city located in the foothills of Darjeeling. The distance between the nearest airport and Gangtok is about 124 kms. A helicopter service is operated by the Sikkim Tourism Development

Corporation daily between Bagdogra and Gangtok. Taxis are also available for travel between Bagdogra Airport and Gangtok. The nearest railway station is New Jalpaiguri Station, which is also about 125 kms from Gangtok. All trains to and from Northeast India stop at this station Gangtok is connected by road with Siliguri, Darjeeling and Kalimpong by the National Highway 31A. There are regular Sikkim Nationalised Transport buses between Gangtok and Siliguri. Private buses and light vehicles can also be hired from Siliguri and Bagdogra for coming to Sikkim.

The University has the following departments with programmes mentioned within brackets:

- 1. Anthropology (MA/MSc)
- 2. Chemistry (MSc, MPhil/PhD)
- 3. Chinese (5-yr integrated BA-MA)
- 4. Commerce (MCom)
- 5. Computer Applications (5-yr integrated BCA-MCA)
- 6. Economics (MA/MSc, MPhil/PhD)
- 7. Education (MA)
- 8. English (MA)
- 9. Botany (MSc, MPhil/PhD)
- 10. Geography (MA/MSc, MPhil/PhD)
- 11. Geology (5-yr integrated BSc-MSc)
- 12. Hindi (MA)
- 13. History (MA, MPhil/PhD)
- Horticulture (6-yr integrated BSc-MSc, MPhil/PhD And 1 Year PG Diploma In Tea Management)
- 15. International Relations (MA, MPhil/PhD)
- 16. Law (7-yr integrated BA-LLB, LLM)
- 17. Management (MBA)
- 18. Mass Communication (MA, MPhil/PhD)
- 19. Mathematics (MA/MSc)
- 20. Microbiology (MSc, MPhil/PhD)
- 21. Music (5-yr integrated BPA-MPA)

- 22. Nepali (MA, MPhil/PhD)
- 23. Peace and Conflict Studies and Management (MA, MPhil/PhD)
- 24. Physics (MSc, MPhil/PhD)
- 25. Political Science (MA)
- 26. Psychology (5-yr integrated Bsc-MSc, MA/MSc)
- 27. Sociology (MA, MPhil/PhD)
- 28. Tourism (MA)
- 29. Zoology (Msc)

Affiliated Colleges

The following colleges are affiliated to Sikkim University:

- i. Sikkim Government College, Gangtok (East Sikkim)
- ii. Rhenock Government College, Rhenock (East Sikkim)
- iii. Namchi Government College, Namchi (South Sikkim)
- iv. Sikkim Government Law College, Burtuk (East Sikkim)
- v. Government B.Ed College, Soreng (West Sikkim)
- vi. Dambar Singh College, Gangtok (East Sikkim)
- vii. Palatine College, Pakyong (East Sikkim)
- viii. Loyola College of Education, Namchi (South Sikkim)
- ix. Harkamaya College of Education, Gangtok (East Sikkim)
- x. Himalayan Pharmacy Institute, Majhitar (East Sikkim)
- xi. Gyalshing College (West Sikkim)

Officers of the University

As per Section 10 of the SU Act, 2006 the following are the officers of the University:

Chancellor: Justice (Mrs) Ruma Pal Vice-Chancellor: Professor T. B. Subba

Pro-Vice-Chancellor: Vacant

Deans of Schools: Professor J. P. Tamang and Professor Pratap C. Pradhan

Registrar: Sri K. M. Deb (officiating)

Finance Officer: Sri Dibakar Kanunjna (officiating)
Controller of Examinations: Dr. Suresh Gurung (officiating)

Librarian: Dr. Tamal Kr. Guha

Academic Council Members

SI. No.	Functionary	Designation
1,	Prof. T. B. Subba Vice-Chancellor, Sikkim University Deans of Schools	Ex-officio Chairman
	D will of Soldon	
2.	Prof. Jyoti Prakash Tamang, Dean, School of Sciences; Policy Planning & Studies	Ex-officio Member
3.	Prof. Pratap Chandra Pradhan, Dean, School of Social Sciences & Humanities	Ex-officio Member
4.	Dr. Dhanîraj Chettri, Dean of Students' Welfare	Ex-officio Member
	Heads/Chairpersons of Departments and Centres of Studies	,
5.	Dr. Subir Mukhopadhyay, Associate Professor & Head, Department of Physical Sciences	Ex-officio Member

6.	Dr. Sohel Firdos,	
0,	Associate Professor & Head,	
	Department of Geography & Natural Resources	Ex-officio Member
	Management	
7.	Dr. N.K. Paswan,	
'	Associate Professor & Head,	Ex-officio Member
	Department of Peace, Conflict Studies & Management	EX officio (viettise)
8.	Dr. V. Krishna Ananth,	
0.	Associate Professor & Head,	Ex-officio Member
	Department of Journalism & Mass Communication	12x officio iviernosi
9.	Dr. A.N. Shankar,	
).	Associate Professor & Head,	Ex-officio Member
	Department of Management & Commerce	Ex-officio ivicinoci
10.	Dr. N. Sathyanarayana,	
10.	Associate Professor & Head,	Ex-officio Member
	Department of Ethno-botany & Social Medicine Studies	Ex-officio Metriber
11.	Dr. H.K. Tiwari,	
11.	Associate Professor & Head,	Ex-officio Member
		FX-Officio Member
12,	Department of Microbiology	
14.	Dr. Manish Srivastava, Associate Professor & Head,	Ex-officio Member
	, , , , , , , , , , , , , , , , , , ,	Ex-officio Mefficei
12	Department of International Relations/Politics	
13	Dr. Kabita Lama,	Ex-officio Member
	Associate Professor & Head,	EX-Officio Michibel
1.4	Department of Nepali Language & Literature	
14.	Dr. S. Manivanan,	Live official Manufacture
	Associate Professor & Head,	Ex-officio Member
1.5	Department of Floriculture & Horticulture Management	
15.	Dr. Manesh Choubey,	Ex-officio Member
	Associate Professor & Ilead,	Ex-officio Member
1.6	School of Policy Planning & Studies The University Libraries	E. officia Manufacu
16.	The University Librarian	Ex-officio Member
17.	Controller of Examinations	Ex-officio Member
	One Professor and One Associate Professor other than tho	
	(5) from each School of Studies, Special Centres by rotal	ation in order of senionly within the
10	School.	1
18,	Dr. Amitabha Bhattacharya,	Liv officio Morekan
	Associate Professor,	Ex- officio Member
	Department of Physical Sciences	
	Principals of Affiliated Colleges	1 4 17 61 11 11 11
	Two Principals of the affiliated Colleges to be nominated	by the Vice Chancellor: provided the
	Principal should be a full-fledged as per UGC rule	

19.	Dr. M.P. Thapa	
' /-	Principal	
	Namchi Govt. College	Member
	Kamrang, Namehi 737 126	
20.	Fr. (Dr.) Daniel Bara	
ZV.	Principal	
	Loyala College of Education	Member
	Namehi 737 126	
	Visitor's Nominees	1
	¥ 131101 3 14011111663	
	Five persons, not being employees of the University or of	a college or institution by or affiliated
	to it, to be nominated by the Visitor for their special knowl	
21.	Prof. Peter Ronald de Souza,	
	Director	
	Indian Institute of Advanced Study	Member
	Rashtrapati Nivas, Shirnla - 171 005	
22.	Prof. S.S. Singh,	
	Director,	
	The National Law Institute University,	Member
	Bhadbhada Road,	
	Bhopal – 462044	
23.	Shri Tashi Densapa	
	Director	
	Namgyal Institute of Tibetology	Member
	Deoralı	
	Gangtok - 737 101	
24.	Smt. Keepu Tshering Lepuha	
	Social Activist	Member
	Civil Servant & Padma Shri Awardee – 2009	
	Gangtok - 737101	
25.	Professor Rajkishor Gupta	
	Head Department of Economics	
	Director, School of Social Sciences	
	North Maharashtra University	Member
	Post Box no 80	Nichael
	Nagpur-Surat National Highway no 6	
	Jalgaon-425001	
	Maharashtra	
	Vice-Chancellor's Nominees	
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	Two persons, not being employees of the University or of	a conege or institution by or altituded
	to it, to be nominated by the Vice-Chancellor.	
26.	Prof. S.F. Patil	Member
-0.	Executive Director	IVICITIOCI
	International Affairs (Research & Training)	
	Bharati Vidyapeeth Deemed University	
	Bharati Vidyapeeth Bhavan	
	Lal Bahadur Shastri Marg	
	Punc – 411 030	
27.	Lt. Gen Aditya Singh, PVSM, AVSM (Rtd)	
	T-11/8, DLF City Phase III	
	Gurgaon, 122 002-03	Member
	Haryana	
	Registrar, Sikkim University	Ex-officio Secretary
	- AD-0	THE CANON SECTION A

Finance Committee Members

Chair	,	hancellor
Visit	or's Nominees:	
Sl.	Name & Designation	Contact Details
No.		
1.	Shri Anant Kr. Singh	011-23387648 (O)
	Joint Secretary	011-23070927 (Fax)
	Ministry of Human Resource Development	09868948454 (M)
	New Delhi	Email: anant.edu@nic.in
2.	Dr. (Mrs.) Renu Batra	011-23238876 (O)
	Joint Secretary	011-23238858 (Fax)
	University Grants Commission	09873333824 (M)
	New Delhi	E-mail: renu@ugc.ac.in
		renusrb@gmail.com
3	Shri Yogendra Tripathi	
	Joint Secretary & Financial Adviser	
	Ministry of Human Resource Development	
	New Delhi	
EC's	Nominees:	
1.	Shri Sonam Wangdi	03592-223308/224466 (R)
	Former Chief Secretary	9434033786 (M)
	Govt. of Sikkim	
2.	Prof. Ashoke K. Dutta,	
	First Director,	
	Rajiv Gandhi Indian Institute of Management, Shillong	
3.	Shri M.G. Kiran	03592-202792 (O)
	Principal Secretary	03592-231889 (R)
	Finance, Revenue & Expenditure Department	Email: mgkiran@hotmail.com
	Govt. of Sikkim, Gangtok	

Executive Council Members

SI.	Functionary	Designation
1.	Vice-Chancellor, Sikkim University	Prof. T. B. Subba Ex-officio Chairman
2.	Pro-Vice-Chancellor/ Rector (the position is vacant and yet to be filled up)	Ex-officio Member

3.	The Dean of the Students	Dr. Dhani Bai Charter
3.	The Dean of the Students	Dr. Dhani Raj Chettry Ex-officio Member
	Lang Dages of Cabacle by natation according to conjugate	
4.	Four Deans of Schools by rotation according to seniority,	Prof. J. P. Tamang
	to be nominated by the Vice-Chancellor,	Prof. Pratap C. Pradban
	(two Deans are members)	Members
5.	One Professor, other than a Dean by rotation according to	Member
	seniority, to be nominated by the Vice Chancellor.	
	(the position is vacant and yet to be filled up)	
		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
6.	One Associate Professor by rotation, according to	Dr. Subir Mukhopadhyaya
	seniority, to be nominated by the Vice Chancellor.	Member
<u> </u>		2.5
7.	Two members of the Court, to be nominated by the	Members
	Visitor, none of whom shall be an employee of the	
	University or a college or an institution affiliated to or	
	recognised by the University.	
	(the Court has not been formed yet)	
8.	One representative from the University Grants Commission	
(i)	Prof. A.N. Rai	Member
	Vice-Chancellor	
	North-Eastern Hill University	
	Shillong – 793022	
	Meghalaya	
9.	Three persons nominated by the Visitor	
(i)	Dr. (Smt.) Kiran Datar	Member
(-,	Former Dean of Colleges	1,101110 01
	University of Delhi	
	New Delhi – 110 007	
	The Delth 170 dor	
(ii)	Shri Sonam Wangdi	Member
`	Former Chief Secretary	
	Govt. of Sikkim, Gangtok – 737 101	
	, ,	
(iii)	Prof. S.C. Singh	Member
	Dean, College Development Council,	
	Hemwati Nandan Bahuguna Garhwal University	
	Srinagar, Uttarakhand – 246 174	
10.	Five persons to be nominated by the Visitor on the recomm	nendations of the Vice-Chancellor of
	which one will be the Secretary, Department of Human R	
	of Sikkim	•
(i)	Prof. V.S. Prasad	Member
`	Former Director, NAAC	
	Flat No. 302, Hallmark Residency	
	,	

(i)	Prof. V.S. Prasad Former Director, NAAC Flat No. 302, Hallmark Residency Arora Colony, Road No. 3 Banjara Hall Hyderabad – 500 034	Member
(ii)	Secretary, Human Resource Development Department, Govt, of Sikkim Gangtok – 737 101	Member
(iii)	Prof. Dr. (Ms.) Ashum Gupta Fulbright Senior Research Scholar Department of Psychology Provost, University Hostel for Women University of Delhi, New Delhi – 110 007	Member
(iv)	Dr. R.R. Rao Ex-CSIR/Emeritus Scientist 328, B-4, Kendriya Vihar, Yelahanka, Bangalore – 560064	Member
(v)	Prof. Atul Sarma, Former Vice-Chancellor, Rajiv Gandhi University and Professor of Economics Institute for Human Development Indraprastha Estate, New Delhi -110002	Member
11.	Registrar, Sikkim University	Ex-officio Secretary

Executive Summary

2012-13 was rather eventful for Sikkim University inspite of severe handicaps faced by the University on account of its location and distribution over 19 buildings spread over a distance of about 17 kilometres along the National Highway 31A. The first batch of MPhil students passed out from several departments during the year and most of them were qualified to move to the PhD level. A very expensive equipment called NMR, which was pending installation for very long for various reasons, was finally installed and made fully functional. Quite a few other expensive equipment that were pending installation on account of lack of adequate voltage were also installed during the year under report. Thus although not many expensive equipment were bought this year, all equipment were installed and used by faculty members and students. Two faculty members of the University were also successful about securing international patent rights.

One of the highlights of the year under report is the Government of Sikkim handing over 265.94 acres of land for the University campus in January 2013. The process of acquiring the remaining amount of 34.06 acres has been initiated and the same may be handed over to the University soon. The contour mapping of 265.94 acres of the campus is over. The bio-diversity survey of the campus by a group of botanists and zoologists is also completed. The design and estimates of the boundary wall are approved by relevant authorities and the construction of the boundary wall is expected to start soon.

During the year under report the University constituted a review committee to look into its academic programmes, semi-academic programmes, examination, and administrative matters, etc as directed by the UGC. The report of the committee was placed before the Authorities for their consideration and whatever was approved was implemented. One of the most important highlights of this reform was amendment to Statute 15 relating to Schools of Studies and Departments. This Statute has now 6 Schools instead of earlier 17, thereby reducing the establishment costs of maintaining the Schools' administration of the University by almost one third. Also some new departments were introduced either under the directive of the UGC (like the departments of Education and Hindi) or in order to create a fit between the undergraduate and postgraduate subjects in the state of Sikkim.

A large number of young faculty members attended Refresher or Orientation courses in various universities in the country and several of them were financially supported to participate in national and international seminars and workshops. Despite the teaching community consisting almost entirely of Assistant Professors and having heavy teaching loads on account of less number of faculty members in each department many of them made significant publications in national and international journals and drew appreciable amount of fund for their projects. Several of them also had successful proposals for collaboration with other institutions in India and abroad.

The University is poised to move ahead to fulfil the mandate given to it by the Parliament of India and with a large number of young and energetic faculty members and administrative staff nothing appears to be impossible to achieve. With continued support from the UGC, MHRD, Government of Sikkim, and the people of Sikkim the University will undoubtedly achieve its goal of becoming the educational hub for the eastern Himalayas.

Schools of Studies

School of Computer Sciences Department of Computer Sciences and Applications

Name of the Department In-charge: Ms. Rebika Rai Office Number: 03592-251788 Mobile Number: 9933450552

Email Id: Rebika.rai.su@gmail.com

Faculty Profile

Chunnu Khawas, Assistant Professor, is Master in Technology (M.Tech.) from Sikkim Manipal Institute of Technology, Majitar, Rangpo with specialization in Computer Science and Engineering with 8.4 (CGPA) in 2011. She is also a Master in Computer Application (MCA) from Jyoti Nivas College, Bangalore University with 81% in 2008 and Bachelor in Computer Applications (BCA) with 68.98% from from the same college in 2005. Her areas of specialization are Remote Sensing and GIS/Image Processing.

Ms. Rebika Rai, Assistant Professor, is M.Tech. (Computer Sc. & Engineering) and her areas of specialization are Swarm Intelligence and Image Processing. She was awarded Certificate of Merit by the Central Board of Secondary Education for securing highest marks in Nepali subject in Sikkim. She was College Topper in Bachelor of Engineering, Prof. Ram Meghe Institute of Technology & Research, Amravati, Maharashtra (2002-2003 & 2004-2005) and University topper (Bachelor of Engineering, B.E., Amravati University, Maharashtra) in the year 2006. She was awarded National Merit Scholarship by Govt. of India, Ministry of Human Resources Development, Department of Secondary & Higher Education for further postgraduate studies.

Mr. Partha Pratim Ray, Assistant Professor, is M.Tech. in Electronics & Communication Engineering with specialization in Embedded Systems from West Bengal University of Technology, Kolkata in 2011 with 9.60 DGPA. His B.Tech. is in Computer Science & Engineering from the same university in 2008 with 8.15 DGPA.

Publications

- Rebika Rai, Ratika Pradhan, M.K.Ghose, "Ant based Swarm Computing for Image Classification A Brief Survey", *International Journal of Computer Application*, Special Issue on Computational Intelligence and Information Security CIIS (1), pp.17-21 November 15, 2012 [ISBN: 973-93-80870-58-7].
- Rebika Rai, Ratika Pradhan, M.K. Ghose, "Ant based Swarm Computing Techniques for Edge Detection of Images A Brief Survey", *International Journal of Emerging Technology and Advanced Engineering*, (ISSN 2250-2459, ISO 9001:2008 certified journal), Volume 3, Issue 4/43, April 2013.
- Ray, P. P., Automated Bug Localization in Embedded Softwares: A New Paradigm Through Holistic Approaches, Lambert Publishing House, Germany, March 2012.
- Ray, P. P., "Automata Modeling of Hormonal Molecular Communication Channel In Human Body", *International Journal on Recent Trends in Engineering and Technology*, (IJRTET), Vol. 8(1), ISSN: 2158-5563, pp.8-12, DOI: 01.IJRTET.8.1.35, 2013.
- Majumder, P., Ray, P. P., "Hatch-Sens: a Theoretical Bio-Inspired Model to Monitor the Hatching of Plankton Culture in the Vicinity of Wireless Sensor Network", *International Journal of Computer Science and Information Technologies*, (IJCSIT), ISSN: 0975-9646, Vol. 3(4), pp. 4764 4769, 2012.
- Ray, P. P., "Ray's Scheme: Graphical Password Based Hybrid Authentication System for Smart Hand Held Devices", *Journal of Information Engineering and Applications*, (JIEA), Vol. 2(2), ISSN: 2225-0506, pp.1-11, 2012.
- Ray, P. P., "Translation of Bengali Terms in Mobile Phones: a Simplified Approach Based on the Prescriptions of Conventional Accent Understand Ability", *International Journal of Computer and Organization Trends* (IJCOT), ISSN: 2249-2593, Vol 2(1), pp 33-38, 2012.
- Ray, P. P., "Nano Computer Design Based on Intra Body Nanoscale Neuro-Spike Communication: a Nanonetwork Paradigm", In *Proceedings of IEEE International Conference on Communications, Devices and Intelligent Systems* (CODIS), pp. 314-317, 2012.

Other Academic Activities

Mrs. Chunnu Khawas actively participated in the 11-day fieldwork called "Winter Sojourn" initiated by Sikkim University on the theme "Monuments and Cultural Heritage", January 2012 and was awarded The Best Presentation'.

Ms. Rebika Rai attended the Two-week training programme on Remote Sensing and Geographic Information System held at Sikkim Manipal Institute of Technology, Sikkim, sponsored by NNMRS/ISRO on 4-16 June 2012,

Mr. Partha Pratim Ray attended the workshop on *Advances in Document Analysis and Retrieval* jointly organized by the Indian Statistical Institute, Kolkata at Gauhati University, Guwahati on 7-11 March 2013.

Department of Earth Sciences School of Environmental Studies

Name of the Department In-charge: Dr. Rakesh Kumar Ranjan

Office Number: +91-3592-231151 Mobile No: +91-8100420032

E Mail id: rakeshranjan.jnu@gmail.com

Faculty Profile:

Dr. Rakesh Kumar Ranjan, Assistant Professor, joined the Department in July 2011. He was awarded Ph.D degree for his thesis titled "Effect of Crop Residues Burning on the Ambient aerosols Characteristics in Rural Areas: A Case Study of Shahabad Region of Bihar" by the School of Environmental Sciences, Jawaharlal Nehru University, New Delhi in June 2010. He got his M.Phil. and Post Graduate degrees from the same School. He is presently engaged in analyzing ambient carbonaceous aerosols characteristics in different size ranges and its impact on climate. The present research also aims to explore how fine and ultra fine carbonaceous aerosols affect the radiative transfer budget in the rural environment. In addition, He is also engaged in estimation of biomass burning and associated carbon density by using the techniques of Remote Sensing and GIS.

Dr. Nishchal Wanjari, Assistant Professor, completed his Ph.D from the University of Delhi on geochemical evolution of Amgaon Gniessic complex, Central India, in 2008. He completed his Masters from the Indian School of Mines, Dhanbad, in Applied Geology. He worked with the Geological Survey of India as Geologist and carried out special thematic mapping and geochemical mapping in parts of Bihar and Jharkhand, especially in Gaya, Nalanda, Jamui, Banka and Deoghar districts. His research interests include mineralogy, igneous petrology and geochemistry and geochronological studies pertaining to crustal evolution of Indian subcontinent.

Dr. Md. Abdullah Khan, Assistant Professor, joined the Department in April 2012. Earlier, he taught at the Department of Geology, Kurukshetra University, Kurukshetra, Haryana as Assistant Professor. He carned both his M.Sc. (Applied Geology) (2002) and Ph.D. (Geology) (2010) degrees from Aligarh Muslim University, Aligarh. His research topic was "Appraisal of Geoenvironmental Parameters and their Implication in parts of Imphal valley, Manipur State, NB Himalayan Region". His areas of research interest include Hydrology and Hydrochemistry, Environmental parameters analyses and environmental impact studies with special reference to human health.

Publications

- Md. Abdullah Khan, S. Ahmad and Huma Matloob (2012). "Landuse Pattern, House Design and Health in Imphal valley", *The NEHU Journal*. Vol. X, No. 1, January, 2012, pp. 81-92.
- Md. Abdullah Khan, Sarfaraz Ahmad and Shadab Khurshid (2012). "Geology and Geomorphology of Manipur Valley Using Digitally Enhanced Satellite Image and SRTM DEM in the Eastern Himalaya, India". Published online in *International Journal of Geosciences*, 2012, 3, 1010-1018, October (doi: 10. 4236/ijg.2012.325101 Published online in October, 2012, http://www.Scirp.org/journal/ijg). ISSN Print: 2156-8359, ISSN Online: 2156-8367.
- Sarfaraz Ahmad, Md. Abdullah Khan, Abu Husain, Huma Matloob and T.R. Warsi, and (2012). "Monitoring of the Air Quality in Aligarh City, India using SPOT: VGT Data", *Journal of Environmental Research and Development*, Vol. 6, No. 4, April-June, 2012, pp 1000-1005. ISSN 0973-6921.

Department of International Relations / Politics School of Global Studies

Name of the Head: Dr. Manish Srivastaya

Office Number: 03592-251168

Email Id: departmentofir@gmail.com

Fellowship and Awards

UGC/JRF	4 students
UGC/NET	2 students
Kodikara Award from Regional	1 student
Centre for Strategic Studies	
(RCSS), Colombo	
Maulana Azad National	2 students
Fellowship	
Rajiv Gandhi National Fellowship	1 student

Faculty Profile

Dr. Manish Srivastava, Associate Professor, completed his BSc in Physics, Mathematics and Defence & Strategic Studies from the University of Allahabad and MA in Politics (International Studies) from the School of International Studies, Jawaharlal Nehru University (JNU), New Delhi. He obtained MPhil in Disarmament Studies from the Centre for International Politics, Organisation & Disarmament (CIPOD), School of International Studies, JNU, New Delhi. He was awarded doctoral degree in 2001 for the thesis titled 'Comprehensive Test Ban Negotiations: 1994-1996' from Disarmament Studies, School of International Studies, JNU, New Delhi. During the course of his doctoral work, he visited various places/institutes abroad including the University of La Salle, Philippines, the Massachusetts Institute of

Technology (US), Regional Centre for Strategic Studies, Colombo and the United Nations, Geneva. He was awarded the Indian Council for Social Science Research (ICSSR) fellowship for his doctoral work. He is a life member of the Indian Pugwash Society. He has earlier served as Associate Fellow (2001-2005) with the prestigious New Delhi based strategic affairs think-tank, the Institute for Defence Studies and Analyses and as Officer on Special Duty (OSD) with the Govt of India (2005-2012). He has several publications to his credit. He is co-author of the book titled *Jihadis in Jammu & Kashmir* published by Sage. His current teaching/research interests include international relations theory, foreign policy, arms control/disarmament, terrorism and South Asia.

Dr. Sebastian N., Assistant Professor, joined Sikkim University in October 2008. Before joining Sikkim University, he taught at the Centre for West Asian Studies and Indian Ocean Studies, Calicut University (2004-2007). He has also worked with the Ministry of Cultural Affairs, Government of Kerala (2007-2008). He completed his M.A. from the School of International Relations, Mahatma Gandhi University, Kerala and M.Phil. from the Centre for West Asian Studies, School of International Studies, JNU, New Delhi. He was awarded doctoral degree for the thesis 'Globalisation and Social Development: A Comparative Study of Egypt and India, 1991-2001' by Jawaharlal Nehru University in the year 2009. He has contributed many research papers/chapters in edited books. He is one of the editors of the book Climate Change and Sustainability in the Mountain Areas published by Indus. He has written several articles on international issues in news magazines. His current teaching/research interests include International Relations Theory, Globalisation, and Politics in WestAsia and North Africa.

Dr. Teiborlang T. Kharsyntiew, Assistant Professor, joined Sikkim University in October 2008. Before joining Sikkim University he was a Lecturer of Political Science at Synod College, Shillong. Dr. Kharsyntiew earned his BA from St. Anthony's College, Shillong. He completed his MA from the School of International Studies, Jawaharlal Nehru University, New Delhi. His M.Phil dissertation was on 'Environmental Policy of the European Union After 1993' and his Ph.D was awarded in 2009 for the thesis 'British Attitude towards the Common Foreign and Security Policy of the European Union'. His areas of interest include Foreign and Security policy of the European Union, Global and local environmental policy and issues. He was awarded the Indian Council for Social Science Research (ICSSR) Doctoral Fellowship (2004-2007) and Government of Meghalaya State Research Scholarship (2000-2004).

Phairembam Newton Singh, Assistant Professor, joined Sikkim University in October 2008. He completed his M.A. and M.Phil. from the Centre for Political Studies, School of Social Sciences, Jawaharlal Nehru University, New Delhi. His areas of interest include political thought and theory, comparative politics and Indian politics.

Publications

Sebastian N. (2013) "Islamic Movements and Emergence of Nationalism in Colonial Algeria". In Kumar, Rajeesh and Navaz Nizar (eds), *Islam, Islamist Movements and Democracy in the Middle East: Challenges, Opportunities and Responses.* New Delhi: Global Vision Publishing House, ISBN 9788182205482.

Sebastian N. et al (2012) (eds) Climate Change and Sustainability in the Mountain Areas: Scope and Challenges for Regional Cooperation and Integration. New Delhi: Indus Publishing Company, ISBN 9788173872310.

Seminars/Conferences

Dr. Manish Srivastava was a resource person for the Fourth Annual IPCS Residential Workshop for Young Scholars on Contemporary Nuclear Discourses: Doctrines, Deterrence and Disarmament, CRRID, Chandigarh, November 16-20, 2012. He presented a paper on 'Human Security' at the National Seminar on Human Security in Northeast organized by the Department of Philosophy, Assam University, Silchar on 6-7 March 2013. He also presented a paper on 'Human Security in South Asia' at the National Seminar organized by the Dept of International Relations, Jadavpur University on 19-20 March, 2013.

Dr. Sebastian N. Lectured on 'Cooperation between China and South Asia in Higher Education: Opportunities and Challenges', at the Education Sub-Forum of China South Asia Business Forum Meeting held at Kunming, China (4-7 June 2012).

Mr. Ananta Swarup Bijendra De Gurung, Research Scholar, attended the Ten-day National Level Workshop on Research Methodology for Social Sciences organized by ICSSR New Delhi in collaboration with Dept of International Relations/Politics, Sikkim University from 2 March 2013 to 11 March 2013 at Sikkim University and presented a paper on Subregionalism in the Eastern Himalayan Cousins (EHCs): A Roadmap at the two-day Seminar on Federalism, Foreign Policy and Border States: Perspectives from North East States of India", organized by ICSSR New Delhi in collaboration with Dept of International Relations Politics, Sikkim University on 22-23 March 2013 at Sikkim University. He also presented a paper titled "Tibet, Energy Security and China: A brief Appraisal" at the two-day national seminar on Tibet's Relations with Himalayas organized by the Foundation for Non-Violent Alternatives (FNVA), New Delhi in collaboration with the Dept. of International Relations/Politics, Sikkim University on 13-14 April 2013 at Sikkim University.

Mr. Bijay Thapa, Research Scholar, attended the International Relations Conference on "Dawning of the 'Asian Century': Emerging Challenges before Theory and Practice of IR in India" organized by the Institute for Research on India and International Studies (IRIIS), New Delhi on 10-12 December 2013 at Indian Habitat Centre, New Delhi. He attended the Research Methodology Workshop organized by V.V. Giri National Labour Institute, Noida from 18 to 22 February 2013 at V.V. Giri National Labour Institute Campus, Noida. He attended the Ten-day National Level Workshop on Research Methodology for Social Sciences organized by ICSSR New Delhi in collaboration with the Dept. of International Relations/Politics, Sikkim University on 2-11 March 2013 at Sikkim University. He presented a paper "Understanding Open and Closed Borders and Its Realities" at the Two-day Seminar on Federalism, Foreign Policy and Border States: Perspectives from North East States of India organized by ICSSR New Delhi in collaboration with the Dept. of International Relations/Politics, Sikkim University. He presented a paper titled "An Identity at Flux: Tibetans in Sikkim and Darjeeling Hills" at the Two-day seminar on Tibet's Relations with Himalayas organized by the Foundation for Non-Violent Alternatives (FNVA) New Delhi in collaboration with the Dept. of International Relations/Politics, Sikkim University on 13-14 April 2013 at Sikkim University.

Bikash Sarma, Research Scholar, presented a paper on "Ethnic (Dis) integration and Securitized State of Exception: A Case Study of Assam" at the UGC sponsored two-day national seminar on Ethnic Integration in Northeast India: Issues and Challenges organized by Netaji Subhas Mahavidyalaya, Gomati, Tripura on 21-22 December 2012 at Tripura. He presented a paper on "Locating Border: Questions of Migration and Security" at the National Seminar on State, Social Movements and Democracy in Northeast India organized by the Dept of Political Science, Gauhati University, Indian Council of Historical Research and Indian Council of Social Sciences on 27-28 February 2013. He presented a paper on "Locating Borders: Contestation, Resistance and Supplementarity" at the two-day National Seminar on Federalism, Foreign Policy and Border States: Perspectives from North East States of India, organized by ICSSR New Delhi in collaboration with the Dept of International Relations/Politics, Sikkim University on 22-23 March 2013 at Sikkim University. He presented a paper on "Women in the Discourse of Environmentalism and Empowerment" at the National Seminar on Women & Environment: A Look into the Issues, Problems and Opportunities, organized by University Women Association of Assam, Womens' Forum at Dakshin Kamrup College from 31 March to I April 2013.

Mr. Rabindra Mani Pradhan, Research Scholar, presented a paper titled "Indigenous Communities and Transboundary Biodiversity Conservation Regime in Eastern Himalaya: A Case study of Singalila Range" at the Two-day Seminar on Federalism, Foreign Policy and Border States: Perspectives from North East States of India, organized by ICSSR New Delhi in collaboration with the Dept of International Relations/Politics, Sikkim University on 22-23 March 2013 at Sikkim University.

Ms. Romana Lepcha, Research Scholar, presented a paper on "Human Trafficking as a Non-Traditional Security Threat: A Study on Cross Border Trafficking between India and Nepal" at the Two-day Seminar on Federalism, Foreign Policy and Border States: Perspectives from North East States of India, organized by ICSSR New Delhi in collaboration with the Dept. of International Relations Politics, Sikkim University on 22-23 March 2013 at Sikkim University.

Mr. Sunil Pradhan, Research Scholar, presented a paper titled "Politics of Belonging and Nepalese Integration in Sikkim" at the UGC-sponsored two-day national seminar on Ethnic Integration in Northeast India: Issues and Challenges, organized by Netaji Subhas Mahavidyalaya, Gomati, Tripura on 21-22 December 2012 at Tripura.

Ms. Tshering Doma Kaleon, Research Scholar, presented a paper on "Developing Trends in India China Border Trade Through Nathu La" at the Two-day Seminar on Federalism, Foreign Policy and Border States: Perspectives from North East States of India, organized by ICSSR New Delhi in collaboration with the Dept. of International Relations/Politics, Sikkim University on 22-23 March 2013 at Sikkim University. She also presented a paper on "Border Trade through Nathu La: Reviving and Rebuilding Historical linkages" at the Two-day seminar on Tibet's Relations with Himalayas organized by the Foundation for Non-Violent Alternatives (FNVA), New Delhi in collaboration with the Dept. of International Relations/Politics, Sikkim University on 13-14 April 2013 at Sikkim University.

Seminars/Conferences/Lectures organised

S. No.	Theme	Date & Venue	Name/s of the organizer & Conveners	
1	Special Lecture on Financial Globalisation, Global Imbalances and Decoupling by Dr. Krishna Kumar, Assistant Professor, Venkateswara College, Delhi University.	9 th April 2012, Committee Room, Narmada	Dept. of International Relations/Politics, Dr. Sebastian N.	
2	Special Lecture by Maj. Gen. Shammi Mehta on Changing Dimensions of National Security	6 th September 2012, Committee Room, Narmada	Dept. of International Relations/Politics, Dr. Sebastian N.	
3	Special Lecture by Dr. Mathew Joseph on India and Its Relations with Nepal and Bhutan	19 th October 2012, Committee Room, Narmada	Dept. of International Relations/Politics, Dr. Manish	
4	Ten-day National Level Workshop on Research Methodology for Social Sciences	2 March 2013 to 11 March 2013 Seminar Hall, Sikkim University	Dept. of International Relations/Politics & Indian Council of Social Science Research, New Delhi, Dr. Sebastian N. & Ph. Newton Singh	
5	Two days Seminar on Federalism, Foreign Policy and Border states: Perspectives from North east states of India	22-23 March 2013, Sikkim University, Gangtok	Dept. of International Relations/Politics & Indian Council of Social Science Research, New Delhi, Dr. Sebastian N. & Dr. Teiborlang T. Kharsyntiew	
6	Two-day seminar on Tibet's Relations with Himalayas	13-14 April 2013, Sikkim University, Gangtok.	Dept. of International Relations/Politics & Foundation for Non- Violent Alternatives (FNVA), Dr. Manish	

MPhil, PhD Guidance

Dr. Sebastian N "Human Trafficking and Civil Society in South Asia: A Case Study of Maiti Nepal" (MPhil awarded to Ms. Romana Lepcha in November 2012)

Dr. Teiborlang T Kharsyntiew

"Religion, Culture and Confidence Building Measures: The Prospects of Sub-Regional Cooperation in Eastern Himalaya" (MPhilawarded to Mr. Ananta Swarup Bijendra De Gurung in November 2012)

Mr. Ph. Newton Singh

"State, Global Governance and Resettlement: Understanding Bhutanese Refugees Resettlement Process" (MPhil awarded to Bijay Thapa in November 2012)

Department of Economic Studies and Planning School of Humanities and Social Sciences

Name of the Head In-Charge: Dr. Ruma Kundu
Office Number: 03592-251152
Mobile Number: 9475176186

Email Id: rumakundu76@gmail.com

Faculty Profile

Ruma Kundu (Ph.D) is M.A. in Economics (University of Burdwan, 1999), M.Phil in Economics (University of Burdwan, 2001), and Ph.D in Economics (University of Burdwan, 2008). Her areas of specialization are Environmental Economics, Statistics and Econometrics.

Dr. Pradyut Guha is M.A Economics (Gauhati University, 2003), SLET (NE Region) [Gauhati University, 2005], and Ph.D (Mizoram University, 2011). His areas of specialisation are Econometric Methods and Applications, Mathematical Economics, Financial System and Institutions.

Dr. Rangalal Mohapatra is MA in Economics (University of Hyderabad, 1993), and Ph.D in Economics (A & A Economics, Utkal University, 2011). His areas of specialisation are Agricultural Economics and International Trade.

Publications

- Kundu, Ruma. *People's Perception Regarding the Impact of Climate Change on Traditional Agricultural Practices: A Case Study from Sikkim*, Indus Publishing Company, New Delhi, ISBN 978-7387-231-0. 2012.
- Guha, P. "Regional Disparity in the Growth of Scheduled Commercial Banks as a Source of Financial Exclusion", *International Journal of Economics & Managerial Thoughts*, Vol.3, No.1, April-September 2012, pp. 78-86, ISSN 2229-3736.
- Guha, P. "Disaster Awareness and Disaster Preparedness in East Sikkim: A case Study of Ranipool", Journal of Social Science, Bodoland University, Vol.1, No. 1, January-June 2013, pp.25-36, ISSN 2320-0952.
- Guha, P. "India's Reform period and Organised Auctioning of Tea in Assam", International Journal of Current Research, Vol. 5, Issue 2, pp. 172-177, February 2013, ISSN 0975-833X.
- Mohapatra, R. Determinants of Cost Efficiency among the sugarcane farmers: A stochastic frontier cost function approach, *International Journal of Current Research*, 2013, 5(3), 634-638.
- Global Technical efficiency and Variable Returns to Scale: Implications on paddy Production, *International Journal of Advanced Research*, 2013, 1(2), 107-117.

Seminars/Conferences

Dr. Ruma Kundu presented a paper on "Using Unit Root and Cointegration Techniques to study the Interrelationship among the Sensex and the Sectoral Indices of the Bombay Stock Exchange" at the International Conference on Computational and Financial Econometrics (CFE 2012) organised by Vinod Gupta School of Management, Indian Institute of Technology, Kharagpur on December 27-29, 2012. She presented a paper on "Organic Farming in East Sikkim: A Threat for or a Means to Sustainable Livelihood?" at ECONference 2013 – the International Conference on "Development, Environment and Sustainable Livelihood" organised by the Department of Economics, University of Burdwan on Jan 18-19, 2013. She presented a paper on "Cross-Border Trade in the Vicinity of Sikkim: A View from both Formal and Informal Aspects" at the National Seminar on Federalism, Foreign Policy and Border States: Dynamics from North East States of India organised by the Department of International Relations/Politics, Sikkim University on March 22-23, 2013. She presented a paper on "Rape Against Women: A Global Study of an Age Old Malaise" at the National Seminar on Social Security of Women in India organised by the Department of Social Systems and Anthropology, Sikkim University on March 30-31, 2013. She presented a paper on "Climate Change and its Impact on Traditional Agricultural Practices – The Sikkim Experience" at the International Conference on Eastern Himalaya: Climate Change, Livelihood and Poverty, organised by Jamia Milia Islamia, New Delhi on 7-8 March 2013.

Dr. Pradyut Guha presented a paper entitled Gender Influence on Entrepreneurship: A Case Study of Aizawl District of Mizoram in a workshop on MSME Development in North East Region with Special Reference to Sikkim organized by FICCI at Gangtok on 4th June 2012, He presented a paper entitled "Challenges of Malaria in North East India and Health Awareness: A Case Study of East Sikkim" at the North East Young Social Scientist Meet organized by Omeo Kumar Das Institute of Social Change and Development, Guwahati on 22° January 2013. He presented a paper entitled "Trade Possibilities of Bangladesh with India" and China a Comparative Study" at the national seminar on Entrepreneurship for Economic Development in India with Special Reference to North Eastern Regions; Challenges and Opportunities hosted by Department of Management, Mizoram University, Aizawl on 27th February 2013. He presented a paper entitled "Problems and Prospects of Tourism industry in Mizoram and its influence on GDP" at the national seminar on Promotion of International Tourism Circuits in North East India: Prospects, Priorities and Strategic Options, organized by Department of Business Administration, Assam University, Silchar on 8th March 2013. He presented a paper entitled "Cross Border Foreign Trade Intensity of North East India" at the national seminar on Economic Development of North East India: Challenges and Opportunities hosted by Department of Commerce and Department of Economies, Pachhunga University College, Aizawl on 22nd March 2013. He presented a paper entitled "Border Trade and North Eastern States of India: A SWOT Analysis" at the national seminar on Federalism. Foreign Policy and Border States: Dynamics from North East States of India organized by Department of International Relations/Politics, Sikkim University,

Gangtok on 23rd March 2013. He presented a paper entitled "A Study on the Economic and Social Status of Female Tea Labourers of Dibrugarh District of Assam" at the national seminar on Social Security of Women in India organised by Sikkim University in association with Association of Indian Universities, Gangtok on 30th March 2013.

Dr. Rangalal Mohapatra presented a paper on "Gender Inequality and its Social and Economic Implication" at the National Seminar on Social Security of Women in India organised by Sikkim University in collaboration with Association of Indian Universities on 30-31 March 2013.

Other Academic Activities

Dr. Ruma Kundu attended the Second Refresher Course in Business Studies at the UGC Academic Staff College, University of Burdwan from 24th November to 14th December, 2012.

Dr. Pradyut Guha delivered a lecture on "Qualitative Research" at the ICSSR funded Training Programme on Research Methodology in Social Sciences organised by Department of Economics, Bodoland University, Assam on 22" March 2013.

The computer laboratory of the department was inaugurated this year by the Vice-Chancellor of the University.



Department of Geography and Natural Resource Management School of Humanities and Social Sciences

Name of Head: Dr. Sohel Firdos

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Students' Achievements

Basanti Rai, Kausila Timsina and Shakti Dutraj (all MPhil students) participated in the International Summer School in Geography organised by the Department of Geography, NEIIU, Shillong, on 4-15 March 2013. Amrita Singh, Basanti Rai, Karma R.T.W. and Shakti Dutraj wrote newspapers articles in *Sikkim Now* and *Sikkim Express*.

Faculty Profile

Sohel Firdos, Associate Professor, is MSc (Geog), MPhil, PhD (JNU, New Delhi). His areas of specialisation are Development Studies, Urban Governance and Development, Social and Spatial Exclusion, Tribes, Resources. His areas of interest are Environmental Movements, Community participation in resource management and development, Climate Change. He has published more than 10 research articles, co-edited a volume on Climate Change, presented 38 papers at national and international seminars/conferences, conducted collaborative research on social exclusion, development of minorities, urban governance and poverty. He was a guest faculty in Brown University, USA and Massey University, New Zealand.

Rafiul Ahmed, Assistant Professor, is M.A (Geog), M.Phil (IIT, Mumbai), PhD (JNU, New Delhi). His areas of specialisation are Colonial and Imperial Geographies of Eastern Himalaya, Gender and Space, Political Economy of Regional Development and Planning. His areas of interest are Geographies of Nationalism and Ethnic movement in NE India, Border region and Migration in Eastern Himalaya, Political ecology of Hydro power projects in Eastern Himalaya. He has published a book entitled *Political Economy of Underdevelopment of North-east India* and is currently working on a book manuscript on the historical transformation of ethno-territorialities into group-politico-territorial identities in North-east India. He has also published a large number of fieldwork-based research articles through his long-standing activism with civil society organizations in India.

Uttam Lal, Assistant Professor, is MSc (Geog), MPhil, PhD (JNU, New Delhi). His areas of specialisation are Social and Environmental Geography, and his areas of interest are Mountain Cryosphere, Cultural Ecology, Biogeography, Highland Dynamics, Himalayan Trans-border Economy and Disaster Management. He was a recipient of Junior & Senior Research Fellowships of the Council of Scientific & Industrial Research, New Delhi. He has published three research articles, co-edited a volume on *Globalisation Issues in Mountain Areas*, and completed collaborative research on border trade studying Cryosphere under Inter-University Consortium on Climate Change Convention.

Ishwarjit Singh Elangbam, Assistant Professor, is MSc (Geog), MPhil, PhD (AMU, Aligarh). His areas of specialisation are Regional Planning and Tourism Geography, and his areas of interest are Degradation of Ilimalayan Ecosystem, Landforms, processes, and hazards mitigation in Ilimalayan regions, urbanization, migration, livelihood of the people in North-Eastern states. He has a book titled *Tourism Geography of Manipur* to his credit.

Publications

- Firdos, Sohel. 2013. 'Encountering Socio-spatial Exclusions: The Experiences of Muslims in Kolkata'. In Abdul Shaban and Saqib Khan (eds), *Muslims in Urban India*. New Delhi: Concept Publishing Company, pp. 152-174.
- Firdos, Sohel. 2012. 'Forest Degradation, Changing Workforce Structure and Population Redistribution: The Case of Birhors in Jharkhand'. In Indra Munshi (ed.), *The Adivasi Question: Issues of Land, Forest and Livelihood*. New Delhi: Orient Blackswan, pp. 169-181.
- Sanjay Kumar & Rafiul Ahmed. 2012. 'Developing Learning Designs Based on Self-Experiences of Oppressed Communities: The Case of an Innovative Experiment of Musahar Children of Gaya District, Bihar'. In Christine Sleeter, Sanjay Kumar, Arvind Mishra and Shasibhushan Uppadhaya (eds) School Education, Pluralism and Marginality: Comparative Perspectives. New Delhi: Orient Blackswan.
- Uttam Lal. 2012. 'Sustainablity and Environmental Constraints in the Western Himalaya: A Case Study of Kinnaur'. In Mahendra P. Lama (ed.), *Climate Change and Sustainability in Mountain Areas: Scope and Challenges for Regional Cooperation*. Indus Publishing Company, New Delhi, pp. 229-256.

Seminars/Conferences

Sohel Firdos presented a paper titled 'Interrogating Development in the Eastern Himalayan State of Sikkim' at the International Conference on Mountain Environment and Development, ICMED 2012, organized by Institute of Mountain Hazards and Environment, CAS, Chengdu, China, 15-19 Oct. 2012.

He presented a paper titled 'Environmental Governance of Gangtok: Myth Vs Reality' at the National Seminar on Contemporary Urban System: Challenges and Opportunities, organised by BHU, Varanasi, 11-13 Feb. 2013. He presented a paper titled 'Climate Change and Environment in North Eastern Region' at the national workshop on Climate Change and Mountain Areas: Awareness, Adaptation and Sustainability, organized by the Federation of Societies for Environmental Protection (FOSEP) and Freidrich Ebert Stiftung (FES), at Darjeeling,17-18 Dec. 2012. He presented a paper titled 'Millennium Development Goals (MDGs) and the Poverty Removal Strategies in the Scheduled Areas of India: Opportunities and Challenges' at the national seminar on Governance, Socio-Economic Disparity and Social Unrest in the Scheduled Areas of India, organised by the Tata Institute of Social Sciences (TISS), Guwahati campus, 22-24 November 2012. He presented a paper titled 'Representing North-East India: Evidences from Census 2011' at the national seminar on India's 2011 Census: Interpretations and Implications of the Results, organized by Centre for the Study of Regional Development, School of Social Sciences, JNU, New Delhi, 6-7 September 2012.

Uttam Lal participated in the GOI-UNDP collaborative workshop of USAID on Climate Risk Management (CRM) Programme organised by Disaster Management Authority and Land Revenue & Disaster Management Department, Sikkim, at Gangtok, 4° September 2012. He presented a paper titled 'Climate Change Adaptability in the Highland: A case study of Western Himalaya' at the national workshop on Climate Change and Mountain Areas: Awareness, Adaptation and Sustainability, organized by the Federation of Societies for Environmental Protection (FOSEP) and Freidrich Ebert Stiftung (FES), at Darjeeling,17-18th Dec., 2012. He presented a paper titled 'Foot-trails to Tibet: Connecting communities in time and space-Acase study of Sikkim' at the national seminar on Tibet's Relations with the Himalayas – II, organised by the Foundation for Non-Violent Alternatives (FNVA), New Delhi in collaboration with the Department of International Relations/Politics, Sikkim University, at Gangtok, 13-14 April 2013.

Faculty Improvement Programme

Uttam lal successfully completed four-week Orientation Course at the Academic Staff College, JNU, New Delhi, from 04.02.2013 to 01.03.2013.

Major Equipment added during the year

ArcGIS Version 10.1 & Imagine Advance Educational Kit Version 2013

Utility: Remote Sensing and GIS Practical for students and research work application.







Remote Sensing and GIS Practical for Students and Research Work Applications

The department organised a training workshop on application of ArcGIS and Erada: Imagine from 18.03.2013 to 23.03.2013.





Department of Psychology Studies School of Humanities and Social Sciences

Name of the Department In-charge: Dr. Satyananda Panda

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Departmental Profile

The department was started under the School of Humanities and Social Sciences in Sikkim University in 2009-2010. Sikkim University is one of the few universities in the entire India having department of integrated B.Sc.-M.Sc. course in Psychology. The department works with interdisciplinary approach and the major objective of the department is to encourage the blending of applied psychology with a strong foundation on conceptual and theoretical psychology.

The major aim of the department is to teach and understand human behaviour with the process of social change in social, economic, cultural, political and human developments. The aim of undergraduate integrated B.Sc. programme is to impart knowledge in the core area of Psychology as well as skill building through laboratory training to develop scientific attitude, and to create healthy inter-linkages with social realities. The MSc Psychology course envisions a programme in professional Psychology with a strong emphasis on development of professional competence, theoretical knowledge and excellence in dealing with human problems. The course is designed to educate students in core areas of Psychology evolving broad based competence and specialized professional as well as research skills in specific areas. The course aims at deeper level of understanding, critical thinking, higher ethical standards and cultural sensitivity in the context of diverse ethos of Indian social problems. The aim is to equip the students with critical, analytical and practical skills that will be of use in their future careers, either as academicians or as practitioners. The course will also provide opportunities to students to learn research methods (quantitative & qualitative). Practicum and field-work would facilitate learning of the process of development, policy planning and practice in field settings. The students would be exposed to the complex social processes and development which require consideration of the specific of local situations and circumstances along with social interactions and influences.

Faculty Profile

Dr. Satyananda Panda, Assistant Professor, joined as Assistant Professor in July 2009. He completed his M.Phil. and PhD with specialization in Clinical Psychology from Panjab University, Chandigarh. His research interests lie in the fields of clinical, experimental and health psychology. He has published papers in the field of Clinical Psychology and has also presented papers at several conferences and workshops. Before joining the University, he worked as a Clinical Psychologist at Dr. B.R.A.M. Hospital, Raipur, Chhatisgarh as well as in Govt. Medical College & Hospital, Chandigarh for more than seven years. His teaching and research interests lie in the domains of clinical, health and experimental psychology. He has about five years of experience as Drug-Counsellor in a deaddiction centre in Chandigarh. He was also associated with a Ford Foundation sponsored project on male sexual health problems in Haryana and has worked as visiting faculty in the Department of Psychology in Pt. R.S. Univ. Raipur, Chhatisgarh.

Dr. Imlisongla Longkumer, Assistant Professor, joined the department in March 2012. She received her Master's degree in Clinical Psychology and her Ph.D. in Social Psychology from Gauhati University. She did her doctoral thesis on "Intergroup attitudes and Social Distance among Nagas". Her teaching and research interests lie in the domains of clinical and social psychology. She is a life member of the Psychologists' Association of North East India. She had earlier worked as a guest faculty in the Department of Psychology, Gauhati University, as a psychologist at Kripa Counseling, Rehabilitation and Research Centre, Guwahati, and as a teacher cum counselor at the Assam Valley School, Balipara. She has been awarded fellowship by the Indian Council of Social Science Research in 2011 to work on a project entitled "Public knowledge, beliefs about, and attitudes toward mental disorders in Nagaland".

Dr. Nutankumar S. Thingujam, Assistant Professor, joined the department on March 21, 2012. He started his teaching career as Lecturer in November 2002 at the Post Graduate Psychology Department of St. Xavier's College, Mapusa, Goa (affiliated to Goa University). In May 2009, he joined the University of Pune as Lecturer in the Department of Psychology. During the last one decade he was invited more than 18 times as manuscript reviewer by four reputed international journals viz., *International Journal of Psychology* (Taylor & Francis publication), *Journal of Clinical Psychology* (Wiley publication), *Psychological Studies* (Springer publication), and *Social Behavior and Personality* (New Zealand based journal). Under his supervision one student completed PhD in Psychology in October 2011 from University of Pune. His current research interests are vocal emotion recognition, nonlinguistic emotion recognition, facial emotion recognition, and musical emotion recognition.

Publications

Panda, S. (2012). Understanding the psycho-social and cultural factors of substance abuse in the state of Sikkim. *Indian Journal of Psychological Sciences*, 3(1), 165-175.

Praseeda, M., & Thingujam, N. S. (2012). Recession and job satisfaction of Indian information technology professionals. *Journal of Indian Business Research*, 4, 269-285.

Other Academic Activities

Dr. Vijyendra Pandey, Faculty, Dept. of Psychology, Central University of Karnataka delivered a lecture on "Relative Deprivation and Justice" on 17 May 2013.

Counselling Facility in the Department: Centre for Counselling and Psychological Services have already been established in the Department.

Departmental Seminar every Wednesday: Wednesday (from 3 pm to 5 pm) is kept for the students to make presentation on what they have understood from the previous classes of the same week. Teachers and students take part in the discussion to make the presentation more effective.

Liaisoning with various Institutes in Sikkim: For the purpose of interviewing various psychiatric patients as well as interacting with professionals, students regularly visit various institutes like Psychiatry Department of Sikkim Manipal University and Sir Thutob Namgyal Memorial hospitals, Sikkim Rehabilitation and Detoxification Society, Nimtar and Spastic Society in Gangtok.



Students participating in paper presentation

The department has established a well-equipped laboratory in this region to undertake researches in frontiers of psychology. Students regularly conduct practicum on students from various departments of Sikkim University by using both modern and traditional instruments/tests. All the students and faculty members of the department conduct practicum by following the strict laboratory guidelines that have already been prepared and displayed in the laboratory. For the purpose of teaching, conducting practical and researches, the department has already procured various tests/instruments such as intelligence tests, personality tests, tests on learning, emotion, perception, memory, etc. Some of the modern psychological instruments that have already been procured in the laboratory recently are:

- I. CANTAB (Cambridge Neuropsychological Test Automated Battery)
- ii. Nexus-10-System



Students conducting practical on Cantab and Nexus 10 vision.

Department of Social Systems and Anthropology School of Humanities and Social Sciences

Name of the Department In-Charge: Dr. Swati Akshay Sachdeva

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Faculty Profile

Dr. Khangembam Indira, Assistant Professor, completed M.A., M.Phil & Ph.D. in Sociology from Jawaharlal Nehru University, New Delhi. Her areas of specialization include social and religious organization of the Lois, a scheduled caste of Manipur, sociology of education in North-East India, and gender issues. Her areas of interest encompass caste and social stratification and developmental issues of SC/ST.

Dr. Binu Sundas, Assistant Professor, received his Ph.D degree from JNU for the thesis entitled "IIIV/AIDS in Darjeeling: An Analysis of Population Dynamics and Institutional Response". He is the author of two books titled *IIIV and AIDS in Darjeeling: An Emerging Socio-Political Challenge* and *A Heady Mixture: Culture, Economics Health and Alcohol in Darjeeling.* He recently visited Hiroshima University, Japan as a researcher under the Young East Asian Researcher Programme. He was awarded the Best Teacher in the School of Humanities and Social Sciences 2012 by Sikkim University. He has presented numerous papers at both national and international seminars in India and abroad. His areas of specialization are Sociology of Health, Research Methodology & Gender and Society.

Dr. Swati Akshay Sachdeva, Assistant Professor, completed her M.A. from Rohailkhand University and PhD from North Bengal University. Her PhD thesis is entitled "A Structural Analysis of Bhutia Society and Position of Bhutia Women in Society of Sikkim". She joined Sikkim University in October 2008. Before joining Sikkim University, she taught at Sikkim Govt. Law College and later at Sikkim Govt College, Tadong in the Dept. of Sociology. She has worked extensively on the problem of suicide in Sikkim and is regular on the panel of TV and radio shows. She is working very closely with several NGOs dealing with the problem of drug addiction. She has presented several papers at national and international seminars and delivered lectures on the art of positive living. Her areas of specialisation are Gender Studies, Political Sociology, Eastern Himalayas and Suicide and Drug Abuse.

Publications

- Indira, K. (2012). Social and Religious Organisation among the Lois of Manipur, *Journal of the Anthropological Survey of India*, vol 53. Nos.3-4, 2004, ISSN: 2277-436X.
- Das, S., Sherpa, M.T., Sachdeva, S.A., Thakur, N. (2012). Hot Springs of Sikkim (Tatopani): A Socio Medical Conjecture which amalgamates Religious Faith, Traditional belief and Tourism. *Asian Academic Research Journal*, (ΛΛRJ).Vol. 1(4), October, ISSN:2278-859X.
- Sachdeva, S.A. (2012). Analysis of the Kinship Terms of the Bhutia Community of Sikkim. *Asian Academic Research Journal*, (AARJ) Vol. 1(6), December, ISSN:2278-859X.

 Verma, S., Sachdeva, S., and Pandey, V. (2013). Suicide among Sikkim's Youth: An Exploration. *Shoryabhumi: An International Multilingual Research Journal for Language, Social Science and Commerce*, Vol. 1(1) Feb-April, ISSN: 2319-720X.
- Sachdeva, A.S. (2013). Every day Knowledge and Monastic Education in Early Sikkim. *Quest: The Journal of Vivekananda Kendra Institute of Culture*, Vol. VI, No.2, ISSN-0976-0040.
- Verma, S., Sachdeva, S., and Sundas, B. (2013). Culture, Social Process and Suicide: A Qualitative Enquiry. In Urmi Nanda Vishwash (ed.) *Social Psychology of Health*. New Delhi: Concept Publishing Company.

Seminars/Conferences

Indira, K. presented a paper titled "Cross Border Drug trafficking and its effects in Manipur" at the seminar on "Federalism Foreign Policy and Border States: Dynamics from North Hast States of India", organised by IR Department at Sikkim University on 22-23 March 2013. She presented a paper titled "Sexual harassment of women in the work place: Importance of Acceptance and Trust by colleagues" at the seminar on Social Security of Women organized by Sikkim University and Association of Indian University held on 30-31 March 2013 at Sikkim University.

Sundas, B. presented a paper titled 'Comtian Philosophy and Social Security for Women Living with HIV/AIDS' at the national seminar organised by Sikkim University in collaboration with Association of Indian Universities on "Social Security for Women In India" on 30-31 March 2013 at Sikkim Retreat, Gangtok. He also presented a paper on 'The Vanishing Autochthones of Sikkim' at the international seminar organised by Presda Foundation, Japan on the Theme "Conference on the Anthropological Sustainability in Asia" on 15-17 December 2012, Landmark Hotel, Bangkok, Thailand.

Sachdeva, A.S. presented a paper titled 'Gender on the Map: An Analysis of Institutions, Discourses, and Practices of Gender in Sikkim' jointly with Dr. Payal Bancerje at the national seminar on Social Security of Women in India organised by Sikkim university in collaboration with the Association Of Indian Universities on 30-31 March 2013. She attended the workshop on Finding Solutions to Alcohol and Substance Abuse in Sikkim organized by Mr P.D. Rai on 23-24 March and presented a paper on 'Adolescent health and reproductive rights in Sikkim: An Overview'.

Patents/Awards/honours/recognition

Binu Sundas received the Best Teacher Award for 2011-12 in Social Sciences from Sikkim University.

Mphil Guidance

S. No	Title of Thesis	Name of Scholar	Name of Supervisor	Year of Award
1.	Cultivating Cardamom: Culture, Economy and Social Structure in Sikkim	Damber Kumari Giri	Dr. Swati A. Sachdeva	2013
2	Social Structure, Cultural Values and Transformation: A Study of Rai Community in Sikkim	Yojana Rai	Dr. Swati A. Sachdeva	2013
3	Language, Identity and Social transformation: A Study of the Gurung Community in Sikkim.	Uttam Gurung	Dr. Binu Sundas	2013.

Department of Ethno-botany and Social Medicine Studies School of Indigenous and Folk Studies

Name of the Head: Dr. N. Sathyanarayana

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Email id sathyan dixit@yahoo.in

Faculty Profile:

Dr. Bimal Kumar Ghimire, Assistant Professor, is PhD in Plant Biotechnology. His areas of interest are Tissue culture, Genetic transformation, bioactive compounds and its biological activity on important medicinal plants. He works on genetic transformation (transgenic plants) of important medicinal plants such as Codonopsis Sp., Perilla, Rahmannia Sp. and to enhance medicinal value, diseases resistant and to increase the level α -tocopherol contents in the plants. He has also worked in the optimization of regeneration system of important medicinal plants including $Drymaria\ cordata$, Solamum Sp and studied about the Miscanthus sp as a source of biofuel.

Dr. Dhani Raj Chhetri, Associate Professor, is PhD in Plant Physiology and Biochemistry. His areas of interest include Biochemistry, Enzymology, Plant Stress Physiology, Medicinal Plants. His research work lies in the area biochemistry & enzymology of plants. His team has purified and characterized enzyme, L-myo-inositol-1-phosphate synthase (MTPS) and clucidated differential thermotolerance of the same between the cytosolic and chloroplastic fractions of a pteridophyte for the first time. Their study on MIPS from fetal liver has significantly contributed to the understanding and amelioration of fatty liver disease, liver cirrhosis etc. in human beings.

Dr. N. Bijayalaxmi Devi, Assistant Professor, specializes in forest ecology. Her areas of interest are carbon sequestration, ecosystem services, and plant soil interaction. She has worked on carbon sequestration, which is one of the important strategies to combat global warming and also in other frontier areas of ecology like soil microbial biomass, N- mineralization, soil CO, emission and litter dynamics in forest ecosystem. She is a recipient of Research Associateship (RA) awarded by CSIR and Dr. D.S. Kothari Post Doctoral Fellowship awarded by UGC.

Dr. N. Sathyanarayana, Associate Professor, specialises in Plant Molecular Biology & Genomics. His research interest spans areas of systematics, evolution and breeding of underutilized legume crops. Much of his work is focused on genus *Mucuna* which is the lone natural source of L-Dopa - the precursor of neurotransmitter drug dopamine, used in treatment of Parkinson's disease. Besides, his team also investigates Next Generation Sequence (NGS) based approaches for the development of genomic resources for several underutilized crops. His research projects have attracted more than Rs 1 crore funding from reputed national & international agencies and commendation. He is a recipient of Sir M. Visvesvaraya Memorial Gold Medal for excellence in teaching.

Publications

- Bimal Kumar Ghimire, Chang Yeon Yu, Ha Jung Kim and Ill Min Chung. Karyotype and nucleic acid content in Zantedeschia aethiopica Spr. and Zantedeschia elliottiana Engl. African Journal of Biotechnology, Vol. 11(53), pp. 11604-11609, 2012. Impact factor-0.56.
- Bimal Kumar Ghimire, Chang Yeon Yu, Ill-Min Chung. Direct shoot organogenesis and assessment of genetic stability in regenerants of Solanum aculeatissimum Jacq. Plant Cell Org. Cult., Volume 108, Issue 3, pp 455-464, 2012. Impact Factor=3.09.
- E. S. Seong, J. H. Yoo, J. G. Lee, H. Y. Kim, *B. K. Ghimire*, J. D. Lim, D. C. Jin, Molecular Characterization and Stress Signaling of the Miseanthus sinensis MsCOMT Gene by Transient Assay. *Russian Journal of Plant Physiology*, 2012, Vol. 59, No. 5, pp. 626–631. *Impact factor-0.2*
- Balkrishna Ghimire, *Bimul Kumar Ghimire*, Kweon Heo. Anatomy of Vegetative Parts of *Bergenia ciliata* (Haw.) Sternb. (Saxifragaceae): A Potential Medicinal Herb. *International Journal of Botany*, pp.136-144, 2012.

- Chhetri, D.R., Gupta, S., Mukherjee, A.K. and Adhikari, J. L-myo-inositol-1-phosphate synthase expressed in developing organ: Isolation and characterization of the enzyme from human fetal liver. Applied Biochemistry and Biotechnology. 167(8): 2269-2282 (2012) Springer, USA. Impact factor-151
- Chhetri, D.R., Medicinal Plant Biodiversity in the Darjeeling Himalaya. In: *Environment Development and Social Change in Himalayan Region* (Somayaji, S. and Khawas, V. eds.), Akansha Publishing House, New Delhi, pp. 91-115 (2012).

Seminars/conferences

Bimal Kumar Ghimere presented a paper on "Importance of tea and its bioactive compounds" at the National Conference on Tea culture and science with special reference to orient scenario of tea in India, 9th April, 2013, organized by the Department of Plantation Management and Studies, Sikkim University.

Chhetri, D.R. presented a paper on "Biotechnological intervention in orchid propagation: Media optimization for six Coelogyne species available in Darjeeling hills" at the National Dialogue on Orchid Conservation & Sustainable Development for Community Livelihood, March 8-9 (2013), Gangtok, India. (Poster presentation)

N. Sathyanarayana presented a paper on "Trascriptome Analysis in Winged Bean (*Psophocarpus tetragonolobus*): Assembly, annotation & marker discovery" at the IV International Conference on Legume Genetics & Genomics Organizing Institution, ICRISAT, Hyderbad, 2-7 October 2012 – Received best paper & best presentation awards.

Faculty improvement Programmes

Dr. N. Bijayalaxmi Devi attended the training programme on Geomatics sponsored by DST at CEPT, University Ahmedabad on 3-8 December 2012,

Patents/Honours/Recognition

Dr. Bimal Kumar Ghimere and his team patented "Regeneration system of "*Drymaria cordata*". Patent number-10-1214785 (South Korea, 2012).

Major equipment added during the year

- a. Ultra Water purification system (MILLIPORE)
- b. Trinocular Stereo Zoom Microscope (NIKON)
- c. UV visible Spectrophotometer (THERMO FISHER)
- d. Trinocular Microscope (CARL ZEISS)

Projects

Dr. N. Sathyanarayana:

Title of Project: DNA fingerprinting of important germplasm, assessment of genetic diversity and identification diverse parental lines for trait specific breeding in Velvet bean (M.puriens).

Objective:

a. DNA fingerprinting of accessions using AFLP of the project,

b. Assessment of genetic diversity in germplasm collections,

c. Identification of diverse parental lines, and

d. Initiation of mapping population

Duration: 3 Years

Source of Funding: Dept. of Science & Technology, Govt. of India

Starting Date: Sept. 15, 2012.

Title of Project: Development and characterization of Microsatellite markers in M.puriens – A

Medicinally & agronomically important Legume species.

Objective and Scope: a. To Transcriptome sequence the parents of Mapg. Popln.

b. To develop a set of species specific Microsatellite Markers based on

Transcriptome data

c. To characterize the lines using microsatellites markers.

d. To develop linkage map using SSRs markers

Duration: 3 Years

Source of Funding: Dept. of Biotechnology, Govt. of India.

Starting and Ending Date: March 3, 2013.
Principal Investigator: N. Sathyanarayana

Department of Music School of Indigenous and Folk Studies

The department was established in July 2011 with a 3 year Bachelor of Performing Arts in Music and 2 year Master of Performing Arts integrated course in Music. The syllabus of the department emphasizes on a lively mix of Indian Classical, Folk Music and Western Music covering acoustics, world music, Ethnomusicology, Aesthetics in music, Music Technology, Music and Media, Music of Eastern Himalayas specially Sikkim, etc. Music Department of the University not only seeks to produce good performers/singers and or artists but also scholars who are equally adept in writing and publishing their work in various music and ethnomusicology journals in order to reach out to a global audience.

Faculty Profile

Jayanta Kumar Barman completed his Master's degree in Music from Rabindra BharatiUniversity, Kolkata. He has done a special course on Performing Art Therapy (music therapy) from *Rabindra Bharati University* where his practical was on "Music as a Medicine for Human Health". He has contributed to many musical compositions and has arranged music for hundreds of folk and modern

songs. Professionally he is a singer and composer in the classical, semi-classical and folk type of music. He has also participated and performed in various programmes such as *Kalahandi Mahoutsav* 2004, organised by the District Council for Culture, Kalahandi, Odisha. His area of interest is folk music of North Bengal and Eastern Himalayas. His research presently involves the study of folk songs, folk instruments and preservation and collection of rare indigenous items on the verge of extinction being used by natives of the Eastern Himalayas in general and Sikkim region in particular.

Samidha Vedabala did her Master's degree in Instrumental Music (sitar) from Rabindra Bharati University, Kolkata. Presently she is perusing her PhD on "The stylistic evolution of Sitar Baaj in 20" and 21th century" at Rabindra Bharati University, Kolkata.

Dr. Krishnendu Dutta joined the department on 14th May 2012. He completed his Master's degree (1997) on "Percussion Instrumental Music" from Rabindra Bharati University, Kolkata. He did his Ph.D. in the year 2004 on "Uttar Bharatiya Taapaddhatite Nutan Bollipir Udbhaban Ebang Tabla O Annanna Ananddha Yantrer Taar Prayogbidhi" on notations in Indian Percussion and their applications. He was awarded a project to work on a socio-musical documentation of the current musical scenario of Kolkata supported by the Alexander von Humboldt Stiftung, Bonn, Germany. He undertook intensive fieldwork on documentation of obsolescent musical instruments of Bengal, their performance, applications and making methods. He also researched on the making of Esraj, Shreekhol, and traditional musical toys of Nadia District of West Bengal under various projects. He worked on Languishing and Obsolescent Musical Instruments at Rabindra Bharati University, Kolkata. He is a regular writer for musical review of Indian Classical Musical Concerts and covered several reputed musicians as a Music Critic for *Saptahik Bartaman*, the most circulated Bengali weekly. He has attended several national and international seminars. He has several publications to his credit. He is also a well-known Tabla player of Bengal.

Seminars/Conferences

Jayanta Kumar Barman presented a paper titled "Chyabrung of Sikkim" and "The music and musical instruments of Rajbonshi community of North Bengal" at the Himalaya International Festival-2012 held in Gangtok and organised by Sikkim University in collaboration with ICCR & Ministry of Culture, Govt, of India.

Samidha Vedabala presented a paper titled "Where the mountain sings" at the seminar on "Bharat ki Loksanskriti: Parampara aur Pratibimb" at Banaras Hindu University, Varanasi, on 21-22 September 2012.

Department of Asian Languages (Chinese) School of Languages and Linguistics

Name of the In-charge: Dhriti Roy
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Faculty Profile

Ms. Dhriti Roy, Assistant Professor and Department In-charge, has Master's in Chinese Language and Chinese Studies from Visva-Bharati (2003). She has submitted her PhD thesis, which was cosupervised by Prof. Wang Bangwei, Professor of the Department of Foreign Languages (2009-2010) while she was there as an Advanced Studies Foreign Visiting Student from Peking University, China. She was an Advanced Studies student at Beijing Normal University, China, for intensive language training programme in Mandarin under Chinese Government Scholarship (2008-2009). Her areas of specialization include Ancient China, Classical Chinese Literature, Chinese Buddhism, Pre-modern India, China-Buddhist Interactions. Her areas of interest are Contemporary social developments in China. Modern Chinese literature.

Seminars/conferences

Dhriti Roy presented a paper titled 'Fifth Century Common Era...Reorienting Chinese Buddhist Monastic Tradition...' at the Emerging Scholars' Symposium on China Studies, organized by ICI, New School, New York, Centre for Policy Research, New Delhi, JNU, New Delhi and University of Delhi, Delhi, on 4th of November, 2012. This paper was selected as the one of the two best papers from India on Chinese Studies for final presentation at the International Emerging Scholars Symposium on China Studies, organized by ICI, New School, New York, at New School University, New York on the 6th of March, 2013. She presented a paper titled 'China: Geopolitical Peculiarities, Language Complexities and Political Intricacies' at the National Defence Forces Seminar on 'Synergizing Chinese Language Experties' held at Air Force Station Bagdogra on 30th and the 31th of January, 2013.

Major Addition of the Year

Language Learning Interactive Software was purchased for Chinese Language Laboratory from Orell Technosystems India Pvt. Ltd. in 2012. This is interactive language learning software that equips students with excellent facilities for listening, speaking, reading and writing as well as for high-skilled interpretation in Chinese.

Department of Nepali language and Literature School of Languages and Linguistics

Name of the Head: Dr. Kabita Lama

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 251342

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Faculty profile

Prof. Pratap Chandra Pradhan is M.A (Nepali), M.A (English), Ph.D (Tribhuvan University, Nepal). His area of specialization and interest is Western Literary Criticism.

Dr. Kabita Lama is M.A. (Nepali) 1991 NBU and Ph.D (Nepali) 1997 BHU. Her areas of specialization are Nepali Literary Criticism, Nepali Children's Literature. Her areas of interest are Women Studies, Linguistics and Poetry. She edited the first volume of translation of Nepali short stories into English (*Call of the Hills*, published by Comparative Literature Department, Advance Studies Centre, Jadavpur University).

Samar Sinha is MA (Linguistics) 2001 JNU, MPhil (Linguistics) 2003 JNU, and PhD (Linguistics) (viva awaited) JNU. His area of specialisation is Signed Linguistics and his areas of interest are Architecture of Grammar, Inventory of Linguistic Features, Endangered Languages, Corpus Annotation, and Translation. His Ph.D. thesis 'A Grammar of Indian Sign Language' is a detailed grammatical study of Indian sign language and Indian deaf community. It has, undoubtedly, contributed to our growing understanding of natural human language in general and Indian sign language in particular, and towards the empowerment of deaf community in India. He has developed a Part of Speech tagset and a Lex tagset for annotating Nepali corpus as well as for Indian sign language text. In addition to it, he has contributed significantly to developing a common POS tagset based on the EAGLES framework for all Indian languages.

Dewchandra Subba is M.A. (Nepali) 2007 NBU. His area of specialization is Ecocriticism.

Balaram Pandey is MA (Nepali) 2000, NBU and MPhil (Nepali) 2002 NBU. His area of specialisation is Sociolinguistics.

Publications

Pradhan, Pratap C. Life and works of Achha Rai Rasik (Makers of Indian Literature), New Delhi: Sahitya Akademi (2012).

Pradhan, Pratap C. *Aayamik Kathakar Indra Bahadur Rai*, Kathmandu: Bhrikuti Academic Publication (2012).

Pradhan, Pratap C. Santa Kavi Gyan Dil Das: Bharatiya Nepali Sahitya ka Aadi kavi, *Nepali Academy Journal*, 8 8, Department of Nepali, North Bengal University (2012).

Pradhan, Pratap C. Samajik Evam Sanskritik Paridrishya Mien Tulsidas Krit Ramacharit Manas Aur Bhanu Bhaktiya Ramayana. Kolkata: Vijoya Publishing House, 2013.

Balaram Pandey. "Bharateli Nepali Kavita: sandarbha diaspora" in Dil Kumar Pradhan edited *Adhunik Bharateli Nepali Kavita*, Jalpaguri: Manmaya Prakashan, pp. 55-66. ISBN 978-81-921488-3-0.

Balaram Pandey. "Sikkimka Lok Natakharuko Sarvekkshanatmak Adhyan" in Sanjay Rai edited

Proceedings of International Seminar on Indigeneous and Ethnic Ilimalayan Languages, Literature and Culture, Faculty of Arts, Dept. of Indian Languages, Banaras Hindu University in collaboration with B.B. Koirala Foundation, 5-6 October 2012.

Projects

Prof. Pratap C. Pradhan

Title of the Project: Complete Works of Roop Naravan Singh

Project granted by Sahitya Akademi, New Delhi

Duration: 2011 - 2013.

Dr. Kavita Lama

Title of the project-"Bharatiya Nepali Balsahityama Nari Sastra: Ek Adhyayan" (Women writer

in Indian Nepali Children's Literature: A Study)

Duration-One Year

Source of Funding-UGC

Amount of Funding-Rs. 1,01,400/- (One lakh one thousand and four hundred only.

Period - 4" March 2012 - 4" March 2013

Seminars/Conferences

Dr. Lama participated in the Interactive Session with the students and faculty members of New School, New York, Yunnan University, Calcutta University and Sikkim University organized by New School at Hotel Fortune, Darjeeling on 9th August 2012. She participated as a Resource Person in the Nepali-Bangla and Nepali-English Translation Workshops on the Tamang Selo, Madalay Geet, Lahari and Sawai organised by the Centre for Translation of Indian Literature (CENTIL) on 27-30 August 2012, Department of Comparative Literature, Jadavpur University. She participated as a Resource Person in the Workshop on Creative Writing and Illustration for Children along with a Panel Discussion on Contemporary Indian Children's Literature and Storytelling in collaboration with the NGO Centre for People's Empowerment and Development, organized by National Book Trust, India of MHRD, Govt. of India in collaboration with Sikkim Akademi on 18-20 March 2013 at Hotel Rendzevous, Gangtok, Sikkim.

Samar Sinha presented a poster at the 3rd International Conference on Sign Linguistics and Deaf Education in Asia organised by the Centre for Sign Linguistics and Deaf Studies at The Chinese University of Hong Kong, 30 Jan. – 2 Feb. 2013. Topic: "Phonetics of Sonority in Indian Sign Language". He also presented a paper at the Faculty of Language: Design and Interfaces, Dept. of Humanities and Social Sciences, Indian Institute of Technology Delhi, 11-12 Feb. 2013. Topic: "Index in Sign Language: An interface requirement in search of features".

Balaram Pandey presented a paper on "Folk Theater of Sikkim: Origin and Development" at the International Seminar on Indigeneous and Ethnic Himalayan Languages, Literature and Culture, Dept. of Indian Languages, Banaras Hindu University, 5-6 October, 2012. He presented a paper on "Languages of Sikkim" at the workshop on People's Linguistic Survey of India, organised by Bhaasa Research and Publication Centre, ICSSR, New Delhi, 21-23 September 2013. He was also a Panel Discussant on Standardisation and Spelling Uniformity in Nepali Language, jointly organised by Nepali Sahitya Parishad Sikkim and Dept. of Culture, Govt. of Sikkim, Gangtok, 12 July 2012.

Department of Law and Legal Jurisprudence Studies School of Law and Governance

Name of the Department In-charge: Mr. Veer Mayank
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Faculty Profile

Mr. Veer Mayank, Assistant Professor, is B.A.LL.B., LL.M. Before joining the department in August 2010 he was a practicing advocate. He completed M.Phil Degree in the field of International Law from the Centre for International Legal Studies, School of International Studies, Jawaharlal Nehru University in 2009. His areas of specialization are International Economic Laws, International Trade Laws and Competition Law.

Ms. Denkila Bhutia, Assistant Professor, is B.A.LL.B., LL.M. She joined the department in May 2012, She received BA.LLB from Bangalore University and Master of Law (LL.M) degree in Human Rights Law from National Law School of India University (NLSIU), Bangalore. She was associated with a Law firm in New Delhi and also has the experience of practicing in the District Courts and High Court of Sikkim. She was associated with Sikkim Government Law College as Assistant Professor prior to joining the University.

Dr. Nidhi Saxena, Assistant Professor, is B.Sc., LL.M., PhD. She joined the department in January 2013. Her Ph.D. is entitled "Cyber Crime - Misuse of Electronic Technology - A Legal Study in the Light of Human Rights" with scholarship for one year in Babasaheb Bhimrao Ambedkar University, Lucknow in 2009. She has publications in reputed international and national journals. She has successfully participated in various training programmes on diverse subjects in both physical and virtual format.

She is member of the Indian Society of International Law, All Indian Law Teachers Congress, New Delhi and many other reputed law societies in India. Her areas of research are Cyber Laws, Business Law & Administrative Laws. Prior to joining Sikkim University, she was working as an Assistant Professor in the Institute of Law, Nirma University, Ahmedabad. She was also a member of the Board of Studies in Mody Institute of Technology & Sciences and a member of Academic Council, BBA University, Lucknow.

Publications

Nidhi Saxena. "Ethico-Legal investigation of Patenting of Biotechnological Invention Involving Human Stem cell", *Elixir Inter. Law*, 55 (2013) 12973-12977.

Seminars/Conferences

Mr. Veer Mayank presented a research paper titled "Trans-boundary Management of Water Resources: Requirement of Shift from a Rights Based Approach to a Need-Based Approach" at the National Seminar on "Federalism, Foreign Policy and Border States; Dynamics from North-East States of India" held on March 22-23, 2013 and organized by the Department of International Relation/Politics, Sikkim University, Gangtok, Sikkim and sponsored by the Indian Council of Social Science Research, New Delhi. He participated in 10-day Introductory Course for Young Law Teachers on Teaching and Research in Law organized by IBA-CLE Chair, National Law School of India University and Menon Institute of Legal Advocacy Training held from 2 to 11 January 2013 at the Institute of Law, Nirma University, Ahmedabad.

Ms. Denkila Bhutia presented a research paper on "Legal Protection against Domestic Violence in India" at the conference on Social Security of Women in India organized by the Department of Social Systems and Anthropology, Sikkim University, Gangtok, Sikkim held on March 30-31, 2013.

Dr. Nidhi Saxena presented a research paper entitled "Electronic governance and service: An evaluation with Human rights perspective" at the International Conference on Human Rights law, Justice and Governance at the School of Legal Studies, Babsaheb Bhimrao Ambedkar University, Lucknow on April 26-27, 2013.

Other Activities of the Department

Mr. Jay Kumar, Ms. Bobita Lama and Ms. Shradha Adhikari participated in the 2rd Ranka UFYLC Moot Court Competition organised by Rajasthan Five Year Law College, Rajasthan University, Rajasthan on September 23-26, 2012.

Mr. Harshvardhan, Ms. Preeti Sharma, Mr. Mahesh Gajmer and Ms. Samarmit Lepeha participated in Surana & Surana Moot Court Competition organized by the National Law University Judicial Academy, Gauhati on September 21-23, 2012.

The department organized an Intra-University Debate Competition on "The Institution of Marriage has lost its Appeal" on March 7, 2013.

Mr. Jay Kumar, Ms. Sunita Panth and Ms. Kavita Lama participated in the Justice A. M. Bhattacharjee Memorial All India Moot Court Competition organized by the Indian Institute Legal Studies, Dagapur, Siliguri on March 22-24, 2013.

The students of the department did their internships at:

Sikkim High Court, Sikkim

District Court, East Khasi Hills, Meghalaya

United Nations High Commission for Refugees, New Delhi

National Commission for Women, New Delhi

District Court, Gaya, Bihar

District Court, Darjeeling

Goodwill Animal Shelter, Darjeeling

Office of the Attorney-General, Bhutan

Senior Advocate, Patna High Court

District Court, Namchi, Sikkim

Burnthang District Court, Burnthang, Bhutan

High Court of Bhutan, Thimpu

Shamakami Lam Jingshai, Meghalaya

Department of Microbiology School of Life Sciences

Name of the Head: Dr. Hare Krishna Tiwari

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Faculty Profile

Prof. Jyoti Prakash Tamang is M.Sc. (Gold Medal), Ph.D. from North Bengal University and Post-doctorate from Japan and Germany. He joined the department as Professor in March 2012. He has been awarded a number of prestigious awards from India, USA and Japan. He is also a Fellow of the National Academy of Agricultural Sciences, Fellow of Association of Microbiologists of India, and Fellow of Biotech Research Society of India. He has more than 27 years of research career in microbiology and biotechnology of fermented food and beverages of Himalayan regions of India. He has completed several projects funded by DBT, DES, UGC and other agencies. Under his guidance 7 PhD candidates have been awarded. He is also a member of various scientific and academic committees of India and abroad. He has over hundred publications in reputed journals with high impact factors. He has also authored couple of books from CRC Press of USA and book chapters with reputed publishers. His broad area of research interest is food microbiology concerning ethnic fermented foods and beverages.

Dr. Hare Krishna Tiwari completed his Ph.D in Medical Microbiology from the Institute of Medical Sciences, Banaras Hindu University, India in 2006. His Ph.D research was on genotypic and phenotypic characterization of *Staphylococcus aureus* with special reference to antibiotic resistance. He did Master's in Microbiology from Dr. RML Avadh University in 1997, during which he worked on mosquitocidal effect of Bacillus thuringiensis as biopesticide. He has more than 14 years of experience of teaching and research. In March 2012 Dr. Tiwari joined Sikkim University as Associate Professor of Microbiology. Earlier he was working as Associate Professor in the Department of Microbiology at Manipal College of Medical Sciences, Pokhara, Nepal. He has authored many original articles in reputed journals and a book chapter. He has presented various articles in national and international forums and undergone different scientific trainings. The area of his research interest is medical microbiology especially pathogenesis and mechanism of drug resistance of pathogens such as MRSA, MDR TB, enteric pathogens, and HIV.

Dr. Bimala Singh has obtained her Ph.D from the School of Life Sciences, Jawaharlal Nehru University. The area of her present research interest is study of antimicrobial and antioxidant properties of herbal plants of Sikkim. Her teaching interests are Bacteriology, Environmental Microbiology and Clinical Microbiology. She has published her research papers in peer-reviewed national and international journals.

Dr. Buddhiman Tamang has obtained his Ph.D. from North Bengal University (NBU). The area of his research is lactic acid bacteria and functional foods and teaching interests are Food Microbiology and Microbial Biochemistry. He has published research papers in peer-reviewed international and national journals.

Dr. Nagendra Thakur obtained his Ph.D. from Ludwig-Maximilian University, Germany and 3 years of Post Doctoral Fellow in the field of Herpes Virology at the Louisiana State University Health Science Center, USA. He worked in several international laboratories such as KAIST in S. Korea, HKUST in Hong Kong and SDU in Denmark. The areas of his research are virology and extremophiles. His areas of teaching interests are Molecular Virology, Molecular Biology and Immunology. He has published his research papers in international journals and filed two international patents.

Publications

- Yonzan, H. and Tarnang, J.P. (2013). Optimization of traditional processing of Selroti, a popular cereal-based fermented food. *Journal of Scientific and Industrial Research* 72: 43-47. (Impact Factor: 0.587).
- Ghimire, B.K., Tamang, J.P., Yu, C.Y., Jung, S.J., and Chung, I.M. (2012). Antioxidant, antimicrobial activity and inhibition of α-glucosidase activity by *Betula alnoides* Buch, bark extract and their relationship with polyphenolic compounds concentration. *Immunopharmacology and Immunotoxicology* doi: 10.3109/08923973.2012.661739. (Impact Factor: 1.829).

- Tamang, J.P., Tamang, N., Thapa, S., Dewan, S., Tamang, B.M., Yonzan, H., Rai, A.K., Chettri, R., Chakrabarty, J. and Kharel, N. (2012). Microorganisms and nutritional value of ethnic fermented foods and alcoholic beverages of North East India. *Indian Journal of Traditional Knowledge*, 11 (1): 7-25. (IF: 0.399).
- Tamang, J.P. (2012). Ancient food culture: history and ethnicity. In: *Globalisation and Cultural Practices in Mountain Areas: Dynamics, Dimensions and Implications* (Ed: Lama, M.P.). Sikkim University Press and Indus Publishing Company, New Delhi, pp. 43-63.
- Tamang, J.P. (2012). Chapter 4. Plant-Based Fermented Foods and Beverages of Asia. In: *Handbook of Plant-Based Fermented Food and Beverage Technology*, Second Edition (Eds. Y. H. Hui and E. Özgül Evranuz). CRC Press, Taylor & Francis Group, New York, pp. 49–90. Print ISBN: 978-1-4398-4904-0; eBook ISBN: 978-1-4398-7069-3. DOI: 10.1201/b12055-6.
- Tamang, J.P. (2012). Access and benefit sharing model for ethnic fermented foods in North East India. In: *Appropriate technologies for North East India* (Ed: Murty, U.S.N.). Associate Publishing Company, New Delhi, pp.130-155.
- Bhatta, D.R., Gokhale, S., Ansari, M.T., Tiwari, H.K., Gaur, A., Mathuria, J.P., Ghosh, A.N. "Gonococcal infections: The trends of antimicrobial susceptibility of Neisseria gonorrhoeae in Western Nepal". *Nepal Journal of Medical Sciences*, 2012; 1(2):74.8.
- Aniruddha Bhattacharjee, A.K. Chandra, H.K. Tiwari, Tabarak Malik. "Scrum thyroid hormone and thyrotropin levels in school children from goiter endemic sub-Himalayan tarai region of Eastern Uttar Pradesh, India," *Curr Pediatr Res*, 2013; 17(1): 27-30.
- Abhishck Gaur, Bipin Chappagain, Dharamraj Bhatt, Mohd. Tasawar Ansari, Shishir Gokhale, Hare Krishna Tiwari "Mobile phones colonized by pathogenic bacteria used by health care workers in Western Nepal; a potential risk to Nosocomial Infection". *International Journal of Occupational Safety and Health*, Vol 3, No 1, (2013): 5-10.
- Pant, K., Singh, B. and Thakur, N. (2012). Shilajit: A Humic Matter Panacea for Cancer. International Journal of Toxicological and Pharmacological Research, 4(2): 17-25. (IF: 1.1)
- Rajapure, V.A., Tirwa, R. K., Poudyal, H. and Thakur, N. (2013). Prevalence and risk factors associated with sexually transmitted diseases (STDs) in Sikkim. *Journal of Community Health*, 38: (1) 156-162.
- Sayak Das, Mingma Thundu Sherpa, Swati Sachdeva and Nagendra Thakur. (2012). Hot springs of Sikkim (*Tatopani*): A socio medical conjuncture which amalgamates religion, faith, traditional belief and tourism. *Asian Academic Research Journal of Social Sciences and Humanities*, 1(4):80-93.
- Tirwa, R. K., Rajapure, V. A., Poudyal, H. and Thakur N. (2012). Prevalence and Risk Factors Associated with Gastro-Intestinal Tract Infections in Sikkim. *Journal of Community Medicine and Health Education*, Vol 2(7): DOI: 10.4172/2161-711.1000174.
- Ghatani, K., Thakur, N. and Tamang B. (2012). Isolation and Characterization of Potential cholesterol Lowering Probiotic Lactic Acid Bacteria. *International Journal of Agriculture and Food Science Technology*, Vol 3 (2): 118-123.

- Das, S., Sherpa, M. T., and Thakur, N. (2012). Sikkim's *Tatopani* A Balenotherapeutic Prospect for Community Health in North East India. *International Journal of Agriculture and Food Science Technology*, Vol 3 (2): 149-152.
- Sha, S. P., Tamang B., Thakur, N. and Tamang, J. P. (2012). *Haria*, a traditional, rice fermented alcoholic beverage of West Bengal. *International Journal of Agriculture and Food Science Technology*, Vol 3 (2): 157-160.
- Sherpa, M., Das, S. and Thakur, N. (2013). Physicochemical analysis of Hot water springs of Sikkim-Polok Tatopani, Borong Tatopani and Reshi Tatopani. Recent Research in Science and Technology, Vol 5(1): 63-67.
- Sha, S. P., Tamang, J. P. and Thakur N. (2013). Dabai, a traditional, rice-based starter culture for production of fermented alcoholic beverage *Haria* of West Bengal. *Engineering and Management International Journal of Environmental*, Vol 3(5): 45-52.
- Sha, S. P., Tamang, J. P., Tamang, B. and Thakur N. (2013). Microbiological studies of Haria, a traditional rice fermented alcoholic beverage of West Bengal. *International Journal of Environmental Engineering and Management*, Vol 3(5): 53-59.
- Gajamer, V.R., Najara, I. N., Hemant, P. and Thakur, N. (2013). Prevalence of Liver Diseases in Sikkim and its associated Risk Factors. *The Journal of Public Health Photon*, Vol 115: 140-146.
- Pant, K., Singh, B. and Thakur, N. (2012). *Shilajit*: A Humic Matter Panacea for Cancer. *International Journal of Toxicological and Pharmacological Research*, 4(2): 17-25. (IF: 1.1).
- Ghatani, K., Thakur, N. and Tamang B. (2012). Isolation and Characterization of Potential cholesterol Lowering Probiotic Lactic Acid Bacteria. *International Journal of Agriculture and Food Science Technology*, Vol 3 (2): 118-123.
- Sha, S. P., Tamang B., Thakur, N and Tamang, J. P. (2012). *Haria*, a traditional, rice fermented alcoholic beverage of West Bengal. *International Journal of Agriculture and Food Science Technology*, Vol 3 (2): 157-160.
- Sha, S. P., Tamang, J. P., Tamang, B. and Thakur N. (2013). Microbiological studies of Haria, a traditional rice fermented alcoholic beverage of West Bengal. *International Journal of Environmental Engineering and Management*, Vol 3(5): 53-59.

Seminars/conferences

Dr. H. K. Tiwari participated as resource person in the National Workshop on Laboratory based Surveillance of Antimicrobial Resistance and Application of WHONET in Laboratory Data Management Manipal College of Medical Sciences, Pokhara, Nepal from 30 September to 5 October 2012.

Faculty improvement programmes

Dr. Bimala Singh participated in the UGC sponsored 84° Orientation Course organised by the Academic Staff College, Jawaharlal Nehru University, New Delhi from 4 to 29 March 2013.

Patents/Awards/honours/recognition

Professor Dr. Jyoti Prakash Tamang was granted patent by the Patent Office, Government of India, Kolkata vide Patent No: 253460, date of grant: 24.07.2012 for 20 years, Patent Application No: 100/KOL/2003. He was conferred Fellowship of the National Academy of Agricultural Sciences (FNAAS) in 2013. He was elected as a member of the International Executive Board of Asian Federation of Societies of Lactic Acid Bacteria, Singapore.

MPhil/Guidance

- 1. Study on the Antimicrobial and Antioxidant Activities of Some Herbal Plants of Sikkim by Ms. Pramila Koirala. Supervisor: Dr. Bimala Singh.
- 2. Microbiological Studies of *Haria*, a traditional rice fermented alcoholic beverage of West Bengal by Mr. Shankar Prasad Sha. Supervisor: Dr. Nagendra Thakur.
- 3. Isolation and Characterization of Cholestrol utilizing Probiotic Lactic Acid Bacteria by Ms. Kriti Ghatani, Supervisor; Dr. B.M. Tamang.

Invited lectures delivered

Professor Dr. Jyoti Prakash Tamang delivered Guest Lecture on Biotechnology of animal-based fermented foods of the world at the Faculty of Animal HusbandryPadjadjaran University, Bandung, Indonesia for 3 days (January 27-30, 2013).

Collaboration

The department has collaboration with the National Dairy Research Institute, Karnal, Haryana.

Department of Management and Commerce School of Management and Commerce

Head of the Department: Dr. A. N. Shankar, Associate Professor

Office Number: 03592-251968

Mobile Number: 9434510004 and 8293829270

Faculty Profile

Dr. A N Shankar, Associate Professor, is M.Com (1997) CMD-PG College, Guru Ghasidas University, Bilaspur, Ph.D (Corporate Social Responsibility (2009), Dept. of Commerce, NEHU Shillong. His areas of specialization are Accounting and Finance, Investment Management, E-Commerce, Computer Application in Business and Research.

Dr. Shailendra Kumar Singh, Assistant Professor, is M.Com, MBA, Ph.D (Micro Finance. His areas of specialization are Financial Management, Marketing and Investment Management.

Dr. Pradip Kumar Das, Assistant Professor, is M.A (Economics), Master in Personnel Management and Industrial Relations, Ph.D (IIRM). His areas of specialization are Organisational Behaviour, Human Resource Management and Industrial Relations.

Mr. Bivek Tamang, Assistant Professor, is M.Com and his areas of specialization are Accounting and Finance.

Department's Activities

Actively initiated the MoU for academic tie-up with Knowledge for Markets, a unit of Multiple Commodity Exchange–Stock Exchange (MCX-SX), Mumbai. Organised four invited talks for students of Management and Commerce as industry-academy interface by two speakers from the Reserve Bank of India, one from Revenue and Expenditure Department, Govt. of Sikkim, and one from NABARD, Gangtok.

Publications

Shailendra Kumar Singh. "Marketing Paradigm in the emerging Indian Rural Market". *In Emerging Marketing Paradigms*, edited by Usha Kiran Rai, Alok Kumar Rai, and S.K. Singh. (ISBN-978-9382062-73-8), Excel Publication, New Delhi.

Shailendra Kumar Singh. "Impact of Economic Slowdown upon the Western and Indian Work Culture" Aatmbodh, (ISSN. 0972-1398) Vol. 8, No.2, Autumn 2013, pp. 29-31.

Seminars/Conferences

Dr. Shailender Kumar Singh presented a paper titled "Marketing Strategy in the context of changing taste and demand of modern Rural consumers of India" at the National Conference on Empowering Rural Consumers: Opportunities, Challenges and Strategies organized by IIPA (Indian Institute of Public Administration,) November 1-2, 2012. He presented a paper titled "Border Trade and North Eastern States of India: A SWOT Analysis" at the National Seminar on "Federalism, Foreign Policy and Border States: Dynamics from North East India" organized by Sikkim Central University, Gangtok on 22-23 March 2013. He presented a paper titled "Marketing Paradigms in Emerging Indian Rural Market" at the International Conference on *Marketing Paradigms in Emerging Economies*, Banaras Hindu University, Dec 4-5, 2012, and International Conference on Climate Change, Jamil Millia Islamia, March 6-7, 2013 and made poster presentation on "Climate change and gender."

Dr. Pradip Kumar Das attended the seminar on Role of IGNOU for augmenting Higher Education through ODL. Paper presented: Education in Sikkim: Future Role of open and Distance Learning, 15-16 March 2013, IGNOU, Gangtok. He participated in the National Seminar on Federalism, Foreign Policy and Border States, 22-23 March 2013. Sikkim University Dept of IR and ICSSR, Gangtok. Paper: Indo-Myanmar Border Trade: Challenges and Prospects. He participated in the National Seminar on Social Security of Women in India, 30-31March 2013, organized by Department of Social Systems and Anthropology. Paper: "Domestic Violence against Women in India: Causes, Consequences and Remedies".

Faculty Improvement Programmes

Dr. Shailendra Kumar Singh attended the Orientation cum Workshop on USAID "Climate Risk Management Program (CRM)" organized by Govt. of India-United Nation Development Programme (GOI-UNDP) in collaboration with Sikkim State Disaster Management Authority, Land Revenue and Disaster Management Department, Sept. 4, 2012, Gangtok, Sikkim.

M.Phil/Ph.D Guidence

M.Phil degree was awarded to Miss Brenda Fanai on "Impact of Stock Market Fluctuations on Commodity Derivatives in India", Mizoram University in September 2012, co-supervised by Dr. A. N. Shankar and Dr. Bhartendu Singh.

Department of Journalism and Mass Communication School of Media, Communication and Information Sciences

Name of the Head: Dr. V. Krishna Ananth. Associate Professor

Office No: 03592-251702 Mobile No: +91-9046711160

Faculty Profile

Dr. V. Krishna Ananth has MA, M.Phil and Ph.D in History from Jawaharlal Nehru University, New Delhi. His doctoral study was on the working class and the Indian National Movement in Madras Presidency. He also has a Bachelor's degree in Law from Dr. Ambedkar Law University, Tamil Nadu. His areas of interest are political journalism, media law and ethics, media in the context of globalisation and news analysis. He has authored three books and has written extensively on political, developmental and constitutional issues in newspapers and journals. He has also lectured in different parts of the country on these subjects.

Manoj Kumar Das has a Master's and M.Phil degrees in Mass Communication from Assam University, Silchar. His ongoing doctoral research at the Centre for Culture, Media and Governance, Jamia Millia Islamia, New Delhi, is on anthropological reading of televised religion. His areas of interests are media anthropology, television studies, development support communication (DSC), media policy and indigenous communication.

Ms. Jasmine Yimchunger received her Master's degree in Communication from the University of Hyderabad. She is currently pursuing her PhD from the Department of Communication, University of Hyderabad and her thesis is entitled 'Television and Youth culture in Nagaland'. Her areas of interest include identities and representations, visual sociology, indigenous social movements, cultural studies, audience studies, television and new media studies.

Publications

V. Krishna Ananth (2012). *Indiya Arasiyal Varalaru* – *Sudantharathukku Piragu* (in Tamil), New Horizon Media Pvt Limited, Chennai, ISBN: 978-81-8493-764-0.

V. Krishna Ananth (2012). Coalgate: A Skewed Debate. *Economic and Political Weekly*, October 6, 2012, Volume XLVII, No.40, pp. 22-25.

Seminars/Conferences

Bhutia, Ugen and Deepmoni Gogoi (MPhil scholars) presented a paper titeld "The Assertion of the Lepchas of Dzongu against the Hydel Power Project" at the national seminar on *Issues of ethnic Identity and Ethnic Conflict in North East India* at Tezpur University, 30.01.2012.

Dr. V. Krishna Ananth presented a paper titled 'The Woman in Bankim Chandra Chatterjee's *Anand Math*: Some Implications for the Contemporary Discourse' at the National Seminar on Social Security of Women in India organised by Sikkim University in collaboration with Association of Indian Universities at Gangtok, 30-31 March 2013.

Faculty Improvement Programmes

Manoj Kumar Das attended the Refresher Course on Media Studies and Governance organised by Academie Staff College, Jamia Millia Islamia, New Delhi, from 15.2.13 to 8.3.13.

Invited Lectures delivered

Dr. I. Krishna Ananth spoke on 'Parliamentary Sovereignty versus Judicial Supremacy: Reflections on the Basic Structure Doctrine,' at the Justice H.R. Khanna Memorial Seminar, Department of Legal & Jurisprudence Studies, Sikkim University, Gangtok, May 23, 2012. He lectures on 'Indian Nationalism and the Media,' at the Asian College of Journalism, Chennai, August 17, 2012. He lectured on 'Liberalisation and the Media in India,' at the Academic Staff College, North Bengal University, Siliguri, October 6, 2012. He lectured on 'Human Rights and the Media: Experiences in the era of Globalisation,' at the Academic Staff College, Bharathidasan University, Tiruchirapalli, December 18, 2012 and on 'Media Ethics and Freedom with special reference to Section 66A of the IT Act, 2000,' Department of Media and Communication, Pondichery University, Pudduchery, January 28, 2013.

Das, Manoj Kumar presented a paper titled 'Teaching Media Policy to media students: Some experiences, some reflections', at the National Faculty Workshop on Challenges of Teaching Media, Public Policy and Law at the Central University of Rajasthan, organised jointly by the Centre for Culture Media and Governance (CCMG) Jamia Millia Islamia, New Delhi and Central University of Rajasthan, November 1-2, 2012.



Equipment added during the year

(I) Lighting equipments

- 1. Baby Lights
- 2, Multi10
- 3. Light Stand

Cutter Stand Multi-media Lab computer terminals and a server with corel draw and adobe



Department of Peace and Conflict Studies and Management School of Peace, Conflict and Human Security Studies

Name of the Head: Dr. Nawal K. Paswan Office Tel. No.: +91-3592-251441 Mobile No.: 9775996279

Email: nkpaswan@gmail.com

Faculty Profile

Dr. Nawal K. Paswan, Associate Professor, is MA, M. Phil, Ph.D. His areas of specialization are International Relations and Economics. His areas of interest are Research Methodology, Natural Resource Conflicts and Management, Conflict and Cooperation, Cross-border Migration, Refugee and Conflict, Strategic and Development issues in North East India.

Dr. Salvin Paul is MA, M. Phil, Ph.D. His areas of specialization are International Relations and Security Studies and his areas of interest are Theory of Peace and Conflict, Traditional and Non-Traditional Security Discourses, Religion, Conflict and Peace Building, Environmental Security and Sustainable Development, Traditional Knowledge and Intellectual Property Rights.

Dr. Sanghamitra Choudhury is MA, M. Phil, Ph.D. His areas of specialization are Human Rights and Peace and Conflict and his areas of interest are Gender and Peace Building, Gandhian Perspective on Non-Violence, International Organisation and Conflict Resolution, Migration, Refugee and Conflict, Conflict Response Mechanisms and Techniques.

Mr. Bidhan Golay is MA, M. Phil. His areas of specialization are Political Theory and Ethnic Nationalism and his areas of interest are Development, Peace and Security, Understanding Violence, Insurgency, Social Movements and Terrorism, Perspectives on Terrorism, Conflict and Peace in India's North East.

Publications

- Kadirov S. Mukadirovich and Paswan, Nawal K. (2013), *Internal Combustion Engines*, APII Publishing Corporation, New Delhi (ISBN:978-93-313-1937-1; xvii+459 pages).
- Paswan, Nawal K. Investment Potential and Cooperation in Central Asia: Prospects and Challenges, *India Quarterly*, Jan-March 2013, 69(1):13-33, Sage publication.
- Paul, Salvin, "India-Pakistan Cricket Diplomacy Pitching for Peace and Prosperity", September 2012, http://www.diplomatist.com/dipo9th2012/story 002.htm,
- Choudhury, Sanghamitra, 'Empowerment for all or Empowerment for Some? A Case Study of Women Vendors in local haats around Sikkim'. In S. K. Singh et.al (eds), *Integrated Marketing Communication: A Research Agenda*, Global Publishing House, Guwahati, 2012, (ISBN No 978-93-81563-24-3).
- Choudhury Sanghamitra, "Community Policing: A Case Study from Assam India". *Himalayan Journal of Social Sciences*, Volume 2, Issue No. 2, October 2012; pp.32-38. (ISSN 2231-6639).

Seminars/Conferences

Nawal K. Paswan delivered a lecture cum presentation on "Illegal Migration and Smuggling of Migrants from South Asia: A case Study of India" at the Institute of Global Ethnology and Anthropology (IGEA), Minzu University of China (MUC), Beijing, China, 29th March 2013 (http://igea.muc.edu.on Newshow.asp?NewsId=63). He was a discussant at the round table meeting on *The dynamics of Sikkim's economic development* organized by British Deputy High Commissioner (Eastern India, Kolkata), Mr. Sanjay Wadvani and Ms. Suhani Arora (Political Economic Advisor) and delegates from United Kingdom on 11 March 2013 in Gangtok, Sikkim. He delivered a lecture cum presentation on (i) "Writing a Research Report" and (ii) Questionnaire and Report Writing" at the 10-day *National Level*

Research Methodology Workshop, organised by Department of International Relations and Politics, Sikkim University in collaboration with ICSSR, New Delhi at Sikkim University Conference Hall, during 3 - 11 March 2013, Gangtok, Sikkim. He presented a paper on "Afghan-Pak Transit Trade Agreement: Status, Challenges and Implications" at the international conference jointly organized by Indian Council for Research on International Economic Relations and MacArthur Foundation, New Delhi, 30-31 July 2012 (http://www.icrier.org/pdf/nk_paswan.pdf).

Paul Salvin presented a paper (jointly with Sanita Rai) on "Gender inequality in Women's property inheritance rights: A case study of Married Women in Sikkim", at the Sixth Biennial International Conference of Indian Association for Asian Pacific Studies, organised by the Department of South and South-East Asian Studies, University of Calcutta, Kolkata, 17 December 2012.

Sanghamitra Choudhury presented a paper on "Marketing Strategy in the context of changing taste and demand of modern Rural consumers of India" at the National Conference on 'Empowering Rural Consumers: Opportunities, Challenges and Strategies' organized by IIPA (Indian Institute of Public Administration), 1-2 November, 2012. She delivered a key note on "Learning Proverbs through Folktales: Studies from Assam" at the International Association of Paremiology, 4-11 November 2012 in Tavira, Portugal, Europe. She chaired the session on 'Youth and internet' at the SIKITEX, National Seminar and Exhibition organized by Department of IT, Sikkim, 22-23 November 2012, Gangtok, Sikkim. She presented a paper (jointly with Jayanta Tamuly) on "Understanding Gender and conflict over natural resources through literary texts from Assam" in an international conference on *The Eastern Himalaya: Climate Change, Livelihoods and Poverty* held in JMI, New Delhi on 7-8 March, 2013. She presented a paper on "Border Trade and NER: A SWOT Analysis" at a National Seminar on *Federalism, Foreign Policy and Border States: Dynamics in NE States of India*, Sikkim University, 22-23 March 2013. She presented a paper on "Women at crossroads: A study of Conflict and Trauma in NER" at a National Seminar on *Social security of women in India*, Sikkim University, 30-31 March 2013.

Bidhan Golay presented paper on "The Securitisation of the Northeast India: Histories, Identities and the Nationality Question", at the UGC-sponsored National Seminar on Trans-border Migration, Human Security and Environmentalism in South Asia with Reference to Himalayan and Adjacent Regions, on 20 March, 2013 at the Centre for Himalayan Studies, University of North Bengal. He delivered an invited lecture titled, "Interrogating Gorkha Identity in India", at the National Executive Council Meet of Bharatiya Gorkha Parisangh, International Youth Hostel, Chanakyapuri, New Delhi, 23 March 2013.

Patents/Awards/Honours/Recognition

Nawal K. Paswan received a Visiting Fellowship at Institute of South Asian Studies, Siehuan University, Chengdu, China (March-April 2013) to work on "Trade Potential and Investment Cooperation between China and South Asia". He received travel and maintenance grant from the Indian Council of Social Science Research (ICSSR) to complete his forthcoming book *China-Central Asia Border Trade and Infrastructure Building: Implications for India* (March 2013). He is nominated as a member of Editorial Board of *Journal of South Asian Studies* (http://escijournals.net JSAS), e-SciJournals Publishing, Pakistan (2013-15)

Paul Salvin was awarded Associate Membership of the Indian Association for Asian Pacific Studies, Kolkata, 2012.

Sanghamitra Choudhury became a Life Member of Paremiology Association of Europe, Portugal (2012 onwards).

MPhil/PhD Guidance

Diki Bhutia was awarded M.Phil degree on "Gender Differences and Human trafficking: A Case Study of Darjeeling District" under the supervision of Dr. Nawal K. Paswan (2012).

Bittu Subba was awarded M.Phil degree on "Understanding Food Security in Sikkim: A Case Study of BPL Families in Shyari Block" under the supervision of Dr. Nawal K. Paswan (2012).

Sanita Rai was awarded M.Phil degree on "Property Law and its Implications for Married Women in Sikkim" under the supervision of Dr. Salvin Paul (2012).

Jayanta Madhab Tamuly was awarded M.Phil degree on "Studying Conflict through Literature: A Case Study of Assam Movement" under the supervision of Dr. Sanghamitra Choudhury (2012).

Aswant Katwal was awarded M.Phil degree on "The Gorkhaland Conflict-Alternative Model of Analysis and Resolution" under the supervision of Mr. Bidhan Golay (2012).

Students' Academic Activities

Ashwant Katwal (Ph.D - II Sem) presented a paper on "The Gorkhaland Conflict: An Analysis of the Sources and Threat Perceptions", at National Seminar on *Conflict Transformation, Peace and Ethnic Divide in India's Northeast: The Context of Recent Trends*, organised by S. Kula Women's College and ICSSR on 3-4 May 2013, Guwahati. He also published an article titled "The Gorkhaland Conflict: An Analysis of the Sources and Threat Perceptions", in L. Muhindro Singh (ed.) *Conflict Transformation, Peace and Ethnic Divide in India's Northeast: The Context of Recent Trends*, Kamakhya Publishing House, Guwahati, 2013 (ISBN No. 978-81-907756-1).

Bittu Subba (Ph.D.-II Sem) attended the 10-day National Level Research Methodology Workshop organised by the Department of International Relations and Politics, Sikkim University in collaboration with ICSSR, New Delhi at Sikkim University Conference Hall, on 2 - 11 March 2013, Gangtok, Sikkim. He attended a workshop on Research Methods in Social Sciences organised by OKDISCD, Guwahati,

from 27 January to 4 February 2013. He presented a paper on "Food security in the Hill state of Sikkim" at the National Seminar on Food Security in India: Issues and Perspectives, UGC sponsored one day seminar organised by Department of Economics, Post Graduate College for Girls, Chandigarh, 16 November 2012. He presented a paper on "Indian Foreign Policy towards border state: A case study of Sikkim 1947-75" at the National Seminar *on Federalism, Foreign Policy and Border States: Dynamics in NE States of India*, Sikkim University, 22-23 March 2013.

Diki Bhutia (Ph.D - II Sem) presented (jointly with Sunil Verma) a paper in the Scientific Programme of the 30th International Congress of Psychology held at Cape town International Convention Centre on Ethnicity Gender and Self: A study of Northeast India, 2012. She also attended the 10-day National Level Research Methodology Workshop, organised by Department of International Relations and Politics, Sikkim University in collaboration with ICSSR, New Delhi at Sikkim University Conference Hall, on 2 - 11 March 2013, Gangtok, Sikkim.

Japhet Darangwn (MPhil-IV Sem) attended the 10-day National Level Research Methodology Workshop, organised by Department of International Relations and Politics, Sikkim University in collaboration with ICSSR, New Delhi at Sikkim University Conference Hall, on 2 - 11 March 2013, Gangtok, Sikkim. He presented a paper on 'Development in Sikkim: Local Perspectives' at the National Level Research Methodology Workshop, organised by Department of International Relations and Politics, Sikkim University in collaboration with ICSSR, New Delhi at Sikkim University Conference Hall, on 22-23 March 2013, Gangtok, Sikkim. He presented a paper on "Analysis of 6th Schedule governance in multi ethnic North Cachar District of Assam" at the national seminar held at Udaipur College, Udaipur, Tripura on December 12 and 22, 2012.

Jayanta Madhab Tamuly (Ph.D-II Sem) attended a course on research methodology jointly organised by ICSSR and Omeo Kumar Das Institute of Social Change and Development, 2 - 11 January 2012. He was awarded a Residency Fellowship to work on "Hydel Power Development in Sikkim, An Assessment of The Teesta Project" at the Centre for North East Studies, Jamia Millia Islamia, under Sikkim Studies Exchange Programme, May-July, 2012. He participated in the national seminar on Governance and Peace building, organised by Calcutta Research Group, Guwahati, 26-27 Feb, 2012. He presented a paper (jointly with Sanghamintra Choudhury) on "Understanding Gender and conflict over natural resources through literary texts from Assam" at the international conference on 'The Eastern Himalaya: Climate Change, Livelihoods and Poverty' organized by JMI, New Delhi on 7 - 8 March 2013. He presented a paper on 'Text, context and conflict-studying conflict through literature" at the North East Young Social Scientist Meet, ICSSR-NER Programme, held at OKDISCD, 22-23 January 2013.

Sanita Rai (Ph.D-II Sem) presented a paper (jointly with Salvin Paul) on "Gender Inequality in Women's property inheritance rights: A case study of Married Women in Sikkim" at the Sixth Biennial International Conference of Indian Association for Asian Pacific Studies, organised by the Department of South and South-East Asian Studies, University of Calcutta, Kolkata, 17 December 2012. Tenzing Kungphel (M.Phil-II Sem) attended the 10-day National Level Research Methodology Workshop organised by the Department of International Relations and Politics, Sikkim University in collaboration with ICSSR, New Delhi at Sikkim University Conference Hall, on 2-11 March 2013, Gangtok, Sikkim.

Tikendra K. Chhetry (M.Phil-IV Sem) presented a paper on 'Solid Waste Management in Sikkim' at the National Level Research Methodology Workshop organised by Department of International Relations and Politics, Sikkim University in collaboration with ICSSR, New Delhi at Sikkim University Conference Hall, on 2-11 March 2013, Gangtok, Sikkim. He presented a paper on "Migrant Labour (Contract Labour) and violation of Labour Laws vis-a-vis Human rights: A case study under-construction Pakyong Airport, East Sikkim" at Bodoland University, Kokrajbar, Assam April 11, 2013. He attended the 10-day National Level Research Methodology Workshop, organised by Department of International Relations/Politics, Sikkim University in collaboration with ICSSR, New Delhi at Sikkim University Conference Hall, on 2-11 March 2013, Gangtok, Sikkim. He presented a paper on "Gorkhas of Assam: On the predicament of open border policy of Indo-Nepal Friendship treaty 1950" at the national seminar held at Department of International Relation, Sikkim university, on March 22, 2013. He presented a paper on "The impact of ethnic conflicts on Gorkhas of Assam: A study of Gorkhas in Chirang (BTAD), Assam" at the National seminar organized by Udaipur College, Udaipur, Tripura on 12 December, 2012.

Wascen Ahmad Shah and Debashish Nath (M.Phil - II Sem) jointly presented a paper on "Understanding India's Look East Policy: A Critical Overview of developmental Crisis and Prospects for Addressing the Multi-dimensional Conflicts In North East India" at the National Seminar on *Federalism, foreign Policy and Border States: Dynamics in NE States of India*, Sikkim University, 22-23 March 2013.

Department of Chemical Sciences School of Physical and Chemical Sciences

The Department of Chemical Sciences was established in 2010 and is under the School of Physical and Chemical Sciences. Currently the department has four faculty members and one scientific officer. The department offers M.Sc., M.Phil and Ph.D. courses in the field of Chemical Sciences. The academic curriculum followed in the department is a blend of both traditional field of organic, physical and inorganic chemistry and diverse areas of biochemistry, nanoscience, materials, environmental, theoretical and supramolecular chemistry. To support research activities, the department hosts the state-of-the-art instruments like 400 MHz Nuclear Magnetic Resonance (NMR), High Performance Liquid Chromatography (HPLC), Single Crystal and Powder X-ray diffractometer (XRD), FTIR, UV-Vis spectroscopy, TGA, DSC, Polarimeter, Electrochemical analyzer etc. In addition to books and other reading materials, the department has online access to various international journals related to the field of chemistry namely, American Chemical Society (ACS), Royal Society of Chemistry (RSC), Science Direct journals etc.. Database such as Scifinder are also now accessible.

Dr. Somendra Nath Chakraborty, Assistant Professor, received his Ph.D. degree from IIT Delhi in 2007. Before joining Sikkim University, he did his post-doctoral research at the Washington University, University of Texas and Colarado School of Mines between 2007 and 2012. His research interests are in Monte Carlo, Molecular Dynamics simulation of solids and fluids, phase equilibrium studies of systems like hydrate, modelling, advanced free energy simulations like metadynamics, umbrella sampling and transition path sampling, reaction co-ordinates, search for complex systems, and energy landscape properties of simple systems.

Dr. Sudarsan Tamang, Assistant Professor, received his Ph.D. from the University of Grenoble, France in 2011. He worked as a CSIR research fellow for two and half year at the National Chemical Laboratory, Pune from 2006 to 2008 and also attended the University of Liverpool, UK for exchange programme (2007). His present research interests include nanomaterials and solar cells.

Dr. Biswajit Gopal Roy, Scientific Officer, received his Ph.D degree from the Indian Institute of Chemical Biology, Kolkata in 2007 and carried out post doctoral research in POSTECH, South Korea, University of California, Riverside and Queens University, Canada. His fields of research include synthesis of natural products and methodology development.

Students' Achievements (2012-2013)

National Eligibility Test (NET) qualified by two students:

- * Suman Chhetri (All India rank 45) and
- * J. Sarath Kumar (All India rank 71)

GATE qualified by two students:

- * Arnab Shit (All India rank 520)
- * Ria Sinha Roy (All India rank 973)

Publications

Graeme J. Stasiuk, Sudaran Tamang, Daniel Imbert, Chistelle Gateau, Peter Reiss, Pascal Fries and Matrinella Mazzanti. Increasing relaxivity of Gd(III) Chelates appended to InP/ZnS quantum dots, *Dalton Transactions*, 2013, 42, 8197-8200.

Somendra Nath Chakraborty, Eric Grzelak, Brian Barnes, David T. Wu and Amadeu K. Sum. "Voronoi Tessellation analysis of Clathrate Hydrates", *Journal of Physical Chemistry C*, 2012, 116, 20040.

S. Mukherjee, B. G. Roy, S. N. Das, S. B. Mandal. Deoxygenation/dimerization of sugar derivatives with BF₃: Et₂O-Et₃SiH: synthesis of a β-isonucleoside, *Tetrahedron Lett.* 2012, *53*, 4929–4932.

Major Instrument Installation in the Department during the year

- 400 MHz Nuclear Magnetic Resonance (NMR) spectrometer
- Super Nova Single Crystal X-ray Diffract meter
- · IIPLC System
- High Resolution Powder X-Ray Diffract meter
- TGA
- DSC

List of the instruments in the Department

Sl.No.	Name of the Instrument	Status (As of 1 st June 2013)
1.	FT-IR Spectrometer	Operational
2.	Electrochemical Analyzer	Operational
3.	Differential Scanning Calorimeter	Operational
4,	Powder X-Ray diffraction	Operational
5.	Tube & Muffle Furnace	Operational
6.	Polarimeter	Operational
7.	Microwave Synthesis system	Operational
8.	400 MHz NMR Spectrometer	Operational
9.	Thermo Gravimetric Analyser	Operational
10.	High Performance Liquid	Operational
	Chromatography (HPLC)	
11.	Millipore water Purification System	Operational
12.	Ultra Low Immersion Cooler	Operational
13.	Microprocessor research Centrifuge	Operational
14.	Photoreactor	Operational
15.	UV-Vis Spectrophotometer	Operational
16.	Rotary Evaporator	Operational
17.	High resolution mass spectrometer	Installation scheduled in June 2013
18.	Single crystal X-ray diffractormeter	Operational

Department of Physical Sciences School of Physical and Chemical Sciences

Name of Head: Dr. Subir Mukhopadhyay

Office Number: 03592-232080 Mobile Number: 09547605900

Email Id: subirkm@gmail.com

Faculty Profile

Dr. Ajay Tripathi is MSc from Banaras Hindu University, Varanasi, PhD from Freiburg University, Germany, He joined the department in September 2009. He finished his Bachelor and Master degree in Physics from Banaras Hindu University. After that he joined Freiburg University, Germany to pursue his PhD. After his PhD, he moved to Durham University, England as a Research Associate. In December 2007 he joined the University of Laval, Quebec, Canada to work as a post doctoral fellow. The main area of his research includes Atomic, Molecular and Optical Physics. His PhD is about Bose Einstein condensation (BEC). He has also worked on strong laser field. His research interest is Laser Cooling, Bose Einstein Condensation and Photoelectron Spectroscopy.

Dr. Amitabha Bhattacharyya is MSc. from HT Kanpur and PhD from Raman Research Institute, Bangalore in 1999. He joined Sikkim University in 2012 as Associate Professor. His areas of interest are Soft Condensed Matter, especially Liquid Crystals, Langmuir Monolayers, Gibb's Monolayers, etc. He is currently working on foams and foaming and has published many papers and participated in many conferences, both national and international.

Dr. Archana Tiwari is MSc from Banaras Hindu University, Varanasi and DPhil from the University of Oxford, UK in 2008. She joined Sikkim University as an Assistant Professor in September 2009. Her research interests include earbon nanomaterials and their utility towards quantum computation, bio-energy resources. She has published several research papers in reputed international journals and has also participated in various national and international conferences.

Dr. Hemam Dinesh Singh is MSc from C.C.S. University, Meerut and PhD in Computational Space Plasma from Indian Institute of Technology Delhi, 2009. He has been working in Sikkim University as Assistant Professor from July 2009. His research interests are theoretical and numerical studies of solar-terrestrial interactions, solar wind turbulence, coronal heating, auroral particle acceleration and nonlinear optics. Presently he is Visiting Associate of Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune.

Dr. Subir Mukhopadhyay is MSc from Calcutta University and PhD from Saha Institute of Nuclear Physics. He joined the department in July 2009. He has worked as Post Doctoral Fellow in IOP, Bhubaneswar, HRI, Allahabad, University of Stockholm, Sweden and University of Massachusetts, Amherst, USA. His field of research is Theoretical High Energy Physics. His present research interest is in AdS/CFT correspondence, dynamics of M2 brane and Electromagnetic duality.

Publications

- Harris, M., Tripathi, A., Cornish, S.L., and Hughes, I.G. Optimization of sub-Doppler DAVLL on the Rubidium D2 line, J. Phys. B: At. Mol. Opt. Phys., 41 (2008) 085401.
- Kaefer, C., Bourouis, R., Eurisch, J., Tripathi, A., and Helm, H. Stern-Gerlach Experiments with Cold Trapped Atoms, Physical Review, A80, 023409 (2009).
- Archana Tiwari, Saikiran Vadavalli, Ajay Tripathi, and Anand P. Pathak."Raman and SEM/EDS characterization of Mica, Quartz and Coal basedrocks of Lower Himalayas in Sikkim, India", *Mansoura Journal of Chemistry*, Conference Proceeding of IC2RD 2013, Egypt.

Seminars/Conferences

Dr. Ajay Tripathi presented a paper on "Raman and SEM/EDS characterization of Mica, Quartz and Coal Based rocks of Lower Himalayas in Sikkim, India" at the 11th International Conference on Chemistry and its Role in Development, Mansoura University, Sharm El-Sheikh, Egypt, 11-15th March 2013. He presented a paper titled "Ejection of magnetic field sensitive atoms from an optical dpole trap" at the ISAMP biannual meeting, 14-17 December 2012, HSER, Kolkata.

Dr. Amitabha Bhattacharyya presented a paper on 'Surface Rheology and Foam Stability of Mixed Surfactant-Polyelectrolyte Solutions' at the National Conference on Liquid Crystals, November 21-23, 2012, Thapar University, Patiala, Punjab.

Dr. Archana Tiwari presented a paper on "Raman and SEM EDS characterization of Mica, Quartz and Coal based rocks of Lower Himalayas in Sikkim, India" at the 11th International Conference on Chemistry and its Role in Development, Mansoura University, Sharm El-Sheikh, Egypt, 11-15 March 2013.

Patents/Awards/Honours/Recognition

Archana Tiwari received the "Best Teacher Award in Sciences-2012", Sikkim University, Gangtok, India and the "Best Oral Presentation Award: Young Scientist" at the 11th International Conference on Chemistry and its Role in Development, Mansoura University, Sharm El-Sheikh, Egypt, 11-15 March 2013.

Invited Lectures

Amitabha Bhattacharyya spoke on (a) 'Langmuir Monolayers of Liquid Crystals: A Two Dimensional System', Department of Physics, St Xavier's College, Ranchi in January 2012 and (b) 'Mixed Surfactant-Polymer Systems: Surface Viscoelasticity and Other Properties', Department of Physics, Centre for Soft Material Research, Bangalore, February, 2012.

Major Equipment added during the year



CW EPR, X-band: Commissioned on 04/03/2013 for Spin Measurements



AFM: Commissioned on 12/10/2012 for Surface analysis



Raman Spectrometer: Commissioned on 21/7/2012 for Spectroscopic Characterization



Air-STM : Commissioned in 31/05/2012 for surface analysis



FTIR Spectrophotometer: Commissioned on 20/6/2012 for Spectroscopic Characterization

Projects

"Synthesis and optical readout of potential fullerenes for quantum information processing" sanctioned by UGC-DAE Consortium for Scientific Research, Indore for three years. PI-Dr. Archana Tiwari Co-PI- Dr. Ajay Tripathi. Amount Rs 6,95,400/-.

School of Policy Planning and Studies

Head of the School: Dr. Manesh Choubey

Contact numbers: 03592-251339 (O), 8670984192 (M),

Email: mchoubeysu@gmail.com/mchoubey3@gmail.com

Faculty Profile

Dr. Manesh Choubey, Associate Professor, is M.Sc, Ph.D in Agricultural Economics. His areas of interest are Natural Resource Economics, Agricultural Marketing and Trade, Agricultural Finance. He is recipient of National Scholarship, Junior Research Fellowship (IARI) and Senior Research Fellowship (ICAR, New Delhi). He was associated with various projects sponsored by the Ministry of Agriculture, CAPART, International Livestock Research Institute, Nairobi, Central Agricultural University Imphal, NABARD and Bankers' Institute of Rural Development. He served as faculty at Central Agricultural University, Imphal, Assam Institute of Management, Guwahati, Entrepreneurship Development Institute Ahmedabad and Bankers' Institute of Rural Development, Lucknow. He is a consultant to the Consultative Group to Assist the Poor (CGAP).

Dr. Santosh Kumar Rai, M.SC, Ph.D Botany, is Assistant Professor. His areas of specialization are Ethnobotany and Medicinal plants of Darjeeling-Sikkim Himalayan region. His areas of interest are cross-cultural ethno botanical studies of Eastern Himalayan population; community based participatory natural resource management, policy development on enterprise based conservation through local resources utilization (Non Timber Forest Produces), organic farming, environmental education, plant systematic, floristic research and biodiversity assessment of the Eastern Himalayas.

Dr. Om Prasad Gadde, MA, M.Phil, Ph.D Political Science, is Assistant Professor. Before joining Sikkim University he was associated with organisations like the World Bank, Rajiv Gandhi Foundation and Inter Cultural Resources for various projects. He was involved in a project funded by Princeton University for collecting and documenting the people to people contacts that had taken place between India and Pakistan since independence. He has coordinated more than 7 national and international conferences and participated and rapporteured in a number of seminars, workshops and conferences. He contributed immensely to the building of Sikkim University Central Library, admission policy, infrastructure development, recruitment policies, XII plan proposal and several other projects in Sikkim University. His areas of interests are Energy Sector, Multilateral Agencies, SAARC and Maoist Movement in India.

Dr. Vimal Khawas is MA (Geography), M.Plan (Urban and Regional Planning) and PhD (Environmental Studies). His areas of specialisation are Regional Planning and Development, Environmental Studies. His areas of interest are Development Studies, Environmental Studies, Himalayan Studies.

Dr. Basundhara Chettri is M.Sc, M.Phil., Ph.D. (Zoology). Her areas of specialization are Ecology, Conservation Biology, Zoology. Her areas of interest are ecology, conservation biology, herpetology (ecology and taxonomy) and EIA related work. Current research focuses on spatial distribution pattern and conservation of herpetofauna (amphibians and reptiles) in the Sikkim Himalaya. Her research also focuses to assess the impact of climate change on fauna in the Himalayan region.

Dr. Abdul Hannan, Assistant Professor, is Ph.D from the Centre for the Study of Regional Development, School of Social Sciences, Jawaharlal Nehru University, New Delhi. The title of his thesis is "Employment Conditions in the Small Tea Plantations (STPs) and their impact on the Household Economy: A case study of Islampur subdivision of North Bengal." The title of his MPhil dissertation is "Socio-Environmental Constraints in the Growth of Small Tea Plantations in North Bengal (A case study of Islampur subdivision of West Bengal)". His areas of interest are Plantation Economy and Regional Development; Co-operative Farming, Micro-Finance and Inclusive Development; Fair Trade, Livelihood Studies and Sustainable Development.

Ms. Sangmu Thendup, MA, Mphil (History), specialises in Ancient Indian History. Her areas of interests include Subaltern Studies, Socio-Religious, Cultural and Environmental Issues, Buddhist Studies.

Publications

- Choubey Manesh (2012) "Role of Technology in Financial inclusion in India: Challenges and Policy Issues", *AIMS International Conference Proceedings*, December, 2012 at IIM, Bangalore,
- Choubey Manesh (2013) "Food Securities in Bihar", *Development Meet 2013*, Central University Bihar, Patna, 3-4 March.
- Choubey Manesh (2012) "Quality and sustainability of Joint Liability Group in microfinance institutions": A Case study of Cashpor Microcredit services", *International Journal of Research in Commerce & Management*, (ISSN 0976-2183).
- Rai, S.K. and Bhujel, R.B. 2012. Medicinal plants of Darjeeling Himalayan region. *Himalayan Research Journal*, 1(1):181-195. Kalimpong, India (ISSN: 2278-280X).
- Acharya, B.K. and Chettri, B. (2012) Effect of climate change on birds, herpetofauna and butterflies in Sikkim Himalaya: a preliminary investigation. In: *Climate Change in Sikkim: Patterns, impacts and initiatives* (M. L. Arawatia and Sandeep Tambe eds.). IPR Department, Government of Sikkim, Gangtok, India (ISBN: 978-81-920437-0-8). pp. 141-160.
- Khawas, Vimal (2012). Agriculture in the Sikkim Himalaya: A Geographical Note. In Mohammad Yasin and Durga P. Chhetri (eds), *Politics, Society and Development: Insights from Sikkim*, Kalpaz Publications, New Delhi, 187-202.

- Ilannan, A. (2012). Right to Free and Compulsory Education: A Forthcoming Challenge for Sikkim. *In: Environment, Development and Social Change in Himalayan Region* by Sakarama Somayaji and Vimal Khawas (eds). Akansha Publishing House, New Delhi, 191-210.
- Lama, M. P., Hannan, A. et al (eds). (2012). *Climate Change and Sustainability in Mountain Areas*. Sikkim University Press and Indus Publishing Company, New Delhi.
- Lama, M.P., Gadde, O.P. et al (eds). (2012). *Climate Change and Sustainability in Mountain Areas*. Sikkim University Press and Indus Publishing Company, New Delhi.
- Thendup, Sangmu. (2013). "Environmental Perspectives in Early Buddhism: A Response to Ecological Challenges". In Mathew Koshy Punnackadu (Ed.) *Religious response to Ecological Challenges: Papers presented at the International Ecological Conference held at Nilackal*. Lambert Academic Publishing, 2013, 111-115.

Seminars/conferences

Dr. Manesh Choubey presented a paper on "Role of Technology in Financial inclusion in India: Challenges and Policy Issues" at the AIMS International Conference, 6-8 December, 2012 at IIM, Bangalore. He presented a paper on "Food securities in Bihar" at the Development Meet 2013 held at Central University Bihar, Patna, on 3-4 March 2013.

Dr. Basundhara Chetri presented a paper on "Elevational distribution pattern, their underlying causes, and conservation of herpetofauna along an Eastern Himalayan elevation gradient" at the World Congress of Herpetology University of British Columbia, Vancouver, Canada, 8-14 August 2012.

Dr. Vimal Khawas presented a paper on "Problems on Border Area Development in the Eastern Himalaya: Cases from Darjeeling-Sikkim Himalaya" at the National Seminar on "Transborder Migration, Human Security and Environmentalism in South Asia, with reference to Himalayan and Adjacent Regions", held at the Centre for Himalayan Studies, NBU, Siliguri, 19-20 March 2013.

Dr. Om Prasad Gadde presented a paper on "Energy Sector: Possibilities, Prospects and Opportunities of power trading and integration between India and Bangladesh" at the seminar organized by Department of IR/Politics, School of Global Studies on National Seminar on Federalism, Foreign Policy and Border States: Dynamics from North East States of India on 22-23 March 2013.

Dr. Abdul Hannan presented a paper titled "Informal Trade, Livelihood and Extra-judicial killings in Indo-Bangladesh Border" at the seminar organized by Department of IR/Politics, School of Global Studies on National Seminar on Federalism, Foreign Policy and Border States: Dynamics from North East States of India on 22nd -23nd March 2013. He presented a paper titled "A critical review of Tea Producing Societies [SHGs] in Plantation Sector" at the Northeast Young Social Scientists' Meet organized by the OKD Institute of Social Change and Development on January 22-23, 2013 at Guwahati.

Ms. Sangmu Thandup presented a paper on "Religious Environmentalism: A Response to Climate Change in the Mountain Areas" at the workshop on Climate Change and Mountain Areas: Awareness, Adaptation and Sustainability, organized by FOSEP, Darjeeling in collaboration with Friedrich Ebert Stiftung, Germany, December 17-18, 2012, Darjeeling, West Bengal.

Other Academic Activities

Dr. Vimal Khawas attended the MacArthur Foundation funded research project final workshop and a new project formulation consultation workshop organised by the National Institute of Ecology and hosted by the Mountain Institute-India at Development Area, Gangtok, 18 April 2012. Attended the two-day Capacity Building Workshop on Budget Analysis and Advocacy" on 19-20 November 2012 followed by the "Regional Convention on the Union Budget 2013-14" on 21 November 2012 at hotel Brahmaputra Ashoka, Guwahati organised by the People's Budget Initiative, Centre for Budget and Governance Accountability (CBGA), New Delhi. Attended the workshop on "Hydropower, Water and Development in the Eastern Himalayas" organised by Wageningen University, The Netherlands in association with Sikkim University at Park Hotel, Kalimpong, January 21, 2013. Attended the workshop on "Hydropower, Water and Development in the Eastern Himalayas" organised by Wageningen University, The Netherlands in association with North Bengal University, Committee Room, NBU, January 23, 2013. Attended the workshop on "Hydropower, Water and Development in the Eastern Himalayas" organised by Wageningen University, The Netherlands in association with Nepal Engineering College, Hotel Greenwich, January 25-28, 2013.

Dr. Santosh Kumar Rai attended the Botanical Nomenclature Course organized by the Botanical Survey of India at Kolkata on 11-13 January 2013.

Dr. Abdul Hannan spoke on "Livelihood and Climate Change" at a workshop on Climate Change and Mountain Areas: Awareness, Adaptation and Sustainability held on 17-18 December 2012 at Darjeeling organized by the Federation of Societies for Environmental Protection (FOSEP) in collaboration with Friedrich Ebert Stiftung, New Delhi.

Patents/awards/honours/recognition

Dr. Basundhara Chettri was nominated as an Expert Committee Member, Sikkim State Biodiversity Board, India, for 2012-15.

Dr. Vimal Khawas was honoured by the Vice-Chancellor of Sikkim University with a Certificate of Appreciation for the contribution made towards Sikkim University Building Project (2007-12) on October 18, 2013. He continues to be a Member, State Livelihood Board, Government of Sikkim since 2010.

Dr. Abdul Hannan was honoured by the Vice-Chancellor with a Certificate of Appreciation for the contribution made towards Sikkim University Building Project (2009-12) on October 18, 2012.

Dr. Om Prasad Gadde was honoured by the Vice-Chancellor with a Certificate of Appreciation for the contribution made towards Sikkim University Building Project (2009-12) on October 18, 2012.

Invited lectures delivered:

Dr. Vimal Khawas delivered a lecture on "Traditional Knowledge in Disaster Management in Darjeeling – Sikkim Himalaya" at the Second Disaster Risk Reduction Congress, organised by the Government of West Bengal, Jalpaiguri, West Bengal, April 27-29, 2012.

Department of Floriculture and Horticulture Management School of Sustainable Development and Livelihood Management

Name of the Head: Dr. S. Manivannan
Office Number: 91-3592-251485
Mobile Number: 91-7602878189
Email Id: mani@gardener.com

Faculty Profile

Dr. S. Manivannan, Associate Professor, has MSe and PhD degrees in Horticulture. His areas of specialization are plant nutrition, marker-based studies & micro propagation, omics technology and value addition in horticulture crops.

Dr. Sujata Upadhayay, Assistant Professor, is MSc and PhD in Horticulture and her areas of specialization are fruit science and horticulture biotechnology.

Dr. Manju Rana, Assistant Professor, is MSc and PhD in Horticulture and her areas of specialization are Plant Nutrition, Crop production and Improvement, improvement of minor horticulture crops, and development of protocol for new floriculture crops.

Dr. Dharmendra Pratap, Assistant Professor, is MSe in Biotechnology and PhD in Plant Molecular Virology. His areas of specialisation are Plant Biotechnology, Plant Virology and Biofuel.

Publications

Pratap, D., Raj, S.K., Kumar, S., Snchi, S. K., Gautam, K. K. and Sharma, A.K. (2012). Coat protein-mediated transgenic resistance in tomato against a IB subgroup *Cucumber mosaic virus* strain. *Phytoparasitica*, Vol. 49, No. 4, 375-82. Impact Factor: 0.6

Pratap, D., Kumar, S., Snchi, S. K. and Raj, S.K. (2012). Biological and Molecular Characterization of Cucumber mosaic virus Isolate Causing Shoestring Disease of Tomato in India which has Closer Affinity to European or East Asian Isolates of CMV. *Indian J of Virology*, Vol. 23, No.1, 57-63. Impact Factor: 1.1.

Seminars/Conferences

Sujata Upadhyay presented a paper on "Field Studies on Large Cardamom in the State of Sikkim" at the Fifth Indian Horticulture Congress (An International Meet), Horticultural Society of India, New Delhi, held at Punjab Agricultural University, Ludhiana, November 6-9, 2012. She also presented a paper on "Suggestions on Orchids Promotion in India" at the National Dialogue on Orchids Conservation and Sustainable Development for Community Livelihood, NRC Orchids, Pakyong, Sikkim, Chintan Bhawan, Gangtok, March 8-9, 2013.

Manju Rana organised the National Conference on Tea culture and Science: Special reference to present scenario of Indian Tea on 9th April, 2013 at Sikkim University sponsored by the Tea Board, India.

Other Academic Activities

Dharmendra Pratap attended the 84th Orientation Course from 4th to 29th March 2013 at JNU Academic Staff College, New Delhi. He also attended the International Flower Show and Floriculture Conference held on 23-27 February 2013 in Gangtok, Sikkim.

S. Manivannan participated in the workshop on "Protection of Plant Varieties and Farmers Right Act" organized by ICAR Research Complex for NEH region –Sikkim Centre on 1st March 2013, Tadong, Gangtok.

Manju Rana participated in the National Dialogue on "Orchid Conservation and Sustainable Development for Community Livelihood" organised by NRC for Orchid, Pakyong, 8-9 March 2013 at Gangtok, Sikkim.

Sujata Upadhyay attended the 63rd Orientation Course at Banaras Hindu University, Varanasi held from January 4 to 31, 2013. She also attended the Model Training Course on Conservation of Orchids organized by NRC Orchids, Pakyong from September 19 to 26, 2013.

Patents/awards/honours/recognition

Dharmendra Pratap received membership of Indian Virological Society, New Delhi.

S. Manivannan received membership of International Society of Plant Proteomics.

Sujata Upadhyay received consolation prize in oral presentation of paper "Suggestions on Orchids Promotion in India" at the National Dialogue on Orchids Conservation and Sustainable Development for Community Livelihood, NRC Orchids, Pakyong, Sikkim, Chintan Bhawan, Gangtok, March 8-9, 2013.

Lectures delivered

S. Manivannan delivered lecture on "Technologies and its deliverance for Hill Horticulture" at stake holders' workshop on "Bridging Research to Extension: Strategies and Policies" organised by ICAR Research Complex for NEH region—Sikkim Centre on 11-12 October 2012 in Gangtok.

Manju Rana delivered a lecture on "Intellectual Property Right - An introduction" at the first workshop on Intellectual Property Rights organised by IPR Cell, Sikkim University, 22nd March, 2013.

Major equipment added during the year



ICP-MS which is used for analysing mineral elements present in soil, plant and water

Essential oil extractor which is used for extracting and qualifying essential oil and aromatic compound in plant

Department of Plantation Management and Studies School of Sustainable Development and Livelihood Management

Name of the Head In-Charge: Dr. Niladri Bag
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Email-ld: niladribag@rediffmail.com/sentinchettri@gmail.com

Faculty Profile

Dr. Arun Chettri is M.Se, Ph.D in Botany and his areas of specialization are Plant Ecology and Taxonomy, Plant Diversity, Ecological niche modelling.

Dr. Niladri Bag is M.Se, Ph.D in Botany and his areas of specialization are Cytogenetic and Plant Breeding. Plant tissue culture and plant improvement.

Major achievements of the Department

One Analytical Laboratory and one Plant Tissue Culture Laboratory with high end instruments were established. Department obtained annual grant-in-aid of Rs.3 lakhs per annum from the Tea Board of India to strengthen its activities and further research collaboration. The department also organized one interactive programme with Mr. Raja Banerjee (tea expert), owner of famous Makaibari Tea Estate in Darjeeling, The Department of Commerce and Industries, Govt. of Sikkim and Human Resource Development Department, Govt. of Sikkim have permitted the department to avail the facilities of Temi Tea Estate for training, demonstration and research of our students for the said programme.

Publications

Arun Chettri, S. K. Barik, Bikarma 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.

Bikarma Singh, Arun Chettri, Dibyendu Adhikari and Saroj K. Barik. (2012). Taxonomic history, Rediscovery and Assessment of threat status of Streblus ilicifolius (Moraceae) from India. *Journal of Botanical Research Institute of Texas*, 6(2): 611-614.

Niladri Bag, Chandra, S., Palni, L.M.S. and Nandi, S.K. (2012). Somatic embryogenesis in 'Maggar' bamboo (Dendrocalamus hamiltonii) and field performance of regenerated plants. *Current Science*, 102(9): 1279-1287.

Bag, A., Jyala, N.S. and Bag, N. (2012). Indian Studies on Genetic Polymorphisms and Cancer Risk. Indian Journal of Cancer, 49(1): 144-162.

Central Services Central Library

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Brief Introduction

During the reporting period, the Central Library of the University started issuing books to all the students, faculty members and staff of the University.

The present collection is about 33 thousand books, 1178 Braille books and 561 CD/DVD on various academic disciplines. In addition, the Library has a collection of 2723 books pertaining to undergraduate courses. In 2013, the Library subscribed to 209 nationally and internationally renowned academic journals. Total 21 national and local dailies are presently being subscribed by the Central Library procured more than 9,600 books on different subjects in March 2013.

The Library is open from 9.30 am to 5:30 pm on all working days and from 9:30 am to 1:30 pm on Saturdays. Presently 10 books are being issued to the faculty members and 5 books to all other users, including the common public, for a duration of 21 days. A separately designed, RFID chip embedded Library card is issued to all the users to facilitate self check-in/check-out system. The users are now able to issue books through the Kiosk hosted at the Central Library.

Further, academic community of the University is provided with necessary reference/information service based on their specific need. In addition, the Library extends reference and internet services to the University academic community as well as to the civil society members.

Online Resources

In collaboration with the UGC InfoNet of INFLIBNET Centre (an autonomous Inter-University Centre of the University Grants Commission) and DeLCON (Department of Biotechnology Library Consortium), academic community of the University can access online resources extended by these consortia. The full-text and abstracting service available through these consortia include publications of American Chemical Society, American Institute of Physics, American Physical

Society, Annual Reviews, Cambridge University Press, Economic & Political Weekly, Emerald, Institute of Physics, JCCC, JSTOR, Knimbus, MathSciNet, Nature, Oxford University Press, Project Euclid, Project Muse, Royal Society of Chemistry, Springer Link, Taylor & Francis, Web of Science, Wiley-Blackwell, etc. Presently above 7000 e-journals e-resources, cutting across several academic disciplines are available through the above mentioned consortia.

In addition to these resources, to enhance the quality of research activities of the University, the Library has subscribed to SciFinder, Economic Outlook (CMIE Reports) and IndiaStat database during the reporting period. Further, to produce qualitative research work by the academic community of the University, the Library has facilitated access to a renowned anti-plagiarism software to the faculty members.

Science Library

To fulfill the needs of the academic community, a branch library with a collection of about 1500 science text books is maintained in the Science Block located at Tadong. This branch library also subscribes to national and local dailies.

Satellite Libraries

As a part of University library network, satellite libraries were established in the affiliated colleges of the University. The University provided 1,740 books to these colleges to meet the urgent needs of the faculty members and the students. However, it has been decided to transfer those books to the colleges as one-time donation.

ICT Infrastructure and Library Automation

The Ministry of Information Technology, Govt of India sanctioned exclusive 1 Gbps connectivity to Sikkim University to facilitate usages of electronic resources. Connectivity has been established since November 2010. The entire Library building is presently Wi-Fi connected and users are allowed to access the internet facilities through their own laptops. Additionally about 10 computer terminals in the Library are solely dedicated for accessing the electronic resources.

Library is in progress of retro-converting the catalogue data in its Library Management Software. At present about 20,000 books have been catalogued out of which 17,000 books are already RFID tagged and available for circulation.

Sikkim University Book Fair-2013

The Library organized SIKKIM UNIVERSITY BOOK FAIR-2013 on 18-20 March 2013. The event was inaugurated by Brig. (Dr.) Somnath Mishra, Vice-Chancellor, Sikkim Manipal University. A total of 12 book-sellers and publishers participated in this three-day event and the response from the academic community of the University, colleges and public was overwhelming.

Dean of Students' Welfare

Dean of Students' Welfare: Dr. Dhaniraj Chhetri Telephone: 03592-231198

Email Id: dhanirajc@gmail.com

Students' Activities

Freestyle Dance Competition called 'Sawaney Jhari' was held on 13th August 2012 as a part of 5th Foundation Day Celebration. Various performances in both traditional and Western dances were shown by students from the University, affiliated colleges and other institutes.





The students of the University participated in the "Akhra-Tribal India International Festival" held at the Central University of Jharkhand, Ranchi, on 8-10 November 2012.

Sport Activities



The students of the University participated in the 65th Independence Day Open Football Tournament from 1th to 15th August 2012.

Other Activities

The students of the University participated in the Hindi Week Celebration from 31/08/2012 to 14/09/2012.



Interactive Session with on 30th the Chancellor Justice (Mrs) Ruma Pal March 2013

Examination Department

Controller of Examinations (In-Charge): Dr. Suresh Gurung O3592-251540

Email ID: suskgurung@gmail.com

The University boasts of declaring its results within 20 days from the last date of examination despite a skeletal staff strength.

Monsoon Semester Results 2012

In Monsoon 2012 Semester 5756 candidates appeared in various examinations out of which 89.21 per cent students got promotion to the next semester.

UGC-NET Examination

The University conducted UGC-NET examination in June and December 2012 the details of which are shown below.

Particulars	Total applications	Total candidates	Total passed	Passed candidates	
	received	appeared	from SU centre	from Sikkim	
June 2012	556	487	51	32	
December 2012	565	478	31	16	

Finance Department

The University received generous support from the Government of India through the Ministry of Human Resources Development and the University Grants Commission. During the year under report, financial grants in aid received by the university under the XII Plan was Rs.51.72 crore. The expenditure during the year was Rs 34.75 erore. While the Annual Accounts of the University reveal full details of transactions, a brief summary of expenditure vis-à-vis receipts is tabulated below:

Receipts*		Ex p enditure*		
Head	Amount (Rs. in lakh)	Head	Amount (Rs. in lakh)	
Opening balance	672.10	Recurring		
Grants from UGC	5172.50	Salaries	810.41	
Academic receipts	117.85	Fellowship	38.22	
Interest earned	101.30	Academic Expenses	334.20	
		Administrative expenses	660.37	
		Establishment & Other expenses	58.27	
		Recurring Sub-Total (A)	1901.47	
		Non-Recurring		
		Books	348.19	
		Laboratory equipments	880.85	
		Other infrastructure (computers, networking, furniture, fixture, office equipment etc)	340.34	
		Non-Recurring Sub-Total(B)	1569,38	
		(C) Merged Schemes	4.23	
		(A+B+C) Total	3475.08	
		Unutilized Amount C/O	2618.97	
TOTAL	6094.05	TOTAL	6094.05	

* The figures shown are subject to statutory audit.

Being a new university set up in 2007, there is no Non-Plan grant. Allocation of Plan grants for 2012-13 was approved for Rs 5,300 lakh, which included tentative allocation under different heads. Even as the process of building of campus remained to be initiated, the amount of grant released during the year aggregated to Rs.5172.50 lakh under all schemes. Overall utilization of grants so received during the year (2012-2013) was Rs 3475.08 lakh which was 57 percent. Expenditure towards creation of capital assets was Rs 1569.38 lakh and internal generation of revenue was Rs 249.15 lakh.

The university pursued stringent austerity measures in its financial administration in the year under report. It however had to incur relatively more administrative expenditure in the areas of rent on hiring buildings, security services, internal transport, electricity and telecommunication services, due to its operation from 19 hired buildings scattered in dispersed and non-homogeneous geographical locations, which have remained a matter of concern.

Health Centre

Medical Officer: Dr. Manjushree Thapa Manger

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Mobile number: 8388066478

Email id: Manjushreethapa@gmaileity.com

Brief Description of the Health Centre

The Health Centre was started with one Medical Officer and one Staff Nurse in the month of May 2012. At present, the Centre is situated in the building adjacent to the Kanchendzonga Management Block, 6° mile, Tadong, Gangtok. The Medical Officer has an MBBS from JIPMER, Pondicherry. She was Medical Officer of the State Tuberculosis Cell for 6 yrs before she joined the University.

Facilities Available at the Health Centre

Outpatient Clinic

The outpatient needs of the students, employees and their dependents are taken care of in the Outpatient Clinic. Minor procedures are also done during 9:30 am to 5:30 pm on weekdays.

Emergency facilities

The students, employees and their dependents are given emergency services, via consultation at the Health Centre and telephonic consultation 24x7.

Inpatient facilities

The students, employees and their dependents are provided with inpatient facilities in the clinic itself.

Dispensary

The center houses all essential drugs, both oral and injectables. Drugs are dispensed by the Staff Nurse as per the prescription of the Medical Officer.

Ambulance facility

Ambulance/Pool Vehicle is provided for medical emergency purposes.

Hindi Cell

Hindi Officer: Shri Shailesh Shukla

Telephone number: 08759411563

Email ID: poetshailesh@gmail.com

Works Done by Hindi Cell

Translation of Annual Report 2011-12 in Hindi

Translation of Annual Accounts 2011-12 in Hindi

Reply of all letters in Hindi which are received in Hindi

Translation of Sikkim University's Monthly Newsletter "SU Chronicle" in Hindi.

Preparation of quarterly report on the University on use of Hindi.

Regular Monthly Meetings of University Rajbhasha Implementation Committee Meeting

Sikkim University constituted a Rajbhasha Implementation Committee under the chairmanship of the Vice-Chancellor with representatives from teaching departments, administration, finance section, examination wing and library. Monthly meetings of the Rajbhasha Implementing Committee are organized regularly.

Hasva Kavi Sammelan

The Hindi Cell organised the Hasya Kavi Sammelan on 11th August 2012 in which renowned national poets from across the country like Dr. Saraswat Mohan Manishi, Mr. Rajendra Raja and Mr. Baghi Chacha recited their poems. Besides them local poets like Tiru Prasad Nepal, ijay Subba and Amar Bania Lohoro also read their poems.



Hindi Pakhwara

The Hindi Cell organized a 15-day Hindi Pakhwara from 31° August to 14th September 2012. In the inaugural ceremony of this programme was held on 31° August 2012. Shri Subhash Deepak, a senior journalist of Sikkim graced the occasion as the Chief Guest and Shri Binay Raj Tiwari, Assistant Director, Doordarshan, Aizawl was the Guest of Honor. The inaugural session was chaired by Prof. J.P.Tamang, Acting Registrar of the University. During this Pakhwara the Hindi Cell conducted various activities like singing, dancing, poetry recitation, and self-written story reading in various languages. In the closing ceremony Shri Gopal Shaw, a journalist from Siliguri graced the occasion as Chief Guest. Mr. Irfan Alam, another journalist from Siliguri and Prof. Pratap Chandra Pradhan, were the Guests of Honour of the ceremony.



Hindi Classes for Employees to prepare for Hindi examination

Till January 2013, 36 faculty and administrative staff of the University were enrolled in various courses run under Hindi Teaching Scheme by Rajbhasha Vibhag like Prabodh, Praveen, and Praagya. The Hindi Cell conducted classes for candidates enrolled in these courses.

Participation in training, workshop and seminar

Shri Shailesh Shukla, Hindi Officer, participated in 5-day orientation programme organized by Rajbhasha Department, Ministry of Home Affairs, New Deli for Hindi Officers from 15th October to 19th October 2012 in New Delhi. He participated in 3-day Rajbhasha Seminar organized by Rajbhasha evam Prabandhan Vikas Parishad at Goa from 6th to 8th November 2012. He also participated in 3-day seminar on 'Scientific & Technical Terminology'organized by the Commission for Scientific and Technical Terminology, MHRD, Govt. of India from 2th March to 4th March 2013 at Kohima, Nagaland.

Ms. Jutika Goswami, Hindi Translator, participated in the 3-day Special Hindi Seminar and Workshop organized by Hindi Academi, New Delhi from 11th to 13th July at Nainital. She also participated in 5-day training in Hindi computer organized by the Rajbhasha Department, Ministry of Home Affairs, Maligaon, Guwahati from 4th to 8th February 2013.

Editorial Board

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