TEZPUR UNIVERSITY
ANNUAL REPORT
2016-17

VISION

To develop human excellence and inculcate leadership through hard work and creativity.

MISSION

To make Tezpur University as one of the most preferred destinations for students, teachers and scholars, and employees. To be amongst the top 50 Universities of the world...

ANNUAL REPORT
2016-17



Specialized Knowledge Promotes Creativity

TEZPUR UNIVERSITY
Napaam, Tezpur 784028, Assam



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From the Vice Chancellor

Tezpur University
(*a Central University*)
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Assam, India

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- *Visitor's Best University Award 2016*
- *NIRF India Rankings 2016: 05*
- *Accredited with 'A' Grade by NAAC*

Professor Madan M. Sarma
Vice-Chancellor (Acting)

It is my privilege to bring out the annual report of the University for the year 2016-17. The achievement of the bygone year has been a testimony to our commitment to steady-growth and development in the field of academics. In the year 2016-17, the University reached 24th year of its existence. The year was also important as this was the concluding year of the XII Plan Period.

Our basic priority is to ensure aconducive environment for the entire teaching-learning process while promoting cutting-edge research. I feel that the University has been able to achieve considerable progress in both these fronts. We conducted 72 academic programmes with around 3700 students. The encouraging fact is that 43 per cent of the total students are girls. Altogether 108 PhD students have been provided financial support through Institutional Fellowship. The University has produced 68 quality PhDs during the period under report. This is quite an encouraging number for a relatively small university like ours. During this period, 646 students got their Post Graduate Degrees while 251 students graduated with their first degree. We have also been able to attract a number of foreign students. During the year, students were encouraged to participate in various types of co-curricular activities for their holistic development. Our students participated in various cultural and sports events and competitions in different parts of the country including UNIFEST conducted by AIU and brought laurels to the University. As a residential university according to the mandate of the Act we have been able to accommodate the students in hostels in the campus and provide basic facilities for their comfortable stay.

The scenario in research front is also quite encouraging. During the year under report, around 514 papers were published in peer reviewed journals. Nearly 203 sponsored research projects with funding to the tune Rs. 7521.86 Lakh (approx) have been going on. Due support is being provided to the students and teachers for participating in National/International Seminars/Symposiums/Workshops. Ten Academic Departments are getting support for research through UGC-SAP (DRS) while five are immensely benefitted from DIST-FIST Programmes. The University was ranked 5th in the NIRF India Rankings 2016 while it was placed at 140th in the Times Higher Education BRICS University Ranking. In addition, our University could figure in the 601-800 group of Times Higher Education World University rankings. These facts bear testimony to our relentless effort to enhance the quality of academic growth and development.

The University has had a number of good practices in the administrative front for ensuring transparency in administrative governance. We have a distinct track record of cent per cent utilization of funds provided by the Government of India. All the developmental projects undertaken during the XII Plan period have been duly completed and put to use.

I take this opportunity to profusely thank the members of various statutory committees of the University for their utmost cooperation and guidance in the decision making process. I convey my sincere gratitude to the members of the faculty and staff for their hard work and unrelenting effort in smooth running of the institution. I sincerely hope that our collective efforts will enable us to scale greater heights in the days to come.

I thank the annual report committee for their sincere endeavour in the preparation of the report on time.

Date : 28 November, 2017
Place :Tezpur

Madan M. Sarma
Vice-Chancellor (acting)

Tezpur University
Annual Report 2016-2017
A Gist

University Profile

Name of the University	**Tezpur University**
State	Assam
Address	Napaam Tezpur 784028, Sonitpur District
Year of Establishment	1994
Type of University	Central and Unitary

HIGHLIGHTS OF THE YEAR 2016-2017

Vice-Chancellor	Professor Mihir K. Chaudhuri, FASc, FNA Professor Madan M. Sharma (Acting) (from May, 2017)
Pro Vice-Chancellor	Professor Manabendra Bhuyan
Registrar	Dr Biren Das

Total number of

Academic departments	: 22
Academic centers	: 05
Academic programmes	: 72
Students	: 3759
Female	: 1611
Male	: 2148
International students	: 10
Teachers	: 249
Female	: 62
Male	: 187
Teachers (General)	: 136
Teachers (SC/ST/OBC)	: 113 (SC-33, ST-20, OBC-60)
Non-teaching employees	: 270
Female	: 28
Male	: 242
Non-teaching employees (General)	: 108
Non-teaching employees (SC/ST/OBC)	: 162 (SC-45, ST-22, OBC-95)
Total departments under UGC-SAP DRS I	: 05
Total departments under UGC-SAP DRS II	: 05

Total departments under DST-FIST	: 05
Departments under Centre of Excellence	: 01
Departments under Centre of Potential for Excellence in Particular Areas	: 01
Sponsored ongoing projects	: 203
Sponsored projects beginning 2016-17	: 45
International collaborative research projects	: 13
Total financial outlay	: 7521.86 lakh
Total amount earned through consultancy projects	: 9.46 lakh
Papers published by faculty in national and international journals	: 514
Conference proceedings	: 138
Books/Book chapters produced by the faculty	: 78
Global Initiative of Academic Networks (GIAN) courses	: 07
Seminars/Workshops organized by various Departments/Centres	: 101
Seminars/Workshops attended by faculty abroad and in India	: 256
Talks given by faculty aboard and in India	: 134
International visits by students and faculty members	: 13
International visitors to the University	: 41
International fellowships	: 09
Awards received by faculty members	: 28
Total number of students who qualifiedNET, SLET, GATE	: 168

Financial Profile

Annual Budget (Non-Plan)	Rs. 7958.09 lakh
Annual Budget (Plan)	Rs. 1875.47 lakh

Funds utilized for infrastructure development (2016-17)

Building	Rs. 1358.32 lakh
Library Books & Journals	Rs. 107.01 lakh
Equipment and Plant & Machinery	Rs. 96.49 lakh
Furniture & Fixture	Rs. 139.02 lakh
Computers and Peripherals	Rs. 78.70 lakh

Infrastructure Development

The following construction activities were taken up and completed during 2016-17:

i. Construction of RCC 3-storied 100 capacity Boys hostel building
ii. Barrier free environment- Construction of Ramps and Toilets for differently abled persons
iii. Construction of Swimming pool nearing completion

Further highlights of the year

A number of noteworthy events took place in the university during the period, which includes the following:

- In the first ever academic ranking exercise among the Institutes of higher learning through National Institute Ranking Framework instituted by the Ministry of Human Resource

Development, Tezpur University was placed at fifth position among the participating universities/academic institutes of the country.

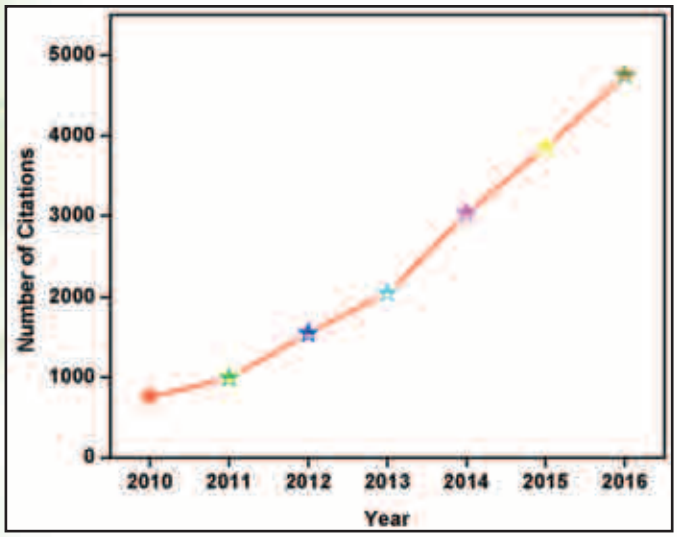
- Prof. N Karak, Department of Chemical Sciences of the University, was awarded the Visitors Award in the research category for development of renewable resource based bio-degradable hyper-branched polymer nano-composites as self-cleaning, self-healing and bio-compatible smart sustainable futuristic material.
- Prof.Nashreen S Islam, Department of Chemical Sciences, Tezpur University was awarded the prestigious Indian National Science Academy (INSA) Teacher Award for the year 2016 for her excellent contributions to Chemistry education.
- Prof. M K Chaudhuri, Vice Chancellor of the University received two prestigious awards, the first being the Academic Excellence Award 2017 instituted by Amity University, Noida, and the second, Acharya P. C. Ray Memorial Award 2015 instituted by the Indian Chemical Society, Kolkata.
- Dr. N M Kakoty, Department of Electronics and Communication Engineering was awarded the Best Young Engineer Award (North East Region, India) by Senior Engineers Forum, Guwahati.
- Dr. S P Deka, Research Associate, Centre for Assamese Studies was awarded the prestigious YuvaPuraskar by BharatiyaBhashaParishad for the year 2015-16.
- Dr. P Nath, Department of Physics, Dr. K Ahamad, Department of Civil Engineering, and Mr. I Hussain, Research Scholar, Department of Physics, received the prestigious GYTI award 2017.
- Prof. T K Maji and his research student Ms. Chinmayee Saikia were selected as Runner-ups for the 7th National Award for Technology Innovation in the category of Research.
- Students of the University bagged six national prizes in the 32nd All India Inter University National Youth Festival (Shivotsav) 2017 organized by the Association of Indian Universities (AIU) in the Shivaji University, Maharashtra, 10-14 February 2017.
- The Times Higher Education World University Rankings 2016-2017 placed Tezpur University within the top 800 Universities (in the 601-800 slab) of the world.
- The Times Higher Education (THE) Asia University Rankings 2017 placed Tezpur University in the 131-140 slab among the top 300 Universities of Asia.
- The Times Higher Education World University Rankings placed Tezpur University within the 150 Universities among the top 200 World Universities which are within 50 years of their existence.
- Four BTech programmes of the Departments of CSE, ECE, FET and ME received National Board of Accreditation (NBA).
- Mr. Pallab Kumar Borah and Mr. Hilal Ahmed Makroo (both PhD Scholars) received the Commonwealth Split-Site PhD Fellowship.
- Ms. Duyi Samyor (PhD Scholar) received the Newton Bhabha Placement Fellowship.

- Mr. Shah Faisal (PhD Scholar) received the Chinese Government Scholarship for the year 2016-18.
- Mr. Monjurul Hoque received the GE foundation Fellowship for the year 2016-17.
- Ms. Riya Bhadra and Mr. Onkar Sharma received the IASc-INSA-NASI Summer Research Fellowship 2016.
- Ms.Rizwin Khanam, Research Scholar, Department of Physics received the Maulana Abul Kalam Azad National Fellowship.
- Ms. Kakoli Bhattacharya, Research Scholar, received the Raman-Charpak Fellowship to carry out a part of her doctoral research in Claude Bernard University, France.
- Mr. D K Jha, Research Scholar, was conferred the Best Innovation Idea Award on the World IPR Day.

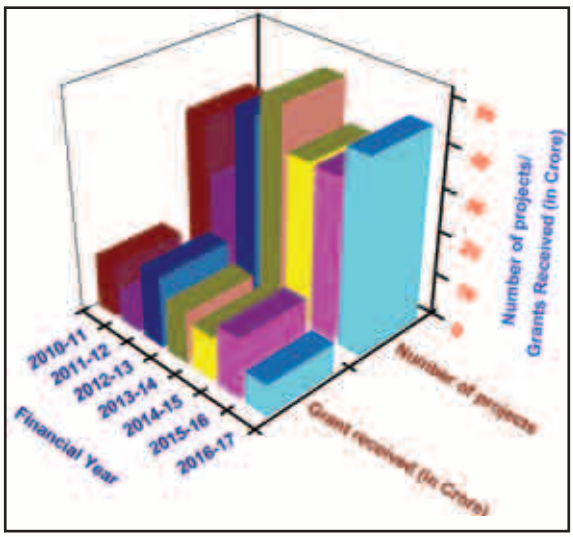


Highlights of Our Performance

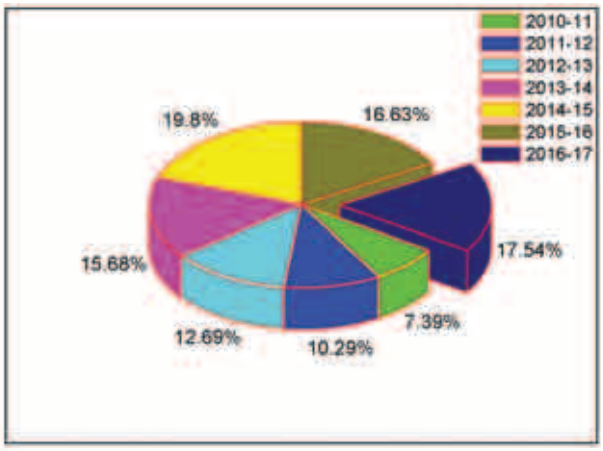
Source: Web of Science



Yearwise Citation Plot



Project fund details



Number of Publication vs Year

Until 2017:

Number of publications	2359
Sum of the times cited	22809
Sum of the times cited without self-citations	18669
Citing a rticles	17128
Citing articles without self-citations	15709
Average citations per item	9.67
h-index	54

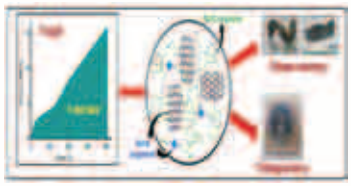
Our Notable Achievements during the Year



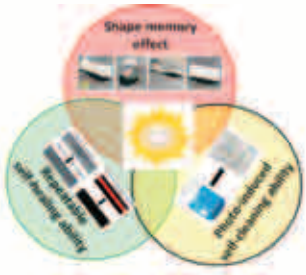
NIRF India Rankings 2016- Tezpur University ranked 5th in the National Institutional Ranking framework (NIRF) released in April 04, 2016. India Rankings 2016 was the country's first exercise to rank the higher educational institutions in the country based on objective, identifiable parameters.

Visitor's Award 2017 to Prof. Niranjan Karak. - In a prestigious recognition to Tezpur University, Professor Niranjan Karak of the Department of Chemical Sciences was jointly awarded The Visitor's award 2017 in 'research' category alongwith Dr. Shyam Sundar from Banaras Hindu University at "Festival of Innovations" held at Rashtrapati Bhavan on March 4-10, 2017. His research basically emphasized on the development of renewable resources based biodegradable hyperbranched polymer nanocomposites as self-cleaning, self-healing and biocompatible smart materials. His research is involved in exploring the enormous prospects of various renewable resources (e.g.Mesuaferrea Linn seed oil, sunflower oil, castor oil, starch, tannic acid, citric acid, sorbitol, etc.) modified special architectural polymers and their nanocomposites with different nanomaterials including modified nanoclays, metals, metal oxides, functionalized MWCNT, carbon quantum dot, graphene oxide, reduced graphene oxide, polyaniline nanofibers, etc. for avant-garde applications.

A typical tough transparent smart biocompatible self-healing and self-cleaning polymer nanocomposite from bio-based raw materials.







INSA Teacher Award to Prof. Nashreen S Islam: Professor Nashreen S Islam of Department of Chemical Sciences, Tezpur University was awarded the prestigious Indian National Science Academy (INSA) Teacher Award for the year 2016 for her excellent contribution to Chemistry education.The award was presented to her in the Anniversary Meeting of INSA, held at NISER, Bhubaneswar during 28-30 December, 2016.The Academy has instituted the INSA Teacher Award tohonour teachers for providing guidance, inspiration and mentoring students to take up careers in Science and Technology.The award consists of a scroll, cash award of Rs 50,000 and a book grant of Rs 20,000, was presented to her in the anniversary meeting of INSA, held at NISER, Bhubaneswar. Professor Islam, former Dean (Research & Development) of Tezpur University, has earlier received the Chemical Research Society of India (CRSI) Bronze Medal for her significant research contributions to Chemistry in the year 2010.



Prof. Mihir K Chaudhuri, Vice Chancellor of the University was selected for two prestigious awards, the first being the Academic Excellence Award 2017 instituted by Amity University, Noida, and the second one is Acharya P. C. Ray Memorial Award 2015 instituted by the Indian Chemical Society, Kolkata. The Academic Excellence Award 2017 was conferred on Professor Chaudhuri in recognition of his distinguished contribution towards propagation of the doctrine of knowledge and based on parameters like the opinion of leading academicians, public perception, etc. The other award, i.e., Acharya P. C. Ray Memorial was given to Professor Chaudhuri in recognition to his significant contribution to the field of chemical and pharmaceutical sciences.

Young Engineer Award 2017 to Dr. Nayan M Kakoty - Dr. Nayan M Kakoty of Department of ECE was awarded the Best Young Engineer Award (North East Region, India) by Senior

Engineers Forum-Guwahati. This award is conferred every year to promote excellence in engineering and technology based on the activities, achievements and social contributions. The Award Ceremony was held on the XIIIth Foundation Day, 20th February 2017, at Institution of Engineers (India) Assam Centre, Guwahati.

TU Research Associate honoured with YuvaPuraskar: Sanjib Pol Deka, Research Associate, Centre for Assamese Studies was awarded prestigious "YuvaPuraskar" by BharatiyaBhashaParishad for the year 2015-16. Shri Deka was selected for Assamese language category and received the award on March 05, 2017 in Kolkata.

BIRAC-SRISTI Gandhian Young Technological Innovation (GYTI) Award 2017: Dr. PabitraNath of Department of Physics and his team received the prestigious GYTI award 2017 for the research project "Low cost and field-portable smartphone platform water testing kit for detection and analysis of contaminants in drinking water". The award winning team consisted of Iftak Hussain, research scholar, Department of Physics, Tezpur University and Dr. Kamal Uddin Ahamad, Department of Civil Engineering, Tezpur University. The whole team was felicitated during festival of Innovations held on March 4-10, 2017 in New Delhi.

Prof. Tarun K Maji and his research scholar Ms. Chinmayee Saikia was selected as 'Runner' for "7th National Award for Technology Innovation" in the category of "Research in the Field of Polymer Science & Technology for Researchers Working in Academic Institute/Research Lab" for the innovation in "Development of Polymer Coated Iron Oxide Magnetic Nanoparticles for Targeted Delivery of Anticancer Agent". The award was presented to them by Hon'ble Minister for Parliamentary Affairs and Chemicals & Fertilizers, Shri Ananth Kumar on March 01, 2017

Tezpur University shines in All India Inter University National Youth Festival: Tezpur University students bagged six national prizes in the 32nd All India Inter University National Youth Festival (Shivotsav), 2017 organized by Association of Indian Universities (AIU) in the Shivaji University, Maharashtra during 10-14 February 2017. The event was sponsored by the Ministry of Youth Affairs & Sports, Government of India. Out of the six prizes won by the University, one was Gold (Classical Vocal), four Silvers (light vocal, quiz, folk orchestra, and classical dance) and a fourth position (western group song). Sri Anurag Baruah, M.Sc (final semester) from the department of Mathematical Sciences of the University had fetched the Gold.



Awards / Accolades for the University

World University Rankings 2016-2017: The Times Higher Education World University Rankings 2016-2017 listed the 980 top universities in the world and Tezpur University was placed in the list of top 800 universities of the world by occupying 601-800 place. The ranking exercise was carried out based on five parameters, viz. Teaching, International Outlook, Industry Income, Research and Citations. This was the first time that a university from the Northeast India had figured in an international ranking other than IIT Guwahati.

Tezpur University attained position in the 131-140 rankings amongst top 300 in the Times Higher Education(THE) Asia University Rankings 2017. THE Asia University Rankings used same yardsticks as with the Times Higher Education World University Rankings, but it was recalibrated to reflect the attributes of Asia's universities. The Universities were judged across all of their core missions –teaching, research, knowledge transfer and international outlook –to provide the most comprehensive and balanced comparisons available.

The Times Higher Education World University Rankings also placed Tezpur University within 150 in the list of 200 top universities of the world under 50 years old. In the sub-category "Generation Y" that comprised universities established between 1986 and 1999, Tezpur University was placed at the 34th positon in the list of top 50 universities.

Tezpur University Among the List of Nine New Centres with Potential for Excellence in Particular Areas:Tezpur University has been granted a Centre with Potential for Excellence in Particular Areas on "Cultural Memory in North East India: A Research and Documentation Programme on Visual and Textual Narratives." Tezpur University figures in the list of nine new centres awarded by the UGC for the period 2016-2021.

NBA Accreditation to four Engineering Departments (CSE, ECE, FET & ME)





Recent Awards / Accolades for the Students

Mr. Pallab Kumar Borah and Hilal Ahmed Makroo (both PhD Scholars) were selected for COMMONWEALTH Split-Site Ph.D fellowship.

Ms. Duyi Samyor (PhD Scholar) was selected for NEWTON BHABHA Placement fellowship.

Mr. Shah Faisal (PhD Scholar) have been recommended Chinese Government Scholarship for the year 2016-18.

Mr. Monjurul Hoque received GE foundation fellowship for the year 2016-17.

Ms. Riya Bhadra and Mr. Onkar Sharma received IASc-INSA-NASI summer Research fellowship, 2016.

Ms. Rizwin Khanam, Research Scholar from Department of Physics received Maulana Abul Kalam Azad National Fellowship for Minorities from UGC, New Delhi from 2016 to 2018.

Ms. Kakoli Bhattacharya, Research Scholar, was awarded the Raman-Charpak Fellowship to carry out a part of her doctoral research work in Claude Bernard University, Lyon 1, France.

Mr. D. K. Jha, Research Scholar, was conferred "Best Innovation Idea" prize on World IPR Day.

Students of the University won five (5) medals including a Gold medals in the National UNIFEST 2017.

Tezpur University: An Overview

Tezpur University established in the year 1994 by an Act of Parliament, as one of the significant outcomes of the historic Assam Accord, has completed 23 glorious years of existence in fulfilling the higher educational aspirations of thousands of students. The University had started its academic activities merely with 57 students enrolled under 03 departments, which has now grown to 3759 students pursuing 72 academic programmes under 22 departments. Tezpur University has been able to deliver its best services in the field of teaching and research, and that has resulted a good number of academic outputs as evidenced by the awards and accolades fetched by the students, faculty members as well as the University as a whole.

During the period under report, the University got approval of UGC for 04 new departments, 22 teaching and 07 non-teaching positions. Vacancy of teaching position came down to 9% of the sanctioned strength.

At the very beginning of the last financial year, the University was able to secure 5th place among the Universities of India in the first ever NIRF Rankings released by the Ministry of Human Resource Development, Govt. of India. The National Assessment and Accreditation Council (NAAC) also graded the University with 'A' grade (3.26 CGPA). In the global rankings arena, the University was also able to occupy a formidable position. The Times Higher Education (THE) World University Rankings 2016-2017 placed the University in the 601-800 position. The University also attained position in the 131-140 rankings amongst top 300 Universities in the Times Higher Education (THE) Asia University Rankings 2017. In the sub-category "Generation Y" that comprised universities established between 1986 and 1999, Tezpur University was placed at the 34th position in the list of top 50 Universities. Tezpur University ranked at 140 among the BRICS Universities as assessed by Times Higher Education World University Rankings.

The University continued taking important strides in terms of academic collaborations with the industry as well as foreign academic institutions to facilitate the transfer of knowledge and technology and enable better exposure for the students. An important memorandum of understanding with Avans University of the Netherlands for credit sharing and students' exchange is soon going to see the light of the day. A number of Research Scholars from the University have also availed different prestigious fellowships/scholarships.

Our faculty members have been able to receive numbers of project grants from various national and international bodies, viz. UGC, DST, DBT, AICTE, DAE, DRDO, DRL, ICMR, MoES, MoFPI, ICSSR, UNICEF, the financial outlay of which has crossed Rs. 50 crores. Through these projects, our faculty members, independently as well as in collaboration with the students, have been publishing a huge number of research papers in peer reviewed national and international journals of high repute. The h-index of the University reached 54during the year, which signifies the quality of the research works that our university has been carrying out. Apart from the research projects, the University has also earned a good amount of fund through various consultancy services and patents.

In extra-curricular activities, we are pleased to mention that, our students have been able to fetch various national and international awards and accolades in the recent past. Many national events in the field of art and culture, sports, etc. are conducted and hosted by the University.

The University was lucky to receive a good number of eminent visitors to the campus on various occasions which includes - Chairman of AICTE -Prof. Anil D Sahasrabudhe, Chief Scientist of ChandrayanI-Prof. J N Goswami, Distinguished Academics -Prof. Mrinal Miri, Prof. Yusuf Kalyango from Ohio university, USA, Prof. Donato Aranda and Prof. Yordanka Reyes Cruz from Federal University of Rio De Janeiro, to name a few. Many of them delivered Lectures and interacted with the students.

In terms of other areas like extension and outreach, skill development efforts, placement of the students, achievements, etc. carried out by the University and its brief accounts have been reported in different designated sections of this annual report.

Financial Profile

The Accounts of the University are maintained in four parts: **Part- I deals with Non-Plan Maintenance Funds, Part -II deals with Plan Funds, Part III deals with Earmarked Special Funds and Part IV deals with Debts and Deposits Accounts.** The Accounts of the financial year **2016-17** have been prepared in the New Accounting Format for Educational Institutions as prescribed by MHRD, Govt. of India.

The opening balance at the beginning of the year 2016-17 was **Rs. 5280.41 lakh.** During the year, the University received **Rs 9749.80 lakh** as grants under various schemes, namely Non-Plan, Plan and for Projects. The University has also generated **Rs 1567.86 lakh** as internal revenue. Thus, the total fund available during the year was **Rs.16598.07 lakh.** Out of the available funds, the University incurred an expenditure of **Rs 12060.47 lakh** during the financial year, leaving an unspent balance of **Rs 4537.60 lakh.**

A)The following Statement presents the Receipt and Expenditure at a glance.

Statement of Receipt & Expenditure for the financial year 2016-17

RECEIPTS			EXPENDITURE		
Particulars	Amount	Total Amount	Particulars	Amount	Total Amount
A) Opening Balances			**E) Expenditure**		
1. Non-Plan			1) Part- I (Non –Plan)	7548.76	
Cash in hand	0		2) Part- II (Plan)	1972. 89	
Bank balances	1014.83		3) Part -III (Earmarked) & Special Fund	2538.82	12060.47
Advances	31.33				
Investment	0				
2. Plan			**F) Closing Balance**		
Cash in hand	0		**1. Non-Plan**		
Bank balances	577.34		Cash in hand	0.00	
Advances	13.22		Bank balances	880.50	
Investment	632.29		Advances	33.85	
3. Earmarked Spl. Fund			Investments	250.00	
Cash in hand	0		**2. Plan**		
Bank balances	1722.18		Cash in hand	-	
Investments	1223.17		Bank balances	(-)186.23	
Advances	66.05	5280.41	Advances	685.88	
B) Grant Receipts			Investments	384.00	
1) Part -I (Non –Plan)	6150.21		**3. Earmarked Spl.Fund**		
2) Part- II (Plan)	788.63		Cash in hand	-	
3) Part- III (Earmarked & Special Fund)	2810.96	9749.80	Bank balances	684.86	
			Investments	3157.12	
			Advances	117.25	6007.23
C) Internal Receipt		1567.86			
D) Current Liabilities		1469.63			
Grand Total		**18067.70**	**Grand Total**		**18067.70**

B) XII Plan Grant

During the year 2016-17, the UGC sanctioned and released Rs 788.63 lakh as XII Plan General Development Grant .The Plan Grants were utilized for creation of new infrastructure as mentioned below:

Sl. No.	Infrastructure Created and Other Expenses	Amount	Amount
A	**Building against XII Plan** 1) Const of R.C.C Building for School of Humanities & Social Sciences		1358.32
	Total Expenditure under Building Head		**1358.32**
B	**Library Books** 1) XII Plan Dev Grant 2) School of Education	 2.59 0.81	 3.40
C	**Laboratory Equipment** 1) School of Education 2) XII Plan Dev grant	2.32 7.02	 9.34
D	**Salary & Other Expenditure**		601.83
	Total		**1972.89**

C) Earmarked Special Fund:-

The Faculty members eared a total of **Rs. 2810.96 lakh** against 308 Projects & Programmes (including DBT sponsored grant for development/upgradation of infrastructure in Medical colleges in NE states) during the year 2016-17 . Expenditure was made based on the proposals submitted by the Principal Project Investigators.

D) Internal Generation of Revenue:

Internal revenue generated by the University during the year 2016-17 was **Rs. 1567.86 lakh.**

Academic Profile

The University offered 72 programmes from the Certificate to the Ph.D. level in the academic year 2016-17. The programmes of study offered during the year are given below:

PhD Programmes in Physics Chemical Sciences, Mathematical Sciences, Molecular Biology & Biotechnology, Environmental Sciences, English & Foreign Languages, Cultural Studies, Mass Communication & Journalism, Sociology, Hindi, Education, Assamese Studies, Business Administration, Computer Science & Engineering, Electronics & Communication Engineering, Food Engineering & Technology, Mechanical Engineering, Civil Engineering, Energy

MTech Programmes in Polymer Science & Technology, Information Technology, Electronics Design & Technology, Bioelectronics, Food Engineering & Technology, Mechanical Engineering, Energy Technology .

MSc Programmes in Physics, Nanoscience & Technology,, Chemistry, Mathematics, Molecular Biology & Biotechnology, Environmental Science.

MA Programmes in English Linguistics & Endangered Languages, Linguistics & Language Technology, Cultural Studies, Mass Communication & Journalism, Sociology, Hindi, Social Work, Education, Communication for Development, Master of Tourism & Travel Management,

Integrated MSc in Physics, Chemistry, Mathematics, and Bioscience & Bioinformatics.

Integrated MCom programme

Integrated MA in English programme

Integrated Bsc BEd (major in Physics, Chemistry, Mathematics) programme

Integrated BA Bed (major in English)

Other PG Programmes

1. Master of Business Administration
2. Master of Computer Application
3. BEd programme

BTech Programmes in Computer Science & Engineering, Electronics & Communication Engineering, Electrical Engineering, Mechanical Engineering, Civil Engineering, Food Engineering & Technology

BVoc Programmes in Renewable Energy Management and Food Processing

Diploma Programmes in PG Diploma in Translation (Hindi), P.G. Diploma in Women's Studies, Diploma in Paralegal Practice, Advanced Diploma in Health Care Informatics & Management, P.G. Diploma in Child Rights and Governance

Certificate Programmes in Chinese (two semester), Air Ticketing & Computerized Reservation System (one semester) and Technical Writing(one semester).

The University conducted national level entrance tests (TUEE: Tezpur University Entrance Examinations) for admission to these programmes during 03 - 05 June, 2016 at the following 24 centres across the country: Agartala, Barpeta Road, Bengaluru, Bhubaneswar, Chennai, Delhi, Dibrugarh, Diphu, Goalpara, Guwahati, Hyderabad, Imphal, Itanagar, Jorhat, Kokrajhar, Kolkata, Lucknow, Mumbai, North Lakhimpur, Patna, Shillong, Silchar, Siliguri and Tezpur.

A total of 26281 online applications were received for various programmes of study including Certificate, UG, PG and PhD programmes.

During the year 2016-17, 1376 candidates were admitted to various programmes of studies of which 749 were male and 627 were female. Out of 1376 candidates, 339 belong to of OBC (Non-creamy Layer) category, 163 to SC category: 102 to ST category. As per the reservation policy of the Central Government, the University reserved seats for OBC (NCL), SC, ST and PWD categories with 27%, 15%, 7.5% and 3%, respectively. Two students were admitted under Defence Quota as per the GoI rules.

The selected candidates who could not produce the pass certificates / mark sheets of the qualifying examinations were admitted provisionally and they were allowed to submit the documents by 15th November of the Academic year.

The total strength of the students on the campus during the year was 3759 (Male – 57.14% and Female- 42.86%). The number of students belonging to OBC (NCL), SC, ST, and PWD on the campus were 1021 (27.16%); 440 (11.71%); 289 (7.68%) and 38 (1.01%), respectively. Almost all of them were accommodated in the University hostels. Six students from foreign countries were admitted during the year.

As per the academic calendar, the Semester End Examinations for the Spring was conducted during 26.05.2016 to 01.06.2016 and the Examinations for the Autumn semester was conducted during 05.12.2016 to 09.12.2016. Results of the Spring Semester End Examinations were declared on 15th June, 2016 for the out going batches of students (30th June,2016 for containing batches of students) and in the Autumn semester the result was declared on 30th December, 2016.

The 13th Convocation was has held on 25.06.2016 where 1040 candidates passed out in 2015 were awarded the degree/diplomas.



Research and Development Profile

A brief report on the activities of the office of the Dean, Research and Development (R&D) during 2016-2017 is presented below:

- The office of the Dean, R&D facilitates the implementation and smooth creation of extramural research projects funded by the various Government and non-Government funding agencies like UGC, DST, DBT, DOI, AICTE, DAE, DRDO, DRL, ICMR, Ministry of Earth Science, Ministry of Food Processing Industries, MNRE, ONGC and others. This office takes the responsibility of advertisement and appointment of project staff; allows conduct of field trips/visits as required by the project staff and PIs and/or Co-PIs; grants permission to attend workshops/ seminars/symposiums/ conferences as well as to visit different research laboratories by using the project grant. In addition to management of extramural research projects sanction to individual PI, this office also manages the Departmental and institutional research projects such as UGC-SAP, UGC-BSR start up grants, DST-FIST and DBT funded schemes such as Establishment of Institutional Level Biotech Hub. Dean R&D also conducts the Tezpur University Ethical Committee, Tezpur University Animal Ethical Committee, Tezpur University Biosafety Committee, and Bioinformatics Infrastructure Facility meetings. This office has also been involved in implementation of projects approved by ONGC-CPBT, an example of Academy-Industry collaboration at Tezpur University.
- During the year 2016-2017, this office has forwarded several research proposals for consideration of approval to the funding agencies. At present, a total of 203 externally funded research projects are ongoing of which 199 are major research projects and 4 are minor research projects with a financial outlay of Rs. 7521.86 lakh. During the year 2016-17, 45 new projects were sanctioned. The ongoing research projects include 13 international collaborative projects of which 02 projects are under DST-UKIERI, 02 under Indo-Russian, 02 with Nottingham University, 01 under Indo-Japan, 01 under Indo-French CEFIPRA (CEFIPRA), 01 under Indo-UK, 01 under Indo-German, 01 under Indo-Hungary, 01 under UGC-UKIERI and 01 under Indo-Sri Lanka-Japan scheme. Ten departments were funded under UGC-SAP of which five departments are supported by DRS-I and five departments are supported by DRS-II. The faculty members have published several research papers in peer-reviewed national and international journals. Further, these projects have augmented the research skills of the project staff and have created trained manpower to cater the need of the society.
- The office also facilitates consultancy projects of faculty as per the TU guidelines. Total amount earned through consultancy project during 2016-2017 was Rs. 9,45,955. This amount was earned as consultancy fee by individual faculty as well as by the departments from various Schools.
- The office is also entrusted with the collection/ deposition and maintenance of records of analytical service charge for sophisticated instruments housed at Sophisticated Analytical Instruments Facility and various departments. During the year of report, Rs. 11,60,872 was collected as analytical service charge from applicants within the University as well as other Universities, research institutes and industries.

Profile of the Students

The Office of the Dean Students' Welfare provides ample scope, opportunities and facilities for an all-round development of the students.The University can boast of a vibrant student community actively involved in sports, cultural, literary and other extra-curricular activities.Below are some highlights of some major events during April 2016-March 2017.

Student Discipline

The Office of the Dean Students' Welfare also looks after students' discipline. The Anti-Ragging Committees,the Anti Ragging Squads kept a constant vigil to keep the University ragging free. The University can boast of the fact that there was no single incidence of students' unrest disruption of academic activities, which can be attributed to our initiative towards involving the administration and faculty members. An active grievance redressal mechanism was also made available online as well as offline.

Student Activities

The Student community of the University is actively involved in sports, cultural, literary and other extra-curricular activities. Sports and cultural events are regularlyheld in the University campus wherein a large number of students take part. The Cultural Section of the University has beenreadily proactive in providingmore and more facilities to the students. The Music Practice Room inthe Students' Activity Centre, The KalaguruBishnu Prasad RabhaAuditorium, The Community Hall, TheChandra PrabhaSaikianiBhawanare some of the facilities for practice and performance. Variouskinds of musical instruments, e.g.guitar, thedrum set, the synthesizer, dhol, bordhol, kobidhol, madol, doba, pepa, banhi, gogona, kham, khol, are availableat the Students' Activity Centre for the use of the interested students.





Sports Activities

For the benefit of the students, the University has established a good infrastructure and a support system for gamesand sports. Some of the major facilities available at the University are the following:

- One Football ground with flood light facility
- One 400 meter track cum cricket field with night light facility
- Two Basketball courts with flood light facility
- Two Volleyball courts with flood light facility
- One Tennis court with flood light facility
- One Indoor Stadium (a Badminton court with YY Yonex Synthetic mat)
- A gymnasium with a world class weider product, USA and Afton product

Achievements of the Students in inter University Youth Festivals 2016-17

32nd East-zone Youth Festival (Vidyasagar Yuva Mahotsava), 2016

Organized by: Association of Indian Universities (AIU)
Venue: Vidyasagar University, Midnapore, West Bengal
Dates: 27-12-2016 to 31-12-2016

Prizes bagged by Tezpur University:

1) Quiz: Silver
2) Debate: Silver
3) Classical Dance: Silver
4) Classical Vocal: Silver
5) Light Vocal: Silver
6) Western Group Song: Silver
7) Folk Orchestra: Bronze

Best Literary Team Award

32ND INTER UNIVERSITY NATIONAL YOUTH FESTIVAL (SHIVOTSAV), 2017

Organized by: Association of Indian Universities (AIU)

Venue: Shivaji University, Kolhapur, Maharashtra

Dates: 10-02-2017 to 14-02-2017

Prizes bagged by Tezpur University:

1) Classical Vocal: Gold
2) Light Vocal: Silver
3) Quiz: Silver
4) Folk Orchestra: Silver
5) Classical Dance: Silver
6) Western Group Song: 4th Position

10TH SOUTH ASIAN UNIVERSITIES FESTIVAL, 2017

Organized by: Association of Indian Universities (AIU)

Venue: Devi AhilyaViswavidyalaya, Indore, MP

Dates: 27.02.2017 - 04.03.2017

Mr Anurag Baruah, a student from Integrated M Sc. Mathematical Sciences, participated in Light Vocal event on invitation.

In House Cultural Programmes

· **Annual Meet 2017**

Events	Dates	Invited Guests
• Celebration of Rabha Divas	June 19, 2016	• Dr Charu Sahariah Nath, Former Principal, Tezpur College. • Shri. Pankaj Bordoloi, Renowned singer, Tezpur.
• Cultural Evening, on the eve of Convocation	June 24, 2016	• Shri Dipak Sarma, Renowned flutist
• Celebration of death anniversary of Kaviguru Rabindranath Tagore	August 7, 2016	• Sri Bapan Das, Asstt. Professor, Dept of Bengali, Tezpur College • Performances by students
• General Freshers	August 12, 201 6	• Performances by students
• Celebration of Independence Day	August 15, 2016	• Performance by Students
• Staging of a drama 'Bhugjara'	August 26, 2016	• Agnigarh Shilpi Samaj in association with Tezpur University
• Celebration of Tithi of SrimantaSankardeva	September 3, 2016	• Shrimati Sharodi Saikia, SNA awardee, Guwahati • Performances by students
• Staging of a one act play	September 30, 2016	• Students of Tezpur University
• 'Krsna Katha' A dance drama recital	October 23, 2016	• Dr Sonal Mansingh, Padma Vibhusan in association with Sangeet Natak Akademi, North East Centre, Guwahati
• ICCR sponsored cultural programme	October 27, 2016	• Jina Rajkumari and her group
• Tribute to DrBhupen Hazarika	5 November, 2015	• Mr Hemanta Baruah, President, Tezpur Sahitya Sabha
• Shilpi Divas Celebration	17 January , 201 7	• Ramen Choudhury, Renowned music maestro
• Foundation Day Cultural Programme	21 January 201 7	• Performance by students
• Republic Day Celebration	26 January 201 7	• Performance by students
• Annual Meet	23 -25 February 201 7	• Performance by the Local Train Band

The Annual Meet 2017 of TezpurUniversity is organized by the Students Council during February 23-25, 2017. There were both group and individual competitions. The group competitions are either Inter-Departmental or Inter-Hostel. Some of the major competitions events are Dances, Drama, Song, Literary, Debate, Photography, Fine Arts, Wall Magazine, Cultural procession etc.

Best Performers Annual Meet 2017:
Cultural/Literary/Visual Arts

Event	Position	Name/Hostel
MUSIC	Best Singer	Ms. Priyanka Borgohain (BWH)
SKIT	Best Actor	Mr. Muktikam Hazarika (SCVRMH)
	Best Actress	Ms. Parishmita Kakati (KWH)
ONE ACT PLY	Best Comedian	Mr. BitupanSaikia (KMH)
	Best Script Writer	Mr. ManashPratimNath (NMH)
	Best Supporting Actor	Mr. ParikshitSarma (SCVRMH)
	Best Supporting Actress	Ms. Rima Saikia (SWH)
	Best Director	Mr. Rup Kumar Deka (SCVRMH)
	Best Actor	Mr. SaptarshiGogoi (NMH)
	Best Actress	Ms. Parishmita Kakati (KWH)
	JSP	Mr. Muktikam Hazarika (SCVRMH)
	JSP	Ms. SwagataBharali (NWH)
	JSP	Ms. Priyanka Bezbaruah (BWH)
BIHU	Best Dhulia	Mr. BiplobChetia (KMH)
	Best Pepabadak	Mr. PranjalPratim Das (SCVRMH)
	Best Bihua	Mr. Bhaskar Sarmah (PMH)
	Best Bihuwati	Ms. IndusmitaSaikia






SPORTS ACTIVITY

20th Annual Meet-2016-17 of Tezpur University started in the month of August -2016 with Football, Archery, Volleyball, Basketball, Badminton & Table tennis Competition. Finally the concluding session was held from 23th to 25th February –2017 with track & field events.

Pro-Vice Chancellor, Prof. Manabendra Bhuyan lighted the main lamp followed by hoisting of the University flag. Prior to that Assistant Director of Sports Pankaj Kumar Borah handed over the torch to Prof Bhuyan, that was carried by Mr. Rajkumar Raju Singh Sports Officer, Dr. Bipulkumar Sharma & Captain of the winning teams.

Dr. Subash Basumatary, Director Sports Authority of India NERC, Guwahati graced the occasion as the Chief Guest, who was felicitated by the University fraternity. Other distinguished guests were Dr. D Mishra, Director, Cultural Affairs, Government of Assam; Mr. Dorgi, DIG, SSB Training Centre Salonebari; and Mr. S Kumar, IG, SSB, Tezpur.

Prof. M. Bhuyan also took salute of the march past contingent , where teams from all hostel of the university participated. The oath was administered by the Dean of Student Welfare Prof. Dhanapati Deka.

The University team participated in various events:

Year	Date	Event	Venue	AIU/Others	Achievement
2016	20th to 23rd Oct. 2016	Basketball (M/W) and Football (M)	Don Bosco University, Guwahati	North east zone	Participated
2017	17 to 19 Jan.	Power lifting	Diphu	State	First & second Position
2017	17 to 19 Feb.	Basketball	NIT Silchar	State	Second Position
2017	5 to 19 Jan.	Cricket	Vidyasagar U niversity	EZ,AIU	Participated
2017	15th to 19th Feb.	Archery	Krishna University	All India AIU	Participated

Overall performers of 20th Annual Meet 2016-17(Sports)

Sl. No.	Games	Best Player Name
1	Football (M)	Mr. Lakhyajit Bora (NMH)
2	Cricket (M)	Mr. Yasir Arafat (KMH)
3	Volleyball (M)	Mr. Rajeev Goswami (NMH)
4	Volleyball (W)	Ms. Sandhya Rani Gogoi (PMCWH)
5	Basketball (W)	Ms. DeeptiGoar (PMCWH)

6	Basketball (M)	Mr. KalpamayMashahary (CMH)
7	Best Athlete (Man)	Mr. RaktimRanjanSaikia (NMH)
8	Best Athlete (Woman)	Ms. KreenayanBoro (BWH)
9	Champion of the Champion 2017 MEN	Mr. ArindamKhound (KMH)
10	Champion of the Champion 2017 Women	Ms. KreenayanBoro (BWH)
11	Strong Man, 2017	Mr. Dhrubajyoti Gogoi (SCVRMH)
12	Strong Women, 2017	Ms. BhupalKayshap , R.S. Cultural Studies
13	Best Lifter	Mr. Ranjeet
14	Best Archer (Male)	Mr. Prince Mishra (CMH)
15	Best Archer (Female)	Ms. Sonia Saikia (SWH)
16	MR. TU	Mr. RajatShburo Bose (SCVRMH)
17	BestCommander Men (March Past)	Mr. Kul David Barman (CMH)
18	Best Commander Women (March Past)	Ms. Gargi Sarkar (PWH)
19	Central Commander	Mr. Aasif Ali (CMH)





The Statutory Bodies





- The Board of Management
- The Planning Board
- The Academic Council
- The Finance Committee
- The Building Committee

The Board of Management

(01-04-2016 to 31-03-2017)

Vice-Chancellor	**Chairman**
Pro Vice Chancellor Visitor's Nominee, four (04)members	Member Vacant since 25.05.2015
Dr. Lakhsmi Goswami Goswami Nursing Home Tezpur-784001	Member (till 26.03.2017)
Dr. Geeta Upadhayay Chandmari, Tezpur-784001	Member (w.e.f. 27.03.2017)
Prof. S S Sarkar Dean, School of Management Sciences	Member (till 31.05.2016)
Prof. P J Mahanta Dean, School of Humanities & Social Sciences	Member (til 31.12.16)
Prof. A Kumar Dean, School of Sciences	Member (w.e.f. 01.01.2017)
Prof. S K Dolui Department of Chemical Science	Member (till 16.05.2016)
Prof. Nashreen S Islam Department of Chemical Science	Member (w.e.f. 17.05.2016)
Dr. P Anbarsan Department of Mass Communication and Journalism	Member (till 17.04.2016)
Dr. G A Ahmed Department of Physics	Member (w.e.f. 18.04.2016)
Sri S I Singh Department of Computer Science and Engineering	Member
Finance Officer	Permanent Invitee
Controller of Examinations	Permanent Invitee
Alumni representative	
Dr. H K Deka, CIPET, Guwahati, Assam	Special Invitee
Dr. Mousumi Barthakur, GNRC, Six Mile, Guwahati	Special Invitee
Student Representative	
M Senapati, Research Scholar	Special Invitee
Riya Bhadra, BTech Student	Special Invitee
Registrar	**Secretary**

The Planning Board

(01-04-2016 to 31-03-2017)

Vice-Chancellor	Ex-Officio Chairman
Pro Vice Chancellor	Ex-Officio Member
Dean, School of Humanities and Social Sciences	Ex-Officio Member
Dean, School of Sciences	Ex-Officio Member
Dean, School of Management Sciences	Ex-Officio Member
Dean, School of Engineering	Ex-Officio Member
Dean, Students' welfare	Ex-Officio Member
Dean, Research and Development	Ex-Officio Member
Dean, Planning & Development	Special Invitee
Dean, Academic Affairs	Special Invitee

Six teachers nominated by the Academic Council

Prof. M M Sarmah Department of English and Foreign Languages	Member
Prof. R C Deka Department of Chemistry	Member
Prof. R R Haque Department of Physics	Member
Prof. D Dutta Department of Mechanical Engineering	Member
Dr. B P Sarmah Department of Mathematical Science	Member (till 26.11.2016)
Dr. G A Ahmed Department of Physics	Member (w.e.f. 27.11.2016)
Dr.Hemjyoti Medhi Department of English and Foreign languages	Member

One Representative of MHRD

Joint Secretary (Central University) — Member
Ministry of Human Resource Development
Department of Higher Education, New Delhi

One Representative of UGC

Prof. Paula Banerjee — Member
Department of South and South Asian Studies
Calcutta University, Kolkata - 700027

One Representative of NEC
Director (HRD & E) — Member
NEC, Nongrim Hill, Shillong-793003

One Representative of State Govt. of Assam
Commissioner and Secretary — Member
Department of Higher Education, Govt. of Assam
Dispur, Guwahati-781006

Two Nominees by the Board of Management

Prof. S Das — Member
Vice-Chancellor
Jadavpur University
Kolkata, West Bengal, Midnapore-700032

Sri V K Verma — Member
Executive Director (HR&A)
Oil India Limited (OIL)
Duliajan-786602, Assam

Controller of Examinations — Permanent Invitee

Finance Officer — Permanent Invitee

Librarian — Permanent Invitee

Registrar — Ex-officio Secretary

THE ACADEMIC COUNCIL

(01-04-2016 to 31-03-2017)

Vice Chancellor	E-officio Chairman
Pro Vice Chancellor	Ex-officio Member
Deans of Schools	
Dean, School of Management Sciences	Ex officio Member
Dean, School of Humanities and Social Sciences	Ex officio Member
Dean, School of Engineering	Ex officio Member
Dean, School of Sciences	Ex officio Member
Dean, Students' Welfare	Ex officio Member
Dean, Research and development	Ex officio Member
Dean, Academic Affairs	Special Invitee

Two professors nominated by the Vice Chancellor

Prof. M K Sarmah Department of Business Administration	Member
Prof. Nashreen S Islam Department of Chemical Sciences	Member

All Heads of Departments / Centres

Head, Department of English and Foreign Languages	Ex officio Member
Head, Department of Cultural Studies	Ex officio Member
Head, Department of Sociology	Ex officio Member
Head, Department of Mass Communication and Journalism	Ex officio Member
Head, Department of Education	Ex officio Member
Head, Department of Social Work	Ex officio Member
Head, Department of Hindi	Ex officio Member
Head, Department of Business Administration	Ex officio Member
Head, Department of Mathematical Sciences	Ex officio Member
Head, Department of Physics	Ex officio Member
Head, Department of Chemical Sciences	Ex officio Member
Head, Department of Molecular Biology and Bio Technology	Ex officio Member
Head, Department of Environmental Science	Ex officio Member
Head, Department of Computer Science and Engineering	Ex officio Member
Head, Department of Electronics & Communication Engineering	Ex officio Member
Head, Department of Food Engineering & Technology	Ex officio Member
Head, Department of Energy	Ex officio Member
Head, Department of Civil Engineering	Ex officio Member
Head, Department of Electrical Engineering	Ex officio Member
Head, Department of Mechanical Engineering	Ex officio Member
Head, Department of Commerce	Ex officio Member
Head, Department of Law	Ex officio Member

Head, Computer Centre	Ex officio Member
Head, Centre for Disaster Management	Ex officio Member
Head, Women Studies Centre	Ex officio Member
Head, Assamese Studies Centre	Ex officio Member
Head, Centre for Open and Distance Learning	Ex officio Member
Head, Centre for Inclusive Development	Ex officio Member

Two Associate Professors Nominated by the Vice Chancellor

Dr. Ruli Bora — Member
Department of Chemical Sciences

Dr. S Saharia — Member
Department of Computer Science and Engineering

Two Assistant Professors Nominated by the Vice Chancellor

Dr. Hemjyoti Medhi — Member
Department of English and foreign languages

Dr. Joya Chakraborty — Member
Department of Mass Communication and Journalism

Three Nominees of the Board of Management

Prof. G Biswas — Member
Director, IIT Guwahati
Guwahati, Assam

Prof. I B S Passi, — Member
Professor (Emeritus)
INSA Senior Scientist and
Honorary Professor, IISER Mohali
Punjab University, Chandigarh-160014

Prof. B Boruah — Member
School of Humanities and Social Sciences
MS 611, IIT Delhi
HauzKhas, New Delhi-110016

One Representative of UGC

Prof. Santosh Satya — Member
Center for Rural Development and Technology
IIT Delhi, New Delhi-110016

One Representative of MHRD

Mr. V V R Shastri — Member
Former Chairman and Managing Director
Bharat Electronics Limited
Bangalore, Karnataka

One Representative of NEC

Director (HRD & E) — Member
North Eastern Council (NEC)
Shillong-793003

One Representative of State Govt. of Assam

Commissioner & Secretary / Principal Secretary In-charge — Ex-officio member
Department of Higher Education
Govt. of Assam, Guwahati-781006

Controller of Examinations — Ex-officio Member
Librarian — Ex-officio Member
Registrar — Ex-officio Secretary

The Finance Committee

(01-04-2016 to 31-03-2017)

Vice Chancellor	Chairman
Pro Vice-Chancellor	Member
Joint Secretary and Financial Advisor, MHRD or his/her nominee from Finance Bureau of MHRD Not below the rank of Deputy Secretary	Member
Joint Secretary (CU&L) of MHRD or His/her nominee not below the rank of Joint Secretary to the Govt. of India	Member
Joint Secretary (CU), UGC or any other Joint Secretary level officer nominated by the Chairman, UGC	Member
Ms. Rupshikha Saikia Bora Director (Finance) Oil India Limited Noida, Uttar Pradesh	Member
Mr. A G West Kharkhongor Director (Finance) NEEPCO Ltd., Shillong-793003	Member(till 26.01.2017)
Mr. D K Barthakur Vice Chairman, SITA , Assam Assam Secretariat, Dispur, Guwahati, Assam	Member (*w.e.f.* 27.01.2017)
Prof. S S Sarkar Dean, School of Management Sciences Tezpur University	Member
Finance Officer	Ex officio Secretary

The Building Committee

(01.04.2016 to 31.03.2017)

Vice Chancellor	Chairman
Pro Vice Chancellor	Member
Sri B K Das Chief Engineer, Public Works Department (Roads) Govt. of Assam, Guwahati-781003	Member
Prof. A Dutta Department of Civil Engineering IIT Guwahati Guwahati-781039	Member
Superintendent Engineer, PWD (Building) Tezpur Building Circle Tezpur-784001	Member
Sri D Saikia Dy. Architect, PWD Govt. of Assam, Guwahati-781003	Member
Dr. Lakshmi Goswami Goswami Nursing Home Tezpur-784001	Member
Executive Engineer	Member
Finance Officer	Member
Registrar	Member



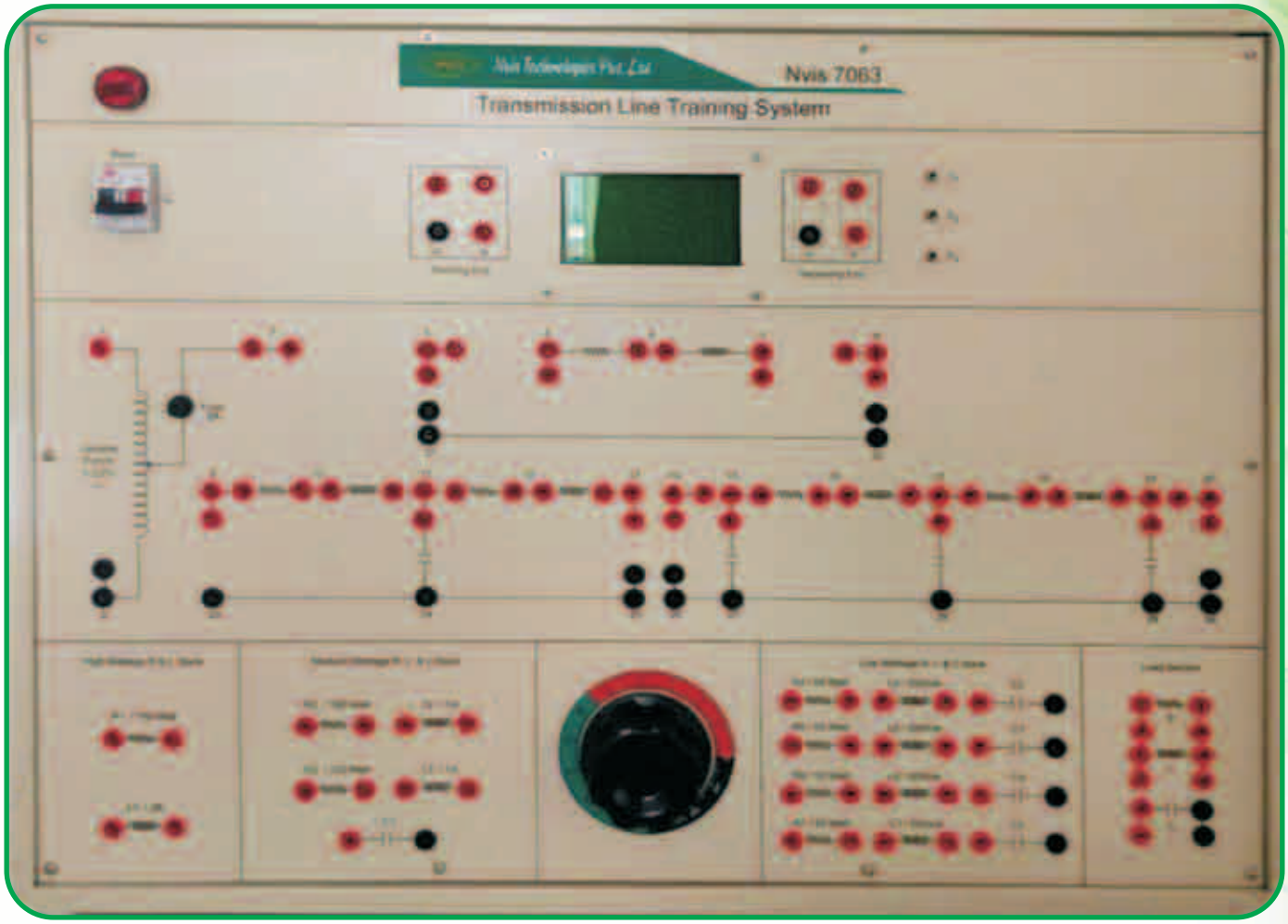

রুক্মিণী
হরণ

Academic Department and Centres



- School of Engineering
- School of Humanities and Social Sciences
- School of Management Sciences
- School of Sciences
- Centre for Open and Distance Learning
- Community College

School of Engineering



- Dept. of Civil Engineering
- Dept. of Computer Science and Engineering
- Dept. of Electrical Engineering
- Dept. of Electronics and Communication Engineering
- Dept. of Energy
- Dept. of Food Engineering and Technology
- Dept. of Mechanical Engineering

School of Engineering

The School of Engineering (SoE) of Tezpur University was established in the year 2006 with the introduction of BTech. programmes in Computer Science and Engineering, Electronics and Communication Engineering and Mechanical Engineering. At present, there are seven Departments under the School offering programmes at the Undergraduate, Postgraduate and Doctoral level. The School strives to produce skilled professionals at all levels and gives emphasis on high quality research for developing innovative technologies. Since its inception, the School has been proactive in strengthening itself to improve its output in terms of both knowledge and employability of its graduates. The School is actively engaged in promoting startups and Make in India concept. A number of Faculty members obtained sanctionof research projects and have been able to publish their research outcome in good impact factor journals.

Programmes offered

- BTech programmes in six branches
  - Civil Engineering
  - Computer Science and Engineering (NBA accredited)
  - Electrical Engineering
  - Electronics and Communication Engineering (NBA accredited)
  - Food Engineering and Technology (NBA accredited)
  - Mechanical Engineering (NBA accredited)
- Mtech programmes
  - Bioelectronics
  - Electronics Design and Technology
  - Energy Technology
  - Food Engineering and Technology
  - Information Technology
  - Mechanical Engineering
- Master of Computer Application
- PhD Programmes
  - Civil Engineering
  - Computer Science and Engineering
  - Electronics and Communication Engineering
  - Energy
  - Food Engineering and Technology
  - Mechanical Engineering
- BVoc programmes (3 years duration)
  - Food Processing
  - Renewable Energy Management

Through the implementation of AICTE approved Institutional Development Plan (IDP) the School has focused on augmenting the quality of teaching and learning process through quality improvement measures and infrastructural development so as to keep pace with the changing global scenario of technical education.

During the period under report, several significant activities were performed in the School. The prominent activities are mentioned below.

- Submission of application to AICTE for extension of approval of existing courses and approval of new courses of Engineering under School of Engineering, and MBA and MCA courses under Technology Campus.

  The AICTE approved existing courses under School of Engineering

- MTech in Bioelectronics; Electronics Design and Technology, Energy Technology, Information Technology, Food Engineering and Technology, Mechanical Engineering.
- BTech in Electronics and Communication Engineering, Computer Science and Engineering, Civil Engineering, Mechanical Engineering.
- Master of Computer Application.

The AICTE approved new programmes under School of Engineering

- BTech in Electrical Engineering for the academic year 2017-18.

- The School utilized Rs. 164.28667 Lakhs received in July 2016 from AICTE against the Institutional Development Plan (IDP) proposal under the NEQIP programme of AICTE.
- AICTE Cell of the School facilitated a total 114 MTechI year and II year students to receive AICTE GATE linked Scholarship at a revised rate from August, 2016 to June 2017.
- AICTE Chairman visited the School of Engineering and addressed the faculty on 25 June, 2016.
- As a part of Faculty and Staff Development Scheme of AICTE-NEQIP, 52 faculty members availed the facility to attend conferences and workshop within India with travel, accommodation and registration support.
- The School was recognized by AICTE under QIP Scheme for offering PhD from the year 2016. Three selected PhD Scholars are carrying on pre-registration visits in Department of Computer Science and Engineering and Department of Electronics and Communication Engineering.
- Professor R A Gupta from Malaviya National Institute of Technology, Jaipur visited the School as Performance Auditor of AICTE-NEQIP on 10-11 April,2017. Professor Gupta also interacted with faculty, students and officials of the University at various levels.
- Two students took admission under PMSSS J&K in BTech programmes during 2016-17.

Dean, School of Engineering
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AICTE Cell, Tezpur University
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THE STAFF OF THE OFFICE OF THE DEAN

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D Mahanta
MTS

Department of Civil Engineering

The Department

The Department of Civil Engineering was established in the year 2009 under the School of Engineering with a BTech programme. A PhD programme was initiated in Autumn 2010. The Department aims at providing quality education and guidance to students and researchers. So far the Department has produced five batches of Civil Engineer graduates. The Department is now funded by AICTE-NEQIP with which the Department has established well equipped laboratories and is now planning to start a Mtech programme from 2018. In addition to academic and research activities, the Department has also been extending its expertise to various sectors through consultancy.

Academic programmes and Student intake

AcademicProgrammes	Student Intake
BTech in Civil Engineering	60
PhD	Intake variable Nil in the last Academic year

Major facilities and equipment available

Laboratory	Equipment available
Structural Laboratory	UTM
	CTM
Geotechnical Engineering Laboratory	Advanced Triaxial
	Direct shear
Transportation Laboratory	CBR
	Marshall Apparatus
Environmental Laboratory	BOD Incubator
	COD Reactor
	AAS
Surveying Laboratory	Total Station
Structural and NDT Laboratory	Ultrasonic Pulse Velocity Tester
	Rebound Hammer

Major Research Findings/research And Development Activities

Principal Investigator	Salient Research Findings
BKNarzary	Performance Evaluation of E-Waste modified soil and bituminous mixture
K U Ahamad	Water Quality Index for Ground Water of Amolapam Village
UK Das	A study on the reduction of building plinth wall thickness by application of coir/ Jute as Geotextile and waste material as anchor bar.
	A Study On Application of Bamboo as Reinforcement in Construction of Low Cost Building Wall

Research projects, ongoing and new

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Performance Evaluation of E-Waste modified soil and bituminous mixture	Tezpur University	0.69 Lakh	April 2017	BKNarzary
Water Quality Index for Ground Water of Amolapam Village	Tezpur University	0.80 Lakh	April 2017	KUAhamad
A study on the reduction of building plinth wall thickness by application of coir/ Jute as Geotextile and waste material as anchor bar.	TezpurUniversity	0.90 Lakh	April 2017	U K Das
A Study On Application of Bamboo as Reinforcement in Construction of Low Cost Building Wall	AICTE- AQIS-UBA	5.00 Lakh	October 2018	U K Das

PUBLICATIONS
In International and National Journals

Ahamad KU, Nazary BK, Mudoi P, Rani R, Bharati V, Singh H. Application of Regression Analysis for Surface Water Quality Modeling. *Journal of Mechanical and Civil Engineering*, 89(1): 767-775,2016.

Chakraborty A. and Goswami D. State of the art: Three Dimensional (3D) Slope Stability Analysis. *International Journal of Geotechnical Engineering*, 10(5): 493-498, 2016.

Chakraborty A. and Sharma N.A Comparative Study of Geological and Engineering Properties of River Borne Aggre gate sand Quarry Aggregates. *International Journal of Innovative Research in Science, Engineering and Technology,* 5(6):11001-11009, 2016.

Chakraborty A. and Goswami D. Slope Stability Prediction using Statistical Method. *International Journal of Multi disciplinary Research Centre*3(3): 29-35, 2017

Das, U. K. A Case Study on Performance of JiaBharali River Bank Protection Measure Using Geotextile Bags. *International Journal of Geosynthetics and Ground Engineering, 2(12), 2016.*

Das U.K. Prediction of Settlement of Bored Cast-in-situ RCC Pile using N-Value. *International Journal of Innovative Research in Science, Engineering and Technology,* 5(7):13987-13995, 2016.

Doley C., Das U.K., Phukan P.K., Dutta D. and Bora P.M.A Study on Use of Brahmaputra River Sand as a Liner Material for Municipal Landfills. *IOSR Journal of Mechanical and Civil Engineering*, 13(4): 91-96.2016.

Hussain, I., Ahamad, K.U., Nath, P. Water turbidity sensing using a smartphone. *RSC Advances*, 6:22374-22382 2016.

Hussain, I., Das, M., Ahamad, K. U., Nath, P. Water salinity detection using a smart phone. *Sensros and Actuators B: Chemical*, 239:1042-1050, 2017.

Hussain, I., Ahamad, K.U., Nath, P. Low-cost, robust and field portable smartphone platform photometric sensor for fluoride level detection in drinking water. *Analytical Chemistry*, 89 (1):767-775, 2017.

Saikia A. Numerical investigation on vibration isolation by softer in-filled trench barriers. Journal of Geo-engineering Sciences, 3(1): 31-42, 2016.

Saikia, A., Nath, B., Baruah, S., Rahman, Md. I., Kumar, V., and Deka, A. (2016).Improving Geotechnical Characteristics of Fine-Grained Soil Using Rice Husk Ash. *IOSRD International Journal of Engineering.*

Saikia, A., Baruah, S., and Rahman, I. Effect of Sand Content on Compaction Characteristics of Fine-grained Soil. *Journal of Civil Engineering and Environmental Technology*, 4(1): 77-81, 2017.

Conference Proceedings

Ahamad K U, Mahanta A and Ahmed S. Removal of fluoride from groundwater by adsorption onto Brick Powder Alum-Calcium infused adsorbent. RECYCLE 2016, International Conference on Waste Management. Organized by Waste Management Research Group and Association of Civil Engineers, Indian Institute of Technology Guwahati. 1-2 April 2016.

Ahamad K. U., Raj P., Barbhuiya N. H. and Deep A. Surface Water Quality Modeling by Regression Analysis and Artificial Neural Network. RECYCLE 2016, International Conference on Waste Management. Organized by Waste Management Research Group and Association of Civil Engineers, Indian Institute of Technology Guwahati. 1-2 April 2016.

Ahamad KU, Das K, Das D, Mahanta A, Ahmed S. Kinetic, Equilibrium and Breakthrough Analysis for Fluoride Removal using BAC adsorbent. National Seminar on Tackling Urban Environmental Concerns in Upcoming Smart Cities of our Country, organized by The Institution of Engineers (India) under the Aegis of Environmental Engineering Division Board, IEI. October 25-26, 2016

Ahamad KU, Handique C, Sultan J, Baruah R K, Kashyap N, Baruah M.A Study on the Ground Water of Amolapaam Village of Tezpur, Assam (India).National Seminar on Tackling Urban Environmental Concerns in Upcoming Smart Cities of our Country, organized by The Institution of Engineers (India) under the Aegis of Environmental Engineering Division Board, IEI. October 25-26, 2016

Dutta T, Engti C, Talukdar B, Das V, Kalamdhad A, Ahamad K U. Surface and Groundwater Quality Evaluation due to the Effluent from Nagaon Paper Mill, Assam (India). National Seminar on Tackling Urban Environmental Concerns in Upcoming Smart Cities of our Country, organized by The Institution of Engineers (India) under the Aegis of Environmental Engineering Division Board, IEI. October 25-26, 2016

Hussain I, Ahamad K U, Nath P. Smartphone based instrumentation for water quality monitoring with reference to resource poor regions. National Seminar on Tackling Urban Environmental Concerns in Upcoming Smart Cities of our Country, organized by The Institution of Engineers (India) under the Aegis of Environmental Engineering Division Board, IEI. October 25-26, 2016

Narzary B. K. and Ahamad K. U. New Method of Enhancing CBR Value of Subgrade of Rural Roads Using E-Waste Plastic. RECYCLE 2016, International Conference on Waste Management. Organized by Waste Management Research Group and Association of Civil Engineers, Indian Institute of Technology Guwahati. 1-2 April 2016.

Books and Book Chapters

AhamadK. U., Medhi N., Kumar V., Nikhil N. (2016) Water Quality Evaluation in a Rural Stretch of Tezpur, Assam (India) Using Water Quality Index and Correlation Matrix. Trends in Asian Water Environmental Science and Technology, Springer, pp 169-180.

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

International and National

A Saikia, A Das, A Chakraborty, B K Narzary, D B Sonowal, J D Bharali, K U Ahamad, R Buragohain, S Deka attended an AICTE-NEQIP International Training Course on Geosynthetics and their application in road construction and slope stabilization, 16 December, 2016, Tezpur University.

A Saikia, A Das, A Chakraborty, B K Narzary, D B Sonowal, J D Bharali, K U Ahamad, KarabiBharadwaj, R Buragohain, S Deka attended an AICTE-NEQIP Sponsored Five Day Workshop on Current Developments in Engineering, 20 - 24 January 2017, Tezpur University.
D B Sonowal attended the Summer Faculty Research Fellow Programme 2016 under Continuing Education Programme, 31 May – 15 July, 2016, IIT Delhi.
D B Sonowal attended a TEQIP Short Term Course on Advances in Structural Engineering, 20 – 24 February, 2017, IIT Roorkee.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

Assam State Disaster Management Authority (ASDMA) Short Term Training Programme on Earthquake Resistant Structures and Retrofitting Techniques, 8-10 November, 2016.
International training course on Geosynthetics and their Applications in Road Construction and Slope Stabilization on 27 January 2017.
Five Day Workshop on Current Developments in Engineering, (fragmented) January20– February 24,2017.
Assam State Disaster Management Authority (ASDMA) Short Term Training Programme on Earthquake Resistant Structures and Retrofitting Techniques, February 14-16, 2017.
Workshop training session (Auto-Cad) for Engineering Students Organized by the Department of Civil Engineering, Tezpur University, February 17, 2017.

DISTINGUISHED VISITORS TO THE DEPARTMENT

Prof. B Sharma, AEC, Guwahati
Prof. M Panda, NIT Rourkela
Prof. R K Bhattacharjya, IIT Guwahati
Dr. S K Shukla, Edith Cowan University, Joondalup, Perth, Australia
Dr. T K Chakrabarty, NEHU, Shillong
Prof. V Prakash, IIT Roorkee

AWARDS & HONOURS RECEIVED BY THE FACULTY/ RESEARCH SCHOLARS/STUDENTS

K U Ahamad, as a member of team, received Gandhian Young Technological Innovation (GYTI) Awards 2017 for Low cost and field portable smartphone platform water testing kit for detection and analysis of contaminants in drinking water. Awarded under Socially Relevant Innovation (BIRAC-GYTI). Society for Research and Initiatives for Sustainable Technologies and Institutions.

OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY

Industry interaction visit to Protection works carried out by Brahmaputra Board at MajuliRiver Island, organized by the Department of Civil Engineering, Tezpur University, December10, 2016.

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE

GATE – 09

NOTABLE PLACEMENT

Aluforms India Pvt. Ltd. – 05
Dalmia Cement, WSP – 02
FIT-FEE – 01

THE FACULTY OF THE DEPARTMENT

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Office Staff

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LDC

C Mohammad
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Department of Computer Science and Engineering

THE DEPARTMENT

The vision of the Department is to be a dedicated center of learning and research in computer science and engineering. It is committed to creating competent professionals capable of taking leading roles in industry, academia and application areas of the field. A High Performance Computing Centre was established in the Department in June 2015 in order to provide high end computing facilities to the scientific researchers from the North-East region. The Department is nominated by UGC as a Participant of BRICS Network University. The BTech programme of the Department in Computer Science & Engineering is accredited by National Board of Accreditation.

The thrust areas of research for the Department have been the following:

- Data Mining
- Bioinformatics
- Biomimetic and Cognitive Robotics
- Computer and Network Security
- Image Processing and Pattern Recognition
- Knowledge Representation and Reasoning
- Natural Language Processing
- Networks
- Optimization Techniques
- Workflow Analysis

Academic Programmes and Student intake

Academic Programme & Student intake	Student Intake
MTech in Information Technology	30
Master of Computer Application	45
Btech in Computer Science and Engineering	60
PhD in Computer Science and Engineering	Intake variable, 06 in the Academic year 2016-2017



Major facilities and equipment available

- High Performance Computing Center (Super Computer "Param Shavak")
- Cluster Computing Facility With Storage
- Embedded System Trainer Lab (8085 & Arm) Processor Based (2 Nos)
- Logic Analyzer
- Mixed Mode Oscilloscope
- Bench Mark Lan Trainer/I-Security
- Ibm X3550 M3 Server
- Hp Elite 8300mt (I5) Pcs
- Hp Workstation 8600/6600
- Cisco 2821 Router
- Cisco 4948 L3 Switch
- Cisco 3560 L3 Switch
- Sun Ultra 27 Ws
- Hp Dl 380 Server

Major Research Findings/research And Development Activities

Principal Investigator	Salient Research Findings
D K Bhattacharyya	A real-time network security defense system has been designed for DDoS attack detection using FPGA platform. The method can detect DDoS attacks in nano seconds with high accuracy. The method is published in Elsevier's "Computer Communications".
	Developed a robust method for finding functionally similar gene-gene network modules for breast cancer data. The method is published by Scientific Reports of Nature Publishing Group.
	Co-authored a book entitled "Network Traffic Anomaly Detection and Prevention-Springer" with Prof J K Kalita of UCCS, USA and Dr M H BHuyan of KU, India. The book is published by Springer.

Research projects, ongoing and new

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
A High Performance Computing Center(By installing Super Computer "Param Shevak") to carry out collaborative research.	DeitY	1,20,00,000/-	April, 2015 onwards	D K Bhattacharyya
Big Data Analytics-Bioinformatics, Network Security and Robotics	UGC SAP (DRS II)	77,00,000/-	2015-2020	D K Bhattacharyya
Information Security Education and Awareness. MoU signed between TU and President of India to execute "Information Security Education and Awareness" project.	DeitY	65,00,000/-	2015-2020	D K Bhattacharyya
Center of Excellence on Machine Learning and Big Data Analysis	MHRD	4,00,00,000/-	2014-2019	D K Bhattacharyya
Implementation of Distributed Honeynet System at North East to Collect, Distribute and Analyze live Cyberattack data.	C-DAC Mohali	1,81,24,000/-	2015-2018	N Sarma
e-Varaha: Information System for Safe Pork Production in North Eastern India	MeitY	26,10,000/-	2016-2018	N Sarma
Integrating Genome scale metabolic analysis of model plant pathogen Ralstoniasolanacearum with RNAseq and fluxomics	DBT	57,40,000	2016-2019	S S Satapathy

PUBLICATIONS

In National and International Journals

Ahmed, R. A. & Borah, B. An Iterative Search based Technique to Find or Predict Older Face Images of a Child. International Journal of Computer Applications 151 (2016).

Ain, A., Bhuyan, M. H., Bhattacharyya, D. K. & Kalita, J. K. Rank Correlation for Low-Rate DDoS Attack Detection: An Empirical Evaluation. International Journal of Network Security 18, 474-480 (2016).

Baruah, V. J. , Satapathy, S. S., Powdel, Bhesh Raj, Konwarh, Rocktotpal, Buragohain, Alak Kumar & Ray, Suvendra Kumar. Comparative analy sis of codon usage bias in Crenarchaea and Euryarchaea genome reveals dierential preference of synonymous codons to encode highly expressed ribosomal and RNA polymerase proteins. Journal of genetics 95, 537-549 (2016).

Bhattacharyya, R., Saikia, A. & Hazarika, S. M. C3A: A Cognitive Collaborative Control Architecture For an Intelligent Wheelchair. arXiv preprint arXiv:1701.08761 (2017).

Bhuyan, B. & Sarma, N. Performance Comparison of a QoS Aware Routing Protocol for Wireless Sensor Networks. Journal of Emerging Technology Trends in Electronics, Communication and Networking 8 (2016).

Bhuyan, M. H., Bhattacharyya, D. & Kalita, J. K. E-LDAT: a lightweight system for DDoS ooding attack detection and IP traceback using ex tended entropy metric. Security and Communication Networks 9, 3251-3270 (2016).

Bhuyan, M. H., Bhattacharyya, D. & Kalita, J. K. A multi-step outlierbased anomaly detection approach to network-wide trac. Information Sciences Journal 348, 243-271 (2016).

Borah, S. K. & Sharma, U. Phrase and Idiom Identication in Assamese. Journal Procedia Computer Science 84, 65-69 (2016).

Boro, D. & Bhattacharyya, D. K. DyProSD: a dynamic protocol specic defense for high-rate DDoS ooding attacks. Microsystem Technologies 23, 593-611 (2017).

Boro, D., Haloi, M. & Bhattacharyya, D. K. A Self-Similarity Based TCP Targeted Low-Rate DDoS (LRDDoS) Attack Detection Method. Security and Communication Networks (2016).

Choudhury, H., Roychoudhury, B. & Saikia, D. K. Security Extension for Relaxed Trust Requirement in Non3GPP Access to the EPS. International Journal of Network Security 18, 1041-1053 (2016).

Chutia, D., Bhattacharyya, D. K., Sarma, J. & Raju, P. An eective ensem- ble classication framework using random forests and a correlation based feature selection technique. Transactions in GIS. doi:DOI:10.1111/tgis. 12268 (2017).

Deka, R. K. & Bhattacharyya, D. K. Self-similarity based DDoS attack detection using Hurst parameter. Security and Communication Networks 9, 4468-4481 (2016).

Deka, S. K. & Sarma, N. Opportunity Prdeiction at MAC-Layer Sensing for Ad-hoc Cognitive Radio Networks. Journal of Network and Computer Applications (Elsevier) 82, 140-151 (2017).

Goswami, R., Bhattacharyya, D. K. & Dutta, M. Materialized view selection using evolutionary algorithm for speeding up big data query processing. Journal of Intelligent Information Systems, 1-27 (2017).

Hoque, N., Bhattacharyya, D. K. & Kalita, J. K. FFSc: A novel measure for low-rate and high-rate

DDoS attack detection using multivariate data analysis. Security and Communication Networks 9, 2032-2041 (2016).

Kakoty, N. M., Hazarika, S. M. & Gan, J. Q. EMG feature set selection through linear relationship for grasp recognition. Journal of Medical and Biological Engineering 36, 883-890 (2016).

Kalita, S., Karmakar, A. & Hazarika, S. M. Ecient extraction of spatial relations for extended objects vis{vis human activity recognition in video. Applied Intelligence. doi:DOI10.1007/s10489-017-0970-8 (2017).

Kashyap, H., Ahmed, H. A., Hoque, N., Roy, S. & Bhattacharyya, D. K. Big data analytics in bioinformatics: architectures, techniques, tools and issues. Network Modeling Analysis in Health Informatics and Bioinformatics 5, 28 (2016).

Keretsu, S. & Sarmah, R. Weighted Edge Based Clustering to Identify Protein Complexes in Protein Protein Interaction networks incorporating Gene Expression Prole. Computational Biology and Chemistry 65, 69-79 (2016).

Keretsu, S. & Sarmah, R. Identication of Protein Complexes in Protein Protein Interaction Networks by Core-Attachment Approach Incorporating Gene Expression Prole. International Journal of Bioinformatics Research and Applications. doi:DOI:10.1504/IJBRA.2017. 10007988 (2016).

Medhi, N. & Saikia, D. K. Open Flow based Scalable Routing with Hybrid Addressing in Data Center Networks. IEEE Communication Letters 21, 1047-1050 (2017).

Muchahari, M. K. & Sinha, S. K. , MMH: An Eective Clustering Algorithm for Trustworthy Cloud Service Provider Selection. International Journal of Computer Science and Information Security 14, 281 (2016).

Nagi, S., Bhattacharyya, D. K. & Kalita, J. K. Complex detection from PPI data using ensemble method, Network Modeling Analysis. Health In- formatics and Bioinformatics 6, 3 (2017).

Roy, S., Bhattacharyya, D. K. & Kalita, J. K. Analysis of gene expression patterns using biclustering, Microarray Data Analysis. Methods and Applications, 91-103 (2016).

Roychoudhury, P., Roychoudhury, B. & Saikia, D. K. Hierarchical Group based Mutual Authentication and Key Agreement for Machine Type Communication in LTE and future 5G Networks. Security and Communication Networks 4, 1-21 (2017).

Satapathy, S. S., Sahoo, A. K., Ray, S. K. & Ghosh, T. C. Codon degeneracy and amino acid abundance inuence the measures of codon usage bias: improved Nc and ENCprime measures. Genes to cells 22, 277-283 (2017).

Satapathy, S. S., Powdel, B. R., Buragohain, A. K. & Ray, S. K. Discrepancy among the synonymous codons with respect to their selection as optimal codon in bacteria. DNA Research 23, 441-449 (2016).

Singla, A. & Patra, S. A fast automatic optimal threshold selection technique for image segmentation. Signal, Image and Video Processing, 1-8 (2016).

Sharma, P., Bhattacharyya, D. K. & Kalita, J. Disease biomarker identication from gene network modules for metastasized breast cancer. Scientic Reports 7, 1072 (2017).

Yarnagula, H. K., Deka, S. K. & Sarma, N. A Cross-Layer based Location Aware Forwarding using Distributed TDMA MAC for Ad-Hoc Cognitive Radio Networks. Wireless Personal Communications, 1-18 (2017).

Conference proceedings

Basumatary, N., Sarma, N. & Nath, B. Signal Type Detection in CRN: A Hierarchical Modulation Classication Framework using SVM and Decision Tree Approaches in proceedings of the 1st International Conference on Accessibility to Digital World (IEEE, Guwahati, 2016).

Borah, S. & Borah, B. A survey on feature remeshing of 3D triangular boundary meshes in proceedings of the 1st International Conference on Accessibility to Digital World (IEEE, Guwahati, 2016), 57-62.

Deka, D., Sarma, N. & Panicker, N. J. Malware Detection Vectors and Analysis Techniques: A Brief Survey in proceedings of the 1st International Conference on Accessibility to Digital World (IEEE, Guwahati, 2016).

Deka, D., Deka, S. K. & Sarma, N. A Capacity Constraint Distributed Data Dissemination Protocol for Ad Hoc Cognitive Radio Networks in proceedings of Intl Conference on ICT for Sustainable Development, Advances in Intelligent Systems and Computing (2016), 621-633.

Devi, M., Sarma, N. & Deka, S. K. Allocation and Access Mechanisms for Spectrum Sharing in CRNs: A Brief Review in proceedings of the 1st International Conference on Accessibility to Digital World (IEEE, Guwahati, 2016).

Devi, M. & Saharia, S. A two-level classication scheme for single-hand gestures of Sattriya dance in proceedings of the 1st International Conference on Accessibility to Digital World (IEEE, Guwahati, 2016), 193-196.

Hoque, N. & Bhattacharyya, D. K. Low-rate and High-rate DDoS Flooding Attack Detection using alpha-Divergence in proceedings of Int'nl Conference on Computing and Communication Systems (Springer, Meghalaya, 2016).

Hoque, N., Bhattacharyya, D. K. & Kalita, J. K. An Alert Analysis Approach to DDoS Attack Detection in proceedings of the 1st International Conference on Accessibility to Digital World (IEEE, Guwahati, 2016).

Mandal, K. & Sarmah, R. A density based clustering for gene expression data using gene ontology. Proceedings of Second International Conference on Computing and Communications Systems in (Shillong, 2016).

Nath, S. & Sharma, U. Transforming the vowel/diphthong formants of one Assamese variety to another: A GMM based approach in Proceedings of the 1st International Conference on Accessibility to Digital World (IEEE, Guwahati, 2016), 157-162.

Gupta, J. , Chauhan, P., Nath, M., Manvithasree, M., Deka, S. K. & Sarma, N. Coalitional Game Theory based Cooperative Spectrum Sensing in CRNs in Proceedings of 18th International Conference on Distributed Computing and Networking (Hyderabad, 2017).

Roychoudhury, P., Roychoudhury, B. & Saikia, D. K. A group-based authentication scheme for vehicular Moving Networks in Proceedings of the1st International Conference on Accessibility to Digital World (IEEE, Guwahati, 2016), 93-96.

Sharma, M., Chauhan, P. & Sarma, N. A Brief Review of Cooperative Spectrum Sensing: Issues and Challenges in Proceedings of the 1st International Conference on Accessibility to Digital World (IEEE, Guwahati, 2016).

Sharma, P., Sharma, U. & Kalita, J. Named entity recognition in Assamese: A hybrid approach, Advances in Computing in Proceedings of International Conference on Communications and Informatics (IEEE, Jaipur, 2016), 2114-2120.

Sharma, P. & Bhattacharyya, D. K. Centrality Analysis in PPI Networks in Proceedings of the 1st International Conference on Accessibility to Digital World (IEEE, Guwahati, 2016).

Sharma, P. & Bhattacharyya, D. K. DCRS: A multi-objective protein complex nding method in Proceedings of Int'nl Conference on Computing and Communication Systems (Springer, Shillong, 2016).

Books and Book Chapters

Bhattacharyya, D. K. & Kalita, J. K. DDoS Attack: Evolution, Detection, Prevention, Reaction and Tolerance isbn: ISBN-10: 1498729649; ISBN-13: 978-1498729642 (CRC Press, Taylor and Francis Group, 2016).

Oki, E., Sarma, N., Chatterjee, B. C. & Sahu, P. P. Routing and Wavelength Assignment for WDM-based Optical Networks: Quality-of-Service and Fault Resilience isbn: ISBN: 978-3-319-46202-8 (Print) 978-3-319-46203-5 (Online) (Springer International Publishing, 2017).

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

International and National

A Karmakar attended a Workshop on IOT and Wireless Security, 3 -14 March, 2017, Tezpur University & IIT Guwahati, Tezpur

A Karmakar attended the Advance Workshop on HPC and Parallel Computing, 27-28 March, 2017, Tezpur University & CDAC Pune, Tezpur

D Boro attended a Workshop on IOT and Wireless Security, 3 -14 March, 2017, Tezpur University & IIT Guwahati, Tezpur

D Boro attended the Advance Workshop on HPC and Parallel Computing, 27-28 March, 2017, Tezpur University & CDAC Pune, Tezpur

N Medhi attended as Organizing committee member of the Workshop on Internet of Things: A Gateway to Smart and Intelligent Future (By E & ICT Academy, IIT Ghy), 4-5 November, 2016. NEHU, Shillong.

Rosy Sarmah attended Workshop on IOT and Wireless Security, 3 -14 March, 2017, Tezpur University & IIT Guwahati, Tezpur

Rosy Sarmah attended the Advance Workshop on HPC and Parallel Computing, 27-28 March, 2017, Tezpur University & CDAC Pune, Tezpur

Rosy Sarmah attended as resource person in the DBT workshop, Basic Bioinformatics tools and techniques in Structural biology, 18-19 March, 2017, Dept. of MBBT, Tezpur University.

Sanghamitra Nath attended the First International Conference on Accessibility to Digital World, (ICADW'16),16th-18th,Dec'16,AEC, Guwahati

Sanghamitra Nath attended an International Conference on Computing and Communication Systems' 2016 (I3CS'16), 11-13 November, 2016, NEHU, Shillong

Sanghamitra Nath attended the Advance Workshop on HPC and Parallel Computing, 27-28 March, 2017, Tezpur University & CDAC Pune, Tezpur

Sanghamitra Nath attended a Workshop on IOT and Wireless Security, 3 -14 March,.2017, Tezpur University & IIT Guwahati, Tezpur

S Deka attended a Workshop on High Performance Computing,15-16 March, 2017, Tezpur University & CDAC, Pune, Tezpur

S Deka attended a Workshop on IOT and Security, 27-28 March, 2017, Tezpur University & IITG. Tezpur

S S Satapathy attended as a resource person in the DBT sponsored training Programme on "National Workshop on Networks in Biological Systems" at BIF, Tezpur University, 18-19 February, 2017, Tezpur

S S Satapathy attended as an Organizer and resource person in two week Winter school, Molecular Evolution in Bacteria, 5- 15 December, 2016 under GIAN program, Govt. of India.

S Saharia participated in an International Workshop on Pattern Analysis and Applications (IWPAA-2017) at ISI Kolkata, 18-20 Jan. 2017. Kolkata

Shobhanjana Kalita attended a Workshop on IOT and Wireless Security, 3 -14 March, 2017, Tezpur University & IIT Guwahati, Tezpur

Shobhanjana Kalita attended the Advance Workshop on HPC and Parallel Computing, 27-28 March 2017, Tezpur University & CDAC Pune, Tezpur

S Patra attended a Workshop on Personality Development Programme, 27 August - 5 Sepember, 2016, TLC Center, Tezpur University

U Sharma attended as an Invited Speaker, the International Conference on Computing and Communication Systems'2016 (I3CS'16), 11-13 November 2016, NEHU, Shillong.

Z Bhuyan attended an International Conference on Computing and Communication Systems 2016 (I3CS'16), 11th-13th, Nov'16, NEHU, Shillong

Z Bhuyan attended the Advance Workshop on HPC and Parallel Computing, 27-28th Mar.2017, Tezpur University & CDAC Pune, Tezpur

Z Bhuyan attended an International Conference on Intelligent Human Computer Interaction, 12-13 December 2016, BITS, Pilani, India

TALKS BY THE FACULTY ABROAD AND IN INDIA

N Sarma acted as a resource person in a Workshop on Cloud Computing and Network (Cloud-Net), under TEQIP-II organized by the Department of Computer Science and Engineering, NIT Silchar, Cachar, Assam, 11 – 16 March, 2017.

Rosy Sarmah invited as a resource person in the DBT workshop, Basic Bioinformatics tools and techniques in Structural biology, Dept. of MBBT, Tezpur University, 18-19 March, 2017.

S S Satapathy invited as a resource person in the DBT sponsored training Programme. National Workshop on Networks in Biological Systems, BIF, Tezpur University, Tezpur, 18-19 February, 2017.

U Sharma delivered an invited talk in an International Conference on Computing and Communication Systems' 2016 (I3CS'16), NEHU, Shillong, 11-13 November, 2016, .

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

Workshop on Internet of Things (IoT) and Security, Deptt. of CSE, Tezpur University, 27-28 March, 2017

Workshop on High Performance Computing, Conducted by: C-DAC Pune & Tezpur University, Tezpur University, 15–16 March, 2017

Workshop on Internet of Things (IoT) Capacity Building, Conducted by: C-DAC Pune & Tezpur University, Tezpur University, 30–31 May, 2016.

Jointly organized a two week Winter School with Dept. of MBBT under GIAN initiative of MHRD, Govt. of India. (5^{th} to 15^{th} December, 2016)

DISTINGUISHED VISITORS TO THE DEPARTMENT

Prof. Edward Feil, University of Bath, UK, 5^{th} to 12^{th} December, 2016.

Prof. Jugal Kalita, University of Colorado Springs, USA, October 2016.

AWARDS & HONOURS RECEIVED BY THE FACULTY/ RESEARCH SCHOLARS/STUDENTS

Prof. D. K. Bhattacharyya and his team research work, Disease biomarker identification from gene network modules for metastasized breast cancer, has been published in Scientific Reports of Nature Publishing Group.

OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY

Department of Computer Science and Engineering is selected for setting up MHRD's Center of Excellence based on Machine Learning and Big Data Analysis, for the period 2014-2019.

Department of Computer Science and Engineering is selected for UGC SAP DRS-II in the area of Big Data Analytics- Bioinformatics, Network Security and Robotics for the period 2015-2020.

The Department is nominated by UGC as a Participant of BRICS Network University.

Tezpur University is selected as a Participating Institute under Ministry of IT's Information Security Education and Awareness (ISEA) Project for the period 2015-20.

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE

GATE: 05



NOTABLE PLACEMENT

AMAZON	: 03
INTEL	: 05
TECHMAHINDRA	: 01
WIPRO TECHNOLOGIES	: 06
ZALONI TECHNOLOGIES	: 03

THE FACULTY OF THE DEPARTMENT

Professors

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THE STAFF OF THE DEPARTMENT

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MTS



Department of Electrical Engineering

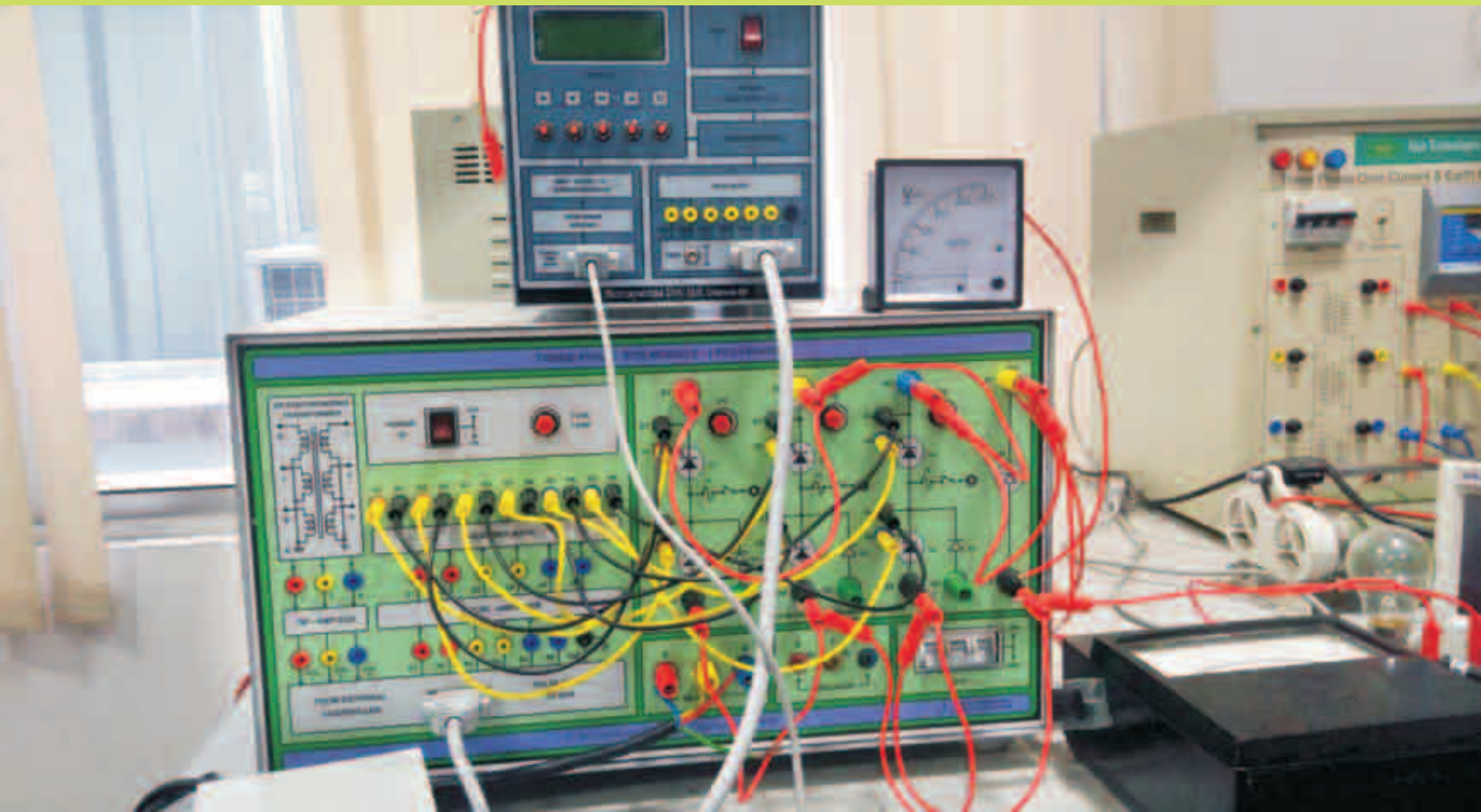
THE DEPARTMENT

The Department of Electrical Engineering was opened in 2016 with a BTech programme in Electrical Engineering, which was started under the Department of Electronics and Communication Engineering in 2014. The BTech programme has been approved by AICTE in the current year. The prime motive of the department is to impart quality education, training and research at the undergraduate level in forefront areas of Electrical Engineering and its allied technologies with an aim of producing engineers with sound basic and applied knowledge in electrical engineering. The first batch of students will graduate in the year 2018.

The key areas of faculty expertise of the department include Power System Engineering, Power Electronics, Nonlinear Analysis-Theory, Methods & Applications, Control Systems, Fractional Order Chaotic Systems, Converter and Inverter Topologies, Sensor Technologies, Renewable Energy Management, Bio-electronics and Neuro Engineering.

Academic programmes and Student intake

Academic programmes	Student Intake
BTech in Electrical Engineering	30



Major facilities and equipment available

Electrical Engineering Department, Tezpur University has a Power System Laboratory and Electrical Machines Laboratory (sponsored under AICTE NEQIP). Complete experimental setup for studying of Control of Electrical Machines is available where; experiments on speed control of DC machine, Transformer tests, and synchronous machine tests can be performed.

The power system laboratory is equipped with experimental setups on Transformer Oil Testing, Differential Relay Protection scheme, Transmission Line Parameter Estimation, Ring and Radial Distribution System testing, Phase sequence testing and parameter evaluation of zero sequence, positive sequence and negative sequence can be performed.

PUBLICATIONS

In National and International Journals

Borah, M., Singh, P. P. & Roy, B. K. Improved Chaotic Dynamics of a Fractional-Order System, its Chaos-Suppressed Synchronisation and Circuit Implementation. Circuits, Systems, and Signal Processing 35, 1871-1907(2016).

Borah, M. & Roy, B. K. Can fractional-order coexisting attractors undergo a rotational phenomenon? ISA Transactions (2017).

Borah, M. & Roy, B. K. Design of fractional-order hyperchaotic systems with maximum number of positive lyapunov exponents and their antisynchronisation using adaptive control. International Journal of Control 0, 1-16 (2016).

Siddiqui, A., Mahboob, R. & Islam, T. A Passive Wireless Tag With Digital Readout Unit for Wide Range Humidity Measurement. IEEE Transactions on Instrumentation and Measurement 66, 1013-1020 (2017).

Saharia, B. J. & Manas, M. Viability Analysis of Photovoltaic/Wind Hybrid Distributed Generation in an Isolated Community of Northeastern India. Distributed Generation & Alternative Energy Journal 32, 49-80 (2017).

Sharma, A. & Bardalai, A. Technique to Determine the Optimized Harmonic Switching Angles of a Cascaded Multilevel Inverter for Minimum Harmonic Distortion. IETE Journal of Research 62, 288-294 (2016).

Conference Proceedings

Borah, M. & Roy, B. K. Hidden attractor dynamics of a novel non-equilibrium fractional-order chaotic system and its synchronisation control in 2017 Indian Control Conference (ICC) (2017), 450-455.

Borah, M. & Roy, B. K. Switching synchronisation control between integer order and fractional-order dynamics of a chaotic system in 2017 Indian Control Conference (ICC) (2017), 456-461.

Borah, M., Roy, P. & Roy, B. K. Synchronisation control of a novel fractional order chaotic system with hidden attractor in 2016 IEEE Students 8217; Technology Symposium (TechSym) (2016), 163-168.

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED
International and National

Manashita Borah attended the IEEE Indian Control Conference, IIT Guwahati, India, 04-06 January, 2017

Manashita Borah attended a Workshop cum Training on Patent Search and Analysis, Tezpur University, India, 25 February, 2017

Manashita Borah attended a Workshop on Industry academia interactive meet on micro-nano system technologies, 03-4th March, 2017, Tezpur University.

A Sharma attended the MHRD and TEQIP Sponsored course, Recent Developments of Magnetic Bearing and Energy Efficient Bearing-less Machines, IIT, Guwahati, 26-27 September, 2016.

A Sharma participated in a Workshop, IoT and Security, Department of Computer Science and Engineering, Tezpur University, 27-28 March, 2017.

TALKS BY THE FACULTY ABROAD AND IN INDIA

Manashita Borah delivered a talk, Hidden Attractor Dynamics of a Novel Non-equilibrium Fractional-order Chaotic System and its Synchronisation Control, IIT Guwahati, India, 04-06 January, 2017.

Manashita Borah delivered a talk, Switching Synchronisation Control between Integer-order and Fractional-order Dynamics of a Chaotic System, IIT Guwahati, India, 04-06 January, 2017.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

Workshop on Industry-Academia interactive meet on micro-nano system technologies, 03-04 March, 2017 (In collaboration with Department of Electronics and Communication Engineering, Tezpur University).

AWARDS & HONOURS RECEIVED BY THE FACULTY/ RESEARCH SCHOLARS/STUDENTS

Manashita Borah won the best poster paper award in IIT Kharagpur, for the paper, Manashita Borah, P Roy, B K Roy, Synchronisation Control of a Novel Fractional-order Chaotic System with Hidden Attractor, IEEE Students' Technology Symposium, IIT Kharagpur, 30 Sepember - 2 October, India.

THE FACULTY OF THE DEPARTMENT
Professor

J C Dutta, PhD (Jadavpur)
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Assistant Professors

Manashita Borah, MTech (NIT Silchar)
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B J Saharia, MTech (NIT Agartala)
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Department of Electronics and Communication Engineering

THE DEPARTMENT

Established in 1997, the Department of Electronics and Communication Engineering is one of the oldest Departments in the University. The Department is involved in research activities in different areas including Signal & Image Processing, Bioelectronics, Biosensors, Microwave Engineering, Communication Engineering and Microelectronics. The presentfacultystrength of the Department is 19; the student strength about 400.The Department has research/infrastructure projects from almost all major research funding sources of the Government of India.

Academic programmesand Student intake

Academic programmes	Student Intake
BTech in Electronics and Communication Engineering	60
MTech in Electronics Design & Technology	28
MTech in Bioelectronics	15
PhD	Intake variable, 06 in the Academic year 2016-17

Major facilities and equipment available

Microfabrication Facility

National MEMS Design Center

MAJOR RESEARCH FINDINGS/RESEARCH AND DEVELOPMENT ACTIVITIES

Research projects, ongoing and new

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Visvesvaraya PhD scheme	DeitY	356.70 lakh	2015-2020	J C Dutta
UGC-SAP	UGC	69.00 lakh	2012-2017	P PSahu
Identification of efficient Semiconductor-Dopant combinations for selective chemi-adsorption of Tea-pesticides in Metal Oxide Semiconductor(MOS) Sensor.	National Tea Research Foundation	34.01 lakh	2016-2020	Priyanka Kakoty (Co-PI)

Design and realization of light weight shields to reduce electromagnetic interference (EMI) at microwave ranges (C and X band) with different geometries for customized applications like anechoic chamber, as terminations and stealth for strategic device camouflaging	DeitY	216.04 lakh	2016-2019	S Bhattacharyya (Co-PI)
Studies of ferromagnetic resonance in spinal ferite and granets for high power	BRNS-DAE	35.53 lakh	2014-2017	S Bhattacharyya (Co-PI)
Microwave Technology based Tea Processing Systems for NE states	SAMEER, Mumbai	55.20 lakh	2013-2018	S Bhattacharyya (Co-PI)
Si/ZnO/ZnMgO/PEDOT: PSS/P3HT:PC61 BM hybrid bulk heterojunction (BHJ) architecture based organic solar cell: efficiency enhancement approach through the optical structure modification	DST	19.096 lakh	2016-2019	S Maity
Fabrication of Si-ZnO-ZnMgO heterojunction solar cell through improved ZnO-ZnMgO hexagonal nanopillar	IMPRINT-INDIA	63 lakh	2016-2019	S Maity

PUBLICATIONS

In National and International Journals

Boruah, K. & Dutta, J. C. A DNA computing algorithm of realization of DNA Boolean logic based on micro-cantilever detection. International Journal of Pharmaceutical Sciences Review and Research 42 (1) (2017).

Boruah, K. & Dutta, J. C. Realization of Boolean Circuit using DNA computing. International Journal of Control Theory and Applications 9(11) (2016).

Boruah, K. & Dutta, J. C. Realization of Boolean Circuit using DNA computing. International Journal of Control Theory and Applications 9(11) (2016).

Boruah, K. & Dutta, J. C. Algorithm to Simulate a Chemically Induced DNA Logic Gate and Boolean Circuit. Current Trends in Biotechnology & Pharmacy 11(2) (2017).

Chakraborty, S., Bhattacharyya, N. S. & Bhattacharyya, S. Single layered wide bandwidth nanosized strontium hexa-ferrite lled LLDPE absorber in X-Band. Progress In Electromagnetics Research B, 137-152 (2016).

Das, H., Das, D., Doley, R. & Sahu, P. P. Quantifying Demyelination in NK venom treated nerve using its electric circuit model. Scientic reports (Nature) (2016).

Deka, B., Handique, M. & Datta, S. Sparse Regularization Method for the Detection and Removal of Random-Valued Impulse noise. Multimedia Tools and Applications 76 (5), 1-34 (2016).

Deka, R. & Dutta, J. C. Parameter Extraction of Hodgkin-Huxley Type Circuit Model of Neuron using Advanced Algorithm. International Journal of ChemTech Research 10(1) (2017).

Deka, R. & Dutta, J. C. Optimization Of Neuron Models Using Advanced Algorithms. International Journal of Pharmaceutical Sciences Review and Research 42(1) (2017).

Deka, R. & Dutta, J. C. Development of NEUROAchFET circuit for Patients Having Neurological Disorder. Current Trends in Biotechnology & Pharmacy 11(2) (2017).

Deka, R. & Dutta, J. C. Parameter Extraction of Hodgkin-Huxley Type Circuit Model of Neuron using Advanced Algorithm. International Journal of ChemTech Research 10(1) (2017).

Deka, R. & Dutta, J. C. Optimization Of Neuron Models Using Advanced Algorithms. International Journal of Pharmaceutical Sciences Review and Research 42(1) (2017).

Dutta, J. C. & Thakur, H. Sensitivity determination of CNT based ISFETs for dierent high-? dielectric materials. IEEE Sensors Letters 1(2) (2017).

Dutta, J. C. & Thakur, H. Sensitivity determination of CNT based ISFETs for dierent high-? dielectric materials. IEEE Sensors Letters 1(2) (2017).

Dutta, K., Hazarika, A., & Bhuyan, M. Controller Based E-Nose for Gas Classication without Using ADC. Sensors and Transducers 202(7), 38-45 (2016).

Dutta, L., Hazarika, A. & Bhuyan, M. Direct interfacing circuit based E-Nose for gas classification and itsun certainty estimation,IET Circuits. Devices and Systems. issn: 1751-8598 (2017).

Gogoi, N. & Sahu, P. P. All-optical surface plasmonic universal logic gate devices. Plasmonics 11 (6), 1537-1542 (2016).

Gogoi, P. J., Rabha, M. M., Bhattacharyya, S. & Bhattacharyya, N. S. Substrate in C-band. Journal of Magnetism and Magnetic Materials 414, 209-218 (2016).

Hazarika, D., Nath, V. K. & Bhuyan, M. SAR Image Despeckling Basedon Combination of Laplace Mixture Distribution with Local Parameters and Multiscale Edge Detection in Lapped Transform Domain. Procedia Computer Science , 87, 140-147 (2016).

Hazarika, D., Nath, V. K. & Bhuyan, M. Speckle Removal From SAR Images in the Lapped Transform Domain Using Adaptive Threshold Based on Despeckling Evaluation Indexes. Procedia Computer Science, 87, 148-155 (2016).

Hazarika, D., Nath, V. K. & Bhuyan, M. SAR image despeckling base- don a mixture of Gaussian distributions with local parameters and multiscale edge detection in Lapped transform domain. Sensing and Imaging , 17(15), 1-32 (2016).

Kakoty, N. M., Hazarika, S. M. & John, Q. G. EMG Feature Set Selection through Linear Relationship for Grasp Recognition. Journal of Medical and Biological Engineering, 36, 883 -890 (2016).

Kakoty, P. & Bhuyan, M. Fabrication of Micromachined SnO2 based MOS Gas Sensor with Inbuilt Microheater for Detection of Methanol. Sensors & Transducers 204, 58-67 (2016).

Maity, S., Roy, B. K. & Bhattacharjee, S. Silicon based technology: Circularly polarized microstrip patch antenna at ISM band with miniature structure using fractal geometry for biomedical application. Microwave and Optical Technology Letters (MOTL) 2017.

Maity, S., Muchahary, D. & Sahu, P. Enhancing responsivity and detectevity of Si-ZnO photo detector with growth of densely packed and aligned hexagonal nano-rods. IEEE Transactions on Nanotechnology 16 (2017).

Maity, S., Bhunia, C. C. & Sahu, P. P. Improvement in optical and structural properties of ZnO thin

lm through hexagonal nanopillar formation to improve the eciency of Si-ZnO heterojunction solar cell. Journal of Physics D Applied physics 49.
Muchahary, D., Maity, S. & Bhunia, C. T. Back Surface Field (BSF) approach: Surface and interface defect states optimization of high ecient Si-ZnO based heterojunction solar cell. Journal of Renewable and Sustainable Energy (2017).

Muchahary, D. & Maity, S. High-Eciency thin lm ZnMgO/ZnO solarcell simulation approach: temperature dependency, BSF and ecient small signal analysis. Superlattices and Microstructures, 109, 209-216 (2017).

Sahu, P. P. Theoretical Investigation of All optical switch based on compact surface plasmonic two mode interference coupler. IEEE/ OSA J of Lightwave Technlogy 34(4), 1300-1305 (2016).

Sarkar, A., Maity, S., Bhunia, C. T. & Sahu, P. P. Responsivity optimization of methane gas sensor through the modication of hexagonal nanorod and reduction of defect states. Superlattices and Microstructures 102, 459-469 (2017).

Sarkar, A., Maity, S. & Joseph, A. M. Methane-Sensing Performance Enhancement in Graphene Oxide/Mg:ZnO Heterostructure Devices. IEEE Journal of Electronics Material, 46 (2017).

Sharma, P. K., Dutta, J. C., Barik, M. A. & Sarma, M. K. Numerical Modeling of Potassium doped Polypyrrole/Carbon Nanotube graphene based cholesterol enzyme eld eect transistor. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields (2017).

Sharma, P. K., Thakur, H. R. & Dutta, J. C. Modeling and simulation of carbon nanotube-based dual-gated enzyme eld eect transistor for acetylcholine detection. Journal of Computational Electronics, 1-9 (2017).

Sharma, P. K., Dutta, J. C., Barik, M. & Sarma, M. K. Numerical modeling of potassium-doped polypyrrole/carbon nanotube graphene-based cholesterol enzyme eld eect transistor. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields (2017).

Sharma, P. K., Thakur, H. R. & Dutta, J. C. Modeling and simulation of carbon nanotube-based dual-gated enzyme eld eect transistor for acetyl choline detection. Journal of Computational Electronics, 1-9 (2017).

Conference proceedings

Baruah, R. K. & Roy, P. P. Impact of Active Well Biasing on Process Induced Variations of a Bulk Planer Junctionless Transistor in International Conference on Emerging Electronics (ICEE) (2016).

Bordoloi, A. K., Islam, M. F., Zaman J., P. N. & Kakoty, N. M. A Floor Cleaning Robot for Domestic Environments in Advances in Robotics ,(2017).

Chakraborty, S., Bhattacharyya, N. S. & Bhattacharyya, S. A performance study of doped strontium ferrite/ LLDPE nano composite as X-band microwave absorber in International Conference on Innovative Research In Applied Physics, Material Sciences, Instrumentation, Electronics, Communication, Electrical, Power Control, Computer Science and Information Technology (TECHNOVA-2016) (Guwahati, 2016).

Chakraborty, S., Bhattacharyya, N. S. & Bhattacharyya, S. Development of Al- doped strontium ferrite/ LLDPE nano composite and its microwave absorption performance in X-band in International Conference on Emerging Trends in Nanomaterials Science & Technology (ICETNMST -2017) (Nagaland, 2017).

Chakraborty, S., Bhattacharyya, N. S. & Bhattacharyya, S. Eect of particle size on absorption eectiveness of hexa- ferrite nanoparticles at microwave ranges in UGC-SAP (DRS II) Sponsored National Conference on Hard and Soft Condensed Matter Physics (NCHSCMP-2017) (2017).

Chutia, S., Kakoty, N. M. & Deka, D. A Review of Underwater Robotics, Navigation, Sensing Techniques and Applications in Advances in Robotics (ACM publication, 2017).

Datta, S. & Deka, B. Ecient Adaptive Weighted Minimization for Compressed Sensing Magnetic Resonance Image Reconstruction in Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP) (India, 2016).

Datta, S. & Deka, B. An Ecient Interpolated Compressed Sensing Method for Highly Correlated 2D Multi-slice MRI in International Conference on Accessibility to Digital World (ICADW) (Guwahati, 2016).

Datta, S. & Deka, B. Magnetic Resonance Image Reconstruction using Fast Interpolated Compressed Sensing in International Conference on Light and Light based Technologies (ICLLT) (Tezpur, 2016).

Dutta, L., Hazarika, A. & Bhuyan, M. Comparison of Direct Interfacing and ADC Based System for Gas Identication using E-Nose in IEEE Recent Advances and Innovations in Engineering (IEEE Press, 2016).

Hazarika, A., Barthakur, M., Dutta, L. & Bhuyan, M. Two-fold feature extraction technique for Biomedical signals classication in IEEE International Conference on Inventive Computation Technologies (ICICT (IEEE Press, 2016).

Hazarika, A., Barthakur, M., Dutta, L. & Bhuyan, M. Fusion of projected feature for classication of EMG patterns in IEEE Recent Advances and Innovations in Engineering (IEEE Press, 2016).

Hazarika, A., Bhuyan, M., Barthakur, M. & Dutta, L. Multi-view Learning For Classication of EMG Template in IEEE International Conference on Signal Processing and Communication (2017).

Kakoty, N. M., Mazumdar, M. & Sonowal, D. Mobile Robot Navigation in Unknown Dynamic Environment Inspired by Human Pedestrian Behavior in ICACIE (Springer, 2017).

Khan, C. N., Laishram, R., Sarma D. J., M. T. & Mondal, B. Modeling of Surface Plasmon Resonance (SPR) for the Development of Glucose Biosensor in 3rd International Conference on Microelectronics, Circuits and Systems (Kolkata, India, 2016).

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Pandit, R. & Baruah, R. K. A Capacitive type Humidity Sensor with Potassium ion doped TiO?thin lm as Humidity Sensing Material in International Conference on Emerging Electronics (ICEE) (2016).

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Sharma, M. D., Phukan, N., Kakoty, N. M. & Sonowal, D. Visualization of Grasping Operations based on Hand Kinematics measured through Data Glove in Advances in Robotics (ACM publication, IIT Delhi, India, 2017).

Sharma, P. K., Thakur, H. R. & Dutta, J. C. Fabrication and characterization of a Carbon Nanotube based Junctionless Ion Sensitive Field Eect Transistor (CNT-JLISFET) in International Conference on Computing Communication and Automation (ICCCA-2016) (IEEE, Greater Noida, 2016). doi:10.1109/CCAA.2016.7813948.

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Books and Book Chapters

Dutta, A., Deka, B. & Sahu, P. P. Planner Waveguide Optical Sensors (Springer, 2016).

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SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

Organized two day workshop entitles "Industrial Academia interactive meet on Micro-Nano system technologies" jointly organized with Institute of smart structures and systems and AICET NEQIP at Tezpur University during 3-4 March, 2017.
Two week ISTE STTP on "CMOS Mixed signal and radio frequency VLSI design" during 30 January to 04 February, 2017 as part of ISTE-IITKgp workshops under NMEICT program sponsored by MHRD.

AWARDS & HONOURS RECEIVED BY THE FACULTY/ RESEARCH SCHOLARS/STUDENTS

B Deka

a) Visvesvaraya Young Faculty Research Fellowship in 2016-17 for 5 years
b) Best Paper award in 1st Springer International Conference ETAEERE 2016 at SMIT, Sikkim during 17-18 Dec. 2016
c) Optical Society of India (OSI) best poster award at the 40th OSI conference ICLLT 2016 held at Tezpur University, 26-27 November, 2016.

S Maity

1. DST young scientist award (Fast track), 2017.
2. Monitoring fibrous capsule formation, (Elsevier) Honorarium 100 Pound, 2016.
3. Use of Nanostructured Materials in soft tissue Engineering, (Elsevier) Honorarium 100 Pound, 2017.

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE

GATE: 03

NOTABLE PLACEMENT

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Department of Energy

THE DEPARTMENT

The Department of Energy was established in 1996 with an aim to produce manpower pools in the field of Energy; develop new and efficient energy technologies; and to carry out research and extension activities in diverse areas of Energy. The thrust areas of teaching, research and extension activities for the Department have been new and renewable energy technologies and systems, relevant to regional/national needs and current international trends. Energy planning, management and conservation including the climate change issues have been the special thrust areas for the Department.

Academic programmes and Student intake

AcademicProgramme	Student Intake
MTech in Energy Technology	28
BVoc In Renewable Energy Management	50
PhD	Intake variable 06 in the Academic year 2016-17



Major facilities and equipment available:

- PG Stat Auto lab, Model:302N
- Gas Chromatograph, Model: HP 4890
- Fibretech System, Make:FOSS TECATOR
- Portable Digital Power Meter, Make: Yokogawa
- Biomass Gasifier with wood cutter, Make: Ankur Scientific
- TOC Analyzer, Make / Model:LiquiTOCII, Elementar
- UV-VIS Spectrophotometer, Make: Shimadzu, Model:1700
- Research Radiometer, Make: International Light
- Sunshine Recorder, Make: National Instruments
- Angstrom Compensation Pyrheliometer, Make: National Instruments
- Pyranometer, Make: Kipp and Zonen Model: CNP 11
- Single Cylinder 4-stroke Petrol Engine Test Rig with Electrical Dynamometer· Computerized Diesel Engine Test Rig, Make: Apex Innovation
- Laboratory Scale Pyrolyser with Temperature Control System
- Air Quality Monitor and Dust Track Aerosol Monitor (Nephelometer)
- Auto-bomb Calorimeter, Make:Changsha Kaiyuan Instruments co. Ltd.,Model: AC-5E
- Rotary Vacuum Evaporator Strike,Model: 102/B
- Oxidation Stability Apparatus, Model: Rancimat-743
- Duel Fuel Engine, Make: Apex Innovation, Model: P228
- Micro Hydro-power Generating Equipment (Demonstration unit)
- Fuel Cell Kit Stack, Make:H-Tech,Model: XX2 3002
- Integrated Biodiesl Production Plant, Make:Malnad Industries, Model
- Biomethanation Plant
- Biogas Analyzer, Make: AmbetronicsPvt Ltd., Model: IR 5000
- Rotary Vacuum Evaporator, Make: RVF-E, Make:Relitech
- Ramsbottom Carbon Residue Apparatus, Make: Hamco, India, Model: HAMCO31
- Semi-Automatic Flash and Fire point apparatus, Make: Hamco, India
- Biomass Pyrolyser set-up, Make: Montech Instrument

MAJOR RESEARCH FINDINGS/RESEARCH AND DEVELOPMENT ACTIVITIES

Principal Investigator	Salient Research Findings
BKKakati	• Developed non-precious novel biomass based ORR catalyst for PEFC
D C Baruah	• Development of a fuel efficient all-purpose biomass cook stove. • Designing and development of an improved cook stove • Performance testing with different biomass feedstock
D C Baruah& S Mahapatra	• Rural Hybrid Energy Enterprise Systems • Assessment and mapping of energy resources availability in selected rural area • Analysis of existing energy consumption pattern and future projected energy demand, Characterization of potential energy resources and their assessment as anaerobic digestion and gasification feedstock. • Biomass Gasification of locally available biomass; Thermal comfort studies of office. • Building of warm and humid climate zone.



D Deka	• Renewable Heterogeneous Catalyst for biofuels and chemicals production
N Sarmah	• Development of model and system for Energy output analysis of PV system
P K Choudhury	• Development of a model for Solar air heater Assessment
R Kataki	• Thermochemical conversion of various feedstocks (bio-waste, microalgae species, grass species, oil shale) to bio oil and biochar, and its utilization. • Kinetic study on pyrolysis of biomass using thermogravimetric analysis • Complete utilization of non-edible oil seeds for biofuel production through both chemical and thermochemical conversion route. • Application of biochar as a low cost adsorbent for removal of heavy metals and organic pollutants from wastewater. • Soil application of biochar for sustainable soil management and mitigation of GHG emission.





Research projects, ongoing and new

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Oxygen Reduction Reaction catalyst for potential application in Polymer Electrolyte Fuel Cells	UGC	6.00 lakh	2016-18	B K Kakati
Biomass derived graphene based cathode catalyst for Polymer Electrolyte Fuel Cells	DST		2016-19	B K Kakati
Development of a fuel efficient all-purpose biomass cook stove	ASTEC	1.75 lakh	2014-2016	D C Baruah
Rural Hybrid Energy Enterprise Systems	DST-RCUK	195 lakh	2013-16	D C Baruah& S Mahapatra(Co-PI)
Indo-Brazil International Collaborative Research Project Integrated Bio refinery Approach towards production of sustainable fuel and chemicals from Algal bio based systems	DBT	100.46 lakh	2016-2019	D Deka
Indo-Hungary International Collaborative Research Project Biochemical and biofuels from lignocellulosic biomass by Green catalytic processes	DST	34.42 lakh	2016-2019	D Deka
Development and validation of a spectrum dependence integrated optical-thermal-electrical model to evaluate the performance of high concentrating photovoltaic module	UGC	6.00 lakh	2016-18	N Sarmah
Development of a test setup for solar thermal collector with air as working fluid and design a microcontroller-based mechanism for controlling the collector output	ASTEC	1.25 lakh	2014-17	P K Choudhury
Production of biochar from various bio-wastes and its soil application for sustainable soil management and mitigation of GHG emission	UGC	12.95 lakh	2013-17	R Kataki

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2. Baruah, D., Baruah, D. C. & Hazarika, M. K. Artificial neural network based modeling of biomass gasification in fixed bed downdraft gasifiers, Biomass and Bioenergy. *Biomass and Bioenergy*, 264–271 (2017).
3. Bora, P., Konwar, L. J. & Deka, D. Microemulsion based hybrid biofuels using glycerol monooleate. *Energy Conversion and Management*, 1856192 (2016).
4. Borah, N. , Barua, R., Nath, D., Hazarika, K., Phukon, A., Goswami, K. & Baruah, D. C. Low Energy Rice Stubble Management through in Situ Decomposition. *Procedia Environmental Sciences*, 771–780 (2016).
5. Bordoloi, N. , Narzary, R., Sut, D., Saikia, R., Chutia, R. S. & Kataki, R. Characterization of bio-oil and its sub-fractions from pyrolysis of Scenedesmus dimorphus. Renewable Energy. doi:10 . 1016 / j . renene . 2016 . 03 . 081 (2016).
6. Boro, B., Rajbongshi, B. M. & Samdarshi, S. K. Synthesis and fabrication of TiO2-ZnO nanocomposite based solid state dye sensitized solar cell. *Journal of Materials Science: Materials in Electronics*, 9929–9940.
7. Brahma, A., Saikia, K., Hiloidhari, M. & Baruah, D. GIS based planning of a biomethanation power plant in Assam, India. *Renewable and Sustainable Energy Reviews*, 596–608 (2016).
8. Chutia, R. S., Phukan, M. M., Kataki, R., Bhaskar, T. & Konwar, B. K. Exploitation of Pongamia glabra deoiled cake for alternate energy: Physico-chemical characterization and Thermogravimetric studies. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*. 29–36 (2016).
9. Das, S. K., Mahapatra, S. & Lahan, H. Developments and Challenges. Journal of Materials Chemistry A. *Journal of Materials Chemistry A*, 6347–6367 (2017).
10. Devi, A., Das, V. K. & Deka, D. Ginger extract as a nature based robust additive and its influence on the oxidation stability of biodiesel synthesized from non-edible oil. *Fuel*, 306–314 (2016).
11. Devi, A., Das, V. & Deka, D. Catalytic Transformation of Four Non-Edible Vegetable Oils into Biodiesel using Egg Shell (Cao) as A Catalyst and Assessment of Their Fuel Properties, International Journal of Recent Development in Engineering and Technology. (2016).

12. Devi, A., Das, V. & Deka, D. Catalytic Transformation of Four Non-Edible Vegetable Oils into Biodiesel using Egg Shell (Cao) as A Catalyst and Assessment of Their Fuel Properties. *International Journal of Recent Development in Engineering and Technology*, 16–19 (2016).

13. Devi, A., Das, V. K. & Deka, D. Ginger extract as a nature based robust additive and its influence on the oxidation stability of biodiesel synthesized from non-edible oil. *Fuel 187*, 3066314 (2017).

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17. Kalita, P., Dewan, A. & Borah, S. A review on recent developments in solar distillation units. *Sadhana*, 203–223 (2016).

18. Kataki, S., Hazarika, S. & Baruah, D. C. Assessment of by-products of Boenergy systems (Anaerobic Digestion and Gasification) as potential crop nutrient, Waste Management. (2016).

19. Kataki, S., West, H., Clarke, M. & Baruah, D. Phosphorus recovery as struvite from farm, municipal and industrial waste: feedstock suitability, methods and pre-treatments. *Waste Management*, 437–454 (2016).

20. Kataki, S., West, H., Clarke, M. & Baruah, D. Phosphorus recovery as struvite: Recent concerns for use of seed, alternative Mg source, nitrogen conservation and fertilizer potential. *Resources Conservation & Recycling*, 142–156 (2016).

21. Kataki, S., Hazarika, S. & Baruah, D. C. Investigation on by-products of bioenergy systems (anaerobic digestion and gasification) as potential crop nutrient using FTIR, XRD, SEM analysis and phyto-toxicity test. *Journal of Environmental Management*. doi:10.1016/j.jenvman. (2017).

22. Konwar, L. J. , Sugano, Y., Chutia, R. S., Shchukarev, A., Maki-Arvela, P., Kataki R. & Mikkola, J. P. Sustainable synthesis of N and P co-doped porous amorphous carbon using oil seed processing wastes. *Materials Letters*. doi:10.1016/j.matlet.2016.03.032 (2016).

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24. Malik, P. , Srivastava, M., Verma, R., Kumar, M., Kumar, D. & Singh, J. Nanostructured SnO 2 encapsulated guar-gum hybrid nanocomposites for electrocatalytic determination of hydrazine. *Materials Science and Engineering*, 432–441.

25. Micheli, L. , Fernandez, E., Sarmah, N., Senthilarasu, S., Reddy, K. S., Mallick, T. K. Small volume Fabrication of a 144 Cell Assembly for High Concentrating Photovoltaic Receivers. *Journal of Solar Energy Engineering*. 0310081–03100810 (2016).

26. Micheli, L. , Fern1ndez, E., Sarmah, N., Senthilarasu, S., Reddy, K. S. & Mallick, T. K. SmallVolume Fabrication of a 144-Cell Assembly for High-Concentrating Photovoltaic Receivers. *Journal of Solar Energy Engineering* (2016).

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28. Onyestyak, G. , Novoda, 4rszk. G5, Wellisch, A. F., Valyon, J., Thakur, A. J. & Deka, D. Co and Ni catalysts loaded on typical well-ordered micro- and mesoporous supports for acetic acid reduction. *Reac Kinet Mech Cat*. doi:10.1007/s11144-016-1134-2.

29. Patowary, D., West, H., Clarke, M. & Baruah, D. C. Biogas Production from Surplus Plant Biomass Feedstock: Some Highlights of Indo-UK R&D Initiative. *Procedia Environmental Sciences*, 785–794 (2016).

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33. Sedai, P., Kalita, D. & Deka, D. Assessment of the fuel wood of India: A case study based on fuel characteristics of some indigenous species of Arunachal Pradesh. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 891–897 (2016).

34. Shanks, K. , Sarmah, N., Ferrer-Rodriguez, J. P., Senthilarasu, S., Reddy, K.S., Fernandez, E. F. & Mallick, T. Theoretical investigation considering manufacturing errors of a high concentrating photovoltaic of cassegrain design and its experimental validation. Solar Energy. . 235–245 (2016).

35. Shanks, K. , Sarmah, N., Ferrer-Rodriguez, J. P., Senthilarasu, S., Reddy, K. S., Ferna4ndez, E. F. & Mallick, T. K. Theoretical investigation considering manufacturing errors of a high concentrating photovoltaic of cassegrain design and its experimental validation. *Solar Energy*, 235–245 (2016).

36. Singh, M. K., Attia, S., Mahapatra, S. & Teller, J. Assessment of thermal comfort in existing pre-1945 residential building stock. *Energy*. 122–134 (2016).

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43. Verma, V. & Murugesan, K. A study on energy and CO2 saving potential of solar assisted ground source heat pump system in India. *Renewable & Sustainable Energy reviews- Elsevier* (Under review).

44. Verma, V. & Murugesan, K. Experimental investigation of a SCHP system and analysis of optimum performance parameters using Taguchi approach. *Solar Energy- Elsevier* (Under review).

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46. Boro, N., Boro, B. & Kakati, B. *Multi doped graphene electrocatalyst for high performance Polymer Electrolyte Fuel Cell: A review.* in *In Revive 2016 6 National Conference on Advances in Renewable Energy* (2016).
47. Deb, P., Mahapatra, S. & Dasappa, S. *Biomass Gasifier Based Hybrid Energy System Optimization for Energy Access by Using HOMER. In 24th European Biomass Conference and Exhibition* in (2016).
48. Deb, P., Mahapatra, S. & Dasappa, S. *Biomass Gasifier Based Hybrid Energy System Optimization for Energy Access by Using HOMER* in ().
49. Devi, A., Barman, R. & D.Deka. *Designer Biodiesel: An Optimization of Fuel Quality by Blending Multiple Oils. In the 1st International Conference on Recent Advances in Bioenergy Research.* in (2016).
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51. Patowary, R., Baruah, D. & Baruah, D. *Rice husk as substitute fuel for food processing industry. Techno-economic investigation of an industrial biomass gasifier in Assam (India).* in (Assam, 2016).
52. Singh, M. K., Rijal, R. O.H. B. & Mahapatra, S. *Defining thermal comfort in residential buildings of North East India. In 16th Conference of the Science Council of Asia* in (2016).
53. Singh, M. K., Ooka, R., Rijal, H. B. & Mahapatra, S. *Building simulation based study to improve thermal performance of a traditional residential house* in ().
54. Singh, M. K., Ooka, R., Rijal, H. B. & Mahapatra, S. *Defining thermal comfort in residential buildings of North East India* in ().

Books and Book Chapters

55. Kalita, P. , *Borah, M., Kataki, R., Yadav, D., Patowary, D. & Patowary, R. Biogas and fuel cell as vehicular fuel in India. In: Sustainable Biofuels Development in India.* (eds Chandel, A. & Sukumaran, R.) (Springer, Forthcoming).
56. Kataki, R. *Bioenergy-byproducts as a resource for bio-refinery application. In: Waste Biorefinery:Potential and Perspectives* (eds Pandey, A., Bhaskar, T., Venkata, S. M., Khanal, S. & Lee, D.) (Elsevier, Forthcoming).
57. Kataki, R. , *Bordoloi, N., Saikia, R., Sut, D., Narzari, R. & Gogoi, L. An assessment on Indian Government initiatives and policies for the promotion of biofuels implementation, commercialization through private investments. In: Sustainable Biofuels Development in India* (eds Chandel, A. & Sukumaran, R.) (Springer, Forthcoming).

58. Kataki, R. & Hiloidhari, M. *Co-generation of heat and electricity from biomass in India: Current status and future challenges. In: Sustainable Biofuels Development in India* (eds Chandel, A. & Sukumaran, R.) (Springer, Forthcoming).

59. Kataki, R. , *Chutia, R. S., Bordoloi, N. J., Saikia, R., Sut, D., Narzari, R., Gogoi, L., Nikhil, G. N., Sarkar, O. & Mohan, V. Biohydrogen production scenario for Asian countries. In: Biohydrogen Production: Sustainability of Current Technology and Future Perspective* (eds Singh, A. & Rathore, D.) ISBN: 978-81-322-3575-0 (Springer, 2016).

60. Kataki, R. , *Goswami, K., Bordoloi, N., Saikia, R., Sut, D., Narzari, R. & Gogoi, L. Biomass Resources for Biofuel Production in North-East India. In: Bioprospecting of Indigenous Bioresources of North East India* (ed Purkayastha, J.) ISBN: ISBN: 978-981-10-0619-7 (Springer, 2016).

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENTED
International and National

D C Baruahattended the 6th International Conference on Solid Waste Management, Jadavpur University, 23 – 27 November,2016.

R Kataki attended a National Conference on Renewable Energy Technology Utilization for Rural Development (NCRETURD – 2017), organised by Department of Energy Engineering, North – Eastern Hill University, Shillong,27Febraury – 1 March, 2017.

R Kataki attended an UGC-SAP National Seminar on Climate Change and Society, organised by Department of Environmental Science, Tezpur University, Tezpur, Assam, 24-25 February, 2017.

R Kataki attended the 4th Triennial International Workshop, Evolving Energy Models in Emerging Economies – Post COP21, organized by NAM S&T Centre, New Delhi and SEEM, India, Ahmedabad, Gujrat, 12-14 December, 2016.

R Kataki attended an International Conference on Current Trends in Biotechnology (ICCB-2016), organized by BRSI and VIT University, Vellore, Tamil Nadu, 8-10 December, 2016.

TALKS BY THE FACULTY ABROAD AND IN INDIA

B K Kakati delivered an invited lecture, Graphene and its Engineering Applications, in an AICTE sponsored NEQIP short term course on Advance Materials for Engineering Applications, Assam Engineering College, Assam, India, 25-29 April, 2016.

N Sarmah delivered an invited lecture, Solar and Hybrid Systems to Bridge the gap of Rural and Urban Development, in a National Conference on Renewable Energy Technology Utilization for Rural Development (NCRETURD – 2017), Department of Energy Engineering, North – Eastern Hill University, Shillong, 27 Febraury – 1 March, 2017.

R Kataki delivered an invited lecture, Biomass Inventorization and Thermos-chemical Conversion for Biofuels and Biomaterials, in a National Conference on Renewable Energy Technology

Utilization for Rural Development (NCRETURD-2017), Department of Energy Engineering, North-Eastern Hill University, Shillong, 27 February – 1 March, 2017.

R Kataki delivered an invited lecture, Agro-processing wastes: A Low Value Waste for Conversion to Fuels and Materials, in an International Conference on Current Trends in Biotechnology (ICCB2016), VIT University, Vellore, 08-10 December, 2016.

S Mahapatra delivered an invited talk, Grid-connected Roof-top Solar Photovoltaic System, at the Symposium 16, on Aspects of Renewable Energy in the North Eastern Region of India, Department of Electrical Engineering, GIMT, Guwahati, 08April, 2016.

S Mahapatra delivered an invited talk, Climate responsive Buildings in North East India, in a National Conference on Renewable Energy Technology Utilization for Rural Development and Trade Show (NCRETURD 2017), Department of Energy Engineering, North Eastern Hill University, Shillong, 27 February – 1 March, 2017.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

Solar Awareness Training Programme on Mini and Micro Grids, Sponsored by National Institute of Solar Energy, Ministry of New and Renewable Energy, Government of India, New Delhi, 17-19 February, 2017.

Solar Awareness Training Programme on Off-Grid Solar Technologies, sponsored by National Institute of Solar Energy, Ministry of New and Renewable Energy, Government of India, New Delhi, 10-12 February, 2017.

Solar Awareness Training Programme On Rural Village Electrification, Sponsored by National Institute of Solar Energy, Ministry of New and Renewable Energy, Government of India, New Delhi, 03-05 February, 2017.

Solar Awareness Training Programme On Energy Access Using Renewable Energy Technology, Sponsored by National Institute of Solar Energy, Ministry of New and Renewable Energy, Government of India, New Delhi, 23-25 January, 2017.

One Day Workshop On Biomass Cook Stoves, Organized by C-Quest Capital, New Delhi and Department of Energy, Tezpur University, 08th September, 2016.

Suryamitra Skill Development Program, Sponsored by Ministry of New and Renewable Energy, Government of India, New Delhi, 2nd May - 30th July, 2016.

Global Initiative of Academic Networks (GIAN)) Course On Energy Management and Renewable Energy Intervention for Industrial Drying, sponsoredby MHRD, Government of India, New Delhi, Organized by Department of Energy in Collaboration with Department of Food Engineering and Technology, 13-24th June, 2016.

Training of Trainer's Workshop in Solar PV, sponsoredby Clean Energy Access Network, Organized Jointly byAnthropower, New Delhi and Department of Energy, Tezpur University, 2-5th May, 2016.

DISTINGUISHED VISITORS TO THE DEPARTMENT:

Mr. Abhishek Das, Assistant Manager,Adani Transmission Limited,Akola, Maharastra
Dr. AmarareshDalal,IIT Guwahati, Assam
Dr. B Sreedhar, Senior Principal Scientist,CSIR-IICT,Hyederabad
Mr. DeepJyoti Barman,Co-founder and Director, SUSCONNECT PVT. LTD.,Guwahati, Assam
Prof.D Bahadur,IIT Bombay, Mumbai
Prof. HirakPatangia, College of Engineering & Information Technology,UALR,USA
Dr.Indra Mani,Head of the Agricultural EngineeringDivision, IARI, Delhi
Er. Parash Thakur,Chief Engineer(Production), OIL, Duliajan, Assam
MrRama Siva,CEO, Founder, AnthroPower, New Delhi

OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY

Outreach programme:)*Under the UKRC-DST sponsored research project "(Rural Hybrid Energy Enterprise Systems (RHEES)" an outreach programme is being undertaken in Jhawani 3 village of Bihaguri Developmental Block, Sonitpur, Assam. The village is an adopted village of Tezpur University, where group of students from University is volunteering themselves in imparting school level education to children of the village for the socio-economic growth of the village. The programme was started in the village in March, 2016 and currently 25 students from school of Sciences and School of Engineering of Tezpur University are involved in giving education to 30 children.*
Contribution of the Dept to the Society: *The department is developing biogas plant (*anaerobic digestion) *in nearby Amolapam village and also in Jhawani village, Sonitpur*

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE[2016-2017]

GATE: 06

NOTABLE PLACEMENT[2016-2017]**:**

AmatyaBharadwaj pursuing PhD, NIT, Silchar
Bikash Das,Engineer, Power Grid Corporation
Biva Kanchan Gogoi, Solar Industry
Chinmay Kumar Bhuyan, Canara Bank
Jerry LRani, Engineer, Power Grid Corporation, Meghalaya
Kumar Animesh, Entrepreneur
Pranab Deb, PO, Allahabad Bank
RadhaGobindeDebnath, Guest Faculty, NIT, Silchar

THE FACULTY OF THE DEPARTMENT

Professors

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Dean, Students' Welfare (from 01 February, 2017)
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R Kataki, PhD (Tezpur)
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Associate Professor
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Assistant Professors
P K Choudhury, MTech (Tezpur)
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N Sarmah, PhD (Heriot - Watt, Edinburgh)
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Department of Food Engineering and Technology

THE DEPARTMENT

The Department of Food Engineering and Technology is one of the seven constituent departments under the School of Engineering of the University. The vision of the Department is to create skilled human resources well versed in engineering aspects of food processing to cater to the needs of the rapidly growing food processing sector. Therefore, the department is serving to provide knowledge and skills for a better preservation, processing and value addition to agro-products; also to promote research and development for product and process and assurance of high level of hygiene and safety of processed food through food safety laws and regulations for supporting a competitive, modern and safe food market for the consumers.

This Department, which was earlier known as Department of Food Processing Technology, started in 2006 with a two-year MSc programme in Food Processing Technology. The Department is currently offering a BTech, an Integrated MTech, a MTech, a BVoc, and PhD programmes.

The Department has been supported by DST-FIST, UGC-SAP and by the Ministry of Food Processing Industries (MoFPI), Government of India for running various programmes. The Department is also running a Food Quality Control Laboratory for testing food and tea samples with the support of MoFPI, New Delhi. The Department has several ongoing projects sponsored by various funding agencies like UGC, MoFPI, DST, DBT, DRDO, ICAR, AICTE, MSME, ASTEC, etc. The main objectives of the scientific research and development work of the Department are to contribute to the national food industry, its engineering and technology development.

Academic programmes and Student intake

Academic Programmes	Student Intake
BTech in in Food Engineering & Technology	38
MTech in Food Engineering & Technology	18
Integrated MTech in Food Engineering & Technology	18
BVoc in Food Processing	50
PhD In Food Engineering & Technology	Intake variable 10 in the Academic year 2016-17

Major facilities and equipment available

Name of the Equipment	Purpose / Details
Milk Pasteuriser Unit (GOMA Engineering)	Pasteurization of milk
Hunter Color Spectrophotometer (Hunter Lab, USA)	Colour measurement of samples
Texture Analyser (Newport, Australia)	Texture analysis of samples
Rapid Viscosity Analyser (Stable Micro System)	Starch studies
Freeze Dryer (Labtech & Lyolab)	Lyophillization

Falling Number Appatratus (Perten, Australia)	Amylase enzyme study
Automatic Solvent Extraction System (Pelican)	Fats and oils analysis
Automatic Fibre Extraction System (Pelican)	Crude fiber analysis
FTIR (Perkin Elmer)	Analysis of functional groups
HPLC (Waters)	Analysis of biomolecules
Modified atmospheric packaging unit (Vacstar)	Practical classes related to packaging
DSC-TGA (Netzsch)	Quality analysis
Encapsulator (Buchi)	Encapsulation of biomolecules
Gas pycnometer (Porous Materials Inc.)	Measuring density
Fermenter (Sartorius)	Fermentation studies
Atomic absorption spectrophotometer (Thermo Scientific)	Analysis of elements
Soxhlet apparatus (Pelican Equipments)	Fat analysis
Kjeldahl apparatus (Pelican Equipments)	Protein analysis
GC – MS system (Perkin Elmer)	Biomolecules analysis
Supercritical fluid extraction system (Waters)	Extraction of biomolecules
Rheometer (Anton Paar)	Rheological studies
PCR (Eppendorf)	Amplification of DNA

MAJOR RESEARCH FINDINGS/RESEARCH AND DEVELOPMENT ACTIVITIES:

Principal Investigator	Salient Research Findings
B Srivastava	Enzymatic browning is one of the major causes of quality deterioration in fruits and vegetables.
	Thermal treatment was designed and tested to inactivate the enzymes present in the *Bhimkol* for better quality of pulp.
	The existing fruit pulper was modified to spray the hot water during the pulping operation. This modification resulted in higher pulp recovery and low wastage during pulping operation.
	Foam mat drying was applied to dry the banana pulp. Foaming conditions were optimized based on the foam characteristics. Skim mi lk powder was added as a foaming agent and also to increase glass transition temperature to felicitate drying at elevated temperature. A good quality banana powder was produced in terms of colour and flowability by using developed hybrid drying method.
	The storage study of this powder under different temperature conditions was found stable for 3 months.
D Seth	A shelf-stable misti dahi powder was developed using spray drying techniqu
	Microencapsulation of starter bacteria could make them survive the adverse conditions of spray drying
	Addition of hydrocolloids was beneficial in maintaining the consistency of reconstituted misti dahi
	The misti dahi powder could be kept in Aluminium laminated polypouches for around 2 months.
L S Badwaik	Potato peel a nd sweet lime pomace were utilized for developing biopolymer film with application of ultrasound treatment.
	This film was successful in lowering the weight loss, reducing the hardness and inhibition of surface microbial load from bread sample.
	Chicken feather protein and pomelo peel pectin were utilizatized for developing composite film.

Research projects, ongoing and new

Project Title	Funding Agency	Amount (In Lakh)	Duration	Principal Investigator
In vivo hypocholesterolemic effect of bioconjugates of starch nanoparticles with gamma-oryzanol and tocotrienols extracted from rice bran.	DBT	80.00	2016-2018	Charu Lata Mahanta
Development of functional carambola juice incorporated with anthocyanins from bran of pigments rice varieties of Assam	ASTEC	2.65	2016-2018	Charu Lata Mahanta
Development of ready to reconstitute freeze dried misti dahi powder	DST SERB	5.00	2016-2017	D Seth
Development of active packaging film from food processing wastes	ICAR	31.00	2016-2018	L S Badwaik
Development and fabrication of small capacity paddy parboiling system with process completion indicator	MSME	5.50	2014 - 2016	M K Hazarika
Comparative metagenome of human gut of North and North-eastern region of India	DBT	64.70	2014-17	R K Duary
Encapsulation and controlled delivery of herbal extracts in dairy food matrix using cow milk protein against in vitro simulated inflammatory cell line models	DST SERB	19.70	2014-17	R K Duary
Designing bioactive peptides from whey liquid waste of the dairy industry: Functionality and health benefit in Obesity, Obesity associated disorders with exploration of molecular mechanism	DBT	54.70	2016-2019	R K Duary
Establishment and evaluation of probiotics potentiality of isolated lactobacilli strains and comparative analysis of their gene expression profile during transit in a simulated gastrointestinal tract conditions	DST SERB	11.00	2016-2018	R K Duary
Development of a probiotic vegetable drink based upon bottle gourd with blends of other vegetables and utilization of its wastes for making value added products	DBT	59.35	2016-2019	S C Deka

PUBLICATIONS
In National and International Journals

1. Amami, E. , Khezami, W., Mezrigui, S., Badwaik, L. S., Bejar, A. K., Perez, C. T. & Kechaou, N. Effect of ultrasound-assisted osmotic dehydration pretreatment on the convective drying of strawberry. *Ultrasonics Sonochemistry* **36,** 286–300 (2017).
2. Begum, Y. A. & Deka, S. C. Green synthesis of pectin mediated hydroxyapatite nanoparticles from culinary banana bract and its characterization. *Acta Alimentaria.* Accepted (2017).
3. Begum, Y. A. & Deka, S. C. Stability of spray dried microencapsulated anthocyanins extracted from culinary banana bract. *International Journal of Food Properties.* doi:10.1080/10942912.2016.1277739. (2017).
4. Bora, A. & Mishra, P. Characterization of casein and casein-silver conjugated nanoparticle containing multifunctional (pectinsodium alginate/casein) bilayer film. *Journal of Food science and Technology* **53,** 37043714 (10 2016).
5. Bora, S. J., Handique, J. & Sit, N. Effect of ultrasound and enzymatic pre-treatment on yield and properties of banana juice. *Ultrasonics Sonochemistry* **37,** 445–451 (2017).
6. Borah, P. K., Chakraborty, S., Jha, A. N., Rajkhowa, S. & Duary, R. K. In silico approaches and proportional odds model towards identifying selective ADAM17 inhibitors from anti-inflammatory natural molecules. *Journal of Molecular Graphics and Modelling* **70,** 129–139 (2016).
7. Borah, P. K., Deka, S. C. & Duary, R. K. Effect of repeated cycled crystallization on digestibility and molecular structure of glutinous bora rice starch. *Food Chemistry* **223,** 31–39 (2016).
8. Borah, A., P., P., Das, P. & Badwaik, L. S. Ultrasound treated potato peel and sweet lime pomace based biopolymer film development. *Ultrasonics Sonochemistry* **36,** 11–19 (2017).
9. Das, A. J., Miyaji, T. & Deka, S. C. Amylolytic fungi in starter cakes for rice beer production. *Journal of General and Applied Microbiology.* doi:10.2323/jgam.2016.11.004 (2017).
10. Dey, A. & Sit, N. Modification of foxtail millet starch by combining physical, chemical and enzymatic methods. *International Journal of Biological Macromolecules* **95,** 314–320 (2017).
11. Gautam, G. & Mishra, P. Development and characterization of copper nanocomposite containing bilayer film for coconut oil packaging. *Journal of Food Processing and Preservation.* doi:10.1111/jfpp.13243. (2017).

12. Jha, P., Das, A. J. & Deka, S. C. Optimization of saccharification process of black rice Oryza sativa cv. Poireton using Aspergillus oryzae ATCC10124 and Bacillus subtilis ATCC11774. *Journal of the Institute of Brewing* **123,** 423–431 (3 2017).

13. Jha, P., Das, A. J. & Deka, S. C. Optimization of ultrasound and microwave assisted extractions of polyphenols from black rice (Oryza sativa cv.Poireton) husk. *Journal of Food Science and Technology*. doi:10.1007/s13197-017-2832-0 (2017).

14. Mangang, K. C. S., Das, A. J. & Deka, S. C. Comparative shelf life study of two different rice beers prepared using wild-type and established microbial starters. *Journal of the Institute of Brewing*. doi:10.1002/jib.446 (2017).

15. Mishra, P., Brahma, A. & Seth, D. Physicochemical, functionality and storage stability of hog plum (Spondia pinnata) juice powder produced by spray drying. *Journal of Food science and Technology* **4,** 10521061 (5 2017).

16. Mishra, P. & Kalita, D. Assessment of pre-treatment of edible coatings prepared from gelatine and polyphenols (extracted under optimized conditions from amla fruit powder) on stability of banana chips. *Acta Alimenteria* **46,** 196–205 (2 2017).

17. Patra, F., Tomar, S. K., Duary, R. K. & Singh, R. Response surface optimization of the substrate concentration and cultivation conditions for the production of mannitol by Leuconostoc fallax Ln92 using whey as cost effective medium. *Indian Journal of Dairy Science* **69,** 165–170 (2 2017).

18. Patra, F., Duary, R. K., Ganguly, S. & Das, A. Engineered Probiotics and Pharmabiotics: application in therapeutics and prophylaxis. *Indian Journal of Dairy Science* **70** (2 2017).

19. Samyor, D., Das, A. B. & Deka, S. C. Pigmented rice a potential source of bioactive compounds: A review. *International Journal of Food Science and Technology*. doi:10.1111/ijfs.13378. (2017).

20. Seth, D., Mishra, H. N. & Deka, S. C. Effect of microencapsulation using extrusion technique on viability of bacterial cells during spray drying of sweetened yoghurt. *International Journal of Biological Macromolecules* **103,** 802–807 (2017).

21. Seth, D., Mishra, H. N. & Deka, S. C. Effect of hydrocolloids on the physicochemical and rheological properties of reconstituted sweetened yoghurt powder. *Journal of the Science of Food and Agriculture*. doi:10.1002/jsfa.8641 (2017).

Books and Book Chapters

22. Khawas, P. & Deka, S. C. *Innovative Food Science and Emerging Technologies. Utilization and value addition of culinary banana: The potential food for health* 675pp + index. ISBN: 9781771886611. http://www.

appleacademicpress.com/innovative-food-science-and-emerging-technologies-/9781771886611 (Apple Academic Press, USA, 2018).

23. Khawas, P. & Deka, S. C. *Innovative Food Science and Emerging Technologies. Modification of culinary banana resistant starch and its application* 675pp + index. ISBN: 9781771886611. http://www.appleacademicpress.com/innovative-food-science-and-emerging-technologies-/9781771886611 (Apple Academic Press, USA, 2018).

24. D. Samyor, A. B. D. & Deka, S. C. *Innovative Food Science and Emerging Technologies. Value addition of underutilised crops of India by extrusion cooking technology* 675pp + index. ISBN: 9781771886611. http://www.appleacademicpress.com/innovative-food-science-and-emerging-technologies-/9781771886611 (Apple Academic Press, USA, 2018).

25. Saha, J. & Deka, S. C. *Innovative Food Science and Emerging Technologies. Green Leaf Protein Concentrate and Its Application in Extruded Food Products* 675pp + index. ISBN: 9781771886611. http://www.appleacademicpress.com/innovative-food-science-and-emerging-technologies-/9781771886611 (Apple Academic Press, USA, 2018).

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

- National Seminar, Trends and Innovation in Food Processing: Prospects and Challenges (TIFPT 2017), February 9 – 10, 2017.
- National Seminar, Research Trends in Food Processing: Value Addition & Enterprise Development on 27 March, 2017.

DISTINGUISHED VISITORS TO THE DEPARTMENT

Prof. H N Mishra, Dept. of Food Engineering, IIT, Kharagpur
J S Pathak, Dabur India Limited, Sonitpur, India
Prof. Manab Deka, Gauhati University
Dr. O P Chauhan, Defense Food Research Laboratory, Mysore, India
Samrat Deka, SRD, Mangaldoi, Assam
T Vijay Bhaskara Reddy, Emami Beverages Limited, Kolkata, India
Prof. Utpal Roy Chaudhury, Dept. of Food Technology and Biochemical Engineering, Jadavpur University
Prof. V. Ravishankar Rai, Dept. of Microbiology, Mysore University

AWARDS & HONOURS RECEIVED BY THE FACULTY/ RESEARCH SCHOLARS/STUDENTS

B Srivastava Co-Chaired a session in an International Conference, ETAE-2016, IIT Kharagpur, 27-30 December 2016

Invention: A process for the preapration of amla chips; Patent No : 283552; Inventor : Dr Poonam Mishra

Elizabeth W Devi (PhD Scholar) is selected for the Newton Bhabha PhD placement programme for the year 2016-2017

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE

NET- JRF – 3 nos
GATE – 6 nos

NOTABLE PLACEMENT

Biki Borah (MTech) – Tata Global Beverages
Tridip Konwar – Adani Wilmar Group
Rashmita Sharma (Integrated MTech) - Adani Wilmar Group
Madhavi Singh (Integrated MTech) - AKS University, Madhya Pradesh
Abhiskek Gaurav (MTech) – AKS University, Madhya Pradesh
Saayed Abdul – JNTU, Kakinada
Subham Aditya (BTech) – ITC
Trinayan Konwar (BTech) – ITC

THE FACULTY OF THE DEPARTMENT

Professors

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Associate Professors

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L Kalita, Diploma (SCTE, Assam)
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Swdwmsri Mushahary
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Office Staff

S Baruah
Assistant

A Keot
MTS



Department of Mechanical Engineering

THE DEPARTMENT

The Department of Mechanical Engineering (ME) was established in 2006. The Department aims at producing skilled human resources with a strong foundation in ME for the heavy engineering and manufacturing industry. Another mission of the Department is to train scholars in handling ME as well as interdisciplinary problems exploiting their domain knowledge and using latest technologies. There are 16 regular faculty members with various specializations and 11 technical staff in the Department. Presently, the Department is offering a BTech,an MTech (Specialization: Applied Mechanics and Thermo-fluids Engineering) and a PhD programme in Mechanical Engineering. The Department has various laboratories with state of the art facilities and also one central workshop equipped with all kinds of machineries. The BTech and MTechprogrammes offered in the Department are AICTE approved. The BTech (Mechanical Engineering) programme is provisionally accredited by NBA, effective from 2016 to 2017.The Department is planning to start a new MTech specialization in Machine Design from 2018-2019. The Department has the vision to emerge as a centre of excellence producing quality engineers and cutting-edge research.

Academic programmesand Student intake

AcademicProgramme	Student Intake
BTech in Mechanical Engineering	52
MTech in Mechanical Engineering	18
PhD	Intake variable 02 in the last Academic year

Major facilities and equipment available:

Central Workshop

- All Geared Precision Lathe
- CNC Lathe Machine
- CNC Milling Machine
- Universal Milling Machine
- HMT High Speed Precision Lathe

Fluid Mechanics Lab

- Bernoulli's theorem demo module
- Pelton turbine
- Propeller turbine

Turbo-machinery Lab

- Pelton turbine
- Propeller turbine



Strength of Material Lab

- Universal testing machine
- Inverted metallurgical microscope with accessories and interface software

Theory of Machine lab

- Static and Dynamic balancing
- Sound level meter with sound level calibrator

Vibration lab

- Universal vibration apparatus
- Sound level meter with sound level calibrator

CAD lab

- Ansys academic teaching
- Pro-E software

Metrology lab

IC Engine and Automobile lab

- Diesel Engine test set up VCR
- AVL Smoke meter with accessories

MAJOR RESEARCH FINDINGS/RESEARCH AND DEVELOPMENT ACTIVITIES:

Principal Investigator	Description of the Project
P P Dutta[1]	• Design and Development of a Green Fuel Power Vehicle • Design and development of waste heat recovery coil type heat exchanger is completed
S Banerjee	Processing and Mechanical Property Evaluation of Micro alloyed 2219 Al Alloys - • Melting and casting of the Al-Cu alloys microalloyed with Cd has been completed. • Composition analysis of the alloys has been completed by ICP technique, and verified by iodometric (titration) analysis. • Mechanical characterization (Hardness and impact) has been done for • homogenized and peak-aged alloys.
S Kashyap	Utilization of the calcium carbonate ($CaCO_3$) obtained in the fabrication and study of mechanical properties of calcium carbonate based Polyethylene composites and optimization of their manufacturing parameters using multi -objective evolutionary algorithms - • Utilization of an industrial waste to develop polymeric composites. • Increasing the commercial viabilty of both industrial waste and composites.

[1]*ParthaPratimDutta,* [2]*Polash Pratim Dutta.*

Research projects, ongoing and new

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Design development and testing of a green fuel power energy efficient vehicle.	MSME	6.25 Lakh	2015-2017	PP Dutta[1]
Processing and Mechanical Property Evaluation of Micro alloyed 2219 Al Alloys.	DST	18.38 Lakh	2013-2017	S Banerjee
Fabrication of Calcium Carbonate filled composites and Optimization of their manufacturing parameters using multi-objective Evolutionary Algorithms.	SERB	24.30 Lakh	2013-2016	S Kashyap

PUBLICATIONS

In National and International Journals

1. Banerjee, S. & Gogoi, S. Influence of Trace Addition of Cd on the Hardness and Impact Properties of 2219 Al Alloy. *Journal of Basis and Applied Engineering Research (JBAER)* **3** (2016).
2. Banerjee, S. & Das, N. Influence of Trace Addition of Cd on the Tribological Characteristics of 2219 Al Alloy at Different Working Conditions. *Journal of Material Science and Mechanical Engineering (JMSME)* **3** (2016).
3. Banerjee, S. & Mazumder, I. Characterizing Machinability of Microalloyed 2219 Al Alloy. *Journal of Material Science and Mechanical Engineering (JMSME)* **3** (2016).
4. Bardalai, M. & Mahanta, D. K. Characterisation of Biochar Produced by Pyrolysis from Areca Catechu Dust. *Materials Today: Proceedings[Accepted for publication].*
5. Bardalai, M., Bordoloi, N. K. & Mahanta, D. K. Characterization of the pyrolysis oil derived from bael shell (aegle marmelos). *Environmental Engineering Research* **21,** 180–187. ISSN: 1226-1025 (2016).
6. Bardalai, M. & Mahanta, D. K. Production and biodegradability analysis of bael shell pyrolysis oil. *Materials Today: Proceedings[Accepted for publication]* **4,** 603–610 (2017).
7. Bardalai, M. & Mahanta, D. K. Production of pyrolysis oil from areca tree using a fixed bed reactor. *Journal of Engineering Research* **4** (2016).
8. Chowdhury, B. & Deb, S. K. Cause-Effect Diagram Versus System Dynamic Model – A Case Study of Manufacturing Defects Analysis. *International Journal of Engineering Technology Science and Research* **4** (2017).
9. Das, R., Singh, K., Akay, B. & Gogoi, T. K. Application of artificial bee conony algorithm for maximising heat transfer in a perforated fin. doi:`https://doi.org/10.1177/0954408916682985` (2016).
10. Deka, A. & Datta, D. B-spline curve based optimum profile of annular fins using multi-objective genetic algorithm. *Journal of Thermal Stresses* **40,** 733–746.
11. Deka, A. & Datta, D. Geometric size optimization of annular step fin using multi-objective genetic algorithm. *Journal of Thermal Science and Engineering Applications* **9.** doi:`http://dx.doi.org/10.1115/1.4035838` (2017).
12. Deka, D. & Datta, D. Multi-objective optimization of the scheduling of a heat exchanger network under milk fouling. *Knowledge-Based Systems* **121,** 71–82 (2017).

13. Dutta, P. P. , Kalita, N., Sagar, S., Kumar, J., Das, C., Goswami, N., Bora, J., & Pathak, M. Design of a Coil Tube Heat Exchanger for Preheating of Biodiesel. *Advanced Research in Electrical and Electronics Engineering* **3,** 381–386. ISSN: 2349-5804 (2016).

14. Haloi, P., Talukdar, J., Raj, M. & Rathod, M. D. Second law analysis of a closed Mhd-steam turbine combined cycle with preheat. *International Journal of Engineering Technology Science and Research* **4** (2017).

15. Kakati, J., Gogoi, T. K. & Pakshirajan, K. Production of biodiesel from Amari(Amoora Wallichii King) tree seeds using optimum process parameters and its characterization. *Eneregy Conversion and Management* **135,** 281–290 (2017).

16. Kakati, J. & Gogoi, T. K. Biodiesel production from Kutkura (Meyna spinosa Roxb. Ex) fruit see oil: its characterization and engine performance evaluation with 10% and 20% blends. *Eneregy Conversion and Management* **121,** 152–161 (2016).

17. Kalita, P. & Dass, A. K. A novel hybrid approach with multidimensional-like effects for compressible flow computations. *Journal of Computational Physics* **340,** 55–68 (2017).

18. Kamal, S. M., Dixit, U. S., Roy, A., Liu, Q. & Silberschmidt, V. V. Comparison of plane-stress, generalized-plane-strain and 3D FEM elastic-plastic analyses of thick-walled cylinders subjected to radial thermal gradient. *International Journal of Mechanical Sciences [Accepted for publication]* (2017).

19. Kashyap, S. & Datta, D. Evaluation of stearic acid modified industrial lime sludge waste as filler in high density polyethylene composites. *Journal of Polymer Engineering [Accepted for publication]* (2017).

20. Kashyap, S. & Datta, D. Reusing industrial lime sludge waste as a filler in polymeric composites. *Materialstoday: Proceedings* **4.** doi:`https://doi.org/10.1016/j.matpr.2017.02.176.` (2017).

21. Saikia, N. & Bardalai, M. Thermal Analysis and Kinetic Parameters Determination of Biomass Using Differential Thermal Gravimetric Analysis in N2 Atmosphere. *Materials Today: Proceedings[Accepted for publication].*

22. Sarmah, P., Gogoi, T. K. & Das, R. Estimation of operating parameters of a SOFC integrated combined power cycle using differential evolution based inverse method. *Applied Thermal Engineering* **119,** 98–107 (2017).

23. Sarmah, P. & Gogoi, T. K. Peformance comparision of SOFC itegrated combined power systems with three different bottoming steam turbine cycles. *Energy Conversion and Management* **132,** 91–101 (2017).

24. Sharma, D. & Dutta, P. P. Numerical Investigations of Flow and Heat Transfer in a Wavy Corrugated Channel. *Journal of Material science and Mechanical Engineering* **3,** 506–510. ISSN: 2393-9095 (2016).

25. Sharma, A. & Dutta, P. P. A review on Biomass Gasification in processing Industries. *Journal of Energy Research and Environmental Technology* **3,** 268–271. ISSN: 2394-1561 (2016).

26. Neto, P. , Datta, D., Steiner, M. T. A., Canciglieri, Jr. O., Figueira, J. R., Detro, S. P., & Scarpin, C. T. A multi-objective genetic algorithm based approach for location of grain silos in Parana State of Brazil. *Computers & Industrial Engineering* **111,** 381–390 (2017).

27. Trinavee, K., Gogoi, T. K. & Pandey, M. Laminar convective heat transfer chracterisitic of Al2O3/WAter nanofluid in a circular microchannel. *Journal of Physics: conference series* **759,** 1–8 (2016).

Conference proceedings

28. Alam, S. A., Nath, J., Gohain, K. & Dutta, P. P. *Designing of a Manual Rice Transplanting Machine* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

29. Arunav, U., Deka, B., Das, M. P. & Kalita, Z. *Designing of an alternate pedalling mechanism* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

30. Banerjee, S. & Mazumder, I. *Investigating Cutting Force during Facing of Microalloyed Al-Cu Alloys.* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

31. Banerjee, S. & Gogoi, S. *Determining Peak-Aging Time during Precipitation Hardening of Aluminium Alloys* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

32. Banerjee, S. & Das, N. *Dry Sliding Wear Behaviour of Microalloyed Al-Cu Alloys* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

33. Banik, T., Tipanna, S. R. & Gogoi, S. *Comparison of the Effect of Machining Parameters on the Surface Roughness of MgY2O3 Nanocomposite and Pure Mg.* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

34. Bardalai, M. & Mahanta, D. K. *Characterisation of Biochar Produced from Areca Tree Fibre* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

35. Bardalai, M. & Mahanta, D. K. *Characterization of rice husk through X-Ray diffraction, scanning electron microscope and fourier transform infrared analysis* in *Proceedings of the International conference on Innovative Trends in Science, Engineering and Management* (New Delhi, India, 2016).

36. Bardalai, M. & Mahanta, D. K. *Characterisation of biochar derived from areca tree dust through pyrolysis* in *Proceedings of the All India Seminar on Recent Trends in Mechanical Engineering* (Assam, India, 2016), 75–81.

37. Baruah, C., Kishore, T., Kalita, P. & Kakoty, N. M. *An Artificial Knee Joint to Avoid Singularity.* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

38. Baruah, M. P. & Gogoi, T. K. *Thermal performance of tapered microchannel heat sink using Al2O3/water nanofluid* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

39. Bhuyan, S. & Basu, D. N. *Study of Flow Behavior of Natural Convection for Different Prandtl Number using Lattice Boltzmann Method* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

40. Bora, A., Saikia, M., Anand, S. & Gogoi, T. K. *Exergy Analysis of a vapour power cycle and performance study with a number of feed water heaters* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

41. Chowdhury, B. & Deb, S. K. *Analysis of manufacturing defects using FMEA ? A step towards defect prevention* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

42. Chowdhury, B. & Nath, K. K. *Use of lean manufacturing for minimisation of waste in a tea processing plant ? A feasibility study* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

43. N.Das. , *Talukdar, S., Sinha, D., Patni, S., Kumar, G., Meena, B. K., Dutta, P. P., Kirtania, S. Fabrication and Analysis of Shaft of A Pedal Powered Washing Machine.* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

44. Das, A., Dutta, P. & Dutta, P. P. *Effect of corrugation on Flow Distribution on a Heat Exchanger Used for Recovering Waste Energy* in *Proceedings of the National Conference on Emerging Trends in Engineering: Opportunities in North East India* (Assam, India, 2016), 15–18. ISBN: 978-93-83588-12-1.

45. Deka, D. K. & Kalita, P. *Finite Volume-based Computation of Viscous Interactions in Compressible Flows* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

46. Deka, A. & Datta, D. *A comparative investigation of annular fins of different profiles using multi-objective genetic algorithm* in *Proceedings of the IEEE International Conference on Advances in Mechanical, Industrial, Automation and Management Systems (AMIAMS-2017)* (Allahabad, India., 2017).

47. Deka, D. & Datta, D. *Operational cost minimization in heat exchanger network under milk fouling* in *Proceedings of the IEEE International Conference on Advances in Mechanical, Industrial, Automation and Management Systems (AMIAMS-2017)* (Allahabad, India., 2017).

48. Dutta, P. & Datta, D. *Bilevel problem as a plain multi-objective optimization problem: A preliminary study* in *Proceedings of the IEEE International Conference on Advances in Mechanical, Industrial, Automation and Management Systems (AMIAMS-2017)* (Allahabad, India., 2017).

49. Dutta, P., Das, A. & Dutta, P. P. *Thermo-hydraulic study of a V corrugated heat exchanger* in *Proceedings of the Sixth International congress on computational mechanics and simulation* (Mumbai, India, 2016).

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51. Gohain, B. N. & Kirtania, S. *Evaluation of elastic properties of CNT-based composites for square, hexagonal and cylindrical representative volume elements* in *Proceedings of the International Conference on Advances in Nanotechnology* (Assam, India, 2017).

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53. Islam, J. & Kashyap, S. *Study on the tensile properties of Lime Sludge Filled Coir Fibre Reinforced Epoxy Composites.* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

54. Kakati, J. & Gogoi, T. K. *Performance Comparison Of A Diesel Engine Fuelled With Nahar And Jatropha Based Biodiesel With NRL Diesel.* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

55. Kamal, S. M. *An Analytical Study of Rotational Autofrettage of Thick-Walled Disks* in *proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

56. Kamal, S. M. & Dixit, U. S. *Fatigue life enhancement of thermally autofrettaged cylinders through shrink-fit* in *Proceedings of the 6th International and 27th All India Manufacturing Technology, Design and Research (AIMTDR 2016) Conference* (Pune, India, 2016).

57. Kakati, J. & Gogoi, T. K. *Combustion analysis of a diesel engine fuelled with 10% and 20% blending of Terminalia seed oil based biodiesel with conventional diesel* in *Proceedings of the ISME* (Warangal, India, 2017).

58. Kakati, J. & Gogoi, T. K. *Characterization of biodiesel produced from Terminalia seed oil and engine performance evaluation with 10% and 20% blending* in *Proceedings of the IMECE, 2016* (USA., 2016).

59. Kalita, Z. & Datta, D. *Multi-objective optimization of the multi-floor facility layout problem* in *Proceedings of the IEEE International Conference on Advances in Mechanical, Industrial, Automation and Management Systems (AMIAMS-2017)* (Allahabad, India., 2017).

60. Kirtania, S. & Chakraborty, D. *Representative Volume Element Based Finite Element Modeling of Carbon Nanotube (CNT)-Reinforced Composites with a Broken CNT* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

61. Kirtania, S. & Chakraborty, D. *Determination of thermoelastic properties of carbon nanotube/epoxy composites using finite element method* in *Proceedings of the International Conference on Emerging Trends in Nanoscience and Nanotechnology* (Sikim, India, 2017).

62. Konwar, D. & Gogoi, T. K. *Exergy Based Parametric analysis of a water-LiCl Vapour Absorption Refrigeration System* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

63. Nath, K. K. & Chowdhury, B. *Use of lean manufacturing for minimisation of waste in a tea processing plant ? A feasibility study* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

64. Rajowar, S. & Dutta, P. P. *FEM Simulation of Laser Bending for D-36 Ship Building Steel* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

65. Saikia, N. & Bardalai, M. *Thermal Analysis and Determination of Reaction Kinetics of Biomass in Nitrogen* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

66. Sarmah, S., Sagar, S., Choudhury, S. D. & Kalita, P. *A Low Diffusion Flux Splitting Method Applied for the Computation of Inviscid Compressible Flows* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

67. Sharma, A. & Dutta, P. P. *Biomass gasification in tea industries: A Review* in *Proceedings of the All India Seminar on Recent Trends in Mechanical Engineering* (Assam, India, 2016), 70–74.

68. Sharma, D. & Dutta, P. P. *Effect of geometry groove on flow and heat transfer in corrugated channel* in *Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB - 2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

69. Sharma, D. & Dutta, P. P. *Experimental and numerical investigation of heat and flow characteristics in a corrugated channel* in *Proceedings of the All India Seminar on Recent Trends in Mechanical Engineering* (Assam, India, 2016), 82–88.

70. Neto, P. J. S. , *Datta, D., Steinerand, M. T. A., Jr., O.Canciglieri, Figueira, J. R., Detro, S., Scarpin, C. T. An optimized approach for location of grain silos in Brazil through a multi-objective genetic algorithm* in *Proceedings of the XVIII-th Latin-Iberoamerican Conference on Operations Research (CLAIO-2016)* (Chile, 2016), 897–904.

71. M.T.A.Steinerand. , *Neto, P.J.Steiner, Datta, D., Figueira, J. R., Scarpin, C. T. Territorial partitioning problem applied to Brazil healthcare system using a multi-objective approach* in *Proceedings of the XVIII-th Latin-Iberoamerican Conference on Operations Research (CLAIO-2016)* (Chile, 2016), 890–896.

72. Talukdar, K. & Gogoi, T. K. *Performance of a combined power and cooling system with vapour compression and absorption refrigeration system as bottoming cycle: A comparative study* in *Proceedings of the National Conference on SustainableMechanicalEngineering: Today and Beyond (SMETB-2017)* (Assam, India, 2017). ISBN: 978-93-84388-11-9.

73. Trinavee, K. & Gogoi, T. K. *Flow and heat transfer analysis of AlO3-water and Cu-water Nanofluid in a circular micro-channel* in *Proceedings of ETIE 2016* (Guwahati,Assam, India, 2016).

SEMINARS/CONFERENCES/WORKSHOPS/ SYMPOSIA ATTENDED

International and National

74. Chowdhury, B. *Workshop on Massive open Online courses (MOOCs),Teaching Learning Center* Tezpur University, 2016.
75. Chowdhury, B. *National Conference on Sustainable Mechanical Engineering: Today and Beyond, SMETB* Mechanical Engineering Department, Tezpur University, Tezpur, 2017.
76. Chowdhury, B. *2nd International Conference on Engineering Technology, Science and Management Innovation (ICETSMI-2017),* NITTTR, Chandigarh, 2017.
77. Chowdhury, B. *one day Workshop on SWAYAM MOOCs and HACKHATHON conducted by AICTE* Institute of Science and Technology, Gauhati University, 2017.
78. Chowdhury, B. *Workshop on Application of Statistical Techniques in Environmental Science* ISI, North East Centre, Tezpur, 2017.
79. Bardalai, M. *National Conference on Sustainable Mechanical Engineering: Today and Beyond* Mechanical Engineering Department, Tezpur University, Tezpur, 2017.
80. Haloi, P. *Short Term Course on Networking Principles at NITTTR* NITTTR Kolkata-Guwahati center, Guwahati, 2017.
81. Kalita, P. *National Conference on Sustainable Mechanical Engineering: Today and Beyond* Mechanical Engineering Department, Tezpur University, Tezpur, 2017.
82. Bhyuan, S. *one week short term training programme on Assessment tools for outcome based education* NITTTR Kolkata, 2017.
83. Kamal, S. M. *6th International and 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR 2016)* College of Engineering Pune, India, 2016.
84. Kamal, S. M. *National Conference on Sustainable Mechanical Engineering: Today and Beyond* Mechanical Engineering Department, Tezpur University, Tezpur, 2017.
85. Kamal, S. M. *Workshop on Massive Open Online Courses (MOOCs)* Teaching Learning Centre under Centre of Excellence for Curriculum and Pedagogy,Tezpur University, 2016.
86. Kamal, S. M. *short term training programme on Outcome Based Assessment* NITTTR, Kolkata, 2016.
87. Kirtania, S. *International conference on Emerging Trends in Nanoscience and Nanotechnology* SMIT, Sikkim,India, 2017.

88. Kirtania, S. *International Conference on Advances in Nanotechnology* Assam Don Bosco University, Assam, India, 2017.

89. Kalita, Z. *IEEE International Conference on Advances in Mechanical, Industrial, Automation and Management Systems (AMIAMS-2017)* MNNIT Allahabad, India, 2017.



SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

National Seminar, Sustainable Mechanical Engineering: Today and Beyond, sponsored by NEQIP, SERB and DST, Government of India, 25-26 March, 2017.

Invited lectureon Dynamics of dropsimpacting on a liquid surface, by Prof. GautamBiwas, Director, IIT Guwahati,25March, 2017.

Invited lecture on Achieving the goal of sustainability through modelling of manufacturing process, by Prof. Uday S. Dixit, IIT Guwahati, 26 March, 2017.

Invited lecture on Augumentedthermophysical and electromagnetic transport properties of graphene nanosuspensions, by Prof. Sarit K. Das, Director, IIT Ropar, 25 March, 2017.

Invited lecture on Manufacturing challenges in aerospace engineering and special fabrication processes, by C.V. Srinivasa Murthy, Director, Advanced Materials and Processes, DRDO, Hyderabad, 26 March, 2017.

Invited lecture on A compilation on tribological means for energy conservation, by Prof. Sashindra K. Kakoty, IIT Guwahati, 26 March, 2017.

Invited lecture on Heat transfer through thermal protective fabric-A few critical insight, by Prof. Prabal Talukdar, IIT Delhi, 26 March, 2017.

Invited lecture on Sustainability on the back of disruptive developments in technology, by Dr. R.R. Sonde, Chief Technology Officer and Executive Vice President, Research Technology and Innovation, Thermax Limited, India, 26 March, 2017.

Invited lecture on Comfort indices for human comfort- an overview, by Prof. Rahul Dev Misra, NIT Silchar, 25 March, 2017.

Invited lecture on Sustainable machining: cutting fluid emissions and eco-friendly cutting fluid, by Dr. M. Ravi Sankar, IIT Guwahati, 25 March, 2017.

DISTINGUISHED VISITORS TO THE DEPARTMENT:

C.V. Srinivasa Murthy, Advanced Materials and Processes, DRDO, Hyderabad
Prof. GautamBiwas, IIT Guwahati
Dr. M. Ravi Sankar, IIT Guwahati
Prof. Prabal Talukdar, IIT Delhi
Prof. Rahul Dev Misra, NIT Silchar
Dr. R.R. Sonde, Chief Technology Officer & Executive Vice President, Research Technology and Innovation, Thermax Limited
Prof. Sashindra K. Kakoty, IIT Guwahati
Prof. Uday S. Dixit, IIT Guwahati

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE [2016-2017]:07

NOTABLE PLACEMENT [2016-2017]**:**

Tech Mahindra: M Saikia, S Medhi
Cummins: Nazmin Ahmed, MouSaha, KumarikaGohain, Kalyani Kaushik, Priyanka Paul.
ITC (Food): S Roychoudhury.
Berger Paints: T Dutta.
Dabur: A Bora.

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Office Staff

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M Bania
MTS

School of Humanities and Social Sciences



- Dean, School of Humanities and Social Sciences
- Dept. of Cultural Studies
- Dept. of Education
- Dept. of English and Foreign Languages
- Dept. of Hindi
- Dept. of Law
- Dept. of Mass Communication and Journalism
- Dept. of Social Work
- Dept. of Sociology
- Centre for Assamese Studies
- Centre for Endangered Languages
- Chandraprabha Saikiani Centre for Women Studies
- Teaching Learning Centre

School of Humanities and Social Sciences

The Humanities and Social Sciences disciplines have been an important part of Tezpur University since its founding in 1994. The statutes of the university explicitly refer to the preservation and promotion of the culture of the region. More generally, the School of Humanities and Social Sciences is committed to the objectives of a liberal education. While our students are taught to think creatively and analytically and to reason from evidence, they are also taught in an environment that encourages them to respect the views and experiences of all members of our diverse community.

The School now has eight departments – the Department of English and Foreign Languages, the Department of Cultural Studies, the Department of Mass Communication and Journalism, the Department of Sociology, the Department of Social Work, the Department of Hindi, the Department of Education, and the newly established Department of Law (a separate School of Law is envisaged.)There are also four centres – the Centre for Assamese Studies, the Centre for Inclusive Development, the Centre for Women's Studies, and the Centre for Endangered Languages. The expansion of the School is significant since the Indian university must grow and include ever larger numbers of students in order to meet the national goal of providing education for all Indians.

A few foreign scholars are pursing undergraduate, postgraduate and doctoral programmes in the Departments of English and Foreign Languages, the Department of Cultural Studies, the Department of Education, and the Department of Social Work. This suggests that our programmes are of global standards. Also, given the present emphasis on revenue generation by universities, this may be a potential source of income in future.

Liberal education is facing challenges globally. The premium placed on science and technology disciples is one. The incorporation of digital technologies in humanities and social sciences in teaching and research is another. We believe we are responding positively to such challenges. A two-day MOOCs workshop organized by the Teaching and Learning Centre in November 2016 was one manifestation of this. The thrust areas incorporated in the UGC-SAP projects of the Departments of English and Foreign Languages, Cultural Studies, and Sociology and the various Centres are also in line with contemporary requirements.

Tezpur University is relatively young. Yet our progress has been notable. This is indicated by our rankings/grading by national and international and other quality assessment bodies like NAAC. As the detailed reports of the Departments and Centres make evident, the School of Humanities and Social Sciences has contributed significantly to the current standing of the university.

Dean, School of Humanities and Social Sciences

P K Das, PhD (Gauhati)
Professor, Dept. of English and Foreign Languages
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Staff of the Office of the Dean

A Bharali
UDA
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G Bora, MTS
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Department of Cultural Studies

THE DEPARTMENT

The Department of Cultural Studies was founded in 1995. It was first named as the Department of Traditional Culture and Art Forms. It is one of the earliest Departments of Tezpur University. The Department is fully devoted to the pursuit of Cultural Studies in India; incidentally it is a pioneering Department to start Cultural Studies at the post graduate level in the country.

The Department of Cultural Studies is a vibrant academic entity that engages with cultural products, practices and forms in all its dimensions, with a special focus on North East India. Students and faculty in the Department engage in exciting, interdisciplinary approaches to traditional fields of study where the aim is to explore new cultural and cross-cultural phenomena from multiple points of view. Further, the Department undertakes social intervention using folklore and culture as media. Researchers and faculty, drawn from various disciplines like Anthropology, Performance Studies, Literatures, Folklore, Media and Film Studies, Gender Studies are actively engaged in exploring subjects like ethnicity, religious institutions, folklore and culture, local and national media, cultural theory, transformation and transaction in translated literatures and formation of nationalities.

Academic programmes and Student Intake

Academic Programme	Student Intake
MA in Cultural Studies	46
PhD	Intake variable, 05 in the Academic year 2016 - 17

Major facilities and equipment available:

- Cultural & Interpretation Centre
- Departmental Library
- Audio-Visual cum Seminar Hall

MAJOR RESEARCH FINDINGS/RESEARCH AND DEVELOPMENT ACTIVITIES:

Principal Investigator	Salient Research Findings
D P Nath	The Department of Cultural Studies was brought under UGC's **Centre with Potential for Excellence in Particular Areas** wef April 2016 – March 2021, Cultural Memory in North-East India: A Research and Documentation Program on Textual and Visual Narratives, being the focus area of the study, currently the department is carrying out research in the allied area of the subject and that of Cultural Studies through documentation and archiving, lectures, seminars and publications.

Research projects, ongoing and new:

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Cultural Memory in North-East India: A Research and Documentation Program on Visual and Textual Narratives	UGC	230 lakh	2016-2021	D P Nath
Using Folklore for Community Messaging: Adolescents as Agents for Social Change and Empowerment. (Phase III)	UNICEF	23.43 lakh	May 2016-December 2016	J V Das
Border trade at Pangsau: Transcending boundaries between India – Myanmar	MAKAIAS	3.08 lakh	2016 – 2017	Juri G Konwar

PUBLICATIONS

In National and International Journals

1. Baruah, M. Space, Female Subjectivity and the lens of Paremiology: Undertaking the Gendered Space as Representated in Assamese & Bengali Paremiological Literature. *History Today, Journal of History & Historical & Historical Archeology.* New Delhi: The History & Cultural Society, 17 (2016).
2. Nath, D. P. & Hazarika, P. Bishnuprasad Rabha as Cultural Icon of Assam: The Process of Meaning Making. *Cosmopolitan Civil Societies: An Interdisciplinary Journal* **9,** 60–76 (2017).
3. Konwar, J. G. Socio Cultural context of Alcoholic Beverage Apong among the Mishing people of Assam. *Sampriti* **2,** 103–116 (2016).
4. Konwar, J. G. Vigyan Jeuti. *Premor Boigyanik Bislekhon(Assamese)* **1,** 103–116 (2016).

Conference proceedings

5. Baruah, M. *The Edibility of WOmen as Food: A study with special Reference to Lila Gogoi's Noi Boi Jia* in *National Seminar on Food Cultures of India* (Feb. 1).
6. konwar, J. G. & Borah, T. *Gender Representation in Indian Food Advertisement* in *National Seminar on Food Cultures of India* (Feb. 1).
7. Hashik, N. K. *Chomangkan ritual of the Karbis: Cultural Memory and Performing the past* in *National Seminar on Unexplored History of the Karbis in North East India: past and present perspectives* (July 6).
8. Hashik, N. K. *Culture of the Karbis* in *National seminar on Unexplored History of the Karbis in North East India: past and present perspectives* (July 6).
9. Hashik, N. K. *Hospitality and anxiety in the Foodways of Malabar* in *National Seminar on Food Cultures of India* (Feb. 1).

Books and Book Chapters

10. Das, J. V. *Performative Communication: Culture and Politics in South Asia* (eds Pathak, D. & Perreira, S.) chap. Protests, Resistance and Violence: The collective Performance of Everyday Images in Manipur (Routledge, New Delhi, 2017).
11. Das, J. V. *Role of Media in Conflict Resolution* (eds Pereira, M. & Borgohain, B.) chap. The Gender Perspective of Ethnic Violence: Setting and Agenda of Peace for the Media (North Eastern Social Research Centre, Guwahati, 2017).

12. Dutta, P. *The Routledge Companion to Intangible Cultural Heritage* (eds Davis, P. & Stefano, M. L.) 230–239. ISBN: 978-1-138-86055-1 (Routledge: London & New York, 2017).
13. Kandali, M. *Fremor Bahiror Jonakiporuwabur. A collection of short stories in Assamese* ISBN: 978-93-52-54-753-1 (Baan Publication, Guwahati, 2016).
14. Konwar, J. G. & Dowarah, J. *Identity: Critical Persrectives* (ed Hazarika, N.) 135–151. ISBN: 978-81-931548-2-3 (Olympia Prakashan, Guwahati, 2016).
15. M.Kandali. *Saat Samudrat Sangkha Bajisene Nai (A collection of articles on poet Nilamoni Phukan)* (eds Jaman, A. U. & Bora, R.) chap. Kala Bithikar Mojiat Ejon Kavi. ISBN: 978-81-92178-59-2 (Panchjanya Printing and Publishing, Guwahati, 2017).

SEMINARS/CONFERENCES/WORKSHOPS/ SYMPOSIA ATTENDED

International and National

16. Baruah, M. *participated in Legal Awerness Programme on Women* Tezpur University: Chandraprabha Saikiani Centre for Women's Studies, TU and Tezpur Law College in association with National Commission for Women, Delhi, Feb. 1.
17. Baruah, M. *attended a Workshop on Personality Development organized under Centre for Excellence & Pedagogy, PMMMNMTT Scheme* Tezpur: Teaching Learning Centre,Tezpur University, 2016.
18. Baruah, M. *attended a One day Workshop on Soft skills in Practice* Nagaon: Nowgong College Women's Cell, 27.
19. Das, J. V. *delivered a talk on 'Women and children in displacement due to ethnic violence and natural disaster'to Indian Administrative Service Probationers* Guwahati: Assam Administrative Staff College, 14.
20. Das, J. V. *delivered a talk on Frontier knowledge, Imagination and Initiatives based on the works of Nobel Laureates of the year 2016' Lecture on Peace prize* Tezpur: Tezpur University, 18.
21. Das, J. V. *delivered a talk on Career Guidance and Counselling on social issues for students of Bahbari, Sonitpur on the occasion of 8th AISF Raising Day* Sonitpur: 1st Assam Industrial Security Force Bn-Hq, Bahbari, 15.
22. Kandali, M. *delivered a talk in a National Coference of Northern Indian and North Eastern Writers* Rabindra Bhaban: Sahitya Akademi, 2017.

23. Nath, D. P. *delivered a talk on Integrations of Cultural Elements in the Teaching-Learning Process with special reference to Drama and Art* Tezpur: College of Teacher Education (CTE), 27.





SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

National Seminar, Food Culture of North-East India, sponsored by Indira Gandhi Rashtriya Manav Sangrahalaya (IGRMS), Bhopal in collaboration with Centre with Potential for Excellence in Particular Areas (CPEPA), Department of Cultural Studies, 1-2 December 2016.
15 Days Workshop, Craft Practices of North-East India, collaborative workshop organized by CPEPA and IGRMS, Bhopal, 2-16 March 2017.
10 Days Workshop, Cataloguing of Museum Objects, organized by CPEPA , 20 - 29 March, 2017.

DISTINGUISHED VISITORS TO THE DEPARTMENT:

Prof A K Das, National Museum, New Delhi
Prof B Das, Jamia Millia Islamia, New Delhi
Prof J Prodhani, NEHU
Prof J Sengupta, Victoria Memorial, Kolkata
Prof J L Dawar, Mizoram University
Prof S Bhattacharjee, NEHU
Dr Sucheta Sen Chaudhuri, University of Jharkhand
T R Blurton, South Asian Department, British Museum

AWARDS & HONOURS RECEIVED BY THE FACULTY/ STAFF/STUDENTS:

Dr Subhra Devi was awarded the Nehru Trust UK Visiting Fellowship for Documentation of Historic Handloom Textile Motifs of Assam in the Museum Collections of England, January, 2017

OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY:

21 days Refresher Course, organized in association with the Teaching and Learning Centre under the scheme, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), 2 –22 January, 2017

OUTREACH PROGRAMMES ORGANIZED: (UNICEF)

Training of Trainer Program on Adolescent Issues for Folk Artists from Select Community of Sivasagar District, 22 – 24 June, 2016

Block Level Training of Adolescents of Assamese Speaking Community, Amguri Sivasagar, 1-5 July, 2016
Block Level Training Program on Adolescent Empowerment for Select Groups of Adolescent of Demow CD Block (Tea Community), Demow Labour Centre, 21 – 25 July, 2016
Block Level Training of Adolescents of Mising Community, Amguri, Sivasagar, 19-23 August, 2016
Block Level Training of Adolescents of Nepali Community, Tai Cultural Hall, Sapekhati, Sivasagar, 19 – 23 September, 2016
Workshop on Resource Creation Program, Department of Cultural Studies, Tezpur University and Ban Studio, Tezpur, 18-22 October, 2016
A total number of 106 awareness program on various like school drop-out, child marriage, malnutrition etc. in the form of Live Performance by select trained adolescents of Sivasagar district of Assam were conducted in three phases.
1st phase, Sivasagar, 12 – 19 December, 2016
2nd Phase, Tezpur University nearby places, 21 -25 December, 2016
3rd Phase, Sivasagar, 6 – 13 Jan, 2017

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE

NET : 01

NOTABLE PLACEMENT

Khilon Jyoti Dhadumia, Assistant Teacher, Nagarbera School
Manashi Borah, Deputy Registrar, Apex Professional University, Pasighat
Parasjyoti Moran, Gandhi Fellow at Gandhi Fellowship Piramal Foundation for Education Leadership
Upasana Hazarika, Assistant Professor, Barnagar College, Sarbhog

THE FACULTY OF THE DEPARTMENT:

Professors

P J Mahanta, PhD (Gauhati)
Specialization/Areas of interest: Performance Studies, Old Assamese Literature, Cultural History of Northeast India,
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S K Dutta, PhD (Visva Bharati)
Specialization/Areas of interest: Folklore Studies, Assamese Language & Culture.
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Specialization/Areas of interest: Cultural and Literary Theory, Comparative Literature and Translation, Cultural History
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Associate Professor

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Department of Education

THE DEPARTMENT

The Department of Education was established in 2014 with an aim to substantially contribute to the field of education. Teacher Education Programmes help students develop knowledge and skills necessary to become effective and caring teachers in an ever-changing society. At present, the Department is running four programmes. The first is MA in Education, which provides learners a wider and more comprehensive understanding of education as a field of knowledge; the second is a Two-Year BEd programme which prepares students as teacher to work in schools; the third is a PhD programme in Education.

Academic programs and Student intake

Academic Programmes	Student Intake
MA in Education	35
BEd	47



PUBLICATIONS

In National and International Journals

1. Chakrawarty, S. & Pallai, P. Inclusive Education: A Road Ahead to Go. *Indian Journal of Psychometry and Education* **47,** 173–180 (2016).
2. Chakrawarty, S. Aggressive Behaviour of Student in Relation to their Playing Electronic Games. *Psycho-Lingua* **46,** 167–173 (2016).
3. Chakrawarty, S. Effect Of Electronic Game Contents on Study Habit of Elementary School Students. *Pedagogy of Learning* **2,** 1–9 (2016).
4. Padmavathy, R. D. Impact of Personal Factors in Determining Value Orientation of Post Graduate Students. *Horizons of Holistic Education* **3,** 124–132 (2016).
5. Pal, R. & Pallai, P. Relative effectiveness of various training modes of teacher educators: Face to face Videoconferencing and Online. *Staff and educational development international* **20,** 4–14 (2016).
6. Roy, N. R. & Bandopadhya, M. Parental Encouragement and Academic Achievement of Secondary Level Students. *International Journal of Arts & Education Research* **5** (2016).
7. Roy, N. R. & Das, C. Educational Status of Scheduled Caste and Scheduled Tribe People in Assam. *Jaljali, A Tri-Lingual Half Yearly Research Journal of Humanities and Social Sciences* **3** (2016).
8. Roy, N. R. & Lepcha, P. R. Revisiting the Lepcha tales-the Lungten Sung. *Multidisciplinary Annual Research Journal-ESTIA* **2** (2016).
9. Roy, N. R. & Das, C. Trend of Environmental Education among Higher Secondary School students in Chirang District of Assam. *Jaljali, A Tri-Lingual Half Yearly Research Journal of Humanities and Social Sciences* **3** (2016).
10. Roy, N. R. & Lepcha, P. R. Socio-Cultural Trend And Education In Sikkim. *Journal of Contemporary Educational Research and Innovations* **7,** 68–72 (2017).
11. Sharma, A. Total quality Management in schools at primary level: A Comparative Study in reference of Assam. *International Journal of Engineering Technology, Management and Applied Sciences* **5** (2017).
12. Singh, R. A study of vocational guidance needs of senior secondary school students in relation to their family type and socio-economic status. *International Journal of World Research* **1,** 39–45 (2017).
13. Singh, R. A study of stress among working females in relation to their work place and type of job. *Asia Pacific Journal of Research* **1,** 19–26 (2017).
14. Singh, R. A study of environmental attitude of higher secondary school teachers in relation to their gender and institution type. *International e-Journal For Education And Research-2017* **1,** 1–10 (2017).

15. Sultana, Y. Effectiveness of Using Technology Supportive Materials for Developing Listening Skills among School Children. *Journal of Indian Education* **42,** 48–55 (2016).

Conference proceedings

16. Padmavathy, R. D. *Capacity Building Programmes Promote Teacher Effectiveness* in *Proceedings of an International conference on innovation in research and pedagogy* (Holy cross College Nagarcoil 3-4 March, 2017), 53–56.
17. Padmavathy, R. D. *Mooc promotes learning excitement among learners* in *Proceedings of an National Conference on technology enabled learning and leading* (Sri Venkateswara College of Education Pondicherry 25 Feb, 2017), 60–63.
18. Padmavathy, R. D., Bourah, L. & Rahman, S. *Culture, Value and Societal System* in *Proceedings of an National Conference on Culture and social values: Quest for sustainability in a market driven Society* (Sonapur college Kamrup 23-24 September, 2016), 217–227.
19. Pallai, P., Chakrawarty, S. & Sultana, Y. *Value Crisis in the Contemporary Society* in *Culture and Social Values: Quest for Sustainability in Market Driven* (Olympia Prakashan, Rajharh Road, Guwahati, 2016), 301–311.
20. Pradhan, S. *Twenty First Century Mathematics Learning Issues And Challenges* in *proceedings of National Conference On Mathematics Education* (RIE Bhubaneswar Odisha, 2016).

Books and Book Chapters

21. Sharma, A. *Educational system of india: a major player on the world map* Keurkopié. ISBN: 978-1-86822-681-8 (2017).
22. Sharma, A. *Perspective and Perceptions on Academic Writing & Citation* VL Media Solution. ISBN: 978-93-85068-83-6 (2016).

SEMINARS/CONFERENCES/WORKSHOPS/ SYMPOSIA ATTENDED

International and National

23. Asif, M. *Workshop on Personality Development Programme* Tezpur University Napaam: Teaching and Learning Centre, 2016.
24. Asif, M. *Presented a paper on Towards Equality, Justice, and Fraternity in Contemporary India Creating a Better Tomorrow through Education* New Delhi: Institute of Objective Studies, 5.

25. Asif, M. *Workshop on Essentials of Academic Writing"* New Delhi: School of Education Jmaia Millia Islamia, Sept. 7.
26. Asif, M. *Presented a paper on Reforms in Pre Service Teacher Education-A case of Two Year B.Ed. Programme* version National Seminar on Issues and Challenges in Higher Education. Tezpur University: Teaching and Learning Centre, 2016.
27. Asif, M. *Workshop on Massive Open Online Courses* version MOOCs. Tezpur University: Teaching and Learning Centre, 2016.
28. Asif, M. *New Dimensions In Research Methodology and Its Multidisciplinary Application* version MOOCs. Varanasi: Banaras Hindu University, 2016.
29. Asif, M. *Language Education* version National Seminar. Bhopal: Regional Institute of Education, 2017.
30. Chakrawarty, S. *STEM Teacher Training Workshop on Research Based Pedagogical Tools* Tezpur: Tezpur University Tezpur, 2017.
31. Chakrawarty, S. *Quality Teacher Education: Capacity Building of Teacher Educators* Tezpur: Teaching Learning Centre Tezpur University, Feb. 1.
32. Chakrawarty, S. *Workshop on Syllabus of MA in Education Programme* Tezpur: CODL Tezpur University, July 5.
33. Chakrawarty, S. *Legal Awareness Programme on Women* Tezpur: Chadraprabha Saikiani Centre for Women's Studies Tezpur University, Feb. 1.
34. Chakrawarty, S. *National Seminar on Value-Crisis in the Contemporary Society* Gauwahati: IQAC Sonapur College Kamrup Assam, 2016.
35. Chakrawarty, S. *National seminar on Quality of Life and Academic Achievement: A Survey on Post Graduate Students of Tezpur University* Tezpur: Teaching Learning Centre Tezpur University Assam, 2016.
36. Chakrawarty, S. *International Seminar on Attitude of Teachers towards Inclusive Education* Kolkata: Global Education Research Association, 2016.
37. Chakrawarty, S. *National Seminar on Professional commitment level of teacher Educators: A Study of Assam* New Delhi: Faculty of Education Jamia Millia Islamia, Aug. 7.
38. Chakrawarty, S. *National Seminar on Media Literacy: Role of Value Education* Tezpur: Department of Mass Communication & Journalism Tezpur University, 2017.
39. Chakrawarty, S. *National seminar on A Study on Environmental Pollution Awareness through Intervention Programme* Tezpur: Department of Environmental Science Tezpur University, 2017.
40. Chakrawarty, S. *National Seminar on Communication Education 3.0: Synergizing Technology and Development* Tezpur: Tezpur University Tezpur, 2017.

41. Pallai, P. *Quality Teacher Education: Capacity Building of Teacher Educators* Teaching Learning Centre Tezpur University, Feb. 1.
42. Pallai, P. *Workshop on Syllabus of MA in Education Programme* CODL Tezpur University, July 5.
43. Pallai, P. *Legal Awareness Programme on Women* Chadraprabha Saikiani Centre for Women's Studies Tezpur University, Feb. 1.
44. Pallai, P. *National Seminar on Value-Crisis in the Contemporary Society* Gauwahati: IQAC Sonapur College Kamrup Assam, 2016.
45. Pallai, P. *National seminar on Quality of Life and Academic Achievement: A Survey on Post Graduate Students of Tezpur University* Tezpur: Teaching Learning Centre Tezpur University Assam, 2016.
46. Pallai, P. *International Seminar on Attitude of Teachers towards Inclusive Education* Kolkata: Visva-Bharati university Global Education Research Association, 2016.
47. Pallai, P. *National Seminar on Professional commitment level of teacher Educators: A Study of Assam* New Delhi: Faculty of Education Jamia Millia Islamia, Aug. 7.
48. Pallai, P. *National Seminar on Media Literacy: Role of Value Education* Tezpur: Department of Mass Communication & Journalism Tezpur University, 2017.
49. Pallai, P. *National seminar on A Study on Environmental Pollution Awareness through Intervention Programme* Tezpur: Department of Environmental Science Tezpur University, 2017.
50. Pallai, P. *National Seminar on Communication Education 3.0: Synergizing Technology and Development* Tezpur: Tezpur University Tezpur, 2017.
51. Pradhan, S. *Information Literacy Meets Web2.0:Re-Conceptualising Literacy for Higher Education in Digital Environment* Tezpur University Assam: Dept. of Education Tezpur University, 2016.
52. Pradhan, S. *Metaliteracy and Critical Literacy: Acritical Approach to Redefine Information Literacy Instruction* Tezpur University Assam: Dept. of Mass Communication and Journalism Tezpur University, 2017.
53. Pradhan, S. *Social Media in Teacher Education* Tezpur University Assam: Dept. of Mass Communication and Journalism Tezpur University, 2017.
54. Roy, N. R. *presented a paper on Emotional Intelligence of Adolescents belong to State Home and Bio-logical Families* version Youth and Adolescence problems in present social context-role of the teacher, parents and society. Kaliabor College Nagaon: ICSSR Sponsored National Seminar, 2016.

55. Roy, N. R. *presented a paper on Emotional Intelligence of Adolescents belong to State Home and Bio-logical Families* version Youth and Adolescence problems in present social context-role of the teacher, parents and society. Visva-Bharati Santiniketan: ICSSR Sponsored National Workshop on Research Methodology, 2016.

56. Roy, N. R. *presented a paper on Attitude of Scheduled caste and Scheduled Tribes students Higher towards Higher Education* version New Dimensions in Higher Education in the Context of Information and Communication Technology (ICT). Hojai College Hojai: UGC sponsored Multi-disciplinary National Seminar, 4.

57. Roy, N. R. *presented a paper on Role of Education in the development of Mental health of a child* version Demographic Dividend and Prospect of Economic Development in India. UGC sponsored National Seminar, 2016.

58. Sharma, A. *Presented a paper on Stress Management and Soft skills* version National Seminar on Personality development Programme for Adolescence. Biswnath Charali: Orient Flower Junior College, Apr. 3.

59. Sharma, A. *Presented a paper on RUSA and Quality Higher Education* version National Seminar on Quality Higher Education and RUSA: Its problems and prospects in North East India. Lakhimpur: Shankerdeva Mahavidyalya, 2016.

60. Sharma, A. *Presented a paper on How to develop Personality* version National Seminar on A ten days Workshop on Personality Development Programme. Tezpur University Napaam: Teaching Learning Centre, 2016.

61. Sharma, H. *Quality Teacher Education: Capacity Building of Teacher Educators* Teaching Learning Centre Tezpur University, Feb. 1.

62. Sharma, H. *Workshop on Syllabus of MA in Education Programme* CODL Tezpur University, July 5.

63. Sharma, H. *Legal Awareness Programme on Women* Chadraprabha Saikiani Centre for Women's Studies Tezpur University, Feb. 1.

64. Sharma, H. Workshop cum Training on Patent search and analysis, 25.

65. Sharma, H. *Workshop on Massive Open Online Courses* version MOOCs. Tezpur University: Teaching and Learning Centre, 2016.

66. Singh, R. *Presented a paper on Privatization and Commercialisation of Higher Education* version National Seminar on Issues and Challenges in Higher Education. Tezpur University Napaam: Teaching and Learning Centre, 2016.

67. Singh, R. *Workshop on Personality Development Programme* Tezpur University Napaam: Teaching and Learning Centre, 2016.









Major facilities and equipment available

1.Well Equipped Resource Centers
2.Psychology Resource Centre
3.Art and Craft Resource Centre
4.Curriculum Lab
5.ICT Lab

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

Organized a session on "Craft, Knowledge and Education" for the Students of B.Ed. (II semester) on 11 March, 2017
Organized a workshop on "Arts in Education" for the Department of Education on 22 November, 2016

DISTINGUISHED VISITORS TO THE DEPARTMENT

Prof. Santosh Panda, former Chairperson, NCTE, IGNOU New Delhi
Prof. M C Sharma, IGNOU, New Delhi
Prof. Deepa Kaud, Panjab University
Prof. R P Vadhera, Mizoram University
Prof. N B Biswas, Assam University

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE [2016-2017]**:**

NET: 06

THE FACULTY OF THE DEPARTMENT

Associate Professors

N R Roy PhD (Assam)

Head of the Department

Specialization/Areas of Interest: Measurement and Evaluation in Education, Research Methodology, Educational Planning and Management, Curriculum Development

E-mail: niledn@tezu.ernet.in

Anjali Sharma PhD (BRAU)

Specialization/Areas of Interest: Educational Administration, Planning and Financing, Curriculum Development

E-mail: sanjali@tezu.ernet.in

Assistant Professors

Yeasmin Sultana, PhD (Assam)

Specialization/Areas of Interest: Language Education, Research Methodology in Education

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R D Padmavathy, PhD (Pondicherry)

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MTS





Department of English and Foreign Languages

THE DEPARTMENT

The Department, which was established in 1994, aims to give instruction and carry out research in English Literature, Women's Writing in English, American Literature, Indian Writing in English, English Language Teaching. In August 2012 and August 2015 an MA programme in Linguistics and Language Technology and an MA programme in Linguistics and Endangered Languages were introduced, respectively. These programmes aim to give instruction and carry out research in Core Linguistics, Linguistics Theories, Field Linguistics, Computational Linguistics, Documentation and Archiving. Other academic programmes include an Integrated MA in English (Introduced in August, 2011), an Integrated BA BEd (Introduced in August 2011, but approved in 2015), and a Certificate Course in Chinese.

Academic programmes and Student intake:

Academic Programme	Student Intake
MA English	50
MA Linguistics and Language Technology	20
MA Linguistics and Endangered Languages	20
Integrated MA in English	20
Integrated BA BEd	10
Certificate in Chinese	39
PhD	Intake variable

Major facilities and equipment available

The Department has a digital multimedia multi-purpose language laboratory with fifteen booths. Students can improve on their language skills, especially the skills of listening and speaking, in English, Chinese, and French by utilizing the software and other facilities available in the laboratory. The Department also has two smart classrooms and a computer laboratory for the use of students and research scholars.

MAJOR RESEARCH FINDINGS/RESEARCH AND DEVELOPMENT ACTIVITIES:

Principal Investigator	Salient Research Findings
Madhumita Barbora	Build a Tagged Text Corpus of 100000 sentences for Assamese Chunking of the 17 lakhs parallel sentences
Madhumita Barbora	Digital preservation of the NE languages Linguistics analysis and transcription of these languages. Building an archive for the speech and language resources
P K Das	Specific studies are adding to our evolving understanding of Colonial Indian modernity.An alternative paradigm of modernity is also emerging







Research Projects, ongoing and new

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Indian Languages Corpora Initiative (Phase-2)	DEITY	61.53 lakh	2012-2017	Madhumita Barbora A K Nath (Co PI)
Digital Language Preservation	DEITY	39.14 lakh	2013-2017	Madhumita Barbora G K Borah (Co PI)
SAP- DRS-II	UGC	98.00 lakh	2015-2020	P K Das Coordinator

PUBLICATIONS

In National and International Journals

1. Daimari, E. Lapsed Landscapes: Graves, Caves and Ruins in Michael Ondaatje's Anil's Ghost. *Kaktiya Journal of English Studies* **36,** 69–84 (2017).
2. Daimari, E. Scarred and Ruined Landscapes in Romesh Gunesekera's Heaven's Edge. *Assonance: A Journal of Russian and Comparative Literary Studies* **17,** 144–154 (2017).
3. Medhi, H. Gender and Identity Politics: Arupa Patangia Kalita's Felanee (The Story of Felanee) and Rita Chowdhury's Ei Samay Sei Samay (Times Now and Then). *Asiatic* **10,** 225–235 (2016).
4. Nath, A. K. Reflection of Sexism and Gender Inequality in the Assamese Language. *Communication Studies and Language Pedagogy* **2** (2016).
5. Sarma, M. M. Shakespearear Sonnet"(A Study of Shakespeare's Sonnets). *Prakash,* 35–40 (Special Shakespeare Issue 2016).

Conference proceedings

6. Gope, A. & Mahanta, S. *Perception of Lexical Tones in Sylheti, in DiCanio, C. et.al (eds).* in *Proceeding of the TAL-2016* (Buffalo NY, 2016). doi:10.21437/TAL.2016.
7. Gope, A. & Mahanta, S. *Correlation between Sylheti tone and Phonation. In Barnes, Jon; Brugos, Alejna; Shattuk-Hufnagel, Stefanie; and Nanettee Veilleux (eds.)* in *Proceeding of the Speech Prosody* (Boston, Lincolnshire, England, 2016). doi:10.21437/SpeechProsody.2016.
8. Mahanta, S., Das, K. & Amalesh, G. *On the Phonetics and Phonology of Focus marking in Boro* in *Proceedings of the Annual Meeting of Phonology 2015* (Linguistic Society of America, Vancouver, Canada, 2016). doi:http://dx.doi.org/10.3765/amp.v3i0.3668.

Books and Book Chapters

9. Nath, A. K. *In Special Volume of Assam Sahitya Sabha* (ed Padun, N.) chap. Ferdinand de Saussure aru Xongjutibad (Ferdinand de Saussure and Structuralism) (Assam Sahitya Sabha, Sibsagar, 2017).
10. Nath, A. K. *Artificial Intelligence and Natural Language Processing.* (ed Mishra, S. K.) 68–92. ISBN: 978-3-330-01305-6 (Lambart Academic Publishing, Germany, 2017).
11. Sarma, M. M. *Asamiya Bhasha: Sankat aru Sambhavana (The Assamese Language: Crisis and Perspects)* ISBN: 978-93-85587 (Nobel Publishers, Guwahati, 2016).

12. Sarma, M. M. & Sahoo, S. *Nine Years beyond the Patkai* Translation of Purnakanta Buragohai's travel narrative Patkair Sipare Na-Basar. ISBN: 978-81-931983-1-5 (Bhabani Books, Guwahati, 2016).
13. Sarma, M. M. *Tulanamulak Sahitya: Patabhumikat Asam (Comparative Literature in the Backdrop of Assam)* (ed Nath, D.) 66–74. ISBN: 978-81-7213-312-2 (Purbanchal Prakash, Guwahati, 2017).
14. Sarma, M. M. *Identity: Critical Perspectives* (ed Hazarika, N.) 12–30. ISBN: 978-81-931548-2-3 (Olympia Prakashan, Guwahati, 2016).
15. Sarma, M. M. *Aspects of Modern Assamese* (eds Barbora, M. & Borah, G. K.) 1–24. ISBN: 978-81-931983-3-9 (BHabani Books, Guwahati, 2016).
16. Sarma, M. M. *Paschatyar Sahitya (Western Literature)* (ed Sarma, U. N.) 214–222. ISBN: 978-93-84733-67-4 (Publication Board, Guwahati, 2016).

SEMINARS/CONFERENCES/WORKSHOPS/ SYMPOSIA ATTENDED

International and National

17. Gope, A., Hazarika, M. & Hazarika, P. *Sounds and Syllables of Tai-Turung* Central University of Jharkhand, Ranchi: at 5th International Endangered and Lesser-known Language Conference, 2017.
18. Gope, A. & Mahanta, S. *Correlation between Sylheti tone and Phonation* Boston, Lincolnshire, England: Speech Prosody 2016, 2016.
19. Gope, A. & Mahanta, S. *Perception of Lexical Tones in Sylheti* Buffalo, New York: at TAL-2016, 2016.
20. Nath, A. K. *Legislating Language Policies and Endangerment in the context of Northeast* National Law University, New Delhi: at Conference on Language Diversity, Endangerment, Vitalization: Agenda, and Roadmap, 21.
21. Nath, A. K. *Verbal Inflection Paradigm in the Darrangia Dialect of Assamese* Indian Institute of Technology, Guwahati: at 38th International Conference of Linguistics Society of India, Dec. 10.
22. Nath, A. K. *Delivered a talk on Minority Language Rights, Language Policies and the Northeast Indian Context* Dhakuakhana College, Lakhimpur, Assam: at UGC sponsored state level Seminar on Human Rights, 16.
23. Nath, A. K. *Delivered a talk on Language Planning and Policies: Theories, Practices and the Northeast Indian Context* Indian Statistical Institute, North East Centre, Tezpur: at the workshop on Advanced Academic Programme (Linguistics) for the North Eastern States, 2017, Nov. 9.

24. Phukan, K. & Nath, A. K. *Dead/Alive: Assessing Language Vitality of Tai Ahom* Institute of Tai Studies and Research, Moranhat, Assam: at ICHR/ICSSR sponsored National Seminar on Endangered Ethnic Cultures and Languages in Northeast India, 2016.

25. Borah, G. K. 2016. Parambhik ghataman daxa. In D Das. (ed). Tathya Aru Tatwar Adharot Bhashar Bichar. Guwahati: Bhabani Books. pp 149-157. ISBN: 978-81-931983-2-2.

26. Borah, G. K. 2017. Sangatmak Bhaxabiggan: eti samu abhax (Cognitive Linguistics: An Introduction). In N. Padum (Ed). Bhaxabigyanar gati-prakriti. Sibsagar: An Asom Sahitya Sabha Publication.

27. Borah, G. K. 2017. What is language? In G. K. Borah. Aspects of Language. A Tezpur University CODOL Publication.

28. Borah, G. K. 2017. The Indefinite and Definite Quantifiers in Assamese. In Linda Kornerth et al. (eds). North East Indian Linguistics. Canberra: Australian National University Press (forthcoming).

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED
International and National

A Gope attended and presented paper, Sounds and Syllables of Tai-Turung, in the 5th International Endangered and Lesser Known Languages Conference, organized by Centre for Tribal Folklore Language and Literature, Central University of Jharkhand, Ranchi, 24-26 February, 2017

A K Nath attended a one day UGC sponsored state level seminar on 'Human Rights' as a Resource Person, Dhakuakhana College, Lakhimpur, 16 March, 2017.

A K Nath attended and presented paper, Legislating Policies and Endangerment in the Context of Northeast, in the National Conference on Language Diversity, Endangerment and Vitalization: Agenda and Roadmap, organized by National Law University, Delhi, 21 January, 2017

A K Nath attended and presented paper, Verbal Inflectional Paradigm in the Darrangia Dialect of Assamese, in the 38th International Conference of Linguistics Society of India, organized by Indian Institute of Technology, Guwahati, 10-12 November, 2016.

Bipasha Patgiri attended European Summer School on Language Typology 2016 (Typoling 2016), the Centre IGESA on Porquerolles Island, Hyres, France, 05-17 September, 2016.

Bipasha Patgiri attended and presented paper, Nature of Vowel Sequence and Hiatus Resolution in Nalbaria Assamese, in the 38th International Conference of Linguistics Society of India, organized by Indian Institute of Technology, Guwahati, 10-12 November, 2016.

Bipasha Patgiri attended and presented paper, Coronal Underspecification: Evidence From Coronal Geminates in Nalbaria Assamese, in the 22nd Himalayan Language Symposium, organized by Indian Institute of Technology, Guwahati, 08-10 June, 2016.

B K Danta attended and presented paper, The Anxiety of Interpellation: English Studies and the Burden of the Present, in the International Conference on Decentring English Studies: Studying in the Global South, organized by PG Department of English, Utkal University, 18-22 January, 2017.

B K Danta attended and presented paper, The Tyranny of Things and Pleasure of Words: James

Joyce's Ulysses, organized byDoon University, Dehradun, 18-21 December 2016.

D Mohapatra attended and presented paper, English Language Proficiency Among College Students of Arunachal Pradesh (India) Vis-à-vis Socio-Economic Background, in the IJAS International Conference for Education, organized by University of London, UK, 08-11 November 2016.

G K Borah presented a joint paper, *Nominalization in Tai-Khamti*, at 22nd Hiamalyan Languages Symposium, IIT, Guwahati, 08-10 June 2016.

G K Borah presented a paper, *Indefinite and Definite Quantifiers in Assamese*, at NEILS-9, an international conference, organized in collaboration with Dept of Linguistics, Gauhati University and linguists from University of Oregon, USA, La Trobe University, Australia, Gauhati University, and Hankuk University of Foreign Studies, South Korea, Tezpur University, 05 January-07 February 2017.

G K Borah presented a paper, On the absence of the numeral one in the singular definite classifier phrase, at the 23rd Himalayan Languages Symposium, an international conference, held at Tezpur university, Tezpur, 05-07 July 2017.

M M Sarma attended a seminar on 'Research Methodology' as a Resource Person, Patkai Christian College, Dimapur, Nagaland, 02 April 2016.

Madhumita Barbora attended and presented a paper, Nominalization in Koro, in an International Conference on Asian Linguistics, organized by Nguyen Tat Thanh University, Ho Chi Minh City, Vietnam, 15-16 December 2016.

P K Das attended the workshop on 'Pandit Madan Mohan Malviya National Mission on Teachers and Teaching', organized by National University of Educational Planning and Administration, Jamia Millia Islamia, New Delhi, 20-21 October 2016.

Pallavi Jha attended and presented paper, Food in Holocaust Literature, in National Seminar on Food Culture of India, organized by Department of Cultural Studies, Tezpur University, 01-02 December 2016.

Reetamoni Narzary attended a two-day workshop on 'Qulaity Teacher Education: Capacity Building of Teacher Educators', organized by Teaching Learning Centre, Tezpur University, 01-02 December 2016.

S Sahoo attended and presented paper, Reconstructing Bharat into India: The impact of "Bharati fiction" or

Indian English Popular Fiction on Indian Culture, in UGC sponsored National Seminar Mass Media and Modern Indian Culture, North Lakhimpur College, 23-24 February 2017.

S Sahoo attended and presented a paper, Contending Cultural Hegemony: Reading Karbi Video Films, in the International Conference on (Re)envisaging India's Northeast: Ethnicity, Identity, Culture and Literature, organized by Department of English, Assam University, Silchar, 08-09 September 2016.

Sravani Biswas attended and presented a paper, Food and Narration: Encoding Pain and Fracture in Bangla Partition Literature, in National Seminar on Food Culture of India, organized by Department of Cultural Studies, Tezpur University, 01-02 December 2016.

TALKS BY THE FACULTY ABROAD AND IN INDIA

Bipasha Patgiri delivered a talk, History and Evolution of Writing System, at the Waii International Hotel, Bhalukpong, 13-14 May 2016.

G K Borah delivered an invited talk on *Language and Human Existence* at the Dept. of English, Patkai Christina College (An Autonomous Postgraduate College) Dimapur, Nagaland on 22 April, 2016.
G K Borah delivered the 2016 T G Rinpoche Memorial Lecture, *Literature: A Lie that Tells the Truth* and *Gender Bias in the Structure of Language,* Central Institute of Himalayan Culture Studies Dahung, Wes Kameng District, Arunachal Pradesh, 03 September 2016.

G K Borah delivered an invited a talk, *Drawing a Parallel Between a Classifier and the English Plural Marker*, at the Advanced Academic Programme (Linguistics) for the North Eastern States (AAP(L) NES-2017) organized by Linguistic Research Unit Indian Statistical Institute, Kolkata, and held at the Indian Statistical Institute, North East Centre, Tezpur, 09 -11 March, 2017.

Hemjyoti Medhi delivered a talk, Literary Representation of the Freedom Struggle in Assamese and Sindhi Languages, at Department of M.I.L, Gauhati University, 04-05 October 2016.

M M Sarma delivered the Jehiruddin Ahmed Memorial Lecture, English Teaching in Vernacular Medium Schools: Problem and Solutions, at Jorhat College, 16 June 2016.

S Sahoo delivered a talk, Subaltern in Indian Fiction in English, Department of English, NEHU, Tura Campus, Tura, 06 June 2016.

DISTINGUISHED VISITORS TO THE DEPARTMENT

Prof. Himadri Lahiri, University of Burdwan
Prof. Klaus-Uwe-Panther, Professor Emeritus, Humburg University, Germany
Dr. Linda Panther, Humburg University, Germany
Prof. Hameed Khan, Dr B.A.M. University, Aurangabad
Prof. Gurucharan Behera, BHU, Varanasi
Prof. Somdatta Mandal, Visva Bharati, Shantiniketan
Prof. Subir Kumar Dhar, R.B.U, Kolkata
Dr Shakuntala Mahanta, IIT, Guwahati
Prof. Jyotirmoy Prodhani, NEHU, Shillong
Prof. Asima Ranjan Parhi, RGU, Itanagar
Prof. Anjali Daimari, Gauhati University

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE [2016-2017]**:**
NET-JRF : 03
NET-LS : 03
SET : 01

NOTABLE PLACEMENT [2016-2017]**:**
Bhanu Poudel, Fellow, Teach for India

Chutikan Sae Wang, Italian Thai Development Public Company Limited, Dhaka
Dhiraj Pratim Medhi, Campus Associate, Azim Premji Foundation, Uttarakhand
Iman Sharma, Campus Associate, Azim Premji Foundation, Chittore, Rajasthan
Kaushik Nath, Assistant Professor, Srimanta Sankardeva University, Nagaon
Nurjahan Begum, Assistant Professor, Deendayal Upadhyay College, Goalpara
Parthiva Nandan Saikia, Assistant Professor, Assam Women's University, Jorhat
Poulomi Dey, Editor and Proof Reader, Paper True
Prasenjit Das, Megistrate
Ruby R Balkambe, Secretariat Office, Meghalaya
Smitashri Joy Sarma, Campus Associate, Azim Premji Foundation, Uttarakhand
Smriti Deori, Assistant Professor, Deendayal Upadhyay College, Goalpara

THE FACULTY OF THE DEPARTMENT:

Professors

M M Sarma, PhD (Dibrugarh)
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Associate Professors

D Mohapatra, PhD (EFLU, Hyderabad)
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Hemjyoti Medhi, PhD(Delhi)
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Assistant Professors

R Chakraborty, MPhil (JNU)
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Reetamoni Narzari, MA (NEHU)
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Bashabi Gogoi, PhD (Gauhati)
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Bipasha Patgiri, MPhil (JNU)
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Esther Daimari, MPhil (Gauhati)
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B Medhi, MPhil (JNU)
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A Gope, MA (Hyderabad)
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S K Doley, PhD (EFLU, Shillong)
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Visiting Fellow
S U Ahmed, Diplôme de deuxiéme cycle (Université de Paris I. Panthéon-Sorbonne Paris, France)
Specialization/*Areas of interest*: French Language (Problems and practices of urban development in developing countries)
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T K Mazumdar
Specialization/*Areas of interest*: German Language

Technical Staff
H Das, MSc (Gauhati)
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U Ray
MTS
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Department of Hindi

THE DEPARTMENT

The Department of Hindi was established in January 2010 and it started an MA programme in Hindi in 2013. At present, the Department also runsthe following programmes: Post Graduate Diploma Programme in Translation (Hindi), Hindi as a Modern Indian Language (MIL); PhD in Hindi literature/language) Apart from these programmes, the Department also runs a Certificate Course in Official Hindi (Level-1), which is meant for the employees of the University.

Academic programmes and students intake

Programmes	Student Intake
Certificate Course	10
PGDiploma in Translation	23
MA in Hindi	25
PhD	Intake variable 8in the Academic year 2016-17

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

International and National

Anushabdapresented a paper, Hinditarpradeshonmein Hindi-Shikshankichunautiyanaursamadhan, International Seminar, INALCO, Paris, France,14-16 September, 2016.

Anushabda presented a paper, Hindi-Asamiyabhashakaantarsambandh,National Seminar, Surya Sansthan, Noida, U.P. in association with Central Hindi Directorate, New Delhi,14-15 May, 2016.

Anushabdapresented a paper, Upari Assam kewiwahgitonmeinpratibimbit Assamiya janajiwan,National Seminar, jointly organized by the Department of Hindi, NEHU, Shillong and MGIHU,Wardha at NEHU, Shillong,18-19 November, 2016.

Anushabdapresented a paper, Bhupen Hazarika aurNagarjunkegitonmeinsamayaursamaj, National Seminar, Department of Hindi, Gauhati University, Guwahati, Assam, 23 December, 2016.

Anushabda presented a paper, Critical and Discourse Analysis on changing role of Teachers in Information/ Knowledge society, National Seminar, Department of Education, Tezpur University,14-16 March, 2016.

S Tripathi presented a paper Mooktibodhakiaalochanakeviacharikaadhar, National Seminar on Mooktibodha: SrijanaurVaicharikikaaatmasangharsh, Dept. of Hindi, Banaras Hindu University, Varanasi,25-27February, 2017.



S Tripathi presented a paper, BhartiyasanskritikeaalokmeinNadi, NariaurSanskriti,National Seminar on Wartman waishwikpariweshmeinBharityasanskritikiprasngikata, Dept. of Hindi, Dayanandvaidik PGCollege, Orai(Jaloun), 5-6March, 2017.

TALKS BY THE FACULTY ABROAD AND IN INDIA

Anushabda delivered a lecture as a resource person,TakanikiShabdawalikaSwaroopewamMahatwa at Jaiprakash Narayan University, Chhaparaorganized by Commission for Scientific and Technical Terminology, MHRD, Delhi, 4-5 May 2016.

Anushabda delivered a lecture as a resource person, Hinditarpradeshonmein Hindi Shikshan:Lipigatsamasyaenaursamadhan, in 39th AkhilBharatiyaNagariLipiSammelan organized by the Department of Hindi, R.G.U, Arunachal Pradesh in association with NagariLipiParishad, Delhi, 10-11 November, 2016.

Anushabda delivered a lecture as a resource person, Takaniki Shabdawaliaur Rajbhasha ka antarsambandh at Dibrugarh University, Dibrugarh, Assam organized by Commission for Scientific and Technical Terminology, MHRD, Delhi, 21-22 December, 2016.

Anushabda delivered a lecture as a Chief Guest, RashtriyaewamAntarrashtriyaparidrishyamein Hindi kaaayushyaaurbhawishyain Hindi DiwasSamaroh organized by Department of Hindi,Nowgong College, Nagaon, Assam, 24 September, 2016.

Anushabda delivered a lecture a resource person, Assam mein Hindi Shikshanki Chunautiyanaur Samadhan, at Shibsagar, Assam in 236th Refresher Course organized by Kendriya Hindi Sansthan, Guwahati, Assam,20 December, 2016.

Anushabda delivered a lecture as a Chief Guest, Wartman Samaymein Gita kiprasangikata, organized by Vivekananda KendriyaVidyalay, Tezpur, Assam,10 Dec. 2016.

Anushabda delivered a lecture as a resource person, BhashawigyankiUpayogita at KendriyaVidyalaya, AFS, Borjhar, Guwahati, Assam in an In Service Training Course for PGTs(Hindi, 2nd spell),30 December, 2016.

Anushabda delivered a lecture as a resource person, Ahindibhashikshetronmein Hindi Shikshan Takanik at Kendriya Vidyalaya, AFS, Borjhar, Guwahati, Assam in an In Service Training Course for PGTs(Hindi, 2nd spell), 31 December, 2016

Anushabda delivered a lecture as a resource person, AadiwasiJiwanaur Hindi Cinema in a two day National Seminar,SahityikWimarshonkadaur: DamitAsmitaaonkaubhar, organized by the Department of Hindi, RGUniversity, Arunachal Pradesh in association with ICSSR, New Delhi, 2 -3 March, 2017.

S Tripathi delivered lecture as a resource person Samsamyik dour meinRajbhasha Hindi kiprasangikta in Valedictory function of Hindi Maha, Organized by Oil India Limited, Duliajan, Assam,30September, 2016.

S Tripathi delivered lecture as a resource person Samkalinpariveshmein Hindi kimahtta in Lecture Series organized by the Dept. of Hindi, J B College, Jorhat, Assam,10March, 2017.

AWARDS & HONOURS RECEIVED BY THE FACULTY/RESEARCH SCHOLARS/STUDENTS

S Tripathi received a National Award 2016, RashtrabhashaGauraw, by AkhilBhartiya Hindi SewiSansthan, Allahabad

NUMBERS OF STUDENTS QUALIFIED NET-JRF/GATE (2105-2016)

SLET – 03



THE FACULTY OF THE DEPARTMENT

Professor

A K Nath, PhD (Manipur)
Specialization/Areas of Interest: Medieval Poetry, Folkloristic, Comparative Literature
E-mail: ananta@tezu.ernet.in

Associate Professor

S K Tripathi, PhD (BHU)
Head of the Department
Specialization/Areas of Interest: Applied Linguistics, Indian Poetics, Folkloristics
E-mail: sktripathi@tezu.ernet.in

Assistant Professors

Anjulata, PhD (Tezpur)
Specialization/Areas of Interest: Medieval Poetry, Fiction
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Anushabda, PhD (Delhi)
Specialization/Areas of Interest: Linguistics, Media, Poetry, Indian and Western Poetics.
E-mail: anush@tezu.ernet.in

THE STAFF OF THE DEPARTMENT

S Ingti, BA(Gauhati)
UDC
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AK Nath
MTS

Department of Law

THE DEPARTMENT

The Department of Law was founded in 2017. Whether individuals or institutions, all are governed by law. Therefore, knowledge of law is essential not only for individuals but also for different organizations and institutions, both in the private and the public sector.

Regular classes on different programmes in lawwill start from August 2018. Besides teaching,research and other extension activities will also be carried out simultaneously by the Department so thatit emerges a vibrant centre of legal education, particularly in the North-East.

Academic activities

During the concerned period the faculty taught the following courses:

- Public Administration (CBCT)
- Law related to Social Welfare and NGO's (for the Community College, TU)
- Women & Law (for the ChandraprabhaSaikiani Centre for Women's Studies, TU)

During this period, the faculty also prepared the syllabi of and regulations for various programmes in law to start from August 2017. Detailed list of law books, law reports, law journals were also prepared and submitted to the Central Library of the University.

SEMINARS/CONFERENCES/WORKSHOPS/ SYMPOSIA ATTENDED

International and National

1. Acharjee, M. *Legal Aid: A Tool For Quality Skill Development* Silchar: At a UGC Sponsored National Seminar on Skill Development, Youth: Prospects, and Challenges in North-East India organized by Community College, Assam University, 10.
2. Acharjee, M. *Convention on Rights of Child, 1982* Tezpur: As a resource person at a Training Programme organized by the Department of Law and Community College, Tezpur University, 25.
3. Sarmah, D. K. *Child Labour and Bonded Labour* Tezpur: As Convenor, resource person at a Training Programme organized by the Department of Law, and Community College, Tezpur University, 25.
4. Syiem, A. H. *Mapping the role of Shillong Municipal Board Yesterday, Today and Tomorrow: With special reference to protection of environment* Shillong: At a Seminar organized by the Meghalaya High Court, 4.
5. Syiem, A. H. *Convention on the Elimination of all forms of Discrimination against Women, 1979* Tezpur: As a resource person at a Training Programme organized by the Department of Law and Community College, Tezpur University, 25.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

A one-day Training Programmeon Human Rights, sponsored by NHRC, was held at Tezpur University on 25 March, 2017. The programme was jointly organized by the Department of Law and Community College, Tezpur University. Hon'ble Justice Dr. M.K Sharma, former Judge, the Supreme Court of India andHon'ble Justice Dr. A.H. Saikia, Chairperson, Meghalaya Human Rights Commissionacted as resource person.





DISTINGUISHED VISITORS TO THE DEPARTMENT

Hon'ble Justice Dr. M.K Sharma, former Judge, the Supreme Court of India.
Hon'ble Justice Dr. A.H. Saikia, Chairperson, Meghalaya Human Rights Commission.

THE FACULTY OF THE DEPARTMENT

Professor

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Assistant Professors

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Office Staff
BidishaBaishya,
Office Assistant

B Bora
MTS



Department of Mass Communication and Journalism

THE DEPARTMENT

The Department of Mass Communication and Jouralism, which was opned in 2001, has been imparting quality training and undertakes research in emerging fields of communication and media through innovative mix of classroom and field-based pedagogy. The Department offers two MA programmes - MA in Mass Communication & Journalism (MA MCJ) and MA in Communication for Development (MA C4D). Both the programmes aim at developing quality manpower for academics and profession. The Department also promotes and encourages media entrepreneurship.

The faculty of the Department are drawn from diverse academic and professional backgrounds lending variety and richness to the teaching-learning process. The Department offers courses in Print and Television Journalism, Video Production; Visual Communication; New Media Technology; Film Studies; Advertising and Corporate Communication; Strategic Communication; Community Radio and Video among others. The Department has a separate building with a state-of-the-art infrastructure and facilities.

Academic Programmes and Student intake:

Programme	Student Intake
MA in Mass Communication & Journalism	37
MA in Communication for Development (C4D)	14
PhD in Mass Communication & Journalism	Intake variable, 10 in the Academic year 2016-2017

Major facilities and equipment available:

- Mac Systems With FCP Software
- PCS With Quark Xpress
- PCS With Sound Forge Software
- TV Production Studio Set-Up
- Audio-Mixing (Console) System With Pro Tools Software
- IC Recorders
- P2 Cameras
- PD 177 Cameras
- DSR 570
- DSLRS

MAJOR RESEARCH FINDINGS/RESEARCH AND DEVELOPMENT ACTIVITIES:

Principal Investigator	Salient Research Findings
Joya Chakraborty	• Identification of different social norms and practices related to maternal health and salt consumption among the women of tea garden communities in Sonitpur District of Assam • Development and dissemination of multimedia/video messages on maternal health to be used by ASHA workers in Dibrugarh district of Assam • Compilation of case studies of adoption of C4D strategies

Research projects, ongoing and new:

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Advancing Communication for Development as a strategy for Social Change in Assam and NE region (Phase II)	UNICEF	21.31 Lakh	Mar 2017 - Dec 2017	Joya Chakraborty
Major Research Project on the Acculturation Process of the Mising Tribe of Assam and Arunachal Pradesh	ICSSR	4.0 Lakh	2017-2019	U K Pegu



PUBLICATIONS

In National and International Journals

1. Anbarasa, P. & Tenepalli, H. Framing Muslims as Illegal Migrants in Assam. **2,** 181–190 (2016).
2. Chakraborty, J. Information and Communication Technologies for Development. *Communicator* **51,** 63–86 (2016).
3. Pegu, U. Media in Conflict Transformation and Peace Process: An Academic Inquest. *Mizoram University Journal of Literature and Cultural Studies*, 250–264.

Conference proceedings

4. Anbarasan, P. *Food Culture in Tamil Nadu* in *National Seminar on Food Culture in India* (Tezpur University, Tezpur, 2016).
5. Anbarasan, P. *Journalism Education and Regional Media* in *Quality Configuration of Media Education in India* (2016), 158–165.
6. Chakraborty, J. *New media and digital democracy* in *New Media: Issues Challenges and Prospects* (Rashtrakant Tukadoji Maharaj Nagpur University, Dept. of Mass Communication, 2016), 24–27.

Books and Book Chapters

7. Anbarasan, P. *Mobile Media and Social Change* (ed Babu, K. J.) 168–177. ISBN: 9789384161545 (Dominent Publishers and Distributors, New Delhi).
8. Bora, A. *New Media–Challenges and Prospects* (ed Dhawankar, D.) 125 – 129. ISBN: 978 81 925001 8 8 (Department of Mass Communication,Rashtasant Tukadoji Maharaj Nagpur University, Nagpur, Nagpur, Maharashtra, 2016).
9. Bora, A. *Development Journalism : The Way Forward* (eds Bhanawat, S. & Singh, K. K.) 5–10. ISBN: 978 93 5265 664 - 6 (Centre for Mass Communication, University of Rajasthan, Jaipur, University of Rajasthan, JLN Marg, Jaipur 302004 Rajasthan, India, 2016).
10. Chakraborty, J. & Borah, A. *Media and Communication for Development* (ed Babu, K. J.) chap. Media and Development: An Exploration into Practice and Pedagogy. ISBN: 978-93-84161-54-5 (Dominant Publishers, 2016).
11. Deka, J. *Contemporary Indian Theatre* (eds Chaturvedi, R. & Gupta, T.) 121–130. ISBN: 978-81-316-0856-2 (Rawat Publications, Jaipur, 2017).

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED
International and National

Anjuman Borah attended a National Seminar on Media Literacy in the Age of Convergence organized by Dept. of Mass Communication & Journalism, Tezpur University, 30-31 January, 2017.



Anjuman Borah attended a National Conference on Communication Education 3.0 Synergizing Technology and Development organized by Dept. of Mass Communication & Journalism, Tezpur University, 25-26 March, 2017.

Junali Deka attended a National Conference on Communication Education 3.0: Synergizing Technology and Development organized by the Department of Mass Communication and Journalism, Tezpur University, 25-26 March 2017.

Junali Deka attended a three-day workshop on PITCH YOUR FILM: Commissioning of Films for UNDP and PSBT organized by Green Hub in association with Tezpur University, 11-13 March, 2017.

M Deori attended a National Seminar on Communication Education 3.0: Synergizing Technology and Development organized by Dept. of Mass Communication & Journalism, Tezpur University, 25-26 March, 2017.

M Deori attended a One-week workshop on Teaching & Researching Community Media, University of Hyderabad, 16-22 March, 2017.

M Deori attended a one-day Regional consultation on Community Radio as an effective tool for Communication for Development organized by Gauhati University in association with UNICEF, 9 June 2017.

TALKS BY THE FACULTY ABROAD AND IN INDIA

A Bora delivered a talk, Print Media and Communication for Development as part of a Panel discussion, at Communication and Journalism Department of Gauhati University, 24 January, 2017.

A Bora delivered a talk, Media and Society, at Refresher Course for College / University held by Cultural Studies Department of Tezpur University, 10 January, 2017.

Joya Chakraborty delivered a talk, Health and Nutrition Communication: Bringing acceptability of health services, as part of a Panel discussion, at Communication and Journalism Department of Gauhati University, 24 January, 2017.

P Anbarasan delivered a talk, Tuning Journalism Education to the Changing Dynamics of the Profession Today, at Tezpur University in a GIAN programme on Journalism and Society, 10 January , 2017.

P Anbarasan delivered a talk, Reading the Journalistic Ethical Practices today by applying Framing, at Tezpur University in a GIAN programme on Journalism and Society, 10 January , 2017.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

GIAN workshop, Communication for Development with Prof. David Mould, from Centre for International Studies, Ohio University, USA as the international resource person, 6-16 June 2016

The Department hosted a Fulbright Scholar under Scholar-in-Residence programme – Prof Y Kalyango, Jr., Director, Institute of International Journalism, EW Scripps School of Journalism, Ohio University, Athens, Ohio, USA, 3 October –13 November, 2016.

GIAN workshop, Journalism & Society with Prof Y Kalyango, Jr., Director, Institute of International Journalism, EW Scripps School of Journalism, Ohio University, Athens, Ohio, USA as the international resource person, 2 – 13 January, 2017

National Seminar, Media Literacy in the Age of New Media, sponsored by ICSSR Delhi, 30 - 31 January, 2017



National Seminar, Communication Education 3.0: Synergizing Technology and Development, sponsored by UNICEF, 25-26 March, 2017.

Three day Workshop, Women and Violence for students of MA C4D programme Dr. Monisha Behal and Ms. Sheetal Sharma from North East Network, Guwahati as resource person, 20-31 August , 2016

Three day Workshop, Health Communication for students of MA C4D programme with Dr. S Kumar, Communication for Development Consultant, Mumbai as resource person, 17-19 October 2016

Three day Workshop on Creative Thinking for students of MA MCJ programme with Mr. S Rufus, EPIC, New Delhi as resource person, 1-3 November 2016

One day Workshop, Development Communication for students of MA C4D program with Mr. Sam Rufus, EPIC, New Delhi. as resource person, 4 November 2016

Three day Workshop, C4D's practical application in Development sector for students of MA C4D programme with Dr. Arbind Sinha, Shanti Business School as resource Person 24-26 November 2016.

DISTINGUISHED VISITORS TO THE DEPARTMENT:

Prof A S Balasubramanya, Professor Emeritus, Bangalore University
Dr. A Sinha, Director General, Shanti Business School, Shela, Bopal
Ms. Akansha Sood, independent filmmaker
Prof B Das, Centre for Governance, Media and Culture, Jamia Millia Islamia, Delhi
Prof B P Sanjay, Pro Vice Chancellor and Professor Communication, University of Hyderabad



Mr B Hazarika, Director of film *Kothanodi*
Prof B Balaswamy, Department of Mass Communication, Osmania University, Hyderabad
Prof C Padmaja Shaw, Professor (Retd.), Osmania University
Prof D Mould, Professor Emeritus, Media Arts and Studies, Ohio University, USA
Prof D V R Murthy, Professor & Chairman, Andhra University
Prof G. Ravindran, Professor & Head, MCJ, Madras University
Prof Gita Bamezai, Professor, IIMC, New Delhi
Prof G P Pandey, Professor & Head, MCJ, Assam University, Silchar
Prof Md. G Rahman, Chief Information Commissioner, Bangladesh, and Professor Media Studies, Dhaka University
Prof K Thakur, Adjunct Faculty & Research Coordinator, FLAME School of Communication, Pune
Dr. Maushumi Bhattacharjee, Associate Professor, Centre for Mass Communication, Viswa Bharati University
Dr. Monisha Behal, Executive Director, North East Network
Prof M Chatterjee, Professor, Indian Institute of Mass Communication (IIMC), Dhenkanal, Odisha
Ms. M Barkataki, Radio Jockey Prof N Usha Rani, Professor, University of Mysore
Dr. Nirmala Mani Adhikary, Associate Professor, Kathmandu University, Nepal
Mr. N Ramakrishnan, Director, Ideosync Media Combine, New Delhi
Mr. N Mazumder, independent filmmaker
Ms. Rania Elessawi, C4D Specialist, UNICEF
Prof R M Pathak, former Director, MM Institute of Journalism, MG Kashi Viswavidyalaya, Varanasi
Prof. Sanjoy Hazarika, former Director, Centre for North-East Studies, Jamia Millia Islamia, Delhi
Dr. Saswati Gongopadhyay, Associate Professor, Mass Communication, University of Burdwan
Mr. S Sur, Senior News Editor, DDK, Kolkata
Dr. Surbhi Dahiya, Associate Professor, IIMC
Prof S Basu, Professor, JMC, Banaras Hindu University
Mr. S Kumar, Independent Consultant, Development Communication
Sam Rufus, Learning Person, EPIC Enriching People In Creativity, New Delhi
Dr. U S Pandey, Asst. Professor and Head, Dept. of Journalism & Mass Comm. Surendranath College for Women, Kolkata
Dr. Vartika Nanda, Assistant Professor, LSR College, Delhi
Prof V Belavadi, Professor, University of Hyderabad
Prof Y Kalyango, Professor and Director of International Institute of Journalism, Ohio University, USA, ,

OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY:

Community radio and community video programmes developed by MA C4D students in collaboration with the villagers of Napaam and Amolapaam villages adjacent to the University. Volunteers from within the community were trained in video recording and editing techniques as

part of the initiative. The groups made videos on issues like, 'Yoga for good health', 'Rural livelihood', 'Rural sanitation', 'Education for girl child', 'Community Culture', 'Agricultural practices' and the like. Community screening of the videos were also done to ensure community participation and foster dialogue.

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE
NET : 04

NOTABLE PLACEMENT [2016-2017]**:**
Bindita Singha appointed as Content Editor in Jupiter Infomedia, Kolkata.
Dycil Basumatary appointed as Business Development Manager in Miracle solutions group, Bangalore.
Shivam Mahate appointed as Product Photographer in Indiamart (Emotion Digital Pvt. Ltd.), Mumbai.
Munmita Boruah appointed as Public Relation Associate in Aaranyak , Guwahati.
Puja Saikia Thengal appointed as Field Journalist in My News International, Golaghat.
Farhat Ahmed appointed as Social Media Specialist in TANGENT PR, Guwahati.
Riya Das appointed as Media Researcher in ETV Network, Hyderabad.
Mousuna Gogoi appointed as Assistant Professor in North Lakhimpur College, North Lakhimpur.
Meghna Dutta appointed as Online Trainee Sub Editor in Indian Express, Delhi
Gaurav appointed as Copy Editor/ Designer in Eastern Chronicles, Guwahati
Nandita Das appointed as Project Coordinator in Doctors For You, Guwahati
Chayanika Bhagawati appointed as Coordinator in The Sentinel, Guwaghati
Prativa Ghosh appointed as Business Development Manager in Miracle Solutions Group, Bangalore
Ritushree appointed as Online Video Editor in Mynews International, Golaghat
Shaheen Saikai appointed as Content Editor in Silicon India, Bangalore
Uddipana Goswami appointed as Media Researcher in ETV Network Pvt. Ltd, Hyderabad



THE FACULTY OF THE DEPARTMENT:

Professor of Eminence

S K Behera, PhD (Berhampur)

Specialization/Areas of Interest: Communication Theory and Research, Gender and Media

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Professor

A Bora, PhD (Gauhati)

Head of the Department

Specialization/Areas of Interest: Journalism, Public Relations and Corporate Communication, Development Communication, Community Radio, Science Communication, Feature Writing, Media literacy

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Associate Professors

P Anbarasan, PhD (JNU)

Specialization/Areas of Interest: Media Studies, Cultural and Subaltern Studies, International Communication, Reporting & Editing

E-mail: anbu@tezu.ernet.in

Joya Chakraborty, PhD (Hyderabad)

Specialization/Areas of Interest: ICT for Development, Information and Knowledge Societies, Sociology of communication technology and media, gender and ICT, Children and media participation, Community media

Email: jc@tezu.ernet.in

U K Pegu, PhD (Jamia Millia Islamia)

Specialization/Areas of Interest: ICT Implications on Society, Science Communication, Film Studies, and Media Analysis etc.

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Assistant Professors

A Nagraj, PhD (Tezpur) On-Lien

Specialization/Areas of Interest: Electronic Media Production, Documentary Filmmaking, Television Production and Advertising

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P J Daimari, MA (Tezpur)

Specialization/Areas of Interest: Film Studies, Photography

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Kapou Malakar, MA (Jamia Millia Islamia)

Specialization/Areas of Interest: New Media; Political and International Communication; Culture, media and society; Communication Principles and practices; Convergent Journalism; Online Journalism; Multimedia Journalism

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Anjuman Borah, MA (Tezpur)
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M Deori, MA (Tezpur)
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Junali Deka, PhD (Assam)
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L Bhuyan
MTS

Department of Social Work

THE DEPARTMENT

The Department of Social Work was established in 2014 to respond to the dearth of good Social Work schools and trained social work professionals in the Northeastern region of India (NER). The Department follows a rigorous theoretical and field-based pedagogy with a special focus on the issues of the NER. For now, the Department offers a Master's degree programme and follows a credit-based continuous evaluation system. Students from multi-disciplinary backgrounds are trained in the core values and skills of the social work profession. The curriculum is designed to train students with the generic approach of social work, which leads to the conduct of research in emerging areas of social work profession and issues related to the NER. Through the fieldwork practicum (a crucial and integral part of social work training), the students are exposed to different economic, socio-cultural and political realities of the region. Additionally, the students are exposed to various social welfare programmes implemented at the grassroots level through the community, NGOs and government settings. The students in the Department are also encouraged to carry out internship and volunteering activities during the semester breaks in profit and non-profit sectors and other various government departments. Graduates from the Department are envisaged to be placed in various positions in social welfare organisations, in non-profit and private sectors, and in academics.

Academic programmes and Student intake

Academic Programme	Student Intake
MA in Social Work	18

Research projects, ongoing and new

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
An Assessment of Conflict as A Social Determinant of health in The North-East Region of India	Indian Council of Medical Research	15.83 lakhs	Two Years	Veda Yumnam





PUBLICATIONS

In National and International Journals

1. Govind, M. & Kalarivayil, R. Assisted Reproductive Technologies and Socio-ethical Issues: Analysis of Risk Perception among the Different Social Groups in India. *Research Process* **4** (2016).
2. Virginius, X. The Global Indigenous Peoples Movement : It's Stirring in India. *Journal of Law, Property, and Society* (2016).
3. Virginius, X. Tribes and Indian National Identity: Location of Exclusion and Marginality. *Brown Journal of World Affairs* **23** (2016).

Conference proceedings

4. Baishya, P. & Maji, T. K. *Dynamic mechanical analysis and thermal properties of Citric acid cross-linked wood starch nanocomposites* in *National Seminar on Contemporary Developments in Chemical Sciences (CDCS-2015)* (Tezpur, 2015).

Books and Book Chapters

5. Yumnam, V. & Dasgupta, R. *Conceptual Issues of Conflict as a Social Determinant of Health: Explorations from Manipur. Social Determinants of Health: Concepts, Processes, Indicators* (eds Nambiar, D. & Muralidharan, A.) (Springer, Delhi).

SEMINARS/CONFERENCES/WORKSHOPS/ SYMPOSIA ATTENDED

International and National

6. Carpenter, D. *presented a paper on Women Panchayat Leaders:Voices from Assam.India* Department of Public Administration, University of Rajshahi, Bangladesh: in International Conference on Governance and Development: Asian Perspective, 2017.
7. Carpenter, D. *presented a paper on Integrated Social Work Practice Policies for Crime Against Women in Assam* Department of Social Work, Jamia Milia Islamia, New Delhi: in International Conference on Social Work Education and Practice, 2017.
8. Kalarivayil, R. *The Tale of Three Technologies : Examining Inequality in Health Research in India.* Universitas Padjadjaran, Bandung, Indonessia: 14th GLOBELICS International Conference 2016, 2016.

9. Saha, A. *workshop on Massive Open Online Course* Teaching Learning Centre,Tezpur University: organized by Teaching Learning Centre, under Centre of Excellence for Curriculum and Pedagogy, 2016.
10. Saha, A. *attended the orientation course of National Service Scheme (NSS) organized by Indian Institute of Entrepreneurship, Guwahati* Teaching Learning Centre,Tezpur University,sponsored by the Ministry of Youth Affairs & Sports, Govt. of India: organized by Teaching Learning Centre, under Centre of Excellence for Curriculum and Pedagogy, Nov. 5.
11. Saha, A. *delivered a talk on Contribution of ICT in Developing Rural Disability* at Assam University, Silchar: in the International Seminar & Youth Convention on Digitalization and Rural Development in North East India, 2017.
12. Xaxa, V. *Tribes in India. Why Exclusion Persists?* Tezpur University, Napaam, Tezpur, Plenary Session on Class, Caste, Tribes and Exclusion. All Indian Sociological Conference. Tezpur University, 2016.
13. Xaxa, V. *Religious Identity, Ritual Crossings and Tribes. Workshop on Rethinking Religious Synthesis in India. An Endangered Cosmopolitan Alternative* University of Technology, Sydney: s, June 5.
14. Xaxa, V. *Keynote Address* Dept. of Sociology, Mumbai University: National Seminar on Tribes in Transition: Issues and Challenges in the Era of Globalization, 2017.
15. Xaxa, V. *Keynote Address* Jamia Milia Islamia, New Delhi: National Seminar on Tribes in Transition II: Reaffirming Indigenous Identity through Narratives, 2017.
16. Xaxa, V. *Keynote Address* Dept of Social Work, Viswa Bharti University: National Seminar on Contextualizing Conflict, Its Resolution and Peace Building Initiatives in India, May 4.
17. Xaxa, V. *Keynote Address* Indian Institute of Advanced Study, Shimla: National Seminar on Anthropological Histories and Tribal World in India, 2017.
18. Yumnam, V. *delivered a talk on Scope of Social Work Field Practicum in The nOrth-East India* RGU, Arunachal Pradesh: at the National workshop, Transacting Students Engagement for Promoting Rural Resilience, Mar. 2.



THE FACULTY OF THE DEPARTMENT

Professor
V Xaxa**,** PhD (IIT, Kanpur)
Head of the Department
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Assistant Professors
A Saha, PhD (NIMHANS, Bangalore)
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Veda Yumnam, MPhil (JNU)
Specializtion/Areas of Interest: Social Determinants of Health, Disaster Management, Nutrition, Social Epidemiology of HIV/AIDS, Health Systems Research.
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R Kalarivayil, PhD (JNU)
Specializtion/Areas of Interest: Innovation Studies, Science and Technology in Rural Development.
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Deepshikha Carpenter, MSW (MLCU, Shillong)
Specializtion/Areas of Interest: Areas of Interest:Social Work Education, Women's Studies, Disability, Crime and Violence
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Namami Sharma, MPhil (Delhi)
Specializtion/Areas of Interest: Environment and Ecology, Tribal Studies
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Prerana Banik, MPhil (TISS, Mumbai)
*Specializtion/Areas of Interest:*Food security, Gender and livelihood, Labour rights, Inclusive policies and development, Marginalised group and social development
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Department of Sociology

THE DEPARTMENT

The Department of Sociology was established in 2006 with a Master's programme and, subsequently, it launched a PhD programme in 2008. The Department is a recipient of the UGC Special Assistance Programme (2016-2021) and is emerging as one of the important centers of learning and research in sociology in India. The faculty members of the Department have a wide range of interests and expertise and are currently engaged in research in areas such as Development, Education, Environment, Ethnic Conflicts, Governance, Health, Migration, Social Movements and Science Studies. This diversity is reflected in their publication, completed and ongoing research projects, seminars and conferences, as well as in the teaching and learning efforts in the Department. The Department also organized the 42nd All India Sociological Conference in the year 2016 on the theme of 'Rethinking Sociological Traditions in India'.

The Department is dedicated toward creating competent and socially sensitive graduates through rigorous teaching programmes and extension activities. Within a short period of time the students have been able to make a mark at the national level which is attested by the fact that around 83 graduates have till date cleared UGC NET/JRF exams. The alumni of the Department are employed in various capacities in different sectors. These include faculty positions in universities, colleges and research positions within the government institutions and national and international development organizations.

Academic programmes and student intakes:

Academic Programme	Student Intake
MA in Sociology	38
PhD	Intake variable, 05 in the Academic year 2016-2017

Research projects, ongoing and new

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Documentation of Case studies on GPDP in Assam And Social Protection Schemes in Tea Gardens of Assam	UNICEF, Guwahati	13.5 lakh	October 2016 - December 2016	A K Das
UGC SAP-DRS-I	UGC	40.00 lakh	2016-2021	C K Sharma
Attempting at Social Inclusion through Constitutional Amendments: Efficacy of 73rd and 74th Amendments in the context of India's North-East.	ICSSR	37.00 lakh	2012-2017	R Deka

PUBLICATIONS

In National and International Journals

1. Barua, P. & Kikhi, K. Culinary Traditions, Aesthetics and Practices: Constructing Cultural Identity of Amri Karbis of Northeast India. *Journal of Northeast Indian Cultures (JNEIC). An International Journal of Assam Don Bosco University* **3,** 63–77 (2016).
2. Choudhury, N. & Kikhi, K. Sociological Perspective on Mental Health of Women. *Indian Journal of Integrated Research and Analysis (IJIRA) (A Peer Reviewed Refereed Journal)* **1,** 1–7 (2017).
3. Choudhury, N. & K.Kikhi. Mental Health, Gender and Society. *The Social Epidemiological Connect, Social Change and Development* **12,** 69–80 (2016).
4. Das, S. & Devi, R. Re-Looking at the Commons: An Ethnographic Account of a Village. *Man and Society. A Journal of North-East Studies* **12** (2016).
5. Dowarah, K. & Kikhi, K. Health Status, Health Policy and Lisu Tribe of Northeast India: Critiquing Implementation of Schemes, Is it Willful Negligence or Failure? *Anthropology Today: An International Peer Reviewed NEIRA Journal* **2,** 50–64 (2016).
6. Dutta, P. & Kikhi, K. Folk Practices of the Khasi Tribe: A Description of Jingrwai Iawbei in Kongthong Village. *Sociological Bulletin* **65,** 237–252 (2016).
7. Kikhi, K. & Husca, A. An Insight into the (Unique) Heritages and Traditions of Sumi Nagas: What can be Preserved? *Anthropos India (Bi-Annual International Journal of SANSKRITI)* **2,** 187–203 (2016).
8. Kikhi, K. Doing (Scientific) Research in Social Sciences: Relating Theory and Field. *Dimapur Govt. College Journal* **1,** 59–80 (2016).
9. Thepfusalie, T. The Questions on Women's Rights to Landed Property and Customary Law in Nagaland: A Study of Angami Community. *Tetso Interdisciplinary Journal* **4** (2016).
10. Thepfusalie, T. Contemporary Agrarian Question in Nagaland: Perspectives from Angami Community. *Sociological Bulletin: A Journal of Indian Sociological Society (ISS)* (2017).
11. Xaxa, V. The Global Indigenous Peoples Movement : It's Stirring in India. *Journal of Law, Property, and Society* **2** (2016).
12. Xaxa, V. Tribes and Indian National Identity: Location of Exclusion and Marginality. *Brown Journal of World Affairs* **23** (2016).

Conference proceedings

13. Sharma, C. K. *Building India's Future Powerhouse: Discourses of Development and Popular Resistance in Northeast India* in *National Conference on Reframing the Environment: Resources, Risk & Resistance in Neoliberal India, Ed. Manisha Rao)* (University of Mumbai Press, Mumbai, 2016), 117–133.

Books and Book Chapters

14. Das, S. & Devi, R. *Relooking at the Commons: An Ethnographic Account of a Village* Winter (2016).
15. Deka, R. *Violation of Women and Child Rights in India* (ed Borah, R.) (DVS publishers, New Delhi, 2017).
16. Devi, R. *Caste based exclusion of the Damais among the Nepali community in Assam and issues of their Marginalisation* (ed Dhanaraju, V.) (Rawat Publications, New Delhi, 2017).
17. Kikhi, K. *Introduction to Sociology* (Assam Don Bosco University Official Curriculum. Guwahati, DBU Global, 2016).
18. Kikhi, K. & Ghosh, J. *Intricate Interface of Land, Identity and Development in Nagaland* (ed et. al, L. R.) 50–64 (Heritage Publishing House, Dimapur, 2016).
19. Kikhi, K. *Politics in Nagaland: From Military to Electoral Democracy* (eds Humanshu Roy, M. S. & Chouhan, A.) 598–624 (Primus Books, New Delhi, 2016).
20. Nongbri, T. & Shimreiwung, A. S. *Migration, Identity and Conflict: Lived Experiences of Northeasterners in Delhi* (Rawat Publications, Jaipur, 2016).
21. Ray, S. *Unsettling the Science of Caste* (eds Lindberg, S. & Webster, N.) chap. Social Change Special Issue on Caste (Sage).
22. Sharma, C. K. & Sarma, I. *The Forest Villages and the Forest Dwellers of Assam and the Forest Rights Act 2006* (ed Datta., K.) 101–122 (B.R. Publishing Co., Delhi, 2017).
23. Sharma, C. K. *Political Economy of the Conflicts along the Assam-Arunachal Pradesh Foothill Border (Monograph)* (Action Aid (funded under European Union Project entitled, Conflict Mitigation through Creation of Regional Hub for Natural Resources in North East India, 2017).
24. Sharma, C. K. *Immigration, Indigeneity and Identity: The Bangladeshi Immigration Tangle in Assam* (ed Gogoi., D.) 89–113 (Routledge, London/Delhi, 2016).
25. Thepfusalie, T. *Poetics and Politics of Ethnic Identity in the Colonial and Post-Colonial Northeast India* (Heritage Publishing House, 2016).



SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED
International and National

A K Das attended the 42nd All India Sociological Conference, Rethinking Sociological Traditions of India, organised by the Dept. of Sociology, Tezpur University, 28-30 December, 2016.

A S Shimreiwung attended a one Day national Seminar, Society and Social Change in Northeast India, organized by North East India Studies Programme, School of Social Sciences, JNU, New Delhi, 10 March, 2017.

C K Sarma attended the 42nd All India Sociological Conference, Rethinking Sociological Traditions of India, organized by the Dept. of Sociology, Tezpur University, 28-30 December, 2016.

K Kikhi attended the UGC SAP Seminar on *Land Questions in Northeast India,* Issues and Modes of Land-Ownership Patterns and Land-Alienation in Northeast India, organized by Department of Sociology, Tezpur University, 30 March, 2017.

K Kikhi attended a national Seminar on *Identity, Politics, Ethnic Movements and Regionalism in the Context of India's North East.* OKDISCD, Guwahati, 24-25 March, 2017.

K Kikhi attended the 1st Decennial national Conference on *Re-Imagining Social Science Researches: Global Context, National Perspectives and Regional Priorities.* SANSKRITI, Guwahati in collaboration with Institute of Indian Culture, Mumbai, Sanskruti, Hyderabad & Sanskruti Kendra, Sundargarh, 18-20 November, 2016.

K Kikhi attended a UGC sponsored national Seminar on *Heritage Discourse and the Politics of Identity: In the Context of Nagaland and Beyond, organized by* Department of History, Tetso College in Collaboration with Heritage Publishing House, Dimapur, 23-24 September, 2016.

N Goswami attended the All India Sociological Society Annual Conference, organized by Department of Sociology, Tezpur University, December 2016.

Sarmistha Das attended the All India Sociological Society Annual Conference, organized by Department of Sociology, Tezpur University, December 2016

Sarmistha Das attended an international Seminar on *Governance and Development,* organized by the department of Public Administration, University of Rajsashi, Bangladesh, January, 2017

Sarmistha Das attended a national Seminar on *Land Questions in Northeast India,* organized by Department of Sociology, Tezpur University, March 2017

S Ray attended an International Conference on Modern Matters: Negotiating the Future in Everday Life in South Asia, Lund University, Sweden20-22 September 2016.

T Thepfusalie attended an International Seminar on Governance, Development and the State in Contemporary Times, organized by the Department of Sociology, Tezpur University in partnership with UNICEF, Guwahati & MACRONEI-MAKAIAS, Kolkata, March 9-12, 2016

X Virginius attended the All Indian Sociological Conference, Tezpur University, 27-30 December 2016.

X Virginius attended a workshop on Rethinking Religious Synthesis in India. An Endangered Cosmopolitan Alternative, organized by University of Technology, Sydney, 5-6 January 2017.



TALKS BY THE FACULTY ABROAD AND IN INDIA

A S Shimreiwung chaired an Academic Session on "Land Questions in Northeast India", a UGC-SAP Seminar on "Land Questions in Northeast India", organized by Department of Sociology, Tezpur University, on March 30, 2017.

C K Sharma delivered the 7th Narendradev Shashtri Memorial Lecture, Asomiya Sahiya Aru Sangvadikata, Sonitpur Press Club, 10 December, 2016.
C K Sharma delivered the 6th Dhirendra Nath Sarma Memorial Lecture, Samuhik Sachetanata Aru Sampratik Asomor Gramya Samaj, Jorhat, 3 December, 2016.

C K Sharma delivered the Plenary talk, Revisiting Protest Movement in British India: The Context of Assam and the North East India" in the International Conference on Rethinking Colonialism and Globalisation: The Historical Saga of India from the 19th century onwards, Dakhsin Kamrup College, Mirza, 22 April, 2016.

K Kikhi delivered a talk, Why the Social Researchers uses Statistics & Integrating Theory and Field (Ethnography). Workshop on Statistics in Society, Department of Statistics, Gauhati University, 28-29 March, 2017.

K Kikhi delivered a talk, Naga Society in Transition, UGC-Human Resource Development Centre, Gauhati University, 9 February, 2017.

K Kikhi delivered a talk, Research Methodology. NCS and NPS Probationers: Government of Nagaland,. Administrative Training Institute, Kohima, 20-22 July, 2016.

K Kikhi delivered a talk, Higher Education in Global Context. Nagaland College Principal's Forum General Conference, SM College, Dimapur, 27 June, 2016.

K Kikhi delivered a talk, Theory and Field Research. National Workshop on *Research Methodology in Social Sciences*. Department of Sociology, Dibrugarh University, 23-29 May, 2016.

K Kikhi delivered a talk, Doing Ethnography and Field Research in Social Sciences, ICSSR sponsored *Research Methodology Workshop*. Assam Don Bosco University, Guwahati, 3-12 April, 2016.

Sarmistha Das delivered the 1st Zamira Begum Rehman Memorial Lecture, Women Empowerment, at Kabilabad High School, Naapam, Tezpur, Assam, 30 November, 2016.

V Xaxa delivered the Keynote Address at National Seminar on Tribes in Transition: Issues and Challenges in the Era of Globalization, Dept. of Sociology, Mumbai University, 19-20 January 2017.

V Xaxa delivered the Keynote Address at National Seminar on Tribes in Transition II: Reaffirming Indigenous Identity through Narratives, Jamia Milia Islamia, New Delhi, 27-28 February, 2017.



V Xaxa delivered the Keynote Address at a National Seminar on Contextualizing Conflict, Its Resolution and Peace Building Initiatives in India, Dept of Social Work, Viswa Bharti University, 4-5 March 2017.

V Xaxa delivered the Keynote Address at National Seminar on Anthropological Histories and Tribal World in India. Indian Institute of Advanced Study, Shimla, 27-29 March 2017.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

National Seminar, 42nd Annual Conference of Indian Sociological Society on Rethinking Sociological Traditions in India, Tezpur**,** 27- 30 December 2016

UGC SAP Seminar on *Land Questions in Northeast India*, 30 March, 2017

DISTINGUISHED VISITORS TO THE DEPARTMENT:

Dr. A Romanowicz, Jagiellonian University, Poland
Prof. Sujata Patel, Hyderabad University
Prof. S Baruah, Bard College, New York
Prof. S Rao, Hyderabad University

AWARDS & HONOURS RECEIVED BY THE FACULTY/ RESEARCH SCHOLARS/STUDENTS:

A J Mahanta has received 1st prize in Dr. B. R. Ambadkar National Essay Competition in Assamese
K Kikhi was choosen for the Ambedkar Chair Professorship at Tezpur University for five years.

OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY

The department is UGC SAP-DRS (I) funded and is being coordinated by C K Sharma.
The department is successfully running the Maulana Azad Centre for Research on Northeast

India (MACRONEI), Tezpur University (A Joint initiative of Maulana Abul Kalam Azad Institute of Asian studies, Kolkata and Tezpur University).

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE [2016-2017]

NET-LS: 20
JRF: 09

THE FACULTY OF THE DEPARTMENT:

Professor of Eminence

V Xaxa, PhD (IIT, Kanpur)
Specialization/Areas of Interest: Agrarian Studies, Plantation Labour, Indigenous Peoples, Development Studies
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Professors

C K Sharma, PhD (Delhi)
Specialization/Areas of Interest: Development, Environment, Social Movements, Ethnicity, Migration, Culture, Society and Politics of Northeastern India.
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K Kikhi, PhD (NEHU)
Head of the Department
Specialization/Areas of Interest: Research Methodology, Gender and Society, Sociology of Northeast India
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Associate Professors

R Deka, PhD (Dibrugarh)
Specialization/Areas of Interest: Sociological Theories, Sociology of Movement, Agrarian Sociology.
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Assistant Professors

A K Das, PhD (Tezpur)
Specialization/Areas of Interest: Sociology of Development, Research Methodology in Social Sciences, Sociology of Health and Illness, Sociology of Governance, Sociology of Religion
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S S Sumesh, PhD (Kerala)
Specialization/Areas of Interest: Research Methods, Social Stigma, Social Exclusion, Environment and Movements
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Nirmali Goswami, PhD (IIT Kanpur)
Specialization/Areas of Interest: Sociology of Education, Education Policy of India, Identity Politics, Multiculturalism, Sociology of Language
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Sarmistha Das, PhD (Tezpur)
Specialization/Areas of Interest: Agrarian Studies, Sociology of Family, Marriage and Kinship
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Pamidi Hagjer, MA (JNU)
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Office Staff
Pranita S Talukdar
Assistant

J Das
Multi-Tasking Staff



Centre for Assamese Studies

THE CENTRE

The Centre for Assamese Studies of Tezpur University completed five years since its inception on 7thJune 2011. The prime aim of the Centre is to undertake and foster intensive and innovative study and research in Assamese Language, Literature and Culture in their varied dimensions adopting a wide perspective and an all-encompassing worldview.

Academic Activities

At present one Inter-disciplinary (CBCT) course of 3 credits is conducted at the Centre i.e. Communicative Assamese. Part from this, the centre is offering two MIL courses on Assamese of 2 and 3 credits respectively for students enrolled in the integrated MA, BA and B.Ed courses.

Academic Programmes

The Centre has introduced a PhD programme under the Dr. Bhupen Hazarika Fellowship.

Student intake

Academic Programme	Student Intake
PhD	Intake variable 02 in the Academic year 2016-17



SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

International and National

Juri Dutta presented a paper, Representing Freedom Struggle: Reading Ideological Conflicts in Select Assamese Fiction" in the National Seminar, Literary Representation of the Freedom Struggle in Assamese and Sindhi Languages organized by Department of Modern Indian Languages and Literary Studies, Gauhati University in association with National Council for Promotion of Sindhi Language (NCPSL), 4 and 5 October, 2016

Juri Dutta presented a paper, Theorizing 'Ethnicity', Playing 'Ethnic' and Writing 'Ethnicity': Reading Multiple Meanings of the term 'Ethnicity' in the Light of a few Personal Anecdotes, in an international seminar, Orality: The Quest for Meaning organized by the Department of English, Bodoland University, Kokrajhar, 26 - 27 May, 2016.

Juri Dutta presented a paper, Bihur Utsa, Bihu Utsav aru Utzapon: Oitijyar Punoruddhar, Atmaporicayar Cetana aru Bicchinna Paripacchik (Bihu, Its Source, the Bihu Festival and Bihu Celebration: Heritagization of Bihu, Identity Consciousness and Detached Environment) in a National Seminar on Performing Arts of Assam in the Context of Globalization: Heritage, Transformation and Identity organized by DCB Girls' College, Jorhat in collaboration of Heritage Assam, Jorhat, Assam, 23 and 24 June, 2017

Juri Dutta presented a paper, Teaching Communicative Assamese and Validation of Linguistic and Communicative Oral Language Tests: A Few Anecdotes in 23rd Himalayan Languages Symposium organized by Department of English and Foreign Languages, Tezpur University, 5 - 7 July, 2017

TALKS BY THE FACULTY ABROAD AND IN INDIA

R K Dev Goswami delivered a special Lecture, The Poetry of Ajit Barua, at Kanaklal Barua Auditorium, Guwahati, 7 April, 2016.

R K Dev Goswami delivered The First K.K.Handiqui Memorial Lecture, Anandaram Dhekiyal Phukan, Founder Member of the Bethune Society, and Modernity in Assam, organized by the Assam Academy, Guwahati, Pandit Tirthanath Sarma Hall, Assam Academy, Chandmari, Guwahati, 20 July, 2016.

R K Dev Goswami was the invited speaker, Archiving Memory: A Tribute to Suryya Kumar Bhuyan, at the National Seminar, Suryya Kumar Bhuyan & Art of History Writing in Modern India, Assam India International Centre (IIC), New Delhi, 19 August, 2016.

R K Dev Goswami Chaired a session and gave a talk on K.K.Handique and comparative Poetics in India, at an International Seminar, Beyond Postcolonial Hermeneutics: Comparative Perspectives organized by the School of Translation Studies & Training, IGNOU, New Delhi, at Babasaheb Ambedkar Convention Centre on 3-5 March, 2017.

S P Deka was an Invited Guest at Galpapath Aru Mukha Mukhi Anusthan (Story Reading and Interaction Programme) organised by Charan Bilar Kabita, Morigaon, 25 September, 2016.

S P Deka was invited to participate, the Brahmaputra Literary Festival, organized by the National Book Trust in collaboration with Publication Board, Assam and Department of Education, Government of Assam held at Guwahati, Assam, 28-30 January 2017.



SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE CENTRE

An interactive session with artiste Sudakshina Sarma on Assamese Bhakti Music, 16 March, 2017.

An interactive session on Assamese Bhakti Music featuring eminent author Nirupama Borgohain and distinguished artiste Mridula Das, 22 February, 2017.

A Special Lecture on Perspectives of Srimanta Sankaradeva and Sri Sri Madhavadeva by distinguished litterateur and former President of Assam Sahitya Sabha, Dr Lakshminandan Bora, 3rd of February 2017. On the same occasion, the distinguished anthropologist Professor Irshad Ali unveiled "Sarvagunakara", a portrait of Srimanta Sankaradeva based on his images.

A Special Lecture on Srimanta Sankaradeva and Assamese Muslims by distinguished Assamese poet, critic and scholar, Professor M. Kamaluddin Ahmed, Department of Assamese, Guwahati University, 11 November, 2016.

A Special Lecture on Manuscript Writing in Early Assam: Sancipat, Mahi and Hengul-Haital by Prof Robin Dutta, 10th November, 2016.

An interactive session on Translating Newton's Principles into Assamese by Prof. Jayanta Kumar Sarma,10 November, 2016.

One Day Workshop was organized on 18th Century Assam-Manuscripts with Shri Dhanjit Talukdar of K K Handiqui Library, Gauhati University as resource persons, 8 November 2016.

Seventh Srimanta Sankaradeva Lecture by Professor Baniprasanna Misra, Former Director, Centre for Himalayan Studies, University of North Bengal, 15 September, 2016.

Fifth Foundation Day was celebrated with two lectures on "Rewriting the History of Assamese Literature: the 18th Century" by Dr. Satish Ch. Bhattacharya and "Rewriting the History of Assamese Literature: the 19th Century - Miles Bronson and His Times" by Professor Prasanta Kumar Das. On this occasion the entire handwritten personal diaries of Sahityakandari Padmanath Gohain Baruah (1871-1946) were formally handed over to the Centre for Assamese Studies, Tezpur University, 7 June, 2016, for digitization.

DISTINGUISHED VISITORS TO THE CENTRE

Professor B Barua, Department of Philosophy, Indian Institute of Technology, Delhi.

Professor B Misra, Former Director, Centre for Himalayan Studies, University of North Bengal.

Professor I Ali, distinguished anthropologist.

Professor K Ahmed, Department of Assamese, Gauhati University, distinguished Assamese poet, critic and scholar.

Dr L Bora, distinguished litterateur and former President of Assam Sahitya Sabha.

Ms Mridula Das, Distinguished artiste.

Ms Nirupama Borgohain, Eminent author.

Ms Sudakshina Sarma, Distinguished artiste.

Thomas Richard Blurton, Head, South Asian Section, Department of Asia, British Museum.

AWARDS & HONOURS RECEIVED BY THE FACULTY/ RESEARCH SCHOLARS/STUDENTS

SP Deka was honoured with Yuva Puraskar by Bharatiya Bhasha Parishad for the year, 2015-16, for Assamese language category.

OTHER IMPORTANT ACTIVITIES OF THE CENTRE/ACHIEVEMENTS OF THE FACULTY

The Centre undertook a massive project of digitizing old Assamese manuscripts and printed books. Several rare and old Assamese books and manuscripts, including the first edition of The Kirtana and the Namaghosa published by Haribilas Agarwala in 1876, rare sanchi-bark manuscripts of Dasam Skandha Bhagavata (Barpeta Satra), Ananta Kandali's Ramayana (Barpeta Satra), Namaghosa (Barhampur Binapani Library, Jamuguri), the first edition of Hemchandra Barua's Hema Kosa (1900), the personal diaries of Padmanath Gohain Baruah (1871-1946), K.K.Handiqui (1898-1982) many of the hand-written manuscripts of Jyotiprasad Agarwala (1903-1951), Chandrabala Barua (1907-1983), Maheswar Neog (1915-1995), Praphulladatta Goswami (1919-1994) and others, and important official letters and documents relating to the establishment of Gauhati University in 1948 have already been digitized. Digitization has also been completed for the many books from local libraries, like the Tezpur Government MV School Library, Barhampur Binapani Library, Jamuguri and Media Archives, Guwahati, particularly its Benudhar Sarma collection.







THE FACULTY OF THE CENTRE

Chair Professor

R K Dev Goswami
Srimanta Sankaradeva Chair Professor and Head, Centre for Assamese Studies
Specialization/Areas of Interest: Sankaradeva Studies, Nineteenth Century Assam, Intellectual History, European Poetry
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Research Associates

Juri Dutta, PhD (RGU)
Specialization/Areas of Interest: Regional Literatures of India, Translation Studies and Comparative Literature
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S P Deka, MA (Guwahati)
Specialization/Areas of Interest: Social History of Assamese Language, Nineteenth century Assam and Creative Writing
E-mail: sanjibd@tezu.ernet.in

Academic Consultant

S C Bhattacharyya
Specialization/Areas of Interest: Palaeography, Manuscriptology, Historiography
E-mail: satish@tezu.ernet.in

Office Staff

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B Bora
MTS
E-mail: biren73@tezu.ernet.in

Centre For Endangered Languages

THE CENTRE

The Centre for Endangered Languages was awarded to the University by the Ministry of Human Resource Development in 2014 with an aproved grant in-aid of Rs 6,00,00,000/ (Rupees six crores) under the 12th plan. This is the nodal centre of the consortium of Northeast India comprising Tezpur University, Rajiv Gandhi University and Sikkim University. The Centre is attached to the Department of English and Foreign Language. The current staff strength of the Centre is 14 with three Assistant Professors, three Research Associates, five Field Assistants, one Technical Staff and two Office Staff. In addition to the Masters programme in Lingusitics and Endangered Languages, the Centre offers two CBCS courses during each semester of an academic session.

Academic programmes

- MA in Linguistics and Endangered Languages

Student intake

Programme	Student Intake
MA in Linguistics and Endangered Languages	20

Major facilities and equipment available

Facilities Available

- Phonetic Lab (With 20 seat capacity)
- Documentation Lab (Recording and Editing Suite)
- Smart classrooms
- Multipurpose Smart Classroom

Equipment Available

- Recorder - Olympus LS-100
- Mobile – Samsung
- Camera (MODEL: COOLPIX P900) -16.0mp, 83x Optical Zoom, Vari-Angle Lcd, Evf With Eye Sensor
- Video Camera (MODEL: HC-X1000) – 4K 60P With Mobility, 20x Optical Zoom, 40x Intelligent Zoom, Leica Dicomar, Wi-Fi, Crystal Engine Pro4k, Dual Sd Slot, Nd Filter
- Video Camera full HD recording (MODEL: HTC-MDH2M) - 21x Optical Zoom, 50x Intelligent Zoom, Crystal Engine Pro, 17.5 Mp, 32gb Internal Memory, 1 Or More Than One Memory Slot, Wide Touch Lcd
- Presonus HP4 Headphone Amplifier
- Presonus Audiobox i2 Soundcard
- YAMAHA 12XU 12 Channel Professional Mixing Console
- Apple iMac Workstation for Recording & Editing
- Denon DN-4SOR Professional Grade Installed Recording Device

MAJOR RESEARCH FINDINGS/RESEARCH AND DEVELOPMENT ACTIVITIES

The faculty, research associates and field assistants of the Centre are divided into six (6) groups for collection of data from some of the endangered languages of the Northeast Region. Till date four (4) field work have been conducted by the 6 groups. The staff went for field work to Manipur, Nagaland, Dima Hasao Area and Tinsukia District of Assam for collection of data. The table below shows the details:

State	Groups	Areas	Chosen Endangered Language
Assam	1	Dima Hasao Area	Biate
	2	Dima Hasao Area	Khelma
	3	Tinsukia district	Tai-Khamyang
		Dima Hasao Area	Krangkhol
Manipur	4	Senapati District	Onaemila
	5	Imphal West	Chakpa Phayeng
		Kangpokpi district	Purum
Nagaland	6	Tuensang district	Yimchunger
	7	Tening Peren district	Liangmai



PUBLICATIONS

In National and International Journals

1. Brahma, D. Adverb Formation Process of the Bodo Language. *Language in India* **16** (2016).
2. Brahma, D. Causative Verb Formation in Bodo Language. *International Research Journal of Humanities, Language and Literature* **4** (2017).
3. Longmailai, M. & Cing, Z. N. Some Phonological features of Dimasa and Tedim-Chin, L. Konnerth, S. Morey, P. Sarmah and A. Teo (Eds). *North East Indian Linguistics: Asia Pasific Linguistics/ANU Press* **7** (2016).
4. Longmailai, M. Genetic Classification of Dimasa, Recent Myths and Facts. *In Litereria, Annual Journal of the Department of English, Gurucharan College, Silcahr* **4** (2016).
5. Widinibou. A note on Liangmai Numerals. *International Journal of Dravidian Linguistics* **14** (2016).
6. Widinibou. The performance of Traditional Religion of the Liangmai naga in North east India: Continuity and Change. *Veda's Journal of English Language and Literature-JOELL* **4** (2017).
7. Widinibou. Language Endangerment with Special refernce to Liangmai Naga. *International Journal of Dravidian Linguistics* **46** (2017).

Books and Book Chapters

8. Longmailai, M. *Syntactic Typology* First (eds Singh, S. K. & Lyngdoh, S. A.) 174–185 (Eastern Book House, Guwahati, 2017).

SEMINARS/CONFERENCES/WORKSHOPS/ SYMPOSIA ATTENDED

International and National

9. Sarangthem., B. *Loanward adaptation in Meitelion* IIT, Guwahati: 22nd Himalayan Languages Symposium (HLS 22) An Intenational Annual Conference for the Himalayan Languages Oraganised by IIT, Guwahati, Oct. 8.
10. Sarangthem, B. *Script and Phonology of Meiteilon: A Diachronic Study* IIT, Guwahati: 38th International Conference of Linguistics Society of India, (ICOLSI 38), Organised by IIT Guwahati, Dec. 10.
11. Shougrakpam, D. *Nominal Compounds in Manipuri* IIT, Guwahati: 38th International Conference of Linguistics Society of India, ICOLSI 38, Organised by IIT Guwahati, Dec. 10.

12. Meitei, E. M. *Morphophonemic changes in Mao* IIT, Guwahati: 22nd Himalayan Languages Symposium (HLS 22) An Intenational Annual Conference for the Himalayan Languages, Organised by Department of Humanities, Social Sciences, Centre for Linguistics Science, and Technology, IIT Guwahati, Oct. 8.
13. Longmailai, M. *Causative Construction in Dimasa* IIT, Guwahati: 22nd International Conference on Himalayan Languages Symposium (HLS 22) at Indian Institute of Technology, Guwahati, Oct. 8.
14. Brahma, D. & Longmailai, M. *Reduplication in Bodo-Garo languages* CIT Kokrajhar: International Seminar on Language Documentation, Its Significance and Scopes in NE India, CIT Kokrajhar, 2016.
15. Longmailai, M. *Language change or Language loss: Linguist vs Native Speaker with reference to Dimasa* Dima Hasao: 2nd National DYF Seminar on Currents Trends, Issues on Dimasa Language, History, and Culture, Maibang (Dima Hasao), 12.
16. Brahma, D. & Longmailai, M. *Compound verbs and serial verbs in Bodo and Dimasa* Ranchi: 5th International Endangered and Lesser-known Languages Conference, University of Jharkhand, Ranchi, 2017.
17. Dutta, N. *Hierarchical Verb Agreement and Inverse marking in Phong* IIT, Guwahati: 22nd Himalayan Languages Symposium (HLS 22) An International Annual Conference for the Himalayan Languages at Indian Institute of Technology, Guwahati, Oct. 8.
18. Bhattacharyya, P. R. *A Reflection of Cultural Attitudes Towards Animal World Through a Folk Tale in Khelma* Sikkim University, Gangtok, Sikkim: National Seminar, organised by Sahitya Akademi and Sikkim University, Gangtok, Sikkim, 2016.
19. Borgohain, T. *Nominalization in Tai-Khamti* IIT, Guwahati: 22nd Himalayan Languages Symposium (HLS 22) An International Annual Conference for the Himalayan Languages at Indian Institute of Technology, Guwahati, Oct. 8.
20. Widinibou. *Word Formation in Liangmai* IIT, Guwahati: 22nd Himalayan Languages Symposium (HLS 22) An International Annual Conference for the Himalayan Languages at Indian Institute of Technology, Guwahati, Oct. 8.
21. Widinibou. *The Performance of Traditional naga in North East India* Assam University, Silchar: International Conference on '(Re)envisaging India's Northeast: Ethnicity, Cultural and Literature'organised by Department of English, Assam University, Silchar, 8.
22. Widinibou. *Oral Narratives as Documents for the Study of Culture Heritage in Liangmai Society* Sikkim University, Gangtok, Sikkim: National Seminar, organised by Sahitya Akademi and Sikkim University, Gangtok, Sikkim, 19.

- Phonetic analysis, sound segmentation, language description and grammar are in process of completion.
- Publication of books and dictionaries are under process.

Note

The Tai-Khamyang language: As per the Ethnologue source the number of households speaking this language at Tinuskia district is 50. However as per the reports submitted by field researchers the total number of speakers were found to be around 5 whose ages were beyond 70 years which made the language consultation situation difficult. People of this community has shifted to Assamese. Since the community could not provide adequate data the researchers had to take a language from Dima Hasao district namely, Hrangkhol. However, the data collected on the Tai-Khamyang language during the two field works has been stored for proper documentation and a report on this language is on the process of publication.

The Chakpa Phayeng dialect: During the first field trip conducted on this language the researcher found that this dialect spoken by the Chakpa Phayeng community of Imphal West dsitrict was very similar to the standard Manipuri langauge (Meeteilon). The only difference is that the Chakpa Phayeng dialect has no voice sound. Only voice less sounds are used. Since the field work proved unproductive the team started work on the Purum language of Purum Likli village of Kangpokpi disrict of Manipur for the rest of the field work.

The work on Yimchunger langauge of Tuensang district Nagaland is in abeyance since the staff members working on this language have resigned and left due to personal reasons.

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

International and National

Bobita Sarangthem attended and presented a paper entitled "Loanword adaptation in Meiteilon" at the International Conference Himalayan Language Symposium (HLS-22), at IIT, Guwahati, 8 - 10 June 2016.

Bobita Sarangthem attended and presented a paper entitled "Script and Phonology of Meiteilon: A Diachronic Study" at the International Conference of Linguistic Society of India (ICOLSI - 38), at IIT, Guwahati, 10 -12 November, 2016.

Dhanapati Shougrakpam attended and presented a paper entitled "Nominal Compounds in Manipuri", at the 38th International Conference of Linguistic Society of India, held at Indian Institute of Technology, Guwahati, 10 –12 Nov, 2016

Elangbam Manimohon Meitei attended and presented a paper entitled "Morphophonemic changes in Mao" at the 22nd Himalayan Languages Symposium (HLS 22), organized by Dept. of Humanities & Social Sciences, Centre for Linguistics Science & Technology, IIT, Guwahati, 8 -10 June, 2016

Monali Longmailai attended and presented a paper entiled "Causative Construction in Dimasa" at the 22nd International Conference on Himalayan Languages Symposium. Indian Institute of Technology, Guwahati, 8-10 June, 2016.

Monali Longmailai attended and presented a paper entitled "Reduplication in Bodo-Garo

languages" at the International Seminar on Language Documentation, Its Significance and Scopes in NE India, CIT Kokrajhar, 16 December, 2016 (shared paper with Daimalu Brahma)

Monali Longmailai attended and presented a paper entitled "Language change or Language loss: Linguist vs Native Speaker with reference to Dimasa" at the 2nd National DYF Seminar on Currents Trends and Issues on Dimasa Language, History and Culture, Maibang (Dima Hasao), 12 January, 2017.

Monali Longmailai attended and presented a paper entitled Compound verbs and serial verbs in Bodo and Dimasa" at the 5th International Endangered and Lesser-known Languages Conference, University of Jharkhand, Ranchi, 24-26 February, 2017 (shared paper with Daimalu Brahma)

Niharika Dutta attended and presented a paper entitled "Hierarchical Verb Agreement and Inverse Marking in Phong", at the 22nd Himalayan Linguistics Symposium, Indian Institute of Technology, Guwahati, 8 -10 June, 2016.

Pushpa Renu Bhattacharyya attended and presented a paper entitled "A Reflection of Cultural Attitudes Towards Animal World through a Folk Tale in Khelma", in National Seminar, organised by Sahitya Akademi and Sikkim University, Gangtok, Sikkim, 19 -20 September, 2016.

Trisha Borgohain attended and presented a paper entitled "Nominalization in Tai-Khamti", at the 22nd Himalayan Languages Symposium, Indian Institute of Technology, Guwahati, from 8 -10 June, 2016

Widinibou attended and presented a paper entitled "Word Formation in Liangmai", in the 22nd Himalayan Language Symposium (HLS 22), at IIT Guwahati from 8 -10 June, 2016.

Widinibou attended and presented a paper entitled "The Performance of Traditional of Liangmai Naga in North east India", in International Conference on '(Re) envisaging India's Northeast: Ethnicity, Cultural and Literature', organized by Department of English, Assam University, Silchar from 8 - 9 September 2016

Widinibou attended and presented a paper entitled "Oral Narratives as Documents for the Study of Culture Heritage in Liangmai Society", in National Seminar on 'Route to Oral Literature', Sikkim University collaboration with Sahitya Academi, New Delhi from 19 -20 September, 2016.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

2nd Regional CFEL Workshop, Prof. Udaya Narayana Singh, Visva-Bharati, Santiniketan, Bolpur, Dt Birbhum, West Bengal as the Resource Person, 6th to 8th April, 2016,

Three-day Workshop on Computational Linguistics with special focus on Natural Language Processing (NLP), Dr. Niladri Sekhar Dash, Associate Professor, Linguistics Research Unit, ISI, Kolkata as the Resource Person, 27th to 29th July, 2016,

Two-day National Workshop on Cognitive Linguistics: A View from Within and Without, Prof. Klaus-Uwe Panther, Professor Emeritus, Hamburg University, Germany was the Resource Person, 4th to 5th February 2017

DISTINGUISHED VISITORS TO THE DEPARTMENT

Prof. Klaus-Uwe Panther, Professor Emeritus, Hamburg University, Germany

Dr. Niladri Sekhar Dash, Associate Professor, Linguistics Research Unit, ISI, Kolkata
Prof. Udaya Narayana Singh, Visva-Bharati, Santiniketan, Bolpur, Dt Birbhum, West Bengal

OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY:

The Centre is planning to offer a Certificate Course in Endangered Languages for Indigenous native speakers of the North East region as an outreach programme initiative

THE PERSONNEL OF THE CENTRE

Coordinator of the Centre

Madhumita Barbora, PhD (Tezpur)
Head, Dept. of English and Foreign Languages
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Members of the Centre from the Dept. of English and Foreign Languages

Prof. G K Borah, PhD (NTNU, Trondheim, Norway)
Dr A K Nath, PhD (JNU)
Bipasha Patgiri, MPhil (JNU)
Dr. A Gope, PhD (IIT, Gauhati)

Assistant Professors

Bobita Sarangthem, PhD (Manipur)
Specialization: Descriptive Linguistics, Sociolinguistics, Phonetics and Phonology, Field Linguistics (Endangered Languages)
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Dhanapati Shougrakpam, PhD (Manipur)
Specialization: Descriptive Linguistics, Morphology, Field Linguistics (Endangered Languages)
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Monali Longmailai, PhD (NEHU)
Specialization: Descriptive Linguistics, Morpho-Syntax, Field Linguistics and Language Documentation
E-mail: monali@tezu.ernet.in

Research Associates

D Brahma, PhD, (Assam)
Specialization: Comparative Linguistics & Morphology of Tibeto-Burman Languages
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Pushpa Renu Bhattacharyya**,** PhD (Gauhati)
Specialization: Descriptive Linguistics and Socio-linguistics
E-mail: pushparb@tezu.ernet.in

Widinibou, PhD (Assam)
Specialization: Phonology and Tibeto-Burman languages

Field Assistants

Barshapriya Dutta, MA (Tezpur)
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EM Meitei, MA (Manipur)
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Technical Staff

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The Teaching Learning Centre

The Centre

The Teaching Learning Centre (TLC) was established in 2015 as a Centre of Excellence for Curriculum and Pedagogy under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) scheme. The scheme is funded by Department of Higher Education, MHRD. TLC envisages developing and promoting a responsive and relevant teaching–learning system for higher education communities and contributing to excellence in teaching and learning as an innovative and resourceful Centre through reflective research-based practice and the optimal use of technology.

During 2016-17, TLC organized 6 major programs covering different aspects of teaching and learning.

Among the objectives of the TLC are:

- Organizing Professional Development Programs
- Organizing Orientation Courses/Refresher Courses
- Organizing Workshops/Seminar/Conference on Various themes of Teaching and Learning
- Initiating Research Programs
- Publishing Handbooks, Proceeding of Seminars, and Journal on Teaching Learning
- Providing Resource Support

The target group of TLC are college and university level teachers and researchers and students (Coverage: Assam (except Assam University jurisdiction), Arunachal Pradesh, Nagaland, Meghalaya, Mizoram, Manipur and Tripura)

Major facilities and equipment available:

One ICT Lab.

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

International and National

Bhushita Patowari, 4th Workshop on Official Statistics in North Eastern States. Organized by Indian Statistical Institute, Kolkata and Dept. of Statistics, Pachhunga University College, Aizawl, Mizoram, 7-11 November 2016





Swapnarani Bora, National Workshop on Cognitive Linguistics and the Languages of the Northeast. Organized by Centre for Endangered Languages, Dept. of English and Foreign Languages, Tezpur University, 4-5 February, 2017

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE CENTRE

Workshop, Personality Development Programme, sponsored by MHRD, 27 August-5 September 2016

National Seminar, Issues and Challenges in Higher Education, sponsored by MHRD, 21-23 November 2016

Workshop, Massive Open Online Courses (MOOCs), sponsored by MHRD, 24-25 November, 2016

Workshop, Quality Teacher Education: Capacity Building of Teacher Educators, sponsored by MHRD, 1-2 December 2016

Refresher Course, Cultural Studies (Interdisciplinary), Organized in collaboration with Department of Cultural Studies, Sponsored by MHRD,2-22 January 2017

Workshop, STEM workshop on Research Based Pedagogical Tools (RBPTs), Organized in Collaboration with IISER, Pune, sponsored by DBT, BRITISH COUNCIL & MHRD, 27-30 January 2017

DISTINGUISHED VISITORS TO THE CENTRE

Prof. Amarjyoti Chaudhury, Former Vice Chancellor, Gauhati University and Retired Professor of Physics, Tezpur University
Dr. Barbara Snook, Professional Teaching Fellow, University of Auckland, New Zealand
Christophar John Olley, Sheffield Hallam University, UK
Diana Maria Bracewell, Sheffield Hallam University, UK.
Gareth Lewys Price, Senior Research Fellow, Sheffield Hallam University, UK
John Michael Walker,Sheffield Hallam University, UK.
Julie Ann Jordan, Sheffield Hallam University, UK.
Prof. Krishna Kumar, Central Institute of Education, Delhi University
Prof. L.S. Shashidhara, Professor and Chair, IISER, Pune
Dr. M. V. Srinivasan, Associate Professor, NCERT, New Delh
Prof. Nani Gopal Mahanta, Department of Political Science, Gauhati University, Guwahati
Dr. R. Meganathan, NCERT, New Delhi
Prof. Rajendra Pal, NCERT, New Delhi
Prof. Santosh K. Panda, Indira Gandhi National Open University (IGNOU), New Delhi

THE PERSONNEL OF THE CENTRE

Director-in-Charge
M K Sarma, PhD (Tezpur)
Professor, Dept. of Business Administration & Coordinator, MTTM
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Assistant Professors

Swapnarani Bora, PhD (Dibrugarh)
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I H Ahmed, MPhil (Delhi)
Specialization/Areas of Interest: Evolutionary Ethics, Environmental Ethics, Symbolic Logic, Philosophy of Education
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Research Associate

Bhushita Patowari, PhD (Gauhati)
Specialization/Areas of Interest: Survey Sampling & Statistical Epidemiology
E-mail: b.stat@tezu.ernet.in

Technical staff

M J Deka, BTech (Gauhati)
Technical Assistant
E-mail: milandeka15@gmail.com




BHARATHIATTAM
CONVOCATION : TEZPUR UNIVERSITY

Chandraprabha Saikiani Centre for Women's Studies

THE CENTRE

The Chandraprabha Saikiani Centre for women studies had its inception on 21st January, 2010. The main focus of the Centre is to coordinate and promote studies on women belonging to the diverse socio-cultural milieu of North East India. The Centre also tries to work towards assimilation of women from marginalized tribal/non-tribal and ethnic groups through outreach activities such as field study, advocacy, and workshops to enhance awareness and to train manpower to conduct research in women studies. Till March 2017, the Centre appointed 7 staff in total and has been o ffering three CBCS courses and One PG Diploma in Women's Studies programme.

Academic programmes and Student intake

Academic Programme	Student Intake
PG Diploma in Women's Studies	15

MAJOR FACILITIES AVAILABLE

- Centre Library
- Audio-visual Room

Research projects, ongoing and new

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Women and Trafficking: A study of the Border Areas of Sonitpur District of Assam	ICSSR	15.00 lakh	2015-2017	Madhurima Goswami

PUBLICATIONS

In International and National Journals

Mahanta, M. Chandraprabha Saikiani: A crusader of Women Empowerment in Assam, *Mahila Pratistha: International Multidisciplinary Journal on Women and Gender Studies*, 2, 2016.

Goswami, M. Hegemonic Masculinity: Rethinking of the Concept in Art, *Indian Journal of Arts*, 7(21), 59-64, 2017.

Chapter in books

Mahanta, M. 2016. Globalization and Mental Health in Assam: A Gendered Reading, In Nath, D. P. (ed). *Women's Narratives from North - East India: Lives in the margins*, Guwahati: Purbanchal Prakash

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE CENTRE

Workshop, Legal Awareness Programme on Women, sponsored by NCW (New Delhi), 01-02 November, 2016

Workshop, Gender Sensitization and legal Awareness Programme, sponsored by RGNIYD (Chennai), 29 November, 2016

DISTINGUISHED VISITORS TO THE CENTRE

Prof. R C Borpatragohain, Gauhati University

Prof. Sheila Bora, Dibrugarh University

AWARDS & HONOURS RECEIVED BY THE STUDENTS

Best Singer/ Female- Priyanka Borgohain, student of P.G Diploma in Women's Studies at Annual Meet Tezpur University.

First Prize/Female- Priyanka Acharya, student of P.G Diploma in Women's Studies in Bimal Bhagwati Memorial Essay Competition.

OTHER IMPORTANT ACTIVITIES OF THE CENTRE

A sensitization programme on Women Trafficking was held at Bhalukpong Gaon, Chariduar, Sonitpur, Assam, 21 December, 2016.



On the occasion of International Women's Day a peace march was undertaken by the Centre, 8 March, 2017.

On account of Chandraprabha Saikiani's birth and death anniversary a special talk was organized by the CSCWS, Tezpur University, 16 March, 2017.

NUMBER OF STUDENTS WHO PASSED NET: 1

NOTABLE PLACEMENT [2016-2017]**:** 2

THE FACULTY OF THE CENTRE

Associate Professor
Madhurima Goswami, PhD (Tezpur)
Head of the Centre
Specialization/Areas of Interest: Gender Studies, Critical Theory, Performance Studies and Sanskrit Literature.
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Assistant Professor
Mousumi Mahanta, PhD (Tezpur)
Specialization/Areas of Interest: Gender and Mental Health, Women's Studies, Sociology of Health
E-mail: mousumi@tezu.ernet.in

Research Staff
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Research Associate
Specialization/Areas of Interest: Gender and Folklore, Cultural Studies.
E-mail: ivy2@tezu.ernet.in

Sonali Boro
Research Assistant
Specialization/Areas of Interest: wom
E-mail: sonaliw@tezu.ernet.in



Technical staff
A Baishya
Professonal Assistant
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P K Sarma
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Malati Boro
MTS
E-mail: malati@tezu.ernet.in

School of Management Sciences



- Dean, School of Management Sciences
- Dept. of Business Administration
- Dept. of Commerce
- Centre For Disaster Management
- Tezpur University Intellectual Property Rights Cell

School of Management Sciences

The School of Management Sciences comprises of the Department of Business Administration, the Department of Commerce, the Centre for Disaster Management, and the Intellectual Property Rights Cell.

As we take pride in the featuring of Tezpur University in the Generation Y universities of the Times Higher Education rankings, the School of Management Sciences takes equal pride in featuring among the top 150 B-Schools in the Business Today rankings. The 2016 Business Today rankings of best B-Schools feature only two institutions from North East India: Department of Business Administration, Tezpur University and IIM Shillong. The Department has also been appraised A category and included among the Top 5 Business School in East India by The 7th Chronicle B- School Survey-2016 and 27th in the NIRF ranking 2016 under Management Category. The department has successfully completed UGC-SAP DRS1. There have been over a dozen publications during the year. The department is creating an international footprint with student trip to Singapore and working towards an MOU with Avans University (The Netherlands). A major development of the department was the upgradation of the existing PG Diploma in Tourism Management to Masters in Tourism and Travel Management.

Department of Commerce is the latest addition to the school. We are offering Integrated M.Com and we have tried to give the students a competitive edge by aligning the program to professional courses like CA, CS and CMA. Lateral entry and exit is permitted. Student engagement is visible through industrial visits, excursions and creation of an e-magazine. National Seminar on "Commerce Education and Beyond", was organized in association with Institute of Cost Accountants of India, on 15 November 2016.

The Centre for Disaster Management offers two CBCS courses, one add-on course and two modules for Post Graduate Diploma in Environmental Management under distance education programme of the University. The Centre in association with Estate Office of Tezpur University conducted hands-on training on Fire Fighting and use of Fire Extinguishers for NCC Volunteers of Tezpur University, 28 March, 2017.

The IPR Cell is one of the prized cells of the university helping researchers to file for patent and also helping the society to obtain GI for local products. It also offers three CBCS courses. Outreach programs were conducted and five patents were filed during the year. Colloquium organised on the occasion of World Intellectual Property Day, 26th April, 2016 that included various events ranging from the IP Day Talk to competitions like Quiz, Innovative Idea and slogan writing competition.

The School of Management Sciences, began with one Department in January 1995 and has come a long way, consistently maintaining its student quality and thus ensuring suitable placement for its



students. Employability of our students has always been our concern and the faculty have focused on skill development along with imparting theoretical and practical knowledge. Activities and events are aimed at holistic development of our students and we hope that they will become contributing citizens of the nation.



Dean, School of Management Sciences
Chandana Goswami, PhD (Gauhati), FDP (IIMA)
Professor, Department of Business Administration
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Office Staff of the Dean, School of Management Sciences
B Borah, BCom
E-mail: brind@tezu.ernet.in

Department of Business Administration

THE DEPARTMENT

The Department of Business Administration was opened in January 1995. The flagship programme of the Department is its 2-year Master's programme in Business Administration. The Department has also introduced a new 2-year Master's programme in Tourism and Travel Management in 2016. PhD in Business Administration is yet another programme offered by the Department. The specialized areas include Human Resource Management, Financial Management, Marketing Management, Operations Management, and Information Technology.

The Faculty of the Department are actively engaged in research and other academic activities, availing of overseas fellowships, and participating in national and international seminars and conferences. The Department has successfully completed UGC-SAP DRS-1.The Department has also been regularly organizing seminars, conferences, symposiums, and refresher courses. It has also been conducting MDPs/FDPs for the corporate executives and academics. The Department was rated A3 by AIMA in 2012. The students of the Department have been bagging various prizes in extra-curricular activities organized in and outside the University. The Department was appraised as A category and included among the Top 5 Business Schools in East India in The 7th Chronicle B-School Survey-2016. It ranked 27th in the NIRF Ranking 2016 under Management Category.

Academic programmes and Student intake

Programme	Student Intake
MBA (Full-time)	50
MTTM	17
PhD	Intake variable, 02 in the Academic year 2016-17

Major facilities and equipment available

The Department has one air-conditioned Boardroom and one Student Lounge which facilitates case discussions. All classrooms have audio-visual facilities such as LCD projectors, sound systems etc. Moreover, one classroom is also equipped with smart classroom facilities.

The Department has a small library-cum-reading room, a fully air conditioned seminar hall, a training hall and a Computer Lab. The Office is equipped with a modern office automation system.

PUBLICATIONS
In National and International Journals

1. Baruah, P. & Gogoi, K. Performance Assessment of CPSEs Through Memorandum of Understanding. *Journal of Research, Extension and Development* **14,** 13–17 (2016).
2. Baruah, P. & Gogoi, K. Professionalism and Employee Outcome : A study in a State of North East India. *International Journal of Applied Management Research* **3** (2016).
3. Baruah, P. & Das, M. B. Competency of ASHA Workers and their Work Effectiveness : An Empirical Study of Assam. *Jhankhand Journal of Development and Management Studies* **14,** 13–17 (2016).
4. Begum, R. & Goswami, C. Problems and Prospects of Informal Enterprises : A Study of Street Vendors and Home Based Enterprises in Assam (India). *International Journal of Entrepreneurship and Development Studies* **5,** 33–52 (2017).
5. Goswami, C. & Begum, R. A Study of Home-Based Enterprises and Street Vendors of Assam, India. *International Journal of Economic Policy in Emerging Economics* **9,** 290–323 (2016).
6. Gurung, D. J. & Goswami, C. User Generated Content on Sikkim as an Image Formation Agent : A Content Analysis of Travel Blog. *International Journal of Hospitality & Tourism System* **10,** 47–57 (2017).
7. Kumar, P. & Sarkar, S. S. Consumers' Perception Towards The Value added Tax (VAT) in Uttar Pradesh. *Apeejay Journal of Management Science and Technology* **3,** 48–58 (2016).
8. Roy, A. Impact Assessment of Microfinance Programme of MFIs' on their Clients: A Study in Sonitpur District of Assam in India. *LAP Lambert Academic Publishing* (2017).
9. Roy, A. Do microfinance loans have any effect on the health, nutrition & schooling of children of the clients of MFIs? *International Journal of Multidisciplinary Research Centre* **2,** 26–40 (2016).
10. Roy, A. A Model of Security Selection and Portfolio Building through z-scores. *Global Business Review* **17,** 389–399 (2016).
11. Sarkar, S. S. Base Erosion and Profit Shifting : A Challenge to Governments. *Management Accountant* **52** (2017).
12. Sarma, T. R. & Das, N. K. Social Cost Benefit Analysis of Rajiv Gandhi Grameen Vidyutikaran Yojana - an Analysis. *Journal of Infrastructure Development* **8,** 137–152 (2016).
13. Yasung, M. & Baruah, P. Professional and Employee Outcome : A Comparative Analysis of Three Districts in Arunachal Pradesh. *IBMRD's Journal of Management and Research* **6** (2017).

Conference proceedings

14. Mahanta, K. *Work Life Balance : Social Life vs Work Life* in *International conference on Confronting the VUCA World Strategies for Growth and Excellence* (2017).
15. Roy, A. *Important Issues and Challenges in Management Education in India* in *National Seminar on Issues and Challenges in Higher Education* (Tezpur University, 2016).
16. Yasung, M. & Baruah, P. *Rural Institutions in Arunachal Pradesh : A Study on the Department of Rural Development, Arunachal Pradesh* in *International Seminar and 48th Regional Science Conference on Rural Habitat, Institution and Development : Changing Nature and Challenges* (Tripura, 2017).
17. Yasung, M. & Baruah, P. *Analysis of Rural Development Interventions : A Study of Select Districts in arunachal Pradesh* in *National Seminar on The North East India : Issues, Dynamics and Emerging Realities* (Arunachal Pradesh, 2016).

Books and Book Chapters

18. Das, D. *Financial Inclusion : Achievements and Hindrances* (Mittal Publications, New Delhi, 2016).
19. Roy, A. *Impact Assessment of Microfinance Programme of MFI's on their Clients : A Study in Sonitpur District of Assam in India* (Lambert Academic Publishing, Germany, 2017).
20. Baruah, P. & Baruah, R. R. *Teamwork and Connectivity : A Study of North Eastern region of India in the Light of Act East Policy* (ed Choudhury, A.) 100–107 (USTM (India) and Green School (Indonesia), 2016).
21. Das, D. & Das, R. *Barriers in Financial Inclusion : Ground Level Observations From Assam* (eds Sangwan, S. S. & Gurung, D.) 23–44 (CRRID, Chandigarh, 2017).
22. Mahanta, K. *Work Life Balance : Social Life vs Work Life* 22–31 (Excel India Publishers, New Delhi, 2017).
23. Yasung, M. & Baruah, P. *Impact of Professionalism on Employee Outcome : A Study in Arunachal pradesh* (eds Thakur, R. R., Srivastava, V., Bhatia, S. & Sharma, J.) 214–219 (Bloomsbury India).

SEMINARS/CONFERENCES/WORKSHOPS/ SYMPOSIA ATTENDED
International and National

24. Baruah, P. *Campus to Corporate : Maximizing Gain through Collaboration* version In Special Volume of Sampark'16. the interface: Campus to Corporates: Bridging the Gap and Meeting the Expectations. Department of Business Administration, Tezpur University, 2017.
25. Roy, A. *Corporate Expectations from Management Graduates* version In Special Volume of Sampark'16. the interface: Campus to Corporates: Bridging the Gap and Meeting the Expectations. Department of Business Administration, Tezpur University, 2016.
26. Roy, A. *Promoting Tourism Cooperatives In India A strategy for Peace & Happiness* version UTTARAN Special Volume. Department of Business Administration, Tezpur University, 27.

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED
International and National

A Roy attended a workshop on Massive Open Online Courses (MOOCs) organized by Teaching Learning Centre (TLC) under Centre of Excellence for Curriculum and Pedagogy Pandit Madan Mohon Malaviya National Mission on Teachers and Teaching (PMMMNMTT) Scheme, Tezpur University , 24– 25 November, 2016.

A Roy attended a workshop on Business Statistics, organized by Interdisciplinary Statistical Research Unit (ISRU), Indian Statistical Institute, Kolkata, held at Indian Statistical Institute North-East Centre, Tezpur, Assam, 5-9 December, 2016.

Heera Barpujary attended a workshop on Business Statistics, organized by Interdisciplinary Statistical Research Unit (ISRU), Indian Statistical Institute, Kolkata, held at Indian Statistical Institute North-East Centre, Tezpur, Assam, 5-9 December, 2016.

Kakali Mahanta attended an International Conference on Confronting the VUCA World Strategies for Growth and Excellence, JIMS. Delhi, February, 2017.

Kakali Mahanta attended a workshop on Business Statistics organized by Interdisciplinary Statistical Research Unit (ISRU), Indian Statistical Institute, Kolkata, held at Indian Statistical Institute North-East Centre, Tezpur, Assam, 5-9 December, 2016.

TALKS BY THE FACULTY ABROAD AND IN INDIA

A Roy delivered a talk, Financial Derivative and Risk Management…the role of Options for the Investors, Indian Statistical Institute, North-East Centre, Tezpur, 31 March, 2017.

A Roy invited as a Resource Person in the 63nd All India Cooperative Week Seminar on Self- reliance and Inclusive Growth through Cooperatives in District Library, organized by Sonitpur District Deputy Registrar of Cooperative Societies, Sonitpur, Government of Assam, 18 November, 2016.

D Das invited as a Resource Person in a UGC National Seminar on Financial Inclusion: Achievements and Challenges Ahead at CRRID, 2A, Sector 19-A, Chandigarh during 17-18 November, 2016.

M K Sarma delivered an invited Talk, Problems and Prospects of Tourism in North-East India, at CKB College, Teok, Assam, 14 March, 2017.

M K Sarma delivered a talk, Current Scenario: Trends, Issues and Challenges, as the Plenary Speaker at the national conference on Management, organized by the Assam Institute of Management, Guwahati, 4 March, 2017.

M K Sarma delivered talks as a Resource Person in a UGC sponsored Workshop on Research Methodology for Social Sciences, organized by Dikhoumukh College, Sibasagar, Assam, 31 May, 2016.

Papori Baruah invited as Resource Person in the Behavioural Skills for Managing Rural Development Programmes, organized by NIRD, Guwahati, 6-9 September, 2016.

Papori Baruah invited as Resource person in a workshop on Personality Development, Teaching Learning Centre, Tezpur University, 27 August- 5 September, 2016.

Papori Baruah delivered a talk, Changing Role of Women, Team Building and Leadership Training, organized by Oil India limited, 7-8 July, 2016.

T R Sarma invited as Resource Person in a Personality Development workshop on the theme Green Workplace, organized by the Teaching Learning Center (TLC), Tezpur University, September 2016.

T R Sarma delivered a session of Career counseling for High school students at Omeo Das High School, Assam, organized by Asomia Club, a heritage Socio Cultural organization, October, 2016.

T R Sarma invited as Resource Person in a Career Orientation session for students of Commerce and Humanities, organized by IQAC Cell, Bihpuria College, Assam, September 2016.

T R Sarma delivered a talk, Orientation session of newly-admitted students at USTM, Meghalaya, September 2016.

T R Sarma invited as Resource person for a half-day session on Soft and Entrepreneur Skills at Suryamitra Skill Development Programme, sponsored by National Institute of Solar Energy, India, July 2016.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

i-connect an industry institution interface with Vivanta by Taj Guwahati, 25 November, 2016.

Remembrance Day celebration in memory of Late Prof. Madhab Chandra Bora Inter-Institutional Quiz and Oration organized by the Department, 16 November, 2016.

i-connect an industry institution interface with Reliance Jio Infocomm Ltd, 4 November, 2016.

Training cum Grooming session for MBA and MTTM students, 14 October, 2016.

World Tourism Day, 27 September, 2016.

Formex Lecture, 12 August, 2016

DISTINGUISHED VISITORS TO THE DEPARTMENT:

A Samantaray, Axis Bank, Guwahati
Dr. A S Ravindra Rao, Asia Plateau
Dr. B K Das, Ex-Managing Director of BORL & NRL
A Lama, Founder, Travelyaari.com
B P Muktieh, Chairman & Managing Director, NEDFi
C Goswami, Hardware Mechanical System Manager, GE Healthcare USA
D Bhowmick, Asian Paints, Guwahati
Prof. E Bijoykumar Singh, Dept. of Economics, Manipur University
Jahnavi Baruah, Director, Jungle Travels
L D Singh, Marketing Head, Reliance Jio Infocomm Ltd.
M L Stone, Motivational Speaker, Express Avenues Capt. M Panging , Founder, Elam Industries.
N Verma, IAS Secretary, Ministry of Development of North Eastern Region
N More, Former Head of Learning and Development, Facebook APAC, Region, Singapore, Former Executive, Google, India
P V S L N Murty, Chief General Manager State Bank of India
P Pathak Founder, Fresh Air
R Ranjan NASSCOM 10000 Start ups
S Hazarika, Eminent Management Educationist and Former Director, Assam Institute of Management
S Deka, Director, SRD Group
Prof. S Choudhury, Kolkata Business School
Dr S Singh, Director, Kaziranga Universty
S Roychoudhury, Founder, Pratyaksha Agrotech Private Limited

S Das, Founder, Bhavishya Learning India Pvt. Ltd.
S Srinivasan, Partner, Diwakar & Srinivasan
Prof. T Dutta, Kolkata Business School
U Tashi, Regional Head, North East IDBI
Urvashi Saikia , Learning & Development Manager Vivanta by Taj –Guwahati
V Ray, GM, Radison Blue

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OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY:

A new academic programme, Master in Tourism and Travel Management, was started on 25 July, 2016.

Department organized the annual Industry Academia interaction, Sampark-*the Interface*, at Department of Business Administration, Tezpur University, Tezpur, Assam, on 3-4 March, 2017. With Sampark, the Department in particular and Tezpur University in general aims to stand high on a pedestal where our illustrious legacy comes together with the corporate world to script a golden future. Shri Naveen Verma, IAS (Secretary, Ministry of DONER, GoI) and Mr. B Pual Muktieh, (Chairman and Managing Director, NEDFi) was the Chief Guest while many other senior corporate executives attended the two day event.

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE :

NET LS : 02
NET JRF : 02

NOTABLE PLACEMENT	Number of Students placed
DHL	1
HDFC	1
ICICI	3
Colgate- Plamolive India	2
NEDFi	1
Axis Bank	1
Pantaloons	4
AMUL	2
Asian Paints	1
Bandhan Bank	12
Parle Agro	1
Asomi Finance	2
Everest Industries	4



THE FACULTY OF THE DEPARTMENT:

Professors

M K Sarma, PhD (Tezpur)
Director, Teaching Learning Centre

Specializations/Areas of interest: Marketing, Tourism Management
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Chandana Goswami, PhD(Gauhati) FDP (IIMA)
Dean, School of Management Sciences
Specializations/Areas of interest: Financial Management, General Management
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S S Sarkar, PhD (Tezpur)
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Specializations/Areas of interest: Financial Management, Accounting & Taxation
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D Das, PhD (RGU), AIII (Mumbai)
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M Dutta, PhD (Gauhati),
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P Baruah, MBA (SIU, Pune)),
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Adjunct Faculty
S R Medhi, MBA (IIMA)
Former Director (Technical), Numaligarh Refinery Ltd.
Specialization/Areas of interest: Financial Management, Strategic Management
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Guest Faculty
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Visiting Fellow
B K Das, PhD (Gauhati)
Former MD, Numaligarh Refinery Ltd.
Specialization/Areas of interest: Human Resource

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S Borah
MTS



Department of Commerce

THE DEPARTMENT

The Department of Commerce is the second Department established under the School of Management Sciences. With a vision to emerge as a Centre of excellence by exploring new frontiers in knowledge, research and innovation in commerce education, it started in 2014 an Integrated MCom Programme (5 Years). The curricula for the Integrated MCom Programme is aligned to professional courses like CA, CS and CMA. The courses are designed in a way to make the students capable of pursuing their career in manifold directions including teaching and research. Besides there being a regular faculty of the Department, assistance in teaching is regularly received from the faculty members of other Deaprments, mainly, the Department of Business Administration and the Department of English and Foreign Languages.

Academic programmes and Student intake

Programme	Student Intake
Integrated M Com	30

PUBLICATIONS

In International and National Journals

Tiwari, R. K., and Debnath, J. Forensic Accounting: A Blend of Knowledge, Journal of Financial Regulation and Compliance, 25(1), 2017.

Conference proceedings

Goswami, R., and Sarkar, S. S. Schedule II: Impact on profits of BSE 30 companies, 13th International Accounting Conference, organized by Indian Accounting Association Research Foundation jointly with Deloitte, Kolkata, January 7-8, 2017.

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

International and National

Reshma Tiwari attended a National Seminar on Issues and Challenges in Higher Education, Teaching and Learning Centre, Tezpur University, Tezpur, 21– 23 November, 2016.

Reshma Tiwari attended a National Conference, Trade and Industry in North East India: Challenges and Strategies", organised by North East India Commerce and Management Association (NEICMA), 23 - 24 September, 2016.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

National Seminar on Commerce Education and beyond, organized in association with Institute of Cost Accountants of India, 15 November 2016.

PUBLICATIONS

In National and International Journals

1. Tiwari, R. K. & Debnath, J. Forensic Accounting: A Blend of Knowledge. *Journal of Financial Regulation and Compliance (Emerald)* **25** (2017).

Conference proceedings

2. Goswami, R. & Sarkar, S. S. *Schedule II: Impact on profits of BSE 30 companies* in *13th International Accounting Conference* (Kolkata, 2017).

SEMINARS/CONFERENCES/WORKSHOPS/ SYMPOSIA ATTENDED

International and National

3. Debnath, J. & Tiwari, R. K. *Life Insurance: The Business in Nagaland, Trade and Industry in North East India: Challenges and Strategies*
4. Tiwari, R. K. *Assignment Based Learning, National Seminar on Issues and Challenges in Higher Education* Tezpur: Teaching Learning Centre, Tezpur University, 2016.



DISTINGUISHED VISITORS TO THE DEPARTMENT

Prof. Ajanta Borgohain, Rajkonwar, Dean, School of Commerce & Management Sciences, Dibrugarh University
A S Bagchi, CMA, Director (Technical), ICAI, Kolkata Area
Dr. D Nandy, CMA , Director (R & J and Exam), ICAI, Kolkata Area
D Jain, CA, Chief Operating officer, NIMAI Consultanats, Dubai
M K Thakur, CMA, President, The Institute of Cost Accountants of India
R K Kaman, Chief Executive Officer, Excelsage.org
Prof. S Chaudhuri, Director, Calcutta Business School, Kolkata (Former Director, IIM Calcutta)

OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY

Industrial Visits

The Department organizes Industrial visits for the students of Integrated M Com programme; 2014 batch visited Sansua Tea Estate, Jorhat on 22 October, 2016, 2015 batch visited Industrial Growth Centre, Chaygaon on 3rd September, 2016 and 2016 batch visited Nameri Tea Factory, Biswanath Chariali on 29 October, 2016.

Excursion

The students of 2014 batch visited Mumbai and Kolkata during 28 December, 2016 to 9 January, 2017 as part of the excursion programme, organized by the Department.

THE FACULTY OF THE DEPARTMENT

Professor





S S Sarkar, PhD (Tezpur)
Head (in charge) of the Department
Specializatio/Areas of Interest: Accounting and Taxation
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Assistant Professors
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M Kumar, MCom (Delhi)
Specialization/Areas of Interest: Corporate Finance and Accounting
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Visiting Faculty
S Dugar, FCA (ICAI)
Specialization/Areas of Interest: Taxation

Neelam Somani, CS (ICSI)
Specialization/Areas of Interest: Company Law

Office Staff
B Das, BA (Gauhati)

Upper Division Clerk
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N Dutta
MTS
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Centre For Disaster Management

THE CENTRE

The Centre for Disaster Management was established in 1997 under the Central Sector Scheme of NDM Division, Ministry of Agriculture and Cooperation, Government of India. The scheme has subsequently been transferred to the Ministry of Home Affairs, Government of India during 2002. At present, the Centre is functioning under Tezpur University. The main objectives of the Centre are to:

- Organise and conduct training programmes, conferences, and workshops on disaster management
- Extend academic support to other organisations
- Conduct regular/optional courses and research work on Disaster Management

COURSES CONDUCTED

CBCS course on Disaster Management (DM 301) was conducted during 2016-17 for the PG students of Tezpur University.

CBCS course on Disaster Management (DM 101) was conducted during 2016-17 for the UG students of Tezpur University.

Conducted one add-on course "Risk and Disaster Management in Healthcare" (HIM 302) of Diploma in Healthcare Informatics and Management under Department of Electronics and Communication Engineering.

The Centre has continued the courses DEM 104 and DEM 203 in the Post Graduate Diploma in Environmental Management under distance education programme of the University during 2016-17.

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

D Nath attended a Workshop on Massive Open Online Courses (MOOCs) organized by TLC, Tezpur University, 24-25 November, 2016.

D Nath attended the Annual Training Conference, 7 March, 2017, NIDM, New Delhi.

OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY

The Centre in association with Estate Office of Tezpur University conducted hands-on training on Fire Fighting and use of Fire Extinguishers for NCC Volunteers of Tezpur University, 28 March, 2017.

THE FACULTY OF THE DEPARTMENT

Assistant Professor

D Nath, PhD (Gauhati)
Head (i/c) of the Centre
Specialization/Areas of Interest: Nuclear Physics & Cosmic Radiation/Disaster Risk Assessment
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Office Staff

B Das
UDC

Tezpur University Intellectual Property Rights Cell

THE CELL

The Tezpur University Intellectual Property Rights Cell was established in the University in 2009. In 2010, the University was awarded the prestigious MHRD IPR Chair Professorship by the Ministry of Human Resources Development, Government of India. The Cell aims at evolving into a centre of expertise in the North Eastern Region in fields related to IPR Education, innovation management integrated with IPR within an educational framework, protection of traditional knowledge and practices for socio-economic development, and contributing to the development and implementation of IPR Policy in the regional and national context. Currently the Cell is running three Choice Based Credit Transfer courses in IPR at the undergraduate, the post-graduate as well as the PhD level.

Apart from these courses, IPR Awareness programmes and patent search trainings for faculty and researchers are regular activities of the Cell. The Cell also gives technical assistance to the innovations of the University by means of identification and timely protection.

The Cell has been strenuously working for the benefit of the stakeholders of traditional knowledge, handicrafts, fine arts by exploring the possibilities of protection by Geographical Indications and effective implementation of existing protection for the greater benefit of the stakeholders. Holding awareness workshops and camps at the grassroot level, specially in relation to Muga Silk of Assam, the first GI from the State, is one of the primary responsibilities of the Cell.

Current Teaching Activities

- CBCT in Undergraduate level (3 credit)
- CBCT in Postgraduate Level (3 credit)
- CBCT in PhD level (4 credit)



MAJOR RESEARCH FINDINGS/RESEARCH AND DEVELOPMENT ACTIVITIES:

Principal Investigator	Salient Research Findings
P Ganguli	The project entitled GI- Muga Silk of Assam leads to the following observations • Low or no awareness of the importance of Geographical Indication logo in relation to Muga Silk. • Low or no awareness that only Authorised Users can use the GI logo in their products that can bring premium price of the golden silk. The certificate can be obtained from the GI Office in Chennai through proper filing. • Reaching the grassroot people is the most effective means of increasing the number of AU. • Remarkable increase in the number by 149 in 2016-17 against 90 in 2015-16. The total number is against 18 AU in the state between 2007-2014 .

Research projects, ongoing and new:

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
MHRD IPR Chair	MHRD,GOI w(2010-2016) DIPP (2016-2017)	2,01,45,000.00	2010-2017	Prof. R Saha (2011) Prof P Ganguli, IPR Chair Professor (2012-2017)

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

Suchibrata Goswami attended and presented a paper,Muga Silk of Assam in Regional Innovation System: An Innovation Ecology Perspective, in the National Workshop on Opportunities and Challenges for Regional Innovation System, CSIR-NISTADS, New Delhi, 06-07 October, 2016.

Suchibrata Goswami attended the Advanced Workshop on IP Management, organized by DST-TIFAC, New Delhi, 12-14 January, 2017.

Juri Borbora Saikia attended the Advanced Workshop on IP Management, organized by DST-TIFAC, New Delhi, 12-14 January, 2017.

Suchibrata Goswami attended a One Day Trainning Programme on Human Rights supported by National Human Rights Commission, New Delhi, organized by Department of Law and Community College, Tezpur University, 25 March, 2017.

Juri Borbora Saikia attended a One Day Trainning Programme on Human Rights supported by National Human Rights Commission, New Delhi, organized by Department of Law and Community College,

Tezpur University, 25 March, 2017.
Juri Borbora Saikia attended a One Day Specialized Training on GIs for Lawyers, IP Advisors and Attorneys, organized by EU, CII and CGPDTM , Guwahati,13 December, 2016.

Juri Borbora Saikia attended the three days North East Connectivity Summit, organized by FICCI, Agartala, Tripura, 21-23 September, 2016.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE CELL

Colloquium, World Intellectual Property Day, 26 April, 2016

Workshop, Patent Search and Analysis: An initiative of the Tezpur University IPR Cell for Researchers in Tezpur University, 25 February, 2017

AWARDS & HONOURS RECEIVED BY THE FACULTY/ RESEARCH SCHOLARS/ STUDENTS:

P Deb was awarded the APS-IUSSTF Professorship Award in Physics by American Physical Society, 2016-17.



OTHER IMPORTANT ACTIVITIES OF THE CELL/ACHIEVEMENTS OF THE FACULTY

i. Outreach programme organized

Outreach Programme on Effective use of Geographical Indications - *Muga Silk of Assam was* conducted in collaboration with IPR Cell, Dibrugarh University and ASTEC, Assam, Dhakuakhana College, Lakhimpur , 30 March, 2016

ii. Contribution of the Cell to the Society

IPR Cell of Tezpur University has been constantly working for the cause of Muga stake holders in the state. Muga Silk of Assam is protected under Geographical Indication (GI) since 2007, one of the important tools of IPRs specially designed to protect traditional products. Lack of awareness on the part of the stake holders regarding the proper use of the GI logo to obtain optimum benefit put the industry in the periphery while many such silk industries in the country like Banarasi silk excelled to their heights and brought significant revenue to the country. Significantly, only the Authorised User of GI can use the logo in their products which can be obtained by duly applying to the GI office in Chennai.

IPR Cell, in three of its outreach programmes in different places of North Lakhimpur District of Assam, brought significant change in the level of awareness among the stake holders. As a result of this the number of AU in the GI increased to 241 in the year 2016-17. This added largely in getting renewal for next ten years to GI-Muga Silk of Assam.

THE FACULTY & RESEARCH PERSONNEL OF THE CELL

P Ganguli, PhD (TIFR, Mumbai)
MHRD Chair Professor
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Research Officers
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School of Sciences



- Dean, School of Sciences
- Dept. of Chemical Sciences
- Dept. of Environmental Sciences
- Dept. of Mathematical Sciences
- Dept. of Molecular Biology and Biotechnology
- Dept. of Physics
- DBT Nodal Cell








DEPT. OF CHEMICAL SCIENCES



School of Sciences

The constituent Departments of the School offers 14 different M. Tech., M. Sc., Integrated M. Sc. and Integrated B. Sc. B. Ed. programmes, in addition to their individual discipline specific M. Sc. and Ph. D. programmes. Four Departments, namely, the Departments of Chemical Sciences, Mathematical Sciences, Molecular Biology and Biotechnology and Physics offer Integrated M. Sc. programmes with an intake of 20 students each. The Departments of Chemical Sciences, Mathematical Sciences and Physics also offer integrated B. Sc. B. Ed. programmes with an intake of 10 students each. Further, an M. Tech. programme in Polymer Science and Technology and an M. Sc. programme in Nanoscience and Technology are offered by the Departments of Chemical Sciences and Physics, respectively. The Departments of the School also support the required teaching and laboratory courses of the B. Tech. programmes in seven disciplines offered by the School of Engineering. The total intake of students in all 14 non-Ph. D. programmes running in the School is 283, besides an intake of 13 in Self Supporting Scheme.

The members of the faculty of the School are engaged in cutting-edge research in their respective areas. They made several significant contributions in academic and research activities during 2016-2017. Prof. A. J. Thakur from the Department of Chemical Sciences was awarded the Chemical Research Society of India Research Award in 2016; Prof. N. Karak was awarded the Visitor's Award for Research by President of India for the year 2016; Prof. Nashreen S. Islam was awarded the Indian National Science Academy Teacher Award for the year 2016 and Prof. R. C. Deka was selected as Council Member of Chemical Research Society of India for the period 2017-2020. Dr. E Kalita and Dr. N. D. Namsa form the Department of MBBT received the Biotechnology Overseas fellowship Award; Prof. K. P. Sarma from the Department of Environmental Science was selected as an Expert Member of the National Mission on Himalayan Studies; Prof. R. R. Hoque from the same Department was awarded the prestigious Fulbright-Nehru Fellowship. Dr. P. Nath from the Department of Physics received the DST-Gandhian Innovation Award for the year 2016.

The members of faculty of the School received projects funded by agencies like DST, DBT, Deity, DRDO, BRNS, SERB, CSIR and UGC. The total grant was Rs. 2670.50 lakhs. All five Departments of the School are DST-FIST and UGC-SAP supported. The faculty members of these five Departments have published 271 research papers in peer-reviewed international and national journals during 2016-2017. The Department of Chemical Sciences led with 101 publications followed by EVS and MBBT with 59 publications each, Physics 39 and Mathematical Sciences 13. Two patents were granted to Prof. R. K. Dutta of the Department of Chemical Sciences for his work on efficient removal of fluoride and arsenic from drinking water.The alumni of the School are well placed in various academic institutions and industries in India. This year, a total of 78 students from the School of Sciences qualified NET/GATE/SLET.

Prof. R C Deka
Dean, School of Sciences
Tezpur University

Department of Chemical Sciences

THE DEPARTMENT

The Department of Chemical Sciences came into existence in 1997 with the prime objective of providing a pool of quality manpower in different areas of Chemical Sciences, keeping in mind the requirements of both Industry and Academia. The Department started with an MSc program in Polymer Science. In 2009, it introduced an Integrated MSc in Chemistry. In response to the rising demand, since 2011, the Department has been offering an MTech in Polymer Science & Technology and an Integrated BSc BEd in Chemistry. In 2012, the Department introduced an MSc in Chemistry in 2012. The Department has also been running a PhD program covering several important frontier areas of research in Chemical Sciences and interdisciplinary Sciences. Several post-doctoral fellows also are working in various fields in the Department. The Department has eighteen well-experienced (both in academia and industry) and highly qualified faculty members, one Inspire Faculty included, who are actively engaged in research in various fields of Chemical Sciences. The programs in the Department are well-established and infrastructural facilities exist for studies and research. During the past 20 years, the faculty members of the Department have published quality research papers in international and national journals of repute. A good number of major projects (with international collaborations) were executed successfully and several others are being varried out. One patent was granted to the faculty members of this Department. The alumni of the Department are well placed in different industries, R&D organizations and other prestigious institutes in India and abroad. DST-FIST and UGC-SAP provide financial assistance to the Department.

Academic programmes and Student intake

Academic Programme	Student Intake
MSc in Chemistry	20
MTech in Polymer Science & Technology	10
Integrated MSc in Chemistry	20
Integrated BSc BEd in Chemistry	10
PhD	Intake variable 12 in the academic year 2016-17

Major facilities and equipment available

400 MHz NMR spectrophotometer, Jeol
GCMS, PerkinElmer
Thermal Analyzer, Shimadzu, (FIST Funded)
CHN Analyzer, Perkin Elmer (FIST Funded)
FTIR spectrophotometer, Model: Nicolet Impact I-410

FTIR spectrophotometer, PerkinElmer
Automated Compression Press, S5 Type, Santac
Polarizing Microscope, Olympus,
UV-Visible Spectrophotometer, Shimadzu,
Universal Testing Machine, 10 KN Zwick
Rheometer, Bohlin Instruments
Microwave reactor
High performance computational facilities
Digital Polarimeter
Millipore Water Purification System
Table Top Magnetometer
Single Screw Laboratory Extruder
Cyclic Voltameter





MAJOR RESEARCH FINDINGS/RESEARCH AND DEVELOPMENT ACTIVITIES

Principal Investigator	Salient Research Findings
A K Phukan	As part of a combined experimental & theoretical study, we carried out computational work to understand the electronic structure and bonding in diboryne complexes with copper. DFT studies indicate a weakening of the B≡B bond upon metalation due to enhanced orbital interactions between the transition metal atoms and the diboryne compared to previously reported diboryne/alkali metal cation complexes and d^{10} coinage metal diborene complexes. One of the key structural features of main group atranes is the presence of a transannular M¼N interaction between the main group element and the bridgehead nitrogen atom. The extent of this interaction is found to depend both on the equatorial as well as apical substituents and it decreases with the introduction of apical substituents. Stronger σ donating substituents such as NHC tend to make the M¼N interaction weaker by donating electron density to the vacant p orbital of the group 13 elements. We studied the ways to stabilize remote N-heterocyclic carbenes (rNHCs) in their singlet state with the help of density functional theory calculations. Based on the calculated values of singlet-triplet separation (which falls within the range of experimentally known carbenes), stabilization as well as dimerization energies - ylide stabilized rNHCs are predicted to be stable enough for isolation in their singlet states.

N Karak	□ Waterborne hyperbranched polyester nanocomposites with photocatalytic and self-cleaning property. □ Bio-based hyperbranched polyurethane nanocomposites as sustainable smart materials. □ Functional nanomaterials with catalytic and chemical sensing attributes.
P Bharali	□ Various PdM/C (M=Cu, Ni, Co) with different Pd/M compositions have been synthesized, characterized and evaluated for cathodic oxygen reduction reaction. □ Cobalt-iron oxides with different composition and morphologies have been synthesized, characterized and evaluated for oxidative degradation organic water pollutants. □ Ceria-based mixed oxide supported Ni catalysts were synthesized, characterized and evaluated for auto-thermal reforming of ethanol under DST-RFBR project in Boreskov Institute of Catalysis, Novosibirsk.
P Puzari	□ A novel method for enhancing sustainability of the enzyme acetylcholinesterase in ethylacetate medium has been developed and a patent application filed (Patent application number 201631008813). □ A novel electrochemical method for detection of pyretroid pesticides has been developed.
R C Deka	□ A comparative study was demonstrated for adsorption of various anionic and cationic dyes over CuMgAl LDH. A co-precipitation method was employed to synthesize the LDH samples with varying amount of Cu and Mg. The anionic dyes MO, BTB, EBT and CR were adsorbed highly compared to the cationic dyes MB and RhB on LDH surface. All the dyes showed high adsorption capacity at pH 7. □ We have successfully investigated the structures of $(SnO_2)_n$ nanoclusters where n=1-20. We have also studied their different properties in order to find out the global minimum structures of the $(SnO_2)_n$ nanoclusters. The HOMO-LUMO energy difference for nanoclusters up to n=3 are in between 2-3 eV which falls in the visible region and for relatively larger clusters, it falls in the infrared region. Calculated ionization potential and electron affinity also gives the relevant result as found from the energy profile diagram. Among all $(SnO_2)_n$ GM nanoclusters, $Sn_{19}O_{38}$ has the highest ionization potential which is 7.40 eV.

Ruli Borah	□ Synthesis and characterization of novel task-specific acidic, basic and multifunctionalized ionic liquids, □ Applications of these functional materials as reusable catalysts for preparation of heterocyclic compounds via multistep or multicomponent approach. □ Investigation of physicochemical properties of these materials by various analytical techniques.
S P Mahanta	□ Developed a molecular sensor for recognition fluoride in physiological condition.
T K Maji	□ Wood polymer green nanocomposites were prepared by using modified soyabean oil, methacrylic acid, methacrylic anhydride and a synthesized cross-linker derived from naturally occurring rosin. Preliminary investigation showed that the prepared composites exhibited an overall improvement in properties compared to those of styrene-based composites. The work is in progress for bringing further improvement in overall properties. □ Polymer coated nanoparticles/nanocomposites were prepared and found effective for removal of contaminants in water especially arsenic. Plant materials either polymer coated or alone was also found to possess the property of removing arsenic significantly from contaminated water. The reusability as well as stability of the prepared material was checked and found quite well. □ Polymeric nanoparticles for controlled delivery applications were prepared by using xanthen gum, curcumin and MMT as polymer, anticancer drug and filler respectively. The prepared drug encapsulated nanoparticles were evaluated and *in vitro* study are in progress. □ Few derivatives of curcumin for enhancing its efficacy and its subsequent use for controlled drug delivery applications were prepared .These derivative were encapsulated within polymer matrix and few properties of the resultant drug loaded polymeric particle were done. Further work is in progress to check their efficacy.

Research projects, ongoing and new

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Application and Development of NOSE approach with special reference to Carbon-Carbon and Carbon-Heteroatom bond formation reactions	CSIR	16.56 lakh	2017-2020	A J Thakur
Homocoupling, heterocoupling and liberation of borylene ligands	DST-SERB	10.15 lakh	2016-2018	A K Phukan

Control polymorph nucleation of drugs on functionalized surfaces	DST-SERB	26.26 lakh	2015- 2018	B Sarma
Designing of reusable chiral transition metal catalyst for asymmetric synthesis	DST-SERB	39.00 lakh	2016-2020	K K Bania
Development of Chiral Single Molecule Magnets	DST-SERB	24.93 lakh	2016-2019	N Gogoi
Development of Exchange Biased {3d-4d/5d} Assemblies: A rational Route Towards High T_b Nanomagnets	CSIR	12.42 lakh	2014-2017	N Gogoi
Polymer supported green silver nano particles: using plants of northeast India; studies on toxicity and anti-cancer property	DBT	58.81 lakh	2014-2017	N Karak
Principles of formation of nanostructured oxide materials and nanosized catalysts on their basis for hydrogen power production applications	DST, under DST-RFBR programme	24.61 lakh	2015-2017	P Bharali
Design of non-precious cobalt oxide based electrocatalysts	CSIR	6.00 lakh	2015–2018	P Bharali
Identification of efficient semiconductor dopant combination for selective chemiadsorption of tea pesticides on MOS sensors	NTRF	34.80 lakh	2016-2020	P Puzari
Development of hybrid catalysts for oxygen reduction reaction	DST-SERB	29.49 lakh	2015- 2018	P Bharali
Electrochemical study of enzyme imbedded supported bilayer lipid membranes to develop a sensor for organophosphate and organocarbamate pesticides	DST-SERB	64.20 lakh	2016-2019	P Puzari
Synthesis and characterization of task-specific ionic liquid systems for one–pot synthesis of pyrimidine derivatives	CSIR	18.00 lakh	2017-2020	Ruli Borah
Asymmetric syntheses of new classes of α-Amino acid derivatives	DST-SERB	24.80 lakh	2014 -2017	S K Das
Design, syntheses and anion binding studies of pyrrole based cyclic pseudopetides	DST-SERB	27.39 lakh	2015-2018	S P Mahanta
Green Nanocomposite from fully renewable bio polymers: modified vegetable oil reinforced with rosin acid and keratin	DST-SERB	23.42 lakh	2016-2019	T K Maji

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87. Saikia, C., Das, M. K., Ramteke, A. & Maji, T. K. Evaluation of folic acid tagged aminated starch/ZnO coated iron oxide nanoparticles as targeted curcumin delivery system. *Carbohydrate Polymers* **157,** 391–399 (2017).

88. Saikia, C., Das, M. K., Ramteke, A. & Maji, T. K. Controlled release of curcumin from thiolated starch-coated iron oxide magnetic nanoparticles: An in vitro evaluation. *International Journal of Polymeric Materials and Polymeric Biomaterials* **66,** 349–358 (2017).

89. Saikia, G. ,Gogoi, S. R., Baruah, J. J., Begum, P., Ahmed, K., Sharma, M., Ramakrishna, G., Ramasarma, T. & Islam, N. S. Peroxo Compounds of Vanadium(V) and Niobium(V) as Potent Inhibitors of Calcineurin Activity toward RII-phosphopeptide. *Chemistry Select* **1,** 1–12 (2017).

90. Saikia, H., Hazarika, K., Chutia, B., Choudhury, B. & Bharali, P. A simple chemical route toward high surface area CeO2 nanoparticles displaying remarkable radical scavenging activity. *ChemistrySelect* **2** (2017).

91. Saikia, H., Duarah, R., Sudarsanam, P., Bhargava, S. K. & Bharali, P. PdCu nanoparticles stabilized on porous CeO2 for catalytic degradation of azo dyes: Structural characterization and kinetic studies. *ChemistrySelect* **2** (2017).

92. Saikia, H., Borah, B. J., Yamada, Y. & Bharali, P. Enhanced catalytic activity of CuPd alloy nanoparticles towards reduction of nitroaromatics and hexavalent chromium. *Journal of Colloid and Interface Science* **486** (2017).

93. Saikia, N., Rajkhowa, S. & Deka, R. C. Si-Doped single-walled carbon nanotubes interacting with isoniazid-a density functional and molecular docking study. *RSC Advances* **6,** 94651–94660 (2016).

94. Saikia, S., Gogoi, P., Dutta, A. K., Sarma, P. & Borah, R. Design of multifaceted acidic 1, 3-disulfoimidazolium chlorometallate ionic systems as heterogeneous catalysts for the preparation of ?-amino carbonyl compounds. *Journal of molecular catalysis A: Chemical* **416,** 63–72 (2016).

95. Sarma, B., Khatioda, R., Talukdar, D., Saikia, B. & Bania, K. K. Constructing Two Dimensional Amide Porous Polymer to Promote Selective Oxidation Reactions. *Catalysis Science & Technology* **7,** 3143–3150 (2017).

96. Sarma, K. , Devi, N., Sutradhar, D., Sarma, B., Chandra, A. K. & Barman, P. Synthesis of a novel six membered CNS palladacycle: TD-DFT study and catalytic activity towards microwave-assisted selective oxidation of terminal olefin to aldehyde. *Journal of Organometallic Chemistry* **822,** 20–28 (2016).

97. Sarma, P. J., Gour, N. K., Bhattacharjee, D., Mishra, B. K. & Deka, R. C. Hydrogen atom abstraction from Piperazine by hydroxyl radical: a theoretical investigation. *Mol. Phys.* 1–9 (2017).

98. Sarma, P., Saikia, S. & Borah, R. Studies on –SO3H functionalized Brønsted acidic imidazolium ionic liquids (ILs) for one-pot, two-step synthesis of 2-styrylquinolines. *Synthetic Communications* **46.**

99. Sarmah, K., Pandit, G., Das, A. B., Sarma, B. & Pratihar, S. Steric Environment Triggered Self-Healing CuII/HgII Bimetallic Gel with Old CuII–Schiff Base Complex as a New Metalloligand. *Crystal Growth & Design* **17,** 368–380 (2017).

100. Sharma, S., Khannam, M. & Dolui, S. K. A quasi solid state dye sensitized solar cell based on gelatin/multiwalled carbon nanotube gel electrolyte and ZnO nanorodphotoanode. *Journal of Materials Science: Materials in Electronics* **27,** 7864–7875 (2016).

101. Sharma, S., Gogoi, P., Saikia, B. J. & Dolui, S. K. Synthesis of cadmium sulfide quantum dots with simultaneous desulfurization of kerosene oil. *Journal of Renewable Materials* **4,** 158–162 (2016).

Conference proceedings

102. Gogoi, P. & Maji, T. K. *Bioremediation of Arsenic from water with citric acid crosslinked water hyacinth (E. Crassipes) root powder* in *Inter-*

national Conference on Emerging trends in nanomaterials science and technology (ICETNMST-2017) (Nagaland, 2017).

103. Gogoi, P. & Maji, T. K. *Silibinin Loaded Soy Flour Nanoparticles For Controlled Drug Delivery:Effect Of Zincoxide And Surfactant* in *International Conference on Emerging trends in nanomaterials science and technology (ICETNMST-2017)* (Nagaland, 2017).

104. Mandal, M. & Maji, T. K. *Study on the properties of wood polymer nanocomposites based on modified soybean oil* in *International Conference on Emerging trends in nanomaterials science and technology, (ICETNMST-2017)* (Nagaland, 2017).

Books and Book Chapters

105. Baishya, P., Mandal, M., Gogoi, P. & Maji, T. K. *Natural Polymer-Based Nanocomposites: A Greener Approach for the Future* 433 (2017).

106. Deka, P., Bhattacharjee, D., Sarmah, P., Deka, R. C. & Bharali, P. *Catalytic Reduction of Water Contaminant '4-nitrophenol' over Manganese Oxide Supported Ni Nanoparticles* 35–48 (Capital Publishers, New Delhi, 2017).

107. Karak, N. *Biopolymers for paints and surface coatings* (Woodhead Publishing, Oxford, 2016).

108. Karak, N. *Biobased Smart Polyurethane Nanocomposites: From Synthesis to Applications* (Royal Society of Chemistry. (In press), London, 2017).

109. Pramanik, S. & Karak, N. *Polymer Nanocomposites for Adhesive, Coating, and Paint Applications* (Springer, Berlin, 2017).

110. Thakuria, R., Sarma, B. & Nangia, A. *Hydrogen Bonding in Molecular Crystals* (2017).

SEMINARS/CONFERENCES/WORKSHOPS/ SYMPOSIA ATTENDED

International and National

111. Baruah, K. & Borah, R. *Synthesis, characterization and evaluation of Montmorillonite-K10 based modified composite of guanidinium halometallate ionic liquids (ILs) as photodegradation catalyst* Guwahati: 20th CSIR National Symposium in Chemistry, Department of Chemistry, Gauhati University, May 2.

112. Bayan, R. & Karak, N. *Renewable Resources-Modified Aliphatic Hyperbranched Polyurethane as Biodegradable UV Resistant Smart Material* Guwahati: 20th CRSI National Symposium, Gauhati University, Apr. 2.

113. Begum, P., Sarma, P. J. & Deka, R. C. *Computational Studies on Catalytic Activity of Metal and Metal Oxide Clusters* Tezpur: National Conference on Hard and Soft Condensed Matter Physics, Department of Physics, Tezpur University, Apr. 2.

114. Begum, P. & Deka, R. C. *Catalytic Activation of methane over gas phase and Metal-Oxide supported Transition Metal (Pd and Pt) subnanoclusters* Mumbai: APCAT-7, Asia-Pacific congress on Catalysis, Institute of Chemical Technology (ICT), Mumbai, 2017.

115. Bharali, P. *Influence of Transition Metals on PdM Alloy Nanocatalysts for Electrochemical Oxygen Reduction* Japan: Symposium on Surface Science & Nanotechnology -25th Anniversary of SSSJ Kansai. Kyoto, 2017.

116. Bharali, P. *Redox Active Nanosized Metal Oxides as Heterogeneous Environmental Catalysts* Guwahati: KIC-TEQIP Short Term Course on Recent Trends in Catalysis. Indian Institute of Technology Guwahati, 2016.

117. Bharali, P. *Design of nanosized Ni/Ce1-xMxOy (M = Gd, La, Mg) catalysts for hydrogen production from bioethanol* Mumbai: The Asia-Pacific Congress on Catalysis (APCAT) -7, The Hotel Lalit, 2017.

118. Borah, B. *Influence of Cu on PdFe/C nanocatalysts for enhanced catalytic activity of cathodic Oxygen Reduction Reaction* Mumbai: The Asia-Pacific Congress on Catalysis (APCAT) -7, The Hotel Lalit, 2017.

119. Das, S. K. *Application of Epoxide-Arene Cyclization in the Diastereoselective Synthesis of Substituted Chromans* Assam: National seminar, National Symposium on Advances in Chemical Sciences. Assam University, Silchar, 11.

120. Das, S. K. & Devi, R. *Diastereoselective Synthesis of Chroman-Fused Tetralins via Intramolecular Epoxide-Arene Cyclization* Assam: 20th CRSI National Symposium in Chemistry. Gauhati University, Guwahati, May 2.

121. Deka, R. C. *Density Functional Studies on Catalytic Activity of Metal Clusters and Metal Complexes Supported in Zeolites* Bhubaneswar: International Conference on Recent Advances in Materials Chemistry, Department of Chemistry, Utkal University, 2017.

122. Deka, R. C. *Designing Carbon Nanotubes for Therapeutic Applications using Molecular Dynamics and Density Functional Methods* Ganeshkhind: Accelerating Biology 2017: Delivering Precision, C-DAC, Pune University, 2017.

123. Deka, R. C. *Computational Studies on Metal Clusters and Metal Oxide Clusters and their Uses in Catalysis* Silchar: National Symposium on Advances in Chemical Sciences, Department of Chemistry, Assam University, Dec. 11.

124. Deka, R. C. *Density functional studies on catalytic activity of metal clusters and metal complexes supported in zeolites* Nagaland: International Conference on Emerging Trends in Nanomaterials Science & Technology, NIT, Nagaland, June 4.

125. Deka, R. C. *Understanding Mechanism of DNA damage* International Conference on, 2016.

126. Deka, R. C. & Bharali, P. *Combined Theoretical-Experimental Studies on Catalytic Activity of Metal and Metal Oxide Clusters* Chennai: UK-India Newton Researchers Link Workshop on Rational Designing of Catalysts for the Sustainable Production of Fuels and Chemicals, IIT-Madras, Apr. 1.

127. Deka, R. C. & Phukan, P. *Radhikaram Dhekial Phookan-The First Indian Chemist to Publish Research Article* Guwahati: 20th CRSI National Symposium in Chemistry, Department of Chemistry, Gauhati University, May 3.

128. Dutta, R. *Field Trail of fluoride removal by phosphoric acid- crushed limestone treatment* Athens, Greece: 13th IWA specialized conference on small water and waste water system, 2016.

129. Duarah, R. & Karak, N. *Prospective Rapid Self Expandable Stent from Carbon Dot-Silver Modified High Performing Hyperbranched Nanocomposites* Guwahati: 20th CRSI National Symposium, Gauhati University, Apr. 2.

130. Gogoi, N. *Coordination environment mediated modulation of magnetic anisotropy* Guwahati: Chemical Research Society of India National Symposium, Department of Chemistry, Gauhati University, May 2.

131. Gogoi, N. *Coordination environment mediated modulation of magnetic anisotropy* Guwahati: National conference, Frontiers in Chemical Sciences, Department of Chemistry, IIT Guwahati, Oct. 8.

132. Gogoi, N. *Coordination environment mediated modulation of magnetic anisotropy* Madhya Pradesh: National conference, Study of Matter Using Intense Radiation Sources and Under Extreme Conditions, UGC-DAE Consortium for Scientific Research, Indore, June 3.

133. Gogoi, N. *Modulation of Coordination Environment: A Convenient Approach to Tailor Single Ion Magnetic Anisotropy* Mumbai: International Conference, Modern Trends in Molecular Magnets" Department of Chemistry, IIT Bombay, 2016.

134. Hazarika, D. & Karak, N. *Bio-Based Carbon Dot Modified Novel Biodegradable High Performing Waterborne Hyperbranched Polyester Thermosetting Nanocomposites* Guwahati: 20th CRSI National Symposium, Gauhati University, Apr. 2.

135. Hazarika, K. K. *Composition Dependent Activity of Co-Fe Mixed Oxides for Oxidative Degradation of Methylene Blue* Mumbai: The Asia-Pacific Congress on Catalysis (APCAT) -7, The Hotel Lalit, 2017.

136. Islam, N. S. *Polymer immobilized peroxometallates as potent enzyme inhibitors: My journey from inorganic synthesis to vanadium biochemistry* Bangalore: National Seminar on " Experiences Shaping Research Careers" Department of Biochemistry, Indian Institute of Sciences (IISc), 28.

137. Islam, N. S. *Enzyme inhibiton by metal complexes: a mode of action for inorganic drugs* Shillong: National Seminar "TRendys in Biochemistry" organized by Department of Biochemistry, NEHU, May 3.

138. Karak, N. *Bio-Based Biodegradable Hyperbranched Polymers, Nanomaterials and their Nanocomposites for Biomedical Applications* Kolkata: 1st International Conference on Nanocomputing and Nanobiotechnology, MAKAUT, May 3.

139. Karak, N. *Bio-Based Hyperbranched Polymer Nanocomposites for Multifaceted Applications* Siliguri: 19th CRSI National Symposium, NBU, 2016.

140. Karak, N. *Biodegradable High Performing Waterborne Hyperbranched Polyester Nanocomposite: A Promising Eco-Friendly Advanced Material* Bangalore: 2nd International Conference on Advanced Polymeric Materials (ICAPM), IISc, 2017.

141. Karak, N. *Bio-Based Biodegradable Smart Polyurethane Nanocomposites for Advanced Multifaceted Applications* Tezpur: National Conference on Hard and Soft Condense Material Physics, Tezpur University, 2017.

142. Phukan, A. K. *Group 14 Bases with Enhanced Ligand Properties* Hyderabad: National seminar, 15th Theoretical Chemistry Symposium, University of Hyderabad, 2016.

143. Puzari, P. *Insight into the enhanced electro oxidation sensitivity of reduced glutathione in dilute methanol: Prospect of bioanalytical application* Odisha: International conference on Recent trends of chemical & biological sciences in medicine, natural product and drug discovery, Berhampur University, Odisha, May 3.

144. Saikia, A. & Karak, N. *Sorbitol Based Tough Hyperbranched Epoxy Thermosets as Sustainable Materials* Guwahati: 20th CRSI National Symposium, Gauhati University, Apr. 2.

145. Saikia, S. & Borah, R. *Attractive aspects of 1,3-disulfoimidazolium chlorometallate supported HZSM-5 composites : Tuned catalysts for visible light induced Fenton type degradation of Methylene blue* Guwahati: 20th CSIR National Symposium in Chemistry, Department of Chemistry, Gauhati University, May 3.

146. Sarma, B. *Variable stoichiometry cocrystals in the modulation of drug flux* Kolkata: International Conference "India-Bangladesh Structural Chemistry Conference", IISER Kolkata, 2016.

147. Sarma, B. *Design of Crystalline Solids for Desired Properties :Intermolecular Interactions* Tripura: National Workshop on The Application of X-ray Crystallography for Molecular Structure Determination, held at NIT-Agartala, Sept. 8.

148. Sarma, B. *Cocrystal Technology in Drug Development* Nagaland: National Seminar on Interdisciplinary Research in Chemical Sciences, Kohima Science College, Kohima, 2016.

149. Sarma, B. *Nonmonotonic Sweet Taste & Molecular Conformation of the Natural High Potency Sweetener Rebaudioside-A* Bangalore: Asia-Pacific Nuclear Magnetic Resonance Society International Symposium-2017 (AP-NMR-2017), IISc Bangalore, 19.

150. Sarma, B. *Drug Discovery & Medicinal Herbs* Assam: Invited popular talk on Science Popularization, Chaiduar College, Gohpur, 23.



SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

International and National

A Saikia and N Karak attended and presented a poster, Sorbitol Based Tough Hyperbranched Epoxy Thermosets as Sustainable Materials, at the 20th CRSI National Symposium, Gauhati University, 2-4 February, 2017.

B J Borah attended and presented a poster, Influence of Cu on PdFe/C nanocatalysts for enhanced catalytic activity of cathodic Oxygen Reduction Reaction, at The Asia-Pacific Congress on Catalysis (APCAT), Mumbai, 17-21 January, 2017.

D Hazarika and N Karak attended and presented a poster, Bio-Based Carbon Dot Modified Novel Biodegradable High Performing Waterborne Hyperbranched Polyester Thermosetting Nanocomposites, at the 20th CRSI National Symposium, Gauhati University, 2-4 February, 2017.

K Baruah and R Borah attended and presented a poster, Synthesis, characterization and evaluation of Montmorillonite-K10 based modified composite of guanidinium halometallate ionic liquids (ILs) as photodegradation catalyst, at the 20th CRSI National Symposium, Gauhati University, 2-4 February, 2017.

K K Hazarika attended and presented a poster, Composition Dependent Activity of Co-Fe Mixed Oxides for Oxidative Degradation of Methylene Blue, at The Asia-Pacific Congress on Catalysis (APCAT), Mumbai, 17-21 January, 2017.

P Begum and R C Deka attended and presented a poster, Catalytic Activation of methane over gas phase and Metal-Oxide supported Transition Metal (Pd and Pt) subnanoclusters, at the Asia-Pacific congress on Catalysis (APCAT-7), Institute of Chemical Technology (ICT), Mumbai, 17-21 January, 2017.

P Begum, P J Sarma and R C Deka, attended and presented a poster, Computational Studies on Catalytic Activity of Metal and Metal Oxide Clusters, at a National Conference on Hard and Soft Condensed Matter Physics, Department of Physics, Tezpur University, 2-4 March, 2017.

R C Deka and P Phukan attended and presented a poster, Radhikaram Dhekial Phookan-The First Indian Chemist to Publish Research Article, at the 20th CRSI National Symposium, Gauhati University, 2-4 February, 2017.

R Duarah and N Karak attended and presented a poster, Prospective Rapid Self Expandable Stent from Carbon Dot-Silver Modified High Performing Hyperbranched Nanocomposites, at the 20th CRSI National Symposium, Gauhati University, 2-4 February, 2017.

R Bayan and N Karak attended and presented a poster, Renewable Resources-Modified Aliphatic Hyperbranched Polyurethane as Biodegradable UV Resistant Smart Material, at the 20th CRSI National Symposium, Gauhati University, 2-4 February, 2017.

R Das and S P Mahanta attended and presented a poster, Dihydrogen phosphate recognition: Assistance from the acidic OH moiety of the anion, at the 20th CRSI National Symposium, Gauhati University, 2-4 February, 2017.

S K Das and R Devi attended and presented a poster, Diastereoselective Synthesis of Chroman-

Fused Tetralins via Intramolecular Epoxide-Arene Cyclization, at the 20th CRSI National Symposium, Gauhati University, 2-4 February, 2017.

S Saikia and R Borah attended and presented a poster, Attractive aspects of 1,3-disulfoimidazolium chlorometallate supported HZSM-5 composites : Tuned catalysts for visible light induced Fenton type degradation of Methylene blue, at the 20th CRSI National Symposium, Gauhati University, 2-4 February, 2017.

Books and Book Chapters

Baishya, P., Mandal, M., Gogoi, P. and Maji, T. K. 2017. Natural Polymer-Based Nanocomposites: A Greener Approach for the Future. In Handbook of Composites from Renewable Materials, Nanocomposites: Science and Fundamentals. Wiley, 2017.

Deka, P., Bhattacharjee, D., Sarmah, P., Deka, R. C. and Bharali, P. 2017. Catalytic Reduction of Water Contaminant 4-nitrophenol over Manganese Oxide Supported Ni Nanoparticles. InTrends in Environmental Science and Technology, Capital Publishers.

Karak, N. 2017. Biobased Smart Polyurethane Nanocomposites: From Synthesis to Applications. UK: Royal Society of Chemistry (In press)

Karak, N. 2016. Biopolymers and Biotech Admixtures for Eco-Efficient Construction Materials. In Biopolymers for paints and surface coatings. UK: Woodhead Publishing House Limited.

Pramanik, S. and Karak, N. 2017. Properties and Applications of Polymer Nanocomposites. In Polymer Nanocomposites for Adhesive, Coating, and Paint Applications. Germany: Springer.

Thakuria, R., Sarma, B. and Nangia, A. 2017. Hydrogen Bonding in Molecular Crystals. In J L. Atwood (Eds). Comprehensive Supramolecular Chemistry, Elsevier, 2017.

TALKS BY THE FACULTY ABROAD AND IN INDIA

N Karak delivered a talk, Bio-Based Biodegradable Hyperbranched Polymers, Nanomaterials and their Nanocomposites for Biomedical Applications, at the 1st International Conference on Nanocomputing and Nanobiotechnology, MAKAUT, Kolkata, 3-5 October, 2016.

N Karak delivered a talk, Bio-Based Biodegradable Smart Polyurethane Nanocomposites for Advanced Multifaceted Applications, at a National Conference on Hard and Soft Condense Material Physics, organized by Tezpur University, Tezpur, March, 2017.

N Karak delivered a talk, Bio-Based Hyperbranched Polymer Nanocomposites for Multifaceted Applications, at the 19th CRSI National Symposium, organized by North Bengal University, Siliguri, 14-16 July, 2016.

N Karak delivered a talk, Biodegradable High Performing Waterborne Hyperbranched Polyester Nanocomposite: A Promising Eco-Friendly Advanced Material, at the 2nd International Conference on Advanced Polymeric Materials (ICAPM), organized by IISc, Bangalore, February, 2017.

Nashreen S Islam delivered a talk, Enzyme inhibiton by metal complexes: a mode of action for inorganic drugs, at National Seminar on Trends in Biochemistry, organized by Department of Biochemistry, NEHU, Shillong, 3-5 October, 2016.

Nashreen S Islam delivered a talk, Polymer immobilized peroxometallates as potent enzyme inhibitors:

My journey from inorganic synthesis to vanadium biochemistry, at a National Seminar on Experiences Shaping Research Careers, organized by Department of Biochemistry, Indian Institute of Sciences (IISc),Bangalore, 28 – 29 November, 2016.

R K Dutta delivered a talk, Field Trail of fluoride removal by phosphoric acid- crushed limestone treatment,at the 13th IWA specialized conference on small water and waste water system, Athens, Greece, 14-17 September, 2016.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

Workshop on Fluoride Nilogon: Removal of Fluoride from drinking water by Phosphoric Acid-Crushed Limestone Method in collaboration with Dengaon Higher Secondary School, Dengaon, Karbi Anglong, Assam, 25 March, 2017.

Science Academies Lecture Workshop on Magnetic and Optical Properties of Molecular Materials: Principles and Applications, 19-21 October, 2016.

Science Academies Lecture Workshop on Emerging trends in chemical sciences, 11-13 November, 2016.

DISTINGUISHED VISITORS TO THE DEPARTMENT

Dr. A Kumar, Department of Biosciences & Bioengineering, IIT Bombay, Mumbai

Dr. N Lingaiah, IICT, Hyderabad

Prof. P V Bharatam, NIPER, Punjab

Prof. R K Roy, BITS, Pilani

Dr. R D Dewhurst, Institut für Anorganische Chemie, Julius-Maximilians-Universität, Würzburg, Germany

Prof. R Ramaraj, FASc, FNASc, FNA, CSIR Emeritus Scientist, School of Chemistry, Madurai Kamaraj University

Prof. S Arepalli, Adjunct Professor, Department of Chemical and Biomolecular Engineering, Rice University, Houston

AWARDS & HONOURS RECEIVED BY THE FACULTY/ RESEARCH SCHOLARS/ STUDENTS:

AWARD RECEIVED BY FACULTY

A J Thakur was awarded the Chemical Research Society of India (CRSI) research award for the year 2016.

N Karak was awarded the Visitor's Award for Research by President of India for the year 2017.

Nashreen S Islam was appointed as Member of DST-Subject Expert Committee (Woman Scientist Scheme-A) in Chemical Science for the period 2016 -2019.

Nashreen S Islam was awarded the Indian National Science Academy Teacher Award for the year 2016.

R C Deka was selected as Council Member of Chemical Research Society of India for the period 2017-2020.

S K Dolui was awarded the National Technology Innovation Award for the year 2016 **in Institutional category,** by the Dept. of Chemicals and Petrochemicals under the Ministry of Chemicals and Fertilizers, New Delhi.

T K Maji was awarded the Runners up for 7th National Award for Technology Innovation for the year 2016 in Polymer Science and Technology for Researchers Working in Academic Institute/Research Lab category.

AWARD RECEIVED BY RESAERCH SCHOLARS

B J Saikia received the National award for Technology Innovation in Petrochemicals and downstream plastic processing industry in Institutional category for the year 2016 awarded by the Dept. of Chemicals and Petrochemicals under the Ministry of Chemicals and Fertilizers, New Delhi.

Chinmoyee Saikia received the Runners up for 7th National Award for Technology Innovation in the category of Polymer Science & Technology for Researchers Working in Academic Institute/Research Lab.

OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY:

Department is supported by UGC- SAP DRS- Phase –II and DST FIST programme.

Extension Work:

Prof R K Dutta is involved in Arsenic and fluoride removal from drinking water in the affected rural areas of Assam by using Arsiron Nilogon and Fluoride Nilogon methods developed in the Department.

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE [2016-2017]:

NET: 07

GATE: 23

SLET: 22

NOTABLE PLACEMENT [2016-2017]:

02 (Berger Paints), 01 (Dalmia Cement), 03 (OIL, Duliajan)

THE FACULTY OF THE DEPARTMENT

Professors

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Nashreen S Islam, PhD (NEHU)
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R K Dutta, PhD (NEHU)
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Ruli Borah, PhD (NEIST Jorhat)
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Inspire Faculty
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Adjunct Professor
M Lakshmi Kantam, PhD (Kurukshetra)
Specialization/Areas of interest: Inorganic
E-mail: mlakshmi@iict.res.in

Distinguished Professors
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Technical Staff
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Technical Officer
E-mail: bng@tezu.ernet.in

B J Borah, MSc (Dibrugarh)
Senior Technical Assistant
E-mail: biraj@tezu.ernet.in

R Borah, MSc (Dibrugarh)
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E-mail: raju@tezu.ernet.in

N Dutta, MSc (Annamalai)
Technical Assistant
E-mail: nipu@tezu.ernet.in

S Phukan, MSc (VMU)
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M Sarma, MBA (SMU)
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E-mail: mranjan@tezu.ernet.in

B Ozah, MSc (IGNOU)
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E-mail: bipozah@tezu.ernet.in

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B Das
MTS
E-mail: bubuld@tezu.ernet.in

Department of Environmental Science

THE DEPARTMENT

The Department of Environmental Science was opned in 2004 with the objective of imparting education on regional and global environmental issues. Initially it was a Centre for Environmental Science, opened in 2003, The curriculum for the MSc programme focuses on all important aspects of Environmental Science covering contemporary problems of natural resource conservation and environmental quality. Areas of research include Environmental Pollution, Greenhouse Gas Emission, Riverine Hazards, Geomorphology, Climate, Atmospheric Processes, Vulnerability & Adaption, Hydrogeochemistry, Vermicomposting, Pollution Remediation, Biodiversity Conservation and Atmospheric System Modeling.

Academic programmes and Student intake

Academic Programme	Student Intake
MSc	30
PhD	Intake variable 13 in the Academic year 2016-17

Major facilities and equipment available

Besides laboratories for regular academic activities the department has specialized laboratories that facilitate research. Some of the instruments the laboratories of the department house includes ICP-OES, Laser Leaf Area Meter with Root Measurement Attachment, Light Meter, Portable Photosynthesis Systems, Gas Chromatographs, Ion Chromatograph, TOC Analyzer, Continuous Air Pollution Monitoring Station, UV-Visible Spectrophotometer, Ion meter, Repairable dust sampler and Flame Photometer, GIS laboratory and plant culture house.

- ICP
- Gas Chromatograph with ECD& FID Detector
- Gas Chromatograph with ECD& FID Detector
- Portable Photosynthesis system
- Laser leaf area meter with root measurement Attachment
- High Speed Refrigerated Centrifuge
- HOBO Pro V2 Tea/RH data logger
- Respirable dust sampler with gaseous sampling attachment
- UV-Visible spectrophotometer
- Electrophoresis gel unit

- Flame photometer
- Nephlometer
- Trinocular Microscope with Camera & Software
- Sartorius RO System
- Sartorius Ultra-Pure Water Purification System
- Arc GIS Master Lab Kit (Software)
- ERDAS Software

MAJOR RESEARCH FINDINGS/RESEARCH AND DEVELOPMENT ACTIVITIES

Principal Investigator	Salient Research Findings
A K Das	• Channel changes in Ai-Manas river system during the last three decades are characterized by neck cut off and channel length reduction in downstream reaches and gradual widening in the upper reaches. Meandering shift and frequent alternation in direction are common too. • In terms of floodplain alternation, deposition is dominant over erosion during last three decades.
Ashalata Devi	• Analysis of plant diversity in the four typical forests of Assam reveals high species diversity under threat. One of the forest (Kumurakota Reserve Forest) is highly disturbed, quantified based on disturbance score values. • New distribution record of Macaca munzala in high altitudes of Tawang and West Kameng of Arunachal Pradesh.
K K Baruah	• During a 3 year study on monsoon rice ecosystem, it is found that this ecosystem can act as an effective sink of carbon with an overall SOC accumulation rate of 0.566 Mg C ha^{-1} yr^{-1}. • Bahadur and Dinanath were identified to have high photosynthetic efficiency and high partitioning efficiency out of 06 genotypes of irrigated boro rice studied, and these two varieties are also identified to be low methane emitting rice variety. • A modern wheat variety, WH-1021 with higher yield and higher photosynthetic efficiency was identified, out of 07 wheat varieties grown under irrigated condition and is considered to be suitable for cultivation in future climate change situation in Indian agriculture.
K P Sarma	• Identified a wetland plant of Assam for remediation of Arsenic from aqueous solution.

M Kumar	• Understanding of arsenic phase distribution and co-contamination perspective with fluoride in the Brahmaputra flood plains. Salient findings: There is Arsenic and Fluoride contamination in the Brahmaputra flood plains however correlation is weak between the two and hot spots are different. • Tracing source and distribution of heavy metals in the sediment and water of the Brahmaputra River through coupling of speciation and isotopic fingerprinting.Salient findings: Mostly metals are found in residual fractions with the maximum probability of Pb to be leached down to the groundwater and thus enter in food chain through drinking water. • Hydro-Geochemical Investigation of arsenic–contaminated alluvial aquifers of India through multilayer Sampling and evaluations of Applicable Remediation Technique. Salient findings: Five district of Assam and four districts of Bihar was evaluated for arsenic contamination in different seasons and geochemical mechanism of arsenic release were evaluated. Health risk was calculated as well.
S Mitra	• Alkali metals Na (33.22 ± 8.16 ppm) and K (34.84 ± 4.97 ppm) is present in the ginger growing soils of northeast India in very high amount than that of alkaline earth metals Ca (1.33 ± 0.85 ppm) and Mg (4.02 ± 2.93 ppm). • Among the micronutrients concentration of Mn (1.1 ± 0.49 ppm) is higher in all the soils than all the other elements. • Chromosome number of some species of Kaempferia and Hedychium is a new count. The ploidy determination has been done for the first time for many species and does not show any polyploidy.
S S Bhattacharya	• Identification of a high molecular weight protein which is involved in metal quenching in earthworm body. • Development of novel FeO, Fe-CuO, and Fe-MnO nanomaterials which has positive role in soil quality enhancement and crop growth. • Identification of novel microorganisms in earthworm gut with potential N-fixing and P-solubilizing activity.

Research projects, ongoing and new

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Hydro-Geomorphic Characterization Of Manas-Aie And Gaurang River Basins- A Base Line Study Of Geomorphic Response To Observed Precipitation Change Over Indian Region	SERB	24.6 lakh	2013-16	A K Das
Studies On Distribution, Behavioural Ecology, Habita Structure And Conservation Of Newly Discovered Arunachal Macaque (Macaca Munzala) In Western Arunachal Pradesh India	DST	23.98 lakh	2013-16	Ashalata Devi
Documentation, Collection And Preservation Of Biodiversity Of Tezpur University	Tezpur University	2.15 lakh	2014-16	Ashalata Devi
Sacred Groves Of Assam: Biodiversity Status And Strategies For Their Conservation	GBPIHED	9.96 lakh	2014-17	Ashalata Devi
Spatial Distribution Of Uranium And Associated Water Quality Parameters In Six Districts Of Assam (Sonitpur, Lakhimpur, Morigaon, Nagaon, Jorhat, Sibsagar)	DAE	24.56 lakh	2014-17	K P Sarma
Understanding Of Arsenic Phase Distribution And Co-Contamination Perspective With Fluoride In The Brahmaputra Flood Plains	DST-SERB	25.00 lakh	2014-17	M Kumar
Modeling Atmospheric Pollution And Networking (Mapan)	Director IITM	20.32 lakh	2013-16	R R Hoque

Soil-Plant-Atmosphere Study In Relation To Net CO2 Flux From Terrestrial Ecosystem Of Assam	UGC	10.10 lakh	2013-16	R R Hoque
Utilization Of Textile Industry Sludge Through Application Of Vermitechnology: An In-Sight On Metal Accumulation Potential Of Earthworm.	DST-SERB	54.80 lakh	2017-20	S S Bhattacharya
Elucidating The Mechanism And Assessing Amelioration Potential Of *Ocium* And *Lucas* In Stress Induced Impaired Homeostasis On Growth And Reproduction In Zebrafish.	ICAR-NASF	46.57 lakh	2017-20	S S Bhattacharya
Prospect of a novel protein in earthworm gut to minimize heavy metal risk in vermicompost for sustainable crop production	CSIR	26.96 lakh	2017-20	S S Bhattacharya



PUBLICATIONS
In National and International Journals

1. Baroowa, B. & Gogoi, N. The effect of osmotic stress on anti-oxidative capacity of black gram (Vigna mungo L.) *Experimental Agriculture* **1,** 1–16 (2016).
2. Baroowa, B., Gogoi, N. & Farooq, M. Changes in physiological, biochemical and antioxidant enzyme activities of green gram (Vigna radiata L.) genotypes under drought. *Acta Physiologiae Plantarum.* doi:10.1007/s11738-016-2230-7 (2016).
3. Baruah, A., Bordoloi, N. & Baruah, K. K. Effect of organic amendments with varied C-N ratios on grain productivity and nitrous oxide (N2O) emission from wheat grown in alluvial soil. *Australian Journal of Crop Sciences.* **10,** 460–469 (2016).
4. Baruah, A., Baruah, K. K., Gorh, D. & Gupta, P. Effect of organic residues with varied Carbon Nitrogen ratio on grain yield, soil health and nitrous oxide emission from a rice agroecosystem. *Communication in Crop Science and Plant analysis* **47,** 1417–1429 (2016).
5. Baruah, S., Bora, M. S., Sharma, P. & Sarma, K. P. Understanding of the Distribution, Translocation, Bioaccumulation, and Ultrastructural Changes of Monochoria hastata Plant Exposed to Cadmium. *Water Air Soil Pollution* **228** (2017).
6. Bharali, A. & Baruah, K. K. Changes in organic carbon pool in a tropical soil planted to rice in relation to photosynthetic carbon fixation. *Australian Journal of Crop Science* **10,** 1197–1206 (2016).
7. Bharali, A., Baruah, K. K. & Gogoi, N. Methane Emission from Irrigated Rice Ecosystem: Relationship with Carbon Fixation, Partitioning and Soil Carbon Storage. *Paddy and Water Environment.* doi:10.1007/s10333-016-0541-3 (2016).
8. Bharali, A., Baruah, K. K., Bhattacharya, P. & Gorh, D. Integrated nutrient management in wheat grown in a northeast India soil: Impacts on soil organic carbon fractions in relation to grain yield. *Soil and Tillage Research* **168,** 81–91 (2017).
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12. Bhuyan, P. , Barman, N., Bora, J., Daimari, R., Deka, P. & Hoque, R. R. Attributes of aerosol bound water soluble ions and carbon, and their relationships with AOD over the Brahmaputra valley. *Atmospheric Environment* **142,** 194–209 (2016).
13. Bhuyan, P. , Barman, N., Begum, S., Gogoi, D., Borah, S., Kumar, M., Sarma, K. P. & Hoque, R. R. Spatial and Seasonal Variations of Water Soluble Ions in PM10 of Mid-Brahmaputra Plain of Assam Valley. *Asian Journal of Water, Environment and Pollution* **13,** 69–81.
14. Borah, L. & Baruah, K. K. Nitrous oxide emission and mitigation from wheat agriculture: association of physiological and anatomical characteristics of wheat genotypes. *Environ Sci Pollut Res* **23,** 709–721 (2016).
15. Borah, M., Devi, A. & Kumar, A. Diet and feeding ecology of the western hoolock gibbon (Hoolock hoolock) in a tropical forest fragment of Northeast India. *Primates*. doi:10.1007/s10329-017-0627-6 (2017).
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20. Das, N. , Deka, J. P., Shim, J., Patel, A. K., Kumar, A., Sarma, K. P. & Kumar M. Effect of river proximity on the arsenic and fluoride distribution in the aquifers of the Brahmaputra floodplains, Assam, Northeast India. *Groundwater for Sustainable Development* **2-3,** 130–142 (2016).
21. Das, N. , Patel, A. K., Deka, G., Das, A., Sarma, K. P. & Kumar, M. Geochemical controls and future perspective of arsenic mobilization for sustainable groundwater management: A study from Northeast India. *Journal of Groundwater for Sustainable Development* **1,** 92–104 (2016).
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27. Deka, J., Singh, S., Jha, P. K., Singh, U. K. & Kumar, M. Imprints of long transported pollution on high altitude Eastern Himalayan lake water chemistry. *Environmental Earth Sciences*. doi:10.1007/s12665-015-4813-9 (2016).

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41. Kumar, M., Das, N. & Sarma, K. P. Tracing the Significance of River for Arsenic Enrichment and Mobilization. *Trends in Asian Water Environmental Science and Technology*, 139–149 (2017).

42. Kumar, M. Understanding the remobilization of copper, zinc, cadmium and lead due to ageing through sequential extraction and isotopic exchangeability. *Environmental Monitoring and Assessment* **186,** 381 (2016).

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47. Lee, M. H. , Kim, K. H., Jeon, B. H. Jo, S. H., Kim, Y. H., Kim, B. W., Cho, S. B., Hwang, O. H. & Bhattacharyaa, S. S. Effect of slurry treatment approaches on the reduction of major odorant emissions at a hog barn facility in South Korea. *Environmental Technology.* doi:10.1080/09593330.2016.1199599 (2016).

48. Mitra, S. , Singh, P., Manzoor, Bhattacharyya, P., Bera, T., Kumar, M., Rangan, L. & Borah, P. Can rice and wheat biochar amendment protect the carbon loss from tropical soils: An experimental study. *Environ. Prog. Sustainable Energy.*

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58. Sarma, J., Roy, D. K., Sarania, B. & Devi, A. A note on extended distribution and IUCN status of Pyrenaria khasiana R.N. Paul var. lakhimpurense Odyuo & D.K.Roy - an endemic Theaceous plant of Eastern Himalaya.

59. Singh, P. , Mitra, S., Majumdar, D., Bhattacharyya, P., Prakash, A., Borah, P., Paul, A. & Rangan, L. Nutrient and enzyme mobilization in earthworm casts: A comparative study with addition of selective amendments in undisturbed and agricultural soils of a mountain ecosystem. *International Biodeterioration & Biodegradation.* doi:10.1016/j.ibiod.2016.09.008 (2016).

Books and Book Chapters

60. Das, S. & Bhattacharya, S. S. *Environmental Stress and Stress Biology in Plants* (eds Siddiqui, M. W. & Bansal, V.) 1–37 (Apple Academic Press and CRC Press (Taylor Francis Group), Waretown NJ (USA), 2016).

61. Das, S. & Bhattacharya, S. S. *Plant and Soil Interfaces and Their Interactions under Different Climate* (eds Siddiqui, M. W. & Bansal, V.) 63–97 (Apple Academic Press and CRC Press (Taylor Francis Group), Waretown NJ (USA), 2016).

62. Das, S. & Bhattacharya, S. S. *Plant Essential Nutrients and Nutrient Composition in Soil and Activity of Plant Metabolites* (eds Siddiqui, M. W. & Bansal, V.) 99–134 (Apple Academic Press and CRC Press (Taylor Francis Group), Waretown NJ (USA), 2016).

63. Das, S. & Bhattacharya, S. S. *Significance of Soil Organic Matter in Relation to Plants and Their Products* (eds Siddiqui, M. W. & Bansal, V.) 39–61 (Apple Academic Press and CRC Press (Taylor Francis Group), Waretown NJ (USA), 2016).

64. Devi, A., Sarma, J. & Kumar, A. *An Appraisal of Ethno-Botanical Approaches in North Eastern States of India* (eds Medhi, P., Roy, H. & Sarma, A.) 373–408. ISBN: 978-93-81563-75-5 (EBH Publications (India), Guwahati, India, 2017).

65. Sarma, J., Devi, A. & Sarma, G. C. *Ethnobotanical enquiries of medicinal plants used by Munda community for human and animal care in Sonitpur district of Assam, India* (ed Singh, D. N.) 30–41. ISBN: 978-93-81563-75-5 (Global Publishing House (India), Chennai, India, 2016).

TALKS BY THE FACULTY ABROAD AND IN INDIA

Ashalata Devi delivered a talk, Non-Timber Forests products: socio-cultural perspectives and its implications, in a national conferences on Current issues in Non-Timber Forests products (NTFPs), organized by Assam University, Diphu campus, Karbi Along, Assam, 22-23 November, 2016.

Ashalata Devi delivered an Invited talk, Socio-cultural and conservation practices associated with sacred groves of Assam, in an International Conference on Global biodiversity, climate change and sustainable development-2016, organized by Centre with Potential for Excellence in Biodiversity, Rajiv Gandhi University, Rono Hills, Itanagar, Arunachal Pradesh, 15-18 October, 2016.

K K Baruah delivered a lead lecture, Hormonal regulation of plant mediated green house gas transport - potential for emission reduction and mitigation of agricultural greenhouse gases, at a National Conference of Plant Physiology, organized by University of Agricultural Sciences, Bengaluru, 8-10 December, 2016.

S S Bhattacharya delivered two talks, Soil pollution assessment and data analysis, at a national workshop on Applications of Statistical Tools in Environmental Science, organized by ISI NE, Tezpur, 18 and 26 March, 2017.

S S Bhattacharya delivered a talk, Composting and vermicomposting: modern techniques and recent insights, at a national workshop on Advances in Biotechnology and its Impact on Human Healing, organized by DRL, Tezpur, 7 November, 2016.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

National Seminar on Climate Change and Society (NCCCS), Tezpur University, Assam, 24-25 February, 2017.

National Workshop on Applications of Statistical Tools in Environmental Science, Indian Statistical Institute-Northeast Centre, Tezpur, Assam, 15-27 March, 2017.

National Workshop on Advances in Biotechnology and its Impact on Human Healing, Defence Research Laboratory, Tezpur, Assam, 7-11 November, 2016.

NOTABLE PLACEMENT

Dr. Nabajit Hazarika, Assistant Professor, Nagaland University, Lumami

Dr. Nayanmoni Gogoi, Assistant Professor, Tezpur University

DISTINGUISHED VISITORS TO THE DEPARTMENT

Prof. D Arande, Federal University, Rid De Janeiro, Brazil

Prof. T K Adhya, Professor Scholl of Biotechnology, KIIT University

AWARDS & HONOURS RECEIVED BY THE FACULTY/ STAFF/ RESEARCH SCHOLARS/STUDENTS



M Kumar has received the Water Advanced Research and Innovation (WARI) Fellowship supported by the Department of Science and Technology, Govt. of India, the University of Nebraska-Lincoln (UNL), the Daugherty Water for Food Institute (DWFI) and the Indo-US Science and Technology Forum (IUSSTF) to carryout research at University of Nebraska-Lincoln.

OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY

- Department was supported by UGC-SAP, DST-FIST.
- World Environment Day was observed with a two day programme, 5-6 June 2016.

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE [2016-2017]

- UGC-NET (LS) - 03
- UGC-NET (JRF) - 01

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P P Basumatary
MTS

Department of Mathematical Sciences

THE DEPARTMENT

Established in 1994, the Department of Mathematical Sciences is one one of the first three Departments of the University. So far, 22 MSc batches and 4 integrated MSc batches have succesfully completed their studies in the Department. The Department has so far guided 41 PhD scholars. The Faculty of the Departmnet have published more than 150 research publications in international journals during last 5 years.

Academic programmes and Student intake

Academic Programme	Student Intake
MA/MSc in Mathematics	42
Integrated MSc in Mathematics	20
Integrated BScBEd in Mathematics	10
PhD in Mathematics	Intake variable 04 in the Academic year 2016-17

Major facilities and equipment available

Computer lab equipped with 01 server, 22 PC's, 03 Printers and necessary software support for researchers and students. Department has 03 photocopiers, 01 Scanner etc. for academic and administrative usages.

Research projects, ongoing and new

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Fully Discrete Analysis of Two-level/ Two-grid Methods for Oldroyd Model with Non-smooth Initial Data	UGC-BSR Start-up-grant	6,00,000.00	July 2014 to June 2016 (02 Years)	D Goswami

PUBLICATIONS

In International and National Journals

Bapat, R. B., Kalita, D., Nath, M. and Sarma, D. Convex and quasiconvex functions on trees and their applications, *Linear Algebra and its Applications*, 533, 2017.

Basnet, D. K. and Bhattacharyya, J. Nil clean graphs of rings, *Algebra Colloquium*, 24, 2017.

Chakraborty, D. and Saikia, A. Congruence relations for the fundamental unit of a pure cubic field and its class number, *Journal of Number Theory,* 166, 2016.

Chakraborty, D. and Saikia, A. An explicit construction for unramified quadratic extensions of biquadratic fields, *Acta Arithmetica,* 178, 2017.

Das, P.K. and Vashisht, L.K. Error locating codes by using blockwise-tensor product of blockwise detecting/correcting codes, *Khayyam Journal of Mathematics*, 2, 2016.

Das, P. K. Bounds on parity check of linear codes detecting repeated solid bursts, *Bulletin of Pure and Applied Sciences- Mathematics and Statistics*, 36, 2017.

Das, P. K. and Vashisht, L. K. Traces of Hadamard and Kronecker Products of Matrices. To appear in *Mathematics for Applications,* 2017.

Das, P. K. Error locating codes and extended Hamming code, To appear in *Mathematicki Vesnik,* 2017.

Dutta, J., Basnet, D. K. and Nath, R. K. On commuting probability of finite rings, *Indagationes Mathematicae*, 28, 2017.

Dutta, J. and Nath, R. K. Spectrum of commuting graphs of some classes of finite groups, *Matematika*, 33, 2017.

Dutta, J. and Nath, R. K. Finite groups whose commuting graphs are integral, *Matematicki Vesnik*, 69, 2017.

Kalita, D. Extremizing first eigenvalue of 3-colored digraphs made with given blocks, *Linear Algebra and its Applications*, 503, 2016.

Vashisht, L.K., Deepshikha, S. G., and Das, P. K. On generalized weaving frames of Hilbert spaces. To appear in *Rocky Mountain Journal of Mathematics,* 2017.

Conference proceedings

Basnet, D. K. And Dutta, J. Relative non-commuting graph of a finite ring, *Proceedings of 50th Symposium on ring theory and representation theory*, University of Yamanashi, Japan, 7–10 October, 2017.

Other publications:

Nath, R. K., An application of group theory in a TV Channel, *Inscignis Souvenir*, Vol. III, 2017.

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

International and National

P K Das participated in International Conference on Current Trends in Graph Theory and Computation, South Asian University, New Delhi, 17-19 September, 2016.

P K Das participated in National Conference on Mathematics and its Applications (NCMA-2016) held at Cotton College State University, Guwahati, 21-22 October 2016.

P K Das participated in National Seminar on Science and Technology for Human Welfare, IASST, Guwahati, 27 February, 2017.

R K Nath participated in the National Conference on Mathematics and its Applications, organized by the Department of Mathematics, Cotton College and Cotton College State University, 21-22 October, 2016.

R K Nath participated in the National Conference on Advances in Mathematical Sciences, Gauhati University, organized by Department of Mathematics, Gauhati University, 22-23 December, 2016.

R K Nath participated in the National Seminar on Science and Technology for Human Welfare, held at Institute of Advanced Study in Science and Technology (IASST), Guwahati, organized by IASST, Guwahati, 27 February, 2017.

R K Nath participated in the 112th Orientation Programme, Gauhati University, from 29 May-25 June, 2017.

TALKS BY THE FACULTY ABROAD AND IN INDIA

D K Basnet delivered a talk, Current Trends in Ring Theory, NIT Nagaland, 15 September, 2017.

D K Basnet delivered a talk, Innovative and Contemporary Teachers Training Program (ICTM) (Under

PMMMNMTT, DHE, GoI), NIT Silchar, 14-18 August, 2017.

D K Basnet delivered talks as resource person on TPM (Training Programme in Mathematics) (Level-1) 2017 of D.A.E., Govt. of India at NISER Bhubaneswar, 5-17 June, 2017.

D K Basnet delivered talks as resource person on Mini MTTS program of the National Board for Higher Mathematics at Mizoram University, during 14-17 December, 2016.

D K Basnet delivered talks as resource person on TPM (Training Programme in Mathematics)(Level-2) 2016 of D.A.E., Govt. of India at NISER Bhubaneswar during 6-18 June, 2016.

D K Basnet delivered talks as resource person on MTTS program (Level-I) of the National Board for Higher Mathematics at IIT Madras, Chennai, 23 May-5 June, 2016.

D Kalita delivered an invited talk on Determinant of the Laplacian Matrix of Weighted Directed graphs in National Conference on Linear Algebra and its Applications, SMIT, 9-10 January, 2017.

D Kalita delivered an invited talk on Some Properties of Laplacian of Weighted Directed graphs in 13th Annual ADMA Conference and Graph Theory DayXIII, held at SSN College of Engineering, Chennai, 8 -10 June, 2017.

R K Nath delivered a talk on Necessity of thinking and imagination in learning Mathematics in Teachers Orientation Programme organized by Maharishi Group of Schools in MVMSS School, Guwahati, 27 July, 2017.

DISTINGUISHED VISITORS TO THE DEPARTMENT

Prof. Bruce C. Berndt, University of Illinois at Urbana-Champaign

Dr. Diganta Borah, Dept. of Mathematics, IISER, Pune

Dr. K. B. Mangang, Manipur University

Dr. Soumya Paul, IRIT (Institut de Recherché en Informatique de Toulose), France

OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY:

- DST-FIST (DRS-I) 2012 to 2017
- UGC-SAP (DRS-I) 2011 to 2016
- UGC-SAP (DRS-II) Awarded 2016 to 2021 (yet to receive fund)

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE [2016-2017]

- NET-JRF 04 (four)

THE FACULTY OF THE DEPARTMENT

Professors

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N Ali
MTS

Department of Molecular Biology and Biotechnology

THE DEPARTMENT

The Department of Molecular Biology and Biotechnology (MBBT) completed its twenty years since its opening in 1997. Presently, the Department is running programs for human resource development at undergraduate, postgraduate and PhD levels. One of the MSc programmes of the Department, i.e. MSc in Molecular Biology and Biotechnology (with reservations for NE India domiciles), is sponsored by the Department of Biotechnology, Govt of India. The other MSc programme, i.e. Integrated MSc is Bioscience & Bioinformatics is newly introduced in respone to the increasing demand in the field. The faculty of the Department is highly qualified and is twenty in number at present. The Department hosts a vibrant research programmes in diverse areas which include microbiology, molecular biology, biochemistry, genetics, virology, cell biology, plant biology, immunology, toxinology, nanotechnology, bioinformatics and structural biology.

One of the notable achievements of the Department this year is that three of our Master degree students have qualified in the PhD entrance examination in NII, New Delhi. Apart from this, several others this year have qualified in PhD admission tests in other reputed research institutions such as IISc, IGIB, NCCS, NISER, NBRC, IICB, and IMTECH. Like the earlier years, this year too a good number of students have qualified in the national level tests such as NET-JRF/LS, DBT-JRF, and GATE. In terms of research, several papeprs authored by the faculty have appeared in high impact journals such as Scientific Reports, DNA Research, PLoS One, J of Proteomics, Carbohydrate Polymers, Toxicon, and RSc Advance.

Academic programmes and Student intake:

Academic programmes	Student Intake
MSc in Molecular Biology and Biotechnology	27
Integrated MSc in Bioscience and Bioinformatics	24
PhD	Intake variable 10 in the Academic year 2016-17

Major facilities and equipment available:

- DNA sequencers (4 capillary)
- Bioanalyzer
- Quantitative PCR

- Fast protein Liquid Chromatography (FPLC)
- UHPLC systems
- Ultracentrifuge
- GC/MS
- HPLC
- FTIR
- Spectroflurimeter
- Fluorescence microscope
- Animal cell culture facility
- Plant tissue culture facility
- Microbiology lab
- Bioinformatics infrastructure facility
- ONGC CPBT Centre For Petrolium Biotechnology

MAJOR RESEARCH FINDINGS/RESEARCH AND DEVELOPMENT ACTIVITIES

Principal Investigator	Salient Research Findings
A K Mukherjee	• Unveiling the venom proteomes of eastern India *Naja naja* and western India Russell's Viper.
A N Jha	• Study of interaction between different nanoparticles and anti-microbial peptides/ proteins by using computational tools
A Ramteke	• We have identified two medicinal plants with high antioxidant and anticancer activity against breast and lung cancer. At present laboratory is focusing on fractionation and characterization of possible active compounds from these plants.
B K Konwar	• This study is on dietary flavonols (viz- quercetin, myricetin and kaempferol) shows that they effectively help in degradation of Hsp90 protein which helps in stabalization of several proteins responsible for tumour and cancer. Exploitation of Pongamia glabra deoiled cake for alternate energy.
E Kalita	• Development of ZnO: CeO2: nanocellulose: PANI based lignocellulosic bio-nanocomposites for the adsorption of dissolved Arsenic from aqueous systems. In vitro establishment of the biotrophic phyto-pathogen Exobasidium vexans.
J P Saikia	• The mechanism of seed germination stimulation using $NaBH_4$.
M Mandal	• Three potential probiotic strains have been found suitable for use.

M V Satish Kumar	• Research on Alzheimer's disease: We have predicted the seed structure of Amyloid beta 1-42 peptide responsible for aggregation that is the major risk factor in Alzheimer's disease and investigated the interactions that stabilize the toxic intermediates. • Research on Parkinson's disease: We found a probable method to control the aggregation in α-synuclein which is responsible for Parkinson's disease. • Research on Breast Cancer: We obtained the salient structural features of human Lemur Tyrosine Kinase 3 (LMTK3) which is considered as a novel therapeutic target for breast cancer, then characterized its probable interaction with different proteins such as ERα, CDK5 and GRB2 and identified probable interface interacting residues between them.
N D Namsa	• Developed the routine protocol for detection and typing of rotavirus, adenovirus, astrovirus and norovirus. A peak increase in occurrence of rotavirus-led diarrhoea was observed mainly in the cooler months during the study period.
R Doley	• Isolated, Identified and characterized an anticoagulant PLA2 enzyme named Daboxin P, from the Indian *Daboiarusseliirusselii*venom that targets Factor X and Factor Xa for Its activity. • Purified and partially characterized an anticoagulant PLA2 from the venom of Indian Daboiarusselii that induces inflammation through upregulation of pro- inflammatory mediators under in-vitro condition. • Overexpression and characterized two anti-thrombin peptides namedhaemathrins 1 and haemathrin 2identified in the salivary gland of tick *Haemaphysalisbispinosa* (Acari: Ixodidae)
R Mukhopadhyay	• Anti-inflammatory mechanism of Kaempferol has been identified.
S Baruah	• We reported the clinical and serological features of SLE patients from Assam which was distinct from Mumbai patients, with higher renal manifestations. Antibody predictive of active SLE in case of patients from Assam was determined. The allelic diversity of KIR-2DL1 was comparable to that of the Chinese population and cancer associated KIR2DL1 allotype determined.
S Dasgupta	• We have investigated 143 potential anti-diabetic compounds of different categories like flavonoid, alkanoids, terpenes and sulfonylurea for its binding efficacy with the agonist conformation of A2AR and attenuation of lipid induced adipocyte inflammation.

S K Ray	• Molecular plant microbe interactions: we have standardized a methodology to study *R. solanacearum* pathogenicity in tomato seedlings by root inoculation under gnotobiotic conditions. Molecular evolution: we have analyzed 15 genes of *E. coli* to study the intra-species substitution pattern.
S P G Ponnam	• Our group is the first to perform the molecular genetics analysis of Keratoconus patients from Northeastern region of India. The work is currently in progress.
S Saha	• Investigation in the laboratory showed that protein arginylation is very important for heat stress response and plays a protective role during heat stress by stabilization of HSP70 transcript and increased HSP70 expression.
T Medhi	• Insecticide resistance: Development of one synthetic and two biological pesticides merged with biofertilizer attributes for the management of H.theivora, a major tea pest. • Biosensor: A novel ISFET based biosensor for hydrocarbon detection using cytochrome P450 as transducing element. • MEOR: We have prepared a standard biosurfactant based slug for the recovery of residual oil in porous media, collected from Upper Assam oil field.

Research projects, ongoing and new:

Project Title	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Discovering novel drug formulations from non-toxic, potent anticoagulant components of snake venom for the prevention and/or treatment of cardiovascular disease (CVD)	DBT	1.50 lakh	2014-2017	A K Mukherjee
Venomics and antivenomics of Indian Cobra and Russell's viper: implications in drug discovery and quality control of antivenoms	DBT	132.20 lakh	2014-2017	
Development of a cost-effective, novel antithrombotic anticoagulant herbal drug and standardization of its biomarker assisted quality control	DBT-BIRAC	13.22 lakh	2016-2018	

Studies on genetic and epigenetic alteration in head and neck cancer prevalent in the north eastern r egion of India	DBT	47.21 lakh	2011-2016	A Ramteke
Studies on exosomal lipidomics and microRNAs and their clinical utility in the management of metastatic and multiple drug resistant breast cancer	DST	54.03 lakh	2016-2020	
Studies on proteome and lipidome and their clinical implications in the management of drug resistant and recurrent head and neck squamous cell carcinoma (HNSCC)	ICMR	19.95 lakh	2016-2019	
GIS Modeling based impact assessment of ground water arsenic contamination in Brahmaputra basin and development of a remediation strategy using endemic lignocellulosic agrowaste based nanobiosorbants.	DBT	95.79 lakh	2012-2016	E Kalita
Towards identification isolation and characterization of *Exobasidium vexans* strains and their pathogenic determinants/ effectors from Blister blight infested tea plantations of Assam and development of future road-map for effective management practices.	DBT	90.27 lakh	2015-2018	
Bio-refinery Approach for Generation of Platform Chemicals and Bioethanol from Indigenous Lignocellulosic Agro-waste And Algal Bioresources.	DBT	75.67 lakh	2017-2020	
Studies on antimicrobial and anti-biofilm activities of medicinal plant of Assam and West Bengal	DBT	52.97 lakh	2017-2020	M Mandal

Molecular Epidemiology of Group A rotavirus (RVA) Infections in the North-eastern region (NER)	DBT	75.18 lakh	2014-2018	N D Namsa
Cloning, expression and structural characterization of anti-thrombin from cattle tick salivary gland: designing of novel anti-thrombin peptide	DST	41.06 lakh	2014-2018	R Doley
Role of non-canonical function of ribosomal proteins in inflammation	DBT	152.07 lakh	2014-2017	R Mukhopadhyay
Studies on the efficacy of flavonoid and non-flavonoid polyphenols against chronic inflammation induced disease pathogenesis	DBT	48.6 lakh	2014-2017	
Exploring gene expression differences between atherosclerotic and non atherosclerotic coronary and peripheral arteries within a patient to enable discovery of novel targets that mediate development of localized atherosclerotic plaques	SERB	25.94 lakh	2015-2018	
Systemic Lupus Erythematosus (SLE) - An investigation into diagnostics and disease pathogenesis.	DBT	234.00 lakh	2015-2017	Sashi Baruah
Polymorphism of Toll like and Nod Like receptors and their role in inflammasome activation in Head and Neck Squamous Cell Carcinoma	ICMR	49.81 lakh	2017-2019	
Diagnosis and Immunopathogenesis of Dengue Virus Infections; a longitudinal investigation into genotype diversity, diagnosis and immune response to dengue infections in Assam, Northeast India.	DRDO	61.59 lakh	2017-2019	

Identification of exercise induced myokine(s) and its role on white to brown/beige adipocyte conversion and suppression of obesity induced adipose tissue inflammation and insulin resistance.	DBT	116.59 lakh	2016-19	S Dasgupta
To investigate the role of toll-like receptor 4 (TLR4) in lipid induced impairment of adipogenesis and adipose tissue function implementing insulin resistance.	DBT	42.30 lakh	2015-18	
Exploring the effects of peroxisome proliferator-activated receptor beta/ delta activation in lipid induced adipocyte inflammation and insulin resistance.	DST-SERB	25.20 lakh	2015-18	
Role of fetuin-A gene and protein expression in obesity induced impairment of adipogenesis and stimulation of adipose tissue inflammation implementing insulin resistance and type 2 diabetes.	UGC	14.02 lakh	2015-18	
Role of transcription factors IRF8 and KLF4 in lipid induced adipose tissue inflammation and insulin resistance.	INSA	15.00 lakh	2014-17	
Study on the regulation of adipose tissue development and function by post-translational protein arginylation.	DBT	56.10 lakh	2013-16	S Saha
Study on the role of protein arginylation in regulation of adipo-osteogenic differentiation	SERB	50.7 lakh	2017-20	
Role of protein arginylation in cellular stress responses: A study using heat stress and oxidative stress models in arginylation deficient cell culture system	SERB	48.7 lakh	2017-20	
Development of phytoremediation protocol for bioremediation of crude oil contamination	ONGC	8.16 lakh	2015-2017	T Medhi

PUBLICATIONS
In National and International Journals

1. Agarwal, S. , Chattopadhyay, M., Mukherjee, S., Dasgupta, S., Mukhopadhyay, S. & Bhattacharya, S. Fetuin-A downregulates adiponectin through Wnt-PPAR? pathway in lipid induced inflamed adipocyte. *Biochimica et Biophysica Acta (Molecular Basis of Disease)* **1863,** 174–181 (2017).
2. Basu, A., Das, A. S., Majumder, M. & Mukhopadhyay, R. Anti-atherogenic Role of Chrysin, Quercetin and Luteolin. *Journal of Cardiovascular Pharmacology* **68,** 89–96 (2016).
3. Bhomick, P. C. , Singh, S. P., Deb, C. R., Sinha, D., Kakati, L. N. & Konwar, B. K. Molecular Interaction Studies of Chitosan Cross-linked Compounds as Drug Delivery Substrate for Anticancer Agents. *J. Biomed. Scix* **186,** 17 (2016).
4. Biswas, A. D., Devand, S. & Mattaparthi, V. S. K. Characterization of the structure of Anopheles gambiae Odorant Receptor 1 (AgOR1) and its binding affinity with novel inhibitors and phytochemicals: A Molecular Dynamics and Docking Approach. *International Journal of Innovations in Engineering and Technology* **6,** 624–641 (2016).
5. Bora, B. , Biswas, A. D., Gurung, A. B., Bhattacharjee, A., Mattaparthi, V. S. K. & Mukherjee, A. K. An insilico approach to understand the structure-function properties of a serine protease (Bacifrinase) from Bacillus cereus and experimental evidence to support the interaction of Bacifrinase with fibrinogen and thrombin. *Journal of Biomolecular Structure and Dynamics* **35,** 622–644 (2016).
6. Brahma, R. K., Blanchet, G., Kaur, S., Kini, R. M. & Doley, R. Expression and characterization of haemathrins, madanin-like thrombin inhibitors,isolated from the salivary gland of tick Haemaphysalis bispinosa (Acari: Ixodidae). *Thrombosis Research* **152,** 20–29 (2017).
7. Chutia, R. S., Phukan, M. M., Kataki, R., Bhaskar, T. & Konwar, B. K. Exploitation of Pongamia glabra deoiled cake for alternate energy: physico chemical characterization and thermogravimetric studies. *Energy sources part A: Recovery, utilization and environmental effects* **38,** 29–36 (2016).
8. Das, D. , Sharma, M., Das, H., Sahu, P. P. & Doley, R. Purification and Characterization of Nk-3FTx, A Three Finger Toxin (3FTx) from the venom of North East Indian Monocled Cobra. *Journal of Biochemical and Molecular Toxicology* **30,** 59–70 (2016).
9. Das, V. K. , Bharali, P., Konwar, B. K., Mikkola, J. P., Shchukarev, A. & Thakur, A. J. A convenient 'NOSE' approach used towards the synthesis of 6-amino-1,3-dimethyl-5-indolyl-1Hpyrimidine-2,4-dione derivatives catalyzed by nano-Ag. *New J of Chemistry (RSC)* **40,** 1935–1939 (2016).

10. Deep, G. , Kumar, R., Nambiar, D., Jain, A. K., Ramteke, A., Serkova, N. J., Agarwal, C. & Agarwal, R. Silibinin inhibits hypoxia-induced HIF-1a-mediated signaling, angiogenesis and lipogenesis in prostate cancer cells: In vitro evidence and in vivo functional imaging and metabolomics. *Molecular Carcinogenesis* **56,** 833–848 (2017).

11. Deka, A. , Sharma, M., Sharma, M., Mukhopadhyay, R. & Doley, R. Purification and partial characterization of an anticoagulant PLA2 from the venom of Indian Daboia russelii that induces inflammation through up-regulation of pro- inflammatory mediators. *Journal of Biochemical and Molecular Toxicology/In Press/* (2017).

12. Deka, K., Singh, A., Chakraborty, S., Mukhopadhyay, R. & Saha, S. Protein arginylation regulates cellular stress response by stabilizing HSP70 and HSP40 transcripts. *Cell Death Discovery* **2,** 1–8 (2016).

13. Deka, K. & Saha, S. Arginylation: a new regulator of mRNA stability and heat stress response. *Cell Death Disease* **8,** 1–2 (2017).

14. Deshpande, V. , Sharma, A., Mukhopadhyay, R., Thota, L. N. R., Ghatge, M., Vangala, R. K., Kakkar, V. V. & Mundkur, L. Understanding the progression of atherosclerosis through gene profiling and co-expression network analysis in Apobtm2SgyLdlrtm1Her double knockout mice. *Genomics* **107,** 239–247 (2016).

15. Dey, M. D., Ahmed, M., Singh, R., Boruah, R. & Mukhopadhyay, R. Utilization of Two Agrowastes for Adsorption and Removal of Methylene Blue: Kinetics and Isotherm Studies. *Water Science and Technology* **75,** 1138–1147 (2017).

16. Dutta, M., Chutia, R. & Mattaparthi, V. S. K. Structural Characterization of Amyloid 17-42 Dimer by potential of mean force analysis: Insights from Molecular Dynamics Simulations. *Protein and Peptide Letters.* **53,** 650–660 (2017).

17. Dutta, M. & Mattaparthi, V. S. K. In silico investigation on the inhibition of A42 aggregation by A40 peptide by potential of mean force study. *Journal of Biomolecular Structure and Dynamics* (2017).

18. Dutta, M., Chutia, R. & Mattaparthi, V. S. K. Cross-seeding interaction between Amyloid and Tau protein can enhance aggregation. *Current Biotechnology* **6,** 273–279 (2016).

19. Dutta, M., Deband, A. & Mattaparthi, V. S. K. Investigations on the Structural Characteristics that Seed the Aggregation of Amyloid-1-42 Peptide: Insights from Molecular Dynamics Simulations. *Current Proteomics* **13,** 172–178 (2016).

20. Dutta, M., Chutia, R. & Mattaparthi, V. S. K. Inhibition of A1-42 Peptide aggregation using short ss-oligonucleotide as polyions: An in silico approach. *Journal of Biomolecular Structure and Dynamics* **35,** 1401–1406 (2016).

21. Gogoi, P., Das, M. K., Ramteke, A. & Maji, T. K. Soy flour–ZnO nanoparticles for controlled release of silibinin: Effect of ZnO nanoparticle, surfactant, and cross-linker. *International Journal of Polymeric Materials and Polymeric Biomaterials* (2017).

22. Goswami, L. , Pratihar, S., Dasgupta, S., Bhattacharyya, P., Mudoi, P., Bora, J., Bhattacharya, S. S. & Kim, K. H. Exploring metal detoxification and accumulation potential during vermicomposting of Tea factory coal ash: sequential extraction and fluorescence probe analysis. *Journal of Molecular Imaging and Dynamics* **6** (2016).

23. Hussain, N. , Singh, A., Saha, S., Mattaparthi, V. S. K., Bhattacharya, P. & Bhattacharya, S. S. Excellent N-fixing and P-solubilizing traits in earthworm gut-isolated bacteria: A vermicompost based assessment with vegetable market waste and rice straw feed mixtures. *Bioresource Technology* **222,** 165–174 (2016).

24. Khatun, B. , Gogoi, B., Nath, Y., Buragohain, A. K. & Saikia, J. P. Vigna mungo seed non-destructive based colloidal silver nanoparticle synthesis and toxicity. *Indian Journal of Biology* **3,** 119 (2016).

25. Konwar, B. K. & Konwar, J. G. Premar Baigyanik Bislekhan Part I. *Bijnan Jeuti,* 43–45 (2016).

26. Konwar, B. K. & Konwar, J. G. Premar Baigyanik Bislekhan Part II. *Bijnan Jeuti,* 35–38 (2016).

27. Konwar, B. K., Ray, A. & Chattopadhyay, P. Anti-Alopecic Activity of a Novel Compound from Aloe barbadensis Miller. *J Pharmacol Clin Toxicol[SciMed],* **3,** 1048–1052 (2016).

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40. Sanjeev, A. & Mattaparthi, V. S. K. Effect of Structural heterogeneity of -Synuclein mutants on the aggregation propensity. *International Journal of Current Research.* **9,** 53448–53456 (2017).

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56. Singh, S. P., Deb, C. R., Kakati, L. N. & Konwar, B. K. MD Simulation Studies of Fumarase Reveal Thermo Dynamical Stability. *J Phys Chem Biophys* (2016).

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59. Yata, V. K. , Mahajan, S., Thapa, A., Ahmed, S., Biswas, D., Sanjeev, A. & Mattaparthi, V. S. K. In silico methods reconfirm CDk2 as a potential molecular target of 5-flurouracil. *Indian Journal of Biochemistry and Biophysics.* **53,** 199–205 (2017).

Conference proceedings

60. Borah, A. K., Kuri, P. R. & Saha, S. *Adipocyte Development and Function in vitro in presence of a Medicinal Plant Extract of Assam* in *National Seminar on Recent Advances in Medicinal Plants Research of North East India (RAMPR-NE 2016)* (Nagaon, Assam, 2016), 1.

61. Deka, K. & Saha, S. *Protein arginylation: an important regulator of cellular stress response* in *5th International conference on Molecular Signalling: Basics to Applications (ICMS 2017)* (Chennai, 2017), 1.

62. Gambert, I. , *Janise, A., Lorenz, B., Ponnam, S. P. G., Stieger, K. & Yanik, M. In vitro studies to investigate the therapeutic approach of replacing the defective human RPGR-ORF15 gene through MMEJ* in *12th ProRetina-Research Colloquium-Retinal Degeneration in Potsdam, Germany* (2017).

63. Konwar, B. K. *Bioresources, Threats and Research Needs,* in *National Seminar on Inventory, Sustainable Utilization and Conservation of Bioresources* (Nagaland, 2016), 26–27.

64. Konwar, B. K. *Nagaland A Treasure-trove and Potentiality* in (Bhopal, 2016).

65. Konwar, B. K. *Research on Resources of North Eastern India for Knowledge Generation and Socio-economic Development* in (Itanagar, 2016).

66. Konwar, B. K. *Human Resource and Economic Development of North East India* in *Human Resource and Economic Development in India: Prospects, Challenges and Strategies* (Kohima, 2016).

67. Konwar, B. K. *Metagenome-based lipase gene and the enzyme* in (Lumami, 2016).

68. Konwar, B. K. *Agro-horticultural Food Entrepreneurs and Industrialization in North East India* in *Linking Prospective Food Entrepreneurs with Government Schemes and Markets* (Medziphema, Nagaland University, 2016).

69. Konwar, B. K. *Biology, Advance Biology and Biotechnology.* in (2016).

70. Konwar, B. K. *Agro-processing Sector: Finding a Doable Answer, Concept Paper* in *Doable Solutions to the Problems in Growth of Agro-processing (Sector) in North East India* (Guwahati, 2016).

71. Konwar, B. K. *Quality higher education in India. Multidisciplinery* in *Refresher Course* (Assam, 2017).

72. Konwar, B. K. *Ahomor rajatwakalat bibhinna jati-janagusthir samanay sadhan* in *Freedom fighter Chabilal Upadhaya 'Oikya and Sapriti Lecture* (Assam, 2017).

73. Majumder, M. & Mukhopadhyay, R. *Ricinus communis fruit extracts inhibits growth and metastasis of breast cancer cell lines MCF-7 and MDA-MB-231 via STAT3 pathway* in *Proceedings of National Conference on Recent Advances in Medicinal Plant Research (RAMPR-NE 2016)* (Department of Herbal science and Technology,Anandaram Dhekial Phookan college, Nagoan, Assam, 2016), 60.

74. Phukan, S., Dutta, A., Banerjee, A., Kalita, I. & Baruah, S. *The KIR-HLA System- A Study in Head and Neck Cancer Patients of North-East India* in *ISHICON,PGIMER Chandigarh* (2016).

Books and Book Chapters

75. Dasgupta, S. & Bhattacharya, S. *Recent Advances in Communicable and Non-communicable Diseases* (eds Datta, A. & Sharma, V.) 406–415 (Capital Publish Company, 2016).

76. Konwar, B. K. & Sagar, K. *Lipase: an Industrial Enzyme through Metagenomics* (Apple Academic Press, Inc., New Jersy, USA and Ontario, Cana, 2017).

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

International and National

J P Saikia attended and presented in International Symposium on Plant Biotechnology for Crop Improvement (ISPBCI), IIT Guwahati, 20-21 January, 2017.

M V S Kumar attended and presented paper International Conference on Advances in Biotechnology and Biotherapeutics ICABBS-2017, Sathyabama University, Chennai, 10-12 March, 2017.

M V S Kumar attended and presented paper at International Conference on Mathematical Modelling, Differential Equations, Scientific Computing & Applications (ICMMDESCA- 2016), IIT, Kanpur, 27-29 March, 2016.

R Doley attended Snake Venom Research and Snake-bite Therapy: National and International Perspective, Department of Molecular Biology and Biotechnology, Tezpur University, Tezpur, 22-24 November, 2016.

R Doley attended 62nd Annual Technical Session, Assam Science Society, Science and Technology for Human Welfare, IASST, Guwahati, Assam, 27 February, 2017.

R Mukhopadhyay attended 9th Annual Meeting of The Cytometry Society and Symposium cum Workshop on Flow Cytometry on Basic, Applied and Clinical Biology, I.I.T. Guwahati, 3-5 November, 2016.

S Dasgupta attended recent Advances in Snake Venom Research and Snake-bite Therapy: National and International Perspectives, Department of Molecular Biology and Biotechnology, Tezpur University, Tezpur, 22-24 November, 2016.

T Medhi attended workshop on Innovation Management & amp; Product Commercialization, IASST, Guwahati, March 2017.

T Medhi attended workshop on environmental compliance in oil, petroleum and gas based projects of north east (NE) region, MOEF & CC, shilling, 24 March, 2017.

TALKS BY THE FACULTY ABROAD AND IN INDIA

A Ramteke delivered a talk, Antioxidant, cytotoxic and protective activities of Nyctanthes arbor-tristis Linn, Recent Advances in Medicinal Plants Research of North East India, national seminar, Recent Advances in Medicinal Plants Research of North East India, Department of Herbal Science and Technology, A.D.P. College, Nagaon, Assam, 11-12 November. 2016.

J P Saikia delivered a talk, Biosafety & Biotechnology, Workshop on Biosafety, Koliabor College, Assam, 21 August, 2016.

N D Namsa delivered a talk, In silico mapping of B and T cell epitopes of rotavirus proteins, 5th International Conference on Molecular Signaling: Basics to Applications. AU-KBC Research Centre, Anna University, Chennai, 10-12 January, 2017.

S Dasgupta delivered a talk, A plant derived polyphenol, ferulic acid, rescues lipid induced insulin resistance by inhibiting adipose tissue inflammation, Consortium for an integrated research on molecular medicine: Search for novel biopharmaceuticals from natural resources of West Bengal (CIRMM, WBSU). Dept. of Zoology, West Bengal State University, 25 February, 2016

S K Ray delivered a talk, 6th International Symposium on Bacterial Wilt, LIPM, CNRS-INRA, Toulouse, France, 3-7 July, 2016

S K Ray delivered a talk, All India Microbiology Society meeting, Gauhati University, 26 November, 2016.

S K Ray delivered a talk, DST sponsored brainstorming on Phytomicrobiome, VIT-Chennai campus, Chennai, 30 November, 2016.

S K Ray delivered a talk, International Symposium on Plant Biotechnology and Crop Improvements, Dept of Bioscience and Bioengineering, IIT Guwahati, 20 January, 2017.

R Mukhopadhyay delivered a talk, Managing Atherosclerosis: Is vaccination the Answer?, 9th Annual Meeting of The Cytometry Society and Symposium cum Workshop on Flow Cytometry on Basic, Applied and Clinical Biology, I.I.T. Guwahati, 3 November, 2016.

T Medhi delivered a talk, Cytochrome P450 based Enzyme Field Effect Transistor (EnFET) biosensor for detection of Drugs and Xenobiotics, 49th Annual Conference of Indian Pharmacological Society (IPSCON) 2016, PGIMER, Chandigarh, 21 October, 2016.

DISTINGUISHED VISITORS TO THE DEPARTMENT:

Professor Stephane Genin, LIPM, CNRS-INRA, Toulouse, France.
Professor Edward Feil, University of Bath, UK.
Prof. Dulal Borthakur, University of Hawaii, USA.
Prof. D N Rao, IISc, Bangalore.
Dr. Ganesh Bagler, IIIT New Delhi.

Dr. S Bhattacharya, Bose Institute, Kolkatta.

AWARDS & HONOURS RECEIVED BY THE FACULTY/ RESEARCH SCHOLARS/ STUDENTS

Faculty

E Kalita received Biotechnology Overseas Associateship Award for carrying out research for a period of 1 year at the John Innes Centre, Norwich Norfolk, England, by DBT, 2016-17.

S P G Ponnam received Biotechnology Overseas Associateship Award for carrying out research for a period of 1 year at Prof. Knut Stieger Laboratory, Justus Liebig University, Giessen, Germany, 2016-17.

Student

Ms. Zeba Firdows received first prize in Poster Presentation, Research conclave 2017, IIT Guwahati, 16-19 March, 2017.

Ms. Barsha Bharadwaz received first prize in oral presentation, Research conclave on Recent Innovations in Science and Engineering 2017, NIT Silchar, 24-26 March, 2017.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

- National Seminar, Molecular Intricacies in Plant Associated Microorganisms, 19 November, 2016.
- National Seminar, Recent Advances in Snakebite Research and Snakebite Therapy: National and International Perspective, 22-24 November, 2016.
- GIAN International workshop, Molecular Evolution in Bacteria, 5-12 December 2017.
- NEBInet, 9th Annual Co-ordinator's Meet, Department of Molecular Biology and Biotechnology, Tezpur University, Tezpur, 19-21 January, 2017.
- National Workshop, Networks in Biological Systems, 18-19 February, 2017.
- National Science Day, Snake Venom: an Evolutionary adaptation with multiple mission. InSCIgnis 2k17., 28 February-1 March 2017.
- National Seminar, Petroleum Biotechnology and Bioenergy, 3-4 March, 2017.
- National Seminar, Diarrhoeal Disease Burden and Management: Special Reference to North Eastern India, 10-11 March, 2017.
- National Workshop, Basic Bioinformatics Tools and Techniques in Structural Biology, 18-19 March, 2017.

OTHER IMPORTANT ACTIVITIES OF THE DEPARTMENT/ACHIEVEMENTS OF THE FACULTY:

UGC SAP-II major findings under the thrust area in microbiological research:

- Several bacteria have been isolated from tomato seedlings that have been shown inhibiting the growth of *Ralstonia solanacearum*, a Gram-negative bacterial pathogen of tomato and many other plants.
- *Exobasidium vexans*, the fungal pathogen causing agent blister blight disease in tea plant has been isolated from infected field s in Assam. The isolates were identified and pure cultures established through single spore culture. The pathogenesis of the fungus will be investigated in the near future.
- Production of bacteriocin-like substance (BLIS) by potential probiotic Bacillus sp. NK7 isolated from kharoli from Assam, India
- Mathematical simulation of hydrocarbon degradation in crude oil contaminated soil using slurry reactor
- Molecular characterization of potential dibenzothiophene (DBT) desulfurizing bacteria characterized as Proteobacteria, Firmicutes, Actinibacteria, Bacteroides.

- Human pathogenic bacteria, Staphylococcus aureus, Citrobacter spp, Klebsiella pneumonia and *Enterococcus faecium* have been found to be associated with SLE patients.

DST-FIST: Level-I, Phase-II has been awarded to the Department from December 2016 with a consolidated grant of Rs. 270.00 Lakhs

NUMBER OF STUDENTS WHO PASSED NET-JRF/GATE: 11

NOTABLE PLACEMENT:
Ms. Puja Rani Kuri, M.Sc. MBBT, Natural Remedies Pvt. Ltd., Bangalore.
Mr. Millind Shah, M.Sc. MBBT, Alembic Pharmaceuticals Ltd., Gujrat.

THE FACULTY OF THE DEPARTMENT

Professors

B K Konwar, PhD (Imperial College, London), DIC
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P Bora
MTS

Department of Physics

THE DEPARTMENT

Eighteen years since its commencement in January 1998, the Department of Physics has stridden out not only in its post-graduation teaching but also in new frontiers of research. To keep pace with the advancements in science and technology, new special papers have been included with adaptation to new developments within the course content. To preserve this spirit, the Department, in July 2005, started a two-year P.G programme in Nanoscience and Technology. The areas of specialization for post-graduation are: Condensed Matter Physics; Electronics and Photonics; High Energy Physics; and Nano Science and Technology. To develop the students from the graduate level, the Department also started an Integrated MSc in Physics in 2009. Keeping in mind the need of teachers at the school level, the Department has also been running a BSc-BEd programme since July 2011.

Major thrust areas of research of the Department are, Astrophysics, High Energy Physics (Theoretical), Nanomaterials, Neutrino, Optoelectronics, Plasma Physics, Microwaves and Solid State Ionics, etc.

Academic programmes and Student intake

Academic Programme	Student Intake
MSc in Physics	20
MSc in Nanoscience & Technology	20
Integrated MSc in Physics	20
Integrated BSc BEd	10
PhD	Intake variable 09 in the Academic year 2016-17

MAJOR FACILITIES AND EQUIPMENT AVAILABLE

- High Power Nd-YAG Laser
- Microwave Set-up
- High Vacuum Thin Film Coating Unit
- LCR Bridge Tester
- Computerized insertion loss measurement x-band system
- CTE measurement setup for polymer materials.
- Electronic Balance

- Tube Furnace
- X-Ray Diffraction (XRD)
- Luminescence Spectro Photometer
- Semi-Conductor Characterization Setup
- Scanning Electron Microscope (SEM)
- Polarizing Microscope
- UV-Visible Spectrophotometer
- Vector network Analyser
- High Power Microwave Set-up
- FTIR
- CNC Milling Machine



MAJOR RESEARCH FINDINGS/RESEARCH AND DEVELOPMENT ACTIVITIES

Principal Investigator	Description of the Project
A Kumar	• Effect of Swift heavy ion irradiation on electrical and thermal transport of conducting polymer nanostructures. • Development of novel Polymer-silicate nanocomposite electrolytes for lithium ion rechargeable batteries.
D Mohanta	• Investigation of magneto viscous and magneto optics properties of novel ferrofluids. • Fluorescent nanocrystal induced ion channels biomolecular labeling applications. • Photonics properties of rare earth doped nanoscale semiconductors subjected to energetic ion irradiation.
G A Ahmed	• Lidar Development and Associated Scattering studies for constitutes.
J K Sarma	• Studies on the relativistic and the dynamical spinning sphere models of the electron. • Studies on Gluon Distribution Function and Recombination of Partons.
Ng K Francis	• Neutrino Masses & Mixing Angles in Neutrino Oscillation.
Nidhi S Bhattacharyya	• Studies of Spin-wave Instability in Ferrites for high power circulation. • Synthesis and development of broadband EMI shielding materials using magneto-dielectric-nanoparticles.

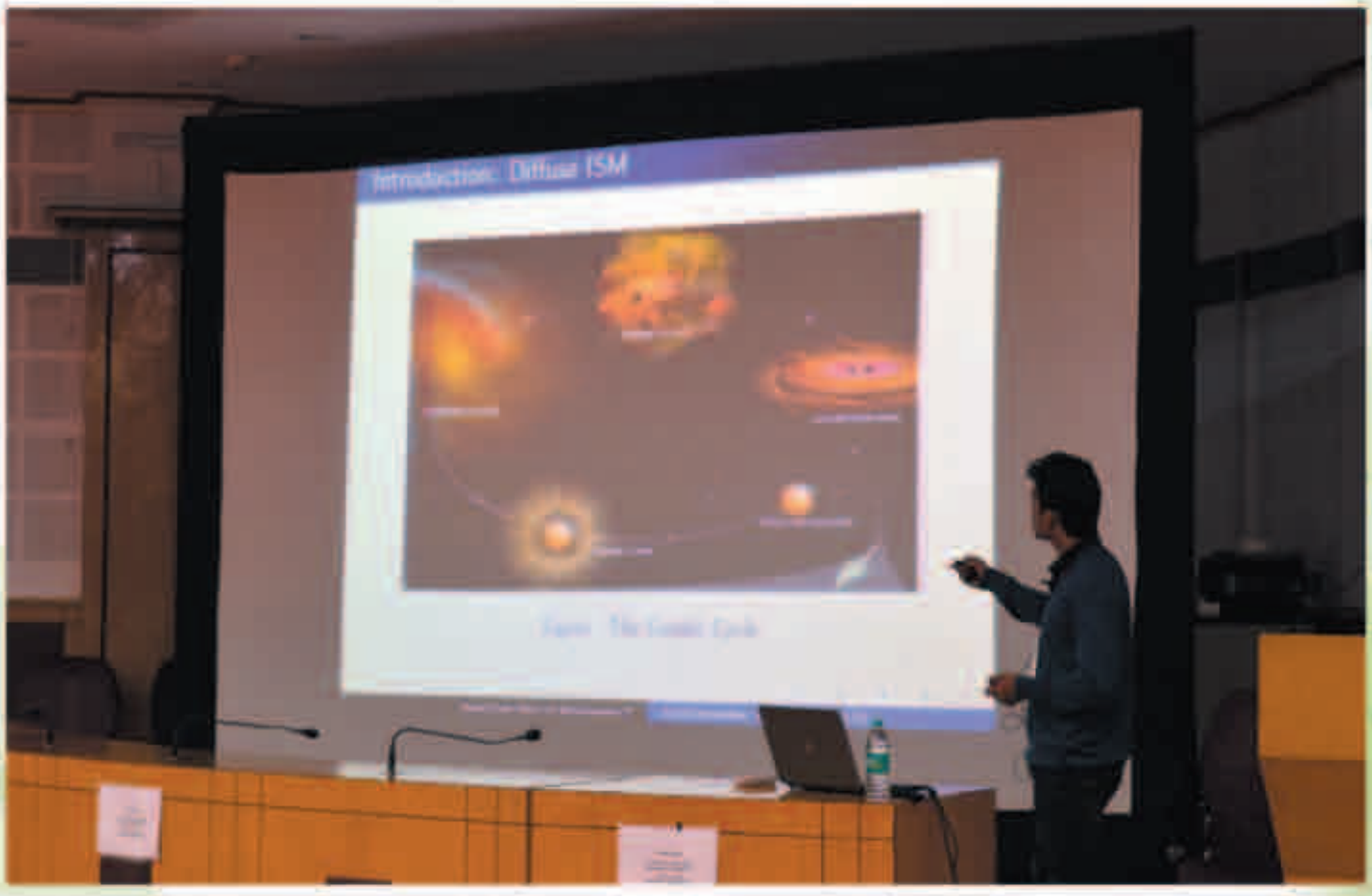
Nilakshi Das	• The study of the charging of dust particles in plasma and dynamics of complex plasma.
P Deb	• Synthesis and characterization of binary nanoparticles: A conjugate of magnetic nanoparticels and semiconductor quantum dots. • Multifunctional hybrid nanosystem for molecular imaging applications.
P K Karmakar	• Investigations of a few random problems in solar wind plasma.
R Biswas	• Ambient noise assisted microzonation of Tezpur, Northeast India with simultaneous multiwave shear wave analysis. • Estimation of predominant frequencies of entire Tezpur and Neighboring Region.

Research projects, ongoing and new

Title of the Project	Funding Agency	Amount (in INR)	Duration	Principal Investigator
Surface functionalization of Muga silk using atmospheric dielectric barrier discharge for biomedical applications.	SERB-DST	19.20 lakh	2015-2018	A J Choudhury
Development of biologically functionalized conducting polymer nanostructures for biosensing applications	DAE-BR-NS	24.7 lakh	2013-2016	A Kumar
SHI effects on graphene based conductingpolymer nanocomposites for electrode applications.	IUAC	6.03 lakh	2015-2018	A Kumar
Development of grapheme based conducting polymer nanocomposites for electrochemical energy storage applications.	DST-SERB	50.10 lakh	2016-2019	A Kumar
Theoretical spectroscopic studies of polycyclic aromatic hydrocarbon molecules and astrophysical implications	~~DST~~	13.20 lakh	2013-2016	A Pathak
DST–JSPS International Science & Technology Cooperation Grant	~~DST~~	9.16 lakh	2014-2016	A Pathak
Dynamics of solar prominences and initiation of coronal mass ejections	ISRO	19.20 lakh	2015-2018	A Pathak

Effect of ion irradiation on nanostructured transition metal dichalcogenide system	IUAC	6.5 lakh	2014-2017	D Mohanta
Transition metal dichalcogenides nanoscale systems subjected to energetic ion irradiation	IUAC	6.0 lakh	2014-2017	D Mohanta
Investigation of photocatalytic response of TiO_2 nanostructures under doping and irradiation for practical applications	UGC	13.978 lakh	2013-2016	G A Ahmed
Fabrication of p-i-n photovoltaic devices hybridized with core-shell CdSe/TiO_2 nanostructures for enhanced quantum efficiency	UGC-UKI-ERI	16.53 lakh	2014-2016	G A Ahmed
Study on neutrino masses and mixing in context of recent neutrino oscillation data.	UGC	10.508 lakh	2013-2017	M K Das
Microwave Technology based Tea Processing Systems for NE States	SAMEER	55.3 lakh	2013-2016	Nidhi S Bhattacharyya
Studies of ferromagnetic resonance in spinel ferrite & garnets for high power circulators	DAE-BR-NS	32.377 lakh	2014-2017	Nidhi S Bhattacharyya
Design and realization of light weight shields to reduce electromagnetic interference (EMI) at microwave ranges (C and X band) with different geometries for customized applications like anechoic chamber, as terminations and stealth for strategic device camouflaging	DeitY	216.04 lakh	2016-2019	Nidhi S Bhattacharyya
A Study of the dynamics of dust particles in strongly coupled plasma	UGC	9.658 lakh	2013-2017	Nilakshi Das
Study on the controlled self-assembly of magnetic nanostructures using neutron scattering	UGC-DAE	7.67 lakh	2013-2016	P Deb

Development of nanomaterial based dual mode contrast agent and their surface mediated conjugation study from first principle	DBT	122.25 lakh	2013-2016	P Deb
Design consideration of SERS substrate for getting extremely enhanced Raman signal	DST-SERB	27.24 lakh	2013-2016	P Nath
Smart phone based optical microscope for clinical applications	ICMR	29.58 lakh	2017-2020	P Nath
Ambient noise assisted microzonation of Tezpur, Northeast India with simultaneous multiwave shear wave analysis	MoES	10.68 lakh	2014-2017	R Biswas
A multi-wavelength study of Active Galactic Nuclei and X-ray sources.	CSIR	9.32 lakh	2017-2020	R Gogoi
High performance ultracapacitors with graphene-based composite electrodes	DST	28.4 lakh	2015-2018	S K Das



PUBLICATIONS
In National and International Journals

1. Borah, D. & Bhattacharyya, N. S. Design and Development of Expanded Graphite-Based Non-metallic and Flexible Metamaterial Absorber for X-band Applications. Design and Development. *Journal of Electronic Materials* **46,** 226–232 (2017).
2. Borah, P., Bhattacharjee, S. & Das, N. Dust ion acoustic solitary and shock waves in strongly coupled dusty plasma in presence of attractive interparticle interaction potential. Dust ion acoustic solitary. *Physics of Plasmas* **23,** 10376 (2016).
3. Borah, R. & Kumar, A. Fluorescence enhancement of glutaraldehyde functionalized polyaniline nanofibers in the presence of aromatic amino acids. Fluorescence enhancement. *Materials Science and Engineering* (2016).
4. Boruah, M. J., Gogoi, A., Nath, B. C. & Ahmed, G. A. Light scattering studies of randomly oriented polycrystalline fayalite micro particles as interstellar dust analogues. Light scattering. *Journal of Quantitative Spectroscopy & Radiative Transfer* **196,** 213–221 (2017).
5. Boruah, M. J., Gogoi, A. & Ahmed, G. A. Laboratory simulation and modeling of size, shape distributed interstellar graphite dust analogues: A comparative study. Laboratory simulation. *Planetary and Space Science* **125,** 27–36 (2016).
6. Biswas, R. & Karmakar, P. All fiber optic hetero-core spliced multimode single mode multimode filter. All fiber Optic. *Opt Quant Electron (2016) 48:385* **48,** 385–391 (2016).
7. Biswas, R. & Baruah, S. Shear Wave Velocity Estimates through Combined Use of Passive Techniques in a Tectonically Active Area. Shear Wave Velocity. *Acta Geophysica* **64,** 2051–2076 (2016).
8. Biswas, R. Low-cost wavelength-selective evanescent fiber optic temperature and refractive index sensor. Low-cost. *The European Physical Journal Plus* **132,** 207 (2017).
9. Chamuah, N. , Chetia, L., Zahan, N., Dutta, S., Ahmed, G. A. & P. Nath, P. A. naturally occurring diatom frustule as a SERS substrate for the detection and quantification of chemicals. Diatom frustule. *Journal of Biophotonics* **10,** 623–633 (10 2017).
10. Chetia, L., Kalita, D. & Ahmed, G. A. Enhanced photocatalytic degradation by diatom templated mixed phase titania nanostructure. Enhanced photocatalytic. *Journal of Photochemistry and Photobiology A: Chemistry* **338,** 134–145 (2017).
11. Das, S. K., Mahapatra, S. & Lahon, H. Aluminium-ion Batteries:Developments and Challenges. Aluminium-ion Batteries. *Journal of Materials Chemistry A*, 6347 (2017).

12. Devi, M. & Kumarz, A. In-situ reduced graphene oxide nanosheets–polypyrrole nanotubes nanocomposites for supercapacitor applications. In-situ reduced graphene. *Synthetic Metals*, 318–329 (2016).

13. Dutta, S. , Saikia, G. P., Sarma, D. J., Gupta, K., Das, P. & Nath, P. Protein, enzyme and carbohydrate quantification using smartphone through colorimetric digitization technique. Protein, enzyme. *Journal of Biophotonics* **10,** 623–633 (2017).

14. Gohain, M. & Karmakar, P. K. Normal mode behaviours in solar prominence plasmas. Dynamics of streaming. *Journal of Physics: Conference Series* **836** (2017).

15. Gohain, M. & Karmakar, P. K. Nonextensive turbulent gravito-electrostatic sheath (GES) equilibrium structure. Nonextensive turbulent. *Europhysics Letter* **117,** 19001 (2017).

16. Gogoi, P. J., Rabha, M. M., Bhattacharyya, S. & Bhattacharyya, N. Miniaturization of body worn antenna using nano magneto-dielectric composite as substrate in C-band. Miniaturization of body worn. *Journal of Magnetism and Magnetic Materials* **414,** 209–218 (2016).

17. Gogoi, P. J. & Bhattacharyya, N. S. Modified ground plane of patch antenna for broadband applications in C-band. Modified ground plane. *Microwave and Optical Technology Letters* **58,** 1074–1078 (2016).

18. Goutam, H. P. & Karmakar, P. K. Dynamics of streaming instability with quantum correction. Dynamics of streaming. *Journal of Physics: Conference Series* **836** (2017).

19. Haloi, A. & Karmakar, P. K. Nonlinear Waves in Nonuniform Complex Astrocloud. Nonlinear Waves. *Contributions to Plasma Physics* **57,** 5–19 (2017).

20. Hazarika, J. & A. Kumar, A. Swift heavy ion irradiation effects on structural, optical properties and ac conductivity of polypyrrole nanofibers. Swift heavy ion irradiation. *Radiation Effects and Defects in Solids*, 978–998 (2016).

21. Hazarika, S. & Mohanta, D. Sol-hydrothermally derived gadolinium oxide (Gd_2O_3) nanorods and tamarind-like shape evolution under 80 MeV C6+ ion impact. Sol-hydrothermally. *Radiation Effects and Defects in Solids* **171,** 925–935 (2016).

22. Hussain, I., Das, M., Ahamad, K. U. & Nath, P. Anomalous carrier lifetime relaxation mediated by head group interaction in surface anchored MnSe quantum dots conjugated with albumin proteins. Anomalous carrier. *Sensors and Actuators, B: Chemical* **239,** 1042–1050 (2017).

23. Hussain, T., Khaire, V., Srianand, R., Muzahid, S. & Pathak, A. Implications of an updated ultraviolet background for the ionization mechanisms of intervening Ne VIII absorbers. Implications of an updated ultraviolet. *Monthly Notices of the Royal Astronomical Society* **466,** 3133–3142 (2017).

24. Jha, D. K. , Saikia, K., Chakrabarti, S., Bhattacharya, K., Varadarajan, K.S., Patel, A.B., Goyary, D., Chattopadhyay, P. & Deb, P. Direct one-pot synthesis of glutathione capped hydrophilic FePt-CdS nanoprobe for efficient bimodal imaging application. Direct one-pot. *Materials Science and Engineering C* **72,** 415–424 (2017).

25. Karmakar, P. K. & Haloi, A. Nonlinear waves in bipolar complex viscous astroclouds. Nonlinear waves. *Astrophysics and Space Science* **362** (2017).

26. Karmakar, P. K. & Mohanta, D. Atypical thermal transport in Cu nanorods in the diffusive-ballistic crossover. Atypical thermal transport. *Canadian Journal of Physics* **94,** 1241–1244 (2016).

27. Kumara, S., Ahmed, B., Ojha, A. K., Das, J. & Kumar, A. Facile synthesis of CdO nanorods and exploiting its properties towards supercapacitor electrode materials and low power UV irradiation driven photocatalysis against methylene blue dye. Facile synthesis of CdO. *Materials Research Bulletin* **90,** 224–231 (2017).

28. Kumar, S. & Kumar, A. Chemically derived luminescent graphene oxide nanosheets and its sunlight driven photocatalytic activity against methylene blue dye. Chemically derived luminescent graphene. *Optical Materials* **62,** 320–327 (2016).

29. Mukherjee, A., Borah, D. & Das, M. K. Common origin of nonzero 13 and dark matter in an S4 flavor symmetric model with inverse seesaw mechanism. Common origin of nonzero. *Physical Review D* **96** (2017).

30. Nath, N. M. & Sarma, J. K. Small-x Behavior of Non-singlet Spin Structure Function and Bjorken Sum Rule with pQCD Correction up to NNLO and Higher Twist Correction. Small-x Behavior. *International Journal of Theoretical Physics* **56,** 1456–1473 (2017).

31. Nath, N. M., Mukharjee, A., Das, M. K. & Sarma, J. $xF_3(x, Q^2)$ Structure Function and Gross-Llewellyn Smith Sum Rule with Nuclear Effect and Higher Twist Correction. Structure Function and Gross-Llewellyn. *Communications in Theoretical Physics* **66,** 663–670 (2016).

32. Paul, D., Dutta, S. & Biswas, R. LSPR enhanced gasoline sensing with a U-bent optical fiber. Gasoline Sensing. *Journal of Physics D: Applied Physics* **49,** 305104–305113 (2016).

33. Sarma, A., Kumar, A. & Kahn, R. Electrochemical immunosensor based on poly (3,4-ethylenedioxythiophene) modified with Gold nanoparticle to detect aflatoxin B 1. Electrochemical. *Materials Science and Engineering* **C-76** (2017).

34. Sarma, R. & Mohanta, D. Anomalous carrier life-time relaxation mediated by head group interaction in surface anchored MnSe quantum dots conjugated with albumin proteins. Anomalous carrier. *Materials Chemistry and Physics* **187,** 46–53 (2017).

35. Sarma, R. & Mohanta, D. Anomalous carrier life-time relaxation mediated by head group interaction in surface anchored MnSe quantum dots conjugated with albumin proteins. Anomalous carrier. *Materials Chemistry and Physics* **187,** 46–53 (2017).

36. Sarma, R. & Mohanta, D. Anomalous carrier life-time relaxation mediated by head group interaction in surface anchored MnSe quantum dots conjugated with albumin proteins. Anomalous carrier. *Materials Chemistry and Physics* **187,** 46–53 (2017).

37. Sarma, R., Pathak, A., Murthy, J. & Sarma, J. The distribution and kinematics of interstellar OVI in the Milky Way. The distribution. *Monthly Notices of the Royal Astronomical Society* **464,** 4927–4937 (2017).

38. Saikia, G., Shalima, P., Gogoi, R. & Pathak, A. Probing the infrared counterparts of diffuse far-ultraviolet sources in the Galaxy. Probing the infrared. *Planetary and Space Science* (2016).

39. Saikia, G., Shalima, P., Gogoi, R. & Pathak, A. Comparison of diffuse infrared and far-ultraviolet emission in the Large Magellanic Cloud: The data. Comparison of diffuse infrared. *Planetary and Space Science* **133,** 90–96 (2016).

Books and Book Chapters

40. Biswas, R. *Introduction to Cognitive Radio Networks and Applications. Basics of Cognitive Radio Networks: An Appraisal* 1st ed. (eds Tomar, G., Bagwari, A. & Kanti, J.) 25–30 (Chapman and Hall/CRC, 2016).



SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED:

International and National

A Pathak attended the XXXV Meeting of the Astronomical Society of India, Jaipur, 6-10 March, 2017.

D Mahanta attended a National Conference by UGC-DAE CSR, Indore, 4-6 November, 2016.

P Nath attended the International Conference on Light and Light-based Technologies, organized by Tezpur University, 28-30 November, 2016.

R Biswas attended the International Conference on Light and Light-based Technologies, organized by Tezpur University, 28-30 November, 2016.

R Gogoi attended the North East Meet of Astronomers (NEMA), Tezpur University, 12 December, 2016.

S Das attended a National conference on Renewable energy technology and utilization for rural development, organized by NEHU, 1 March, 2017.

TALKS BY THE FACULTY ABROAD AND IN INDIA

A Pathak delivered a talk, The Deuterium abundance in astrophysical PAHs, at XXXV Meeting of the Astronomical Society of India, B. M. Birla Auditorium, Jaipur, 6-10 March, 2017.

D Mahanta delivered a talk, Study of Matter Using Intense Radiation Sources and Under Extreme Condition, at UGC-DAE CSR, Indore, 4-6 November, 2016.

R Sarma delivered a talk at a National conference on Advances in Materials Science, organized by Gauhati University, Assam, India, 2016.

R Sarma delivered a talk in the International conference on Conference on Nonlinear Systems and Dynamics, IISER Kolkata, 16-18 December 2016.

Rupjyoti Gogoi delivered a talk at North East Meet of Astronomers (NEMA), organized by Department of Physics, Tezpur University, 12 December 2016.

S Das delivered a talk at a National conference on Renewable energy technology and utilization for rural development, organized by NEHU, 1 March, 2017.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

International Conference on Light & Light-based Technologies (ICLLT-2016), November 2016

North East Meet of Astronomers, December 2016

National Conference on Hard and Soft Condensed Matter Physics-2017 UGC-SAP-II sponsored, March 2017



DISTINGUISHED VISITORS TO THE DEPARTMENT

Prof A Sarma IIT,Delhi

Prof C Joenathan, Rose-Hulman Institute of Technology, USA

Prof F Kao National Yang Ming University

Prof L N Hazra, Calcutta University

Prof P Kumbhakar NIT, Durgapur

Prof R Chakroborty, Calcutta University

Prof R Vijaya, IIT, Madras

Prof S. N. Sarkar

AWARDS & HONOURS RECEIVED BY THE FACULTY/STUDENTS/RESEARCH SCHOLARS

AWARD RECEIVED BY FACULTY

Dr P Nath and his research group received DST-Gandhian Innovation Award in 2016.

AWARD RECEIVED BY RESAERCH SCHOLARS

Dr Runjun Sarma received DBT RA award for the year 2016-2017.

S Dutta received National Post-Doctoral Fellowship

NUMBER OF STUDENTS WHO PASSED NET/SLET/JRF/GATE

NET: 01

SLET: 04

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DBT NODAL CELL

THE CELL

Impact Analysis of the unique academia-biomedical mandate to strengthen healthcare in northeastern states of India, under DBT Nodal Cell, Tezpur University, has been the highlight of the 2016-17.

The meeting to review progress of NER programmes, held on August, 12, 2016 , at the Department of Biotechnology, New Delhi, recommended mapping the impact of the two projects under DBT Nodal Cell, by a third party, prior to taking up fresh initiatives in Phase 2 of the programme.

An impact analysis was therefore carried out by Biotech Consortium India Limited (BCIL) to examine and assess the outcomes vis-à-vis stated objectives, identify gaps and give suitable recommendations and analyze the overall impact in the North-East Region (NER) for two programmes –

1. Development/Upgrading Infrastructure in Medical Colleges in North Eastern States of India

2. Research Grant to support MD/MS thesis in Medical Colleges in North Eastern States of India.

For assessing the outcome of the medical infrastructure programme, a mix of qualitative as well as quantitative parameters were studied including creation of state-of-art facility, functionality of the equipment, optimal utilization of the facility, type of diagnostic tests, patient load, quality control measures, source of samples for testing, patient outreach, self-sustainability, collaborations, research activities, publications and manpower training activities including training programmes and thesis support to students. Keeping in view these parameters, the outcomes of the individual laboratories have been assessed vis-à-vis their sanctioned objectives under the programme.

The assessment of the outcomes of the research grant thesis programme was carried out on the basis of popularity of the programme, publications, use of biotechnological tools and overall satisfaction of the MD/MS thesis awardees with the programme. As a result of the detailed analysis of the information gathered during the course of the evaluation of individual programmes,

The core recommendations of this impact assessment study are:

- DBT should continue its medical infrastructure and research grant programmes.
- These programmes are highly regarded amongst all the concerned beneficiaries and stakeholders.
- The primary objective of these programmes have been met through enhanced patient services using advanced biotechnology based methods for diagnosis and treatment management of highly prevalent diseases like HIV, TB, Cancer, etc. within NER.
- These programmes have brought together physicians and researchers in the fields of Pathology,

Biochemistry, Microbiology, Oncology, Anatomy, Forensic Medicine, Pharmacology and Biotechnology.

- Diagnostic tests for various diseases/disorders such as HIV, TB, Cancer, Epilepsy, Hemoglobinopathies, HLA typing have been made available in the NER.
- The study supports that the outcomes of the programmes contributes significantly to current human resource development in biotechnology and that the programme objectives continue to be met.
- The MD/MS programme awardees were satisfied with process and did not seem to face any difficulties in availing the grants.
- The awards have been extremely beneficial for the students who have utilized it for purchase of kits, consumables and travelling to conferences.
- However, the few gaps due to which some of the DBT diagnostic laboratories are unable to cater to large number of patients; and to attract an increasing number of students for the thesis research grant programme. The recommendations for the same are being given due weightage.

SALIENT OUTPUT FIGURES FROM THE TWO PROJECTS UNDER DBT NODAL CELL			
Project 1	**Outcomes**		
Development/Upgrading Infrastructure in Medical Colleges in North Eastern States of India	Enhanced Patient Care from upgraded Laboratories	4,79,366	Diagnostic tests carried out
	Research	110	Publications in peer reviewed journals
	Capacity Building	231	Training programmes
		102	Project personnel recruited
Project 2		**Outcomes**	
Research Grant to support MD/MS thesis in Medical Colleges in North Eastern States of India	Capacity Building	269	MD/MS Thesis grant awarded
	Research	35	Publications in peer reviewed journals
		84	Presentations in national conferences
	Travel Grant for attending National Conferences	135	Travel grants released

TALKS BY THE FACULTY ABROAD & IN INDIA

Gaurangi Maitra delivered a lecture, Winking in the dark: Brand Lamarck vs. Brand Darwin, at the International Conference on Molecular Signaling: Basics to Application, Chennai, India, January 10 - 12, 2017.

SEMINARS/WORKSHOPS/SYMPOSIA/INVITED LECTURES ORGANIZED BY THE CELL

- CME-Snake bite Problem & Hospital Management of Snakebite- A Dept. of Molecular Biology Biotechnology, Tezpur University- Tezpur Medical College and Hospital & DBT Nodal Cell,

collaboration, November, 23rd, 2016 Tezpur University.

- Meeting with stakeholders for Impact Analysis, at DBT NC, TU on 15/06/2017

DISTINGUISHED VISITORS TO THE CELL

Dr. A Ghosh, J. C. Bose Distinguished Professor, National Academy of Sciences, India.
Dr. Purnima Sharma, Managing Director, Biotech Consortium India Limited.
Prof. S Bhattacharya, INSA Golden Jubilee Research Professor & Emeritus Professor, School of Life Science, Visva-Bharati.

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Centre for Open and Distance Learning

The Centre for Open and Distance Learning (CODL) was established in June, 2011 with the aim of disseminating knowledge and imparting quality education through open and distance learning mode. The mission of the Centre is to provide quality higher education at door step through barrier less, flexible and open learning mode in conformity with national priority and societal need. The Centre offers various post-graduate, undergraduate, diploma and certificate programmes in emerging areas of science & technology, social sciences, management and humanities with flexible system to cater to the needs of the learners who otherwise cannot avail the regular mode of education. The basic focus of the Centre is to contribute to the national agenda of enhancement of Gross Enrolment Ratio and to prepare human resources of the region and the country by making them skilled and employable.

Academic Programmes:

The CODL offers the following UGC recognised programmes

1. M.A in Mass Communication
2. PG Diploma in Governance and Development
3. PG Diploma in Functional Hindi
4. PG Diploma in Retail Management
5. PG Diploma in Investment Management
6. PG Diploma in Human Resource Management
7. PG Diploma in Environmental Management
8. M. Sc in Mathematics
9. PG Diploma in Renewable Energy & Energy Management

Academic Programmes	Student Intake (Autumn 2016)	Student Intake (Spring 2017)
MA in Mass Communication	13	03
MSc in Mathematics	14	01
PG Diploma in Environmental Management	02	-
PG Diploma in Renewable Energy and Energy Management	05	07
PG Diploma in Governance and Development	02	02
PG Diploma in Functional Hindi	-	-
PG Diploma in Investment Management	05	-

PG Diploma in Human Resource Management	22	16
PG Diploma in Retail Management	0 4	01

The centre is working on offering of MA English and MA Sociology from the 2018-19

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Community College

ABOUT THE COLLEGE

The Community College of Tezpur University started functioning from July, 2015. The primary objective of Community College is to offer demand driven vocational modular courses to impart employable skills, to facilitate skill up-gradation, multi-skilling, multi entry and exit, vertical mobility and life-long learning in a flexible manner to offer different levels of programmes to meet demands of various target groups with provision for horizontal as well as vertical mobility, to allow recognition of prior learning skills (certification of skills acquired informally) effectively and to integrate relevant skills into the higher education system.

Academic programmes and Student intake

Academic Programme	Student Intake
Diploma in Paralegal Practice	50

SEMINAR/WORKSHOP/INVITED LECTURES ORGANISED BY THE DEPARTMENT

An interactive session with Dr. B.K. Chakraborty, Prof. (Retd.), Department of Law, Gauhati University and Debojit Senapati, Advocate of the Gauhati High Court, 28-30 April, 2016.

One day Training Programme on Human Rights, sponsored by NHRC, Hon'ble Justice Dr. M.K Sharma, former Judge, the Supreme Court of India and Hon'ble Justice Dr. A.H. Saikia, Chairperson, Meghalaya Human Rights Commission as resource person, 25 March, 2017.

DISTINGUISHED VISITORS TO THE DEPARTMENT

Dr. A Deep, Associate Professor of the Indian Law Institute, Delhi.
Prof. BK Chakravarty, Retired Professor of the Department of Law, Gauhati University.
D Senapati, Advocate of the Gauhati High Court.
G N Sahewala, Senior Advocate of the Gauhati High Court.
N Dutta, Senior Advocate of the Gauhati High Court.



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Nodal Officer
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Guest Faculty

A K Sharma, Technical Assistant, Dept. of CSE, Tezpur University.
E-mail: ajay@tezu.ernet.in
A Goswami, Advocate, District and Session Court, Tezpur.
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B J Kalita, Research Scholar, Dept. of Business Administration, Tezpur University.
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Office Staff
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P Bhuyan, Diploma in CSE,
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The Central Library

THE LIBRARY

The Central Library of the University was established in 1994. It is stocked with more than one lack books and journals. The collection of the library covers the latest information resources on all areas of Engineering, Science, Management, Social Science, and Humanities. The Library is providing access to e-resources & databases through the e-ShodhSindhu Consortia of INFLIBNET Centre and DelCon Consortium. The Library is also a member of DELNET, utilising its services. The Library users can access the book database, theses, the journal database, e-journals and other e-resources from any computer within the University campus. The Library has been an invaluable resource for students, researchers and faculties of the University. It delivers innovative information products, services and programmes of the highest quality that are integrated with teaching, learning and research activities and thus occupies a unique place in academic and research activities of the University. The mission of the Library has been to support and supplement learning, teaching and research programmes.

The Library is located at the heart of the University campus and is housed in an aesthetically built three storied building occupying an area of 4734-sq.m.

Management

The Library Committee is the apex body for management of the Library. The Committee consists of Vice–Chancellor of the University as the Chairperson, Librarian as the Member-Secretary. All Deans and nominees of the Academic Council and two students are also members of the Committee.

Opening Hours

The Library is open from 9 am–12 midnights on all working days and from 10 am to 9.00 pm on Saturdays and Sundays.

COLLECTIONS: Current Collection of the Library

Books	82233
Books added during (2016-2017)	4802
Journals (Print)	180
Print Indian Journals subscribed for 2017	85(print)
Foreign Journals subscribed for 2016	95 (print)
E-Journals	10618
Direct Purchased	122



Through e-ShodhSindu Consortium	9361
Through DBT e-Library Consortium (DeLCON)	1135
Back volume of journals	7848
Online Databases	46
Theses	489
Dissertations	1025
CD	2287
VCDs	81
VHS Cassettes	36
Newspapers/Magazines	10
Manuscripts	32

LIBRARY SERVICES

The Library is providing the following services:

- 15 Hours Reading Facility
- Book lending services
- Book Bank Facility for EWS
- Reference services
- Current Awareness Services (Monday Morning, InfoJ, InfoGranth)
- Inter-Library Loan Services (Through DELNET, American Centre, JCCC)
- OPAC/WebOPAC
- Online renew and reservation of books
- Internet access facility @1Gbps NKN
- Department-wise User orientation Programme
- Digital Library Services
- Research Support Services
- Information literacy programme
- Online Document Delivery Service
- Document delivery service (DELNET, JCCC)
- Separate reading facility for Children
- Reprography services (outsourcing)
- Library & Information Services to outsiders on request
- Plagiarism check

VISITORS TO THE LIBRARY (2016-2017)

Visitor Category	Students	Research Scholars	Faculty members	Staffs	Outsiders	Total
Average daily visitor	356	31	13	7	8	415

DEVELOPMENTAL ACTIVITIES AT THE LIBRARY

The following development took place during 2016-2017.

Central Library launched its new dynamic website

The Central Library designed a dynamic Library website to provide access facility of all its resources and services to the users. New website was launched on 2nd September, 2016 with various dynamic features to the users.

Design and developed Online Document Delivery Service Portal

The Central Library developed a portal for research scholars,faculty members and students of the Tezpur University, named as "*Online Document Delivery Service Portal*". Through this portal, users can submit request of articles and research papers to the library through online.

Access facility of World e-Book Library

Central Library provides access facility of World e-Book Library (WeL) through E-ShodhSindhu Consortium. World e-Book Library (WeL) is the World's largest collection of Primary Source eBooks for academic libraries.

Access facility of South Asia Archive

Central Library provides access facility of South Asia Archive (SAA) through E-ShodhSindhu Consortium. It contains more than 4.5 million pages spanning the period of 18th and mid-20th century from documents across the Indian subcontinent, including India, Pakistan, Burma, Afghanistan and Bangladesh.

Publishing Library Newsletter

Central Library has started a new service to keep the Tezpur University academic community informed regarding the latest activities taking place in the library through *Library Newsletter*. It covers new library activities and useful information related to academic and research activity of Tezpur University. The frequency of publication is quarterly. The maiden issue of Library Newsletter was released during National Convention on Knowledge, Library and Information Networking (NACLIN-2016) National conference on 28th October 2016.

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANIZED BY THE LIBRARY

The following events were organized during 2016-2017:

Organized 9th National Convention on Knowledge, Library and Information Networking (NACLIN-2016)

Central Library, Tezpur University in collaboration with DELNET (Developing Library Network), New Delhi organized 19th National Convention on Knowledge, Library and Information Networking (NACLIN-2016) during October 26-28, 2016 at Tezpur University. The theme of the Convention

was "Smart Libraries and Inspired Librarians: Managing New Technologies, Digital Content and Service". The National Convention was inaugurated by the Hon'ble Vice President of India **Shri M Hamid Ansari**, on October 26, 2016 at KBR Auditorium, Tezpur University. The Inaugural Session was presided over by Hon'ble, Governor of Assam and Chancellor, Tezpur University, Shri Banwarilal Purohit. The Guests of Honour include Hon'ble Irrigation Minister of Assam, Shri Ranjit Dutta and Hon'able Member of Parliament, Tezpur Constituency, Shri Ram Prasad Sharma. More than 250 Library & Information Science professions ware participated in the convention.

Library Orientation Program

Central Library conducted department wise Library Orientation Programme for the newly admitted students, research scholars during 01-16. August, 2016. The main objective of the programme was to introduce the students to the library facilities, resources, services and library techniques and to make them a regular user of the library.

Librarian's Day Celebration at Central Library

National Librarians' Day was celebrated at Central Library on 12 August, 2016 on occasion of the birthday of S. R. Ranganathan, who is considered to be the father of Library Science in India.

Walk to the Library Programme

The Central Library conducted the annual Walk to the Library Programme on 28 July, 2016. Tezpur University annually organizes a walk of all the students to the Central Library in the beginning of the new academic session in order to inculcate the habit of reading books and visiting the library amongst the students.

PUBLICATIONS
In National and International Journals/Conference Proceedings/ book Chapter

Monawwer Eqbal, (2016). Perceptions and Level of Service Quality in Central University Libraries in India: A Study. In proceedings of *10th Convention PLANNER-2016:* INFLIBNET Centre, Gandhinagar. pp, 382-402.

Sahoo, Sambhunath, (2017). Designing and Developing a Dynamic, Dedicated and Interactive Library Website: A Case Study of Library Website of Tezpur University: In *Library and Information Services in Knowledge Society* Eds P. Rath, R. K. Ngurtinkhuma & R. N. Panda, Excel India Publishers , New Delhi pp. 54-67.

PAPER PRESENTED at SEMINAR/WORKSHOP/SYMPOSIA

M Eqbal presented a paper, Perceptions and Level of Service Quality in Central University Libraries in India: A Study, in PLANNER-2016 (Promotion of Library Automation and Networking in North-Eastern Region), jointly organized by North Eastern Hill University, Shillong, and Information & Library Network (INFLIBNET), Gujarat at North-Eastern Hill University (NEHU), Shillong, 09-11 November, 2016.

S Sahoo presented a paper, Designing and Developing a Dynamic, Dedicated and Interactive Library

Website: A Case Study of Library Website of Tezpur University, in an International Conference, Library and Information Services on Knowledge Society: Innovative, Value Added Services and Best Practices, jointly organized by the Department of Library & Information Science, Mizoram University, Aizawl in collaboration with NEC, Shillong, IGNCA, New Delhi and INFLIBNET, Gandhinagar, Gujrat at Department of Library & Information Science, Mizoram University, Aizawl, 01-03 March, 2017.

TRAINING/WORKSHOP/CONFERENCE ATTENDED

M Saikia chaired a session of a National convention, PLANNER-2016, (Promotion of Library Automation and Networking in North-Eastern Region), 09-11 November, 2016 jointly organized by North Eastern Hill University, Shillong, and Information & Library Network (INFLIBNET), Gujarat at North-Eastern Hill University (NEHU), Shillong.

M Saikia delivered an invited lecture, An evaluative study of open courseware initiatives in India, in a UGC Sponsored National Seminar, E-Resource Management in Libraries, organized by North Lakhimpur College (Autonomous), Lakhimpur, Assam, 18-19 February, 2017.

M Eqbal delivered an invited lecture, An evaluative study of open courseware initiatives in India, in a UGC Sponsored National Seminar, E-Resource Management in Libraries, organized by North Lakhimpur College (Autonomous), Lakhimpur, Assam, 18-19 February, 2017.

S Sahoo attended a National conference, Open Source Software for Library Management (OSSLM-2016), jointly organized by Central Library, IIT Kharagpur and National Digital Library (NDL) of India at IIT Kharagpur, West Bengal, 13-18 June, 2016.

S Sahoo and J M Das attended a Workshop-cum-Training programme, Institutional Digital Repository (IDR), at National Institute of Technology Meghalaya, jointly organized by Central Library, National Institute of Technology Meghalaya and Indian Institute of Technology, Kharagpur under the National Digital Library project sponsored by MHRD, Govt. of India, 23-24 September, 2016.

Editorial Board

M Eqbal, nominated as a member of Editorial board in Journal of Librarianship published by Mughniy Publishing, New Delhi.

M Eqbal, nominated as a member of Editorial board in ISST Journal of Advances in Librarianship published by ISST Ghaziabad.



Future Plans

- RFID implementation
- Remote login access of E- Resources
- Establishment of Manuscript archival section/museum
- Establishment of Braille Section
- CD Library Portal
- Android Apps for Central Library

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Kanaka Das
MTS

Centre for Inclusive Development

THE CENTRE

As enshrined in the Tezpur University Act 1993, one of the prime objectives of the University is to pay special attention to the improvement of the social and economic conditions and welfare of the people. Further, the Eleventh Plan Document of the Planning Commission emphasizes how institutes of higher education ought to extend its resources and services towards community development. Towards achieving this, Tezpur University has established the Centre for Inclusive Development (CID) as an umbrella organization comprising the Equal Opportunity Cell, SC/ST Cell and the Training & Placement Cell which have a good deal of functional commonality. It is envisioned that an invigorated approach to this purpose would be achieved by consolidating the activities and collating the human and intellectual resources of these three cells. Headed by its Director, the Centre is intended to act as a catalyst to holistic development of students and an interface between higher education and community development. The target groups of the Centre are :

TU Students : This embraces all sections of the student community, particularly, the less privileged ones and those requiring supplementary and remedial support.

Community : This comprises the disadvantaged and needy groups of the society with focus on youths, women and children.

Academic programmes and Student intake

Academic programme	Student Intake
PG Diploma in Child Rights & Governance	20
Certificate in Technical Writing	25

Major facilities and equipment available

COMPUTER LABORATORY
SEMINAR HALL
AUDIO VISUAL ROOM

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE CENTRE

Induction cum sensitization programme on child rights and governance in collaboration with UNICEF-Assam, 8-9, August 2016.

A day-long session on "How to present yourself to a recruiter" by Dr Nitin More, Former Head of Learning & Development, Facebook, APAC Region, for final year B.Tech and MCA students on 6th August 2016.

A session on "Industry expectations from Freshers" by Mr Pramod Misra, DGM Simplex infrastructure, on 30th March 2017.
A day-long lecture cum workshop on "Corporate culture & etiquette : How to fit yourself" by Ranjeev Lahkar, Head-HR, Colgate Global Business Service, for final year B.Tech & M.Tech students on 7th August 2016.

SEMINARS/CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

International and National

R K Doley attended a workshop, English for Tomorrow, organized by the British Council in New Delhi, 28-29 March, 2017.

P C Das attended a five-day workshop, Computing:Theory and Applications, organized by CCSD and Indian statistical Institute, at ISI North-East Centre, 20-24 February, 2017.

TALKS BY THE FACULTY ABROAD AND IN INDIA

R K Doley delivered a lecture, The role of ethnic tribes of the North East in the process of national integrity, in the UGC-sponsored national seminar, The role of the greater Assamese community and the ethnic tribes of North East in the process national integrity, held at Kalabari College, Gohpur, 26 – 27 August, 2016.

R K Doley delivered a lecture, Soft skills: The tools for career building, in a two-day workshop, Career: Planning, Selection and Transition, Teok College, Jorhat, 7 January 2017.

DISTINGUISHED VISITORS TO THE CENTRE

Ms. Bharti Ali, Co-Director, HAQ Centre for Child Rights, New Delhi
Ms. Enakshi Ganguli Thukral, Director, HAQ Centre for Child Rights, New Delhi
Ms. Foroogh Foyouzat, Chief of Field Services, UNICEF, Delhi.
Dr. Mahesh Menon, West Bengal National University of Juridical Science, Kolkata
Dr. Ruchira Goswami, West Bengal National University of Juridical Science, Kolkata
Mr. Sujit Mahapatra, CEO, BAKUL Foundation, Orissa.
Dr. Tushar Rane, Chief, UNICEF-Assam.
Mr. Yukio Takeyari, former Head, Sony India.

OTHER IMPORTANT ACTIVITIES OF THE CENTRE/ACHIEVEMENTS OF THE FACULTY

Outreach Activities : Tezpur University has adopted three villages so far : Amolapam, Napaam and Jawani. The developmental activities of these villages are being carried out in consultation with the NIRD&PR, Guwahati, phase-wise. The outreach activities embrace the adopted villages as well as beyond as felt required. The following are the outreach activities carried out during the year under report :



Name of work	Amount Spent (INR)	Beneficiary
Development of Radha Gobinda temple at Panchmail	3,20,000	400
2. Main Gate and fencing of Napaam MV School	2,20,000	750
3. Toilet block of Sahitya Sabha Bhawan, Tezpur	1,00,000	650
4. Facelift of Ban Theatre, Tezpur (interior) and repair of its stage	4,30,000	2500
5. A sensitization programme on swine flu and other seasonal diseases at Napaam MV School	5,500	350
6. A drinking water outlet to Napaam MV School	8,000	600
7. Two career counseling sessions to the students of Class X and Class XII of neighbouring villages	3,000	120

Contribution to the Society : In line with the University's objective to make meaningful contributions to the development of the society at large, the Centre carried out various activities through its outreach programme given in the table above in the year under report. While resource sharing and intellectual enlightenment were the main agenda, the Centre also took up material contributions such as creation of public toilets, drinking water facility, minimum facilities at graveyard and cremation ground, conducting awareness camps on govt. schemes like Swachch Bharat Abhiyan, Jan Dhan Yojana, etc. in far-flung areas.

Industry-Academia linkage/interface: The Training and Placement Cell of the Centre has a close

linkage with a number of industrial houses, particularly, in placement of students – both internship as well as permanent placement. The details are given in the report of the Cell below.

Training & Placement Cell

The Training & Placement Cell acts as an effective institutional arrangement primarily aimed at training and placing students in the best known corporate entities in the country and abroad. It establishes linkages with various corporate houses and facilitates placement events on-campus as well as off-campus. The also organizes appropriately designed grooming sessions before the actual placement activities take place.

During the year under report, a total of 46 organizations participated in the final placement process of the University. The Cell strengthened its relationship with 34 past recruiters and established relationships with 12 new companies. Some of the prominent brands that came for final placements were Oil India Ltd, Power Grid Corporation, NEDFI, Amazon, Sap Labs, Tech Mahindra, Wipro Technologies, Cummins India, ITC, Intel, Asian Paints, Berger Paints, Pantaloons, DHL, HDFC Bank, Parle Products, Asian Paints, Axis Bank, Colgate Palmolive, ICICI Bank, Mahindra Finance, Zaloni Technologies, Dabur, AMUL, Papertrue, PRADAN, Tata Trust, Adani Wilmar, etc. The positive feedbacks of the corporate visitors during the placement process alluded enthusiasm among our students. The batch diversity in terms of gender which was around 43% was well appreciated by the recruiters. Apart from the organizations listed above, a few more organizations and educational institutions have intimated their willingness to recruit from the University shortly.

Programmes Organized by the Cell

A Capsule Pre-placement grooming programme for MBA students on interview techniques on 07 August, 2016

A session on Pre-placement Grooming programme for MA & MSc students by Mr. Nitin More, Head – L&D, Facebook, 08 August 2016.

Pre-placement Grooming programme emphasizing on "SOFT SKILLS TRAINING MODULE" by Ms.Anuradha Ghosh for Final year SoE students, 13-14 August and 15, 19 and 22 September, 2016.

Interaction with Alumni "How to approach off campus recruitments?" by Arkaditya Verma, a software designer, Hewlett Packard Enterprise Software, 27 September 2016.

A workshop on interviewing skills organized for MBA students by Nitin More, Former Head – L&D, Facebook, 14 October, 2016.

Effective Resume building sessions for final year HSS & SOS students by Mrs. Anuradha Ghosh, 23 November 2016.

A workshop on interview facing skills & making a best impression on recruiters for final year HSS & SoE students by Mrs. Anuradha Ghosh, 29 November, 2016.

A Workshop on State Bank Of India Probationary Officers' Examination for final year students, 27 February 2017.

A session on "Tips for GD and facing interviews" by HR Manager of Everest Industries Asha Sharma, 6 March 2017.

A four-day training workshop on AutoCad, Catia, Staad conducted by three highly experienced trainers from reputed ECC CAD Centre of Hyderbad for BTech & MTech students on 16-19 March, 2017.

A three-days training by Mr. Litan Bhowmik, Enhancing Communication Skill and Personality

Development, 24-26 March, 2017.

NOTABLE PLACEMENT

SL NO	ORGANISATION NAME	No.of Offers	Discipline
1	AMAZON	3	BTech & MTech (CSE)
2	AMAZON	1	BTech Civil
3	AMUL	2	MBA
4	ASIAN PAINTS	1	MBA
5	ASIAN PAINTS R&T	1	MSc Chemistry
6	AXIS	1	MBA
7	AZIM PREMJI FOUNDATION	5	MSc-Phy, MBBT, MA Eng
8	BANDHAN BANK	12	MBA
9	BERGER PAINTS	5	BTech-Mech/ECE, MTech-Energy/ Polymer, MSc Chem
10	COLGATE PALMOLIVE	2	MBA
11	CUMMINS INDIA	5	BTech Mech
12	DABUR INDIA	1	BTech Mech
13	DHL	1	MBA
14	EVEREST INDUSTRIES	4	MBA
15	HDFC	1	MBA
16	ICICI	3	MBA
17	ICICI PRUDENTIALS	2	MTech - Energy
18	Fin-Advisors Consulting	2	MBA
19	INTEL	5	BTech CSE/MCA
20	ITC FOOD DIVISION	2	BTech FET
21	NEDFI	1	MBA
22	PANTALOONS	4	MBA
23	PAPER TRUE	1	MA English
24	PRADAN	3	MSW/MA-Soci/M.Sc
25	TECHMAHINDRA	3	BTech Mech/ECE
26	WIPRO TECHNOLOGIES	9	BTech CSE/ECE
27	ZALONI TECHNOLOGIES	3	BTech CSE/MCA/M.Tech IT
28	ITC FOOD DIVISION	1	BTech/M.Tech FET
29	Parle Proucts	2	MBA
30	Eenadu TV	6	MCJ
31	Onycon Infrastructure	6	BTech Civil
32	Haque foundation	1	MSW/MA-Soci
33	Global peace foundation	1	MSW/MA-Soci
34	India fellow	1	MSW
35	ANT, Bongaigaon	1	MSW
36	Nilima studio	1	MSW
37	Teach for India	1	MA
38	ASOMI FINANCE	2	MBA

39	Adani Wilmar	2	MTech FET
40	Think and Learn Pvt. Ltd. (BYJUS)	1	BTech
41	Shriram Transport Finance Ltd	1	BTech

SC/ST CELL

The SC/ST Cell was set up under the Notification No F 15-2/GA-II (SCT)/3638-A dated 16.10.07. The Cell is headed by Dr. Rajeev Kumar Doley, Liaison Officer who is assisted by a supporting staff. The Cell takes care of the welfare of the Scheduled Caste and Scheduled Tribe (SC/ST) students and employees of the University.

Objectives of the Cell are

To implement the reservation policy for SC/ST students and employees of the University.

To collect data regarding the implementation of policies in respect of admission, appointment to teaching and non-teaching positions at the University; to analyze the data showing the trends and changes towards fulfilling the required quota.

To take up such follow-up measures for achieving the objectives and targets as laid down by Government of India and UGC.

To implement, monitor continuously and evaluate the reservation policy in the University and suggest measures for ensuring the effective implementation of the policy and programmes of the Government of India.

SC/ST cell is strictly following the UGC guidelines in exercising its function.

Programmes Organized by the Cell

Monitoring of the admissions and recruitments to ensure that the govt. guidelines are strictly followed.

Conducted UGC-CSIR NET Coaching programme for SC/ST, OBC (NCL) and Minority Students in association with 13 departments.

Coordinated with the Government of Assam for Post Matric Scholarships for SC/ST students.

Arranged an interaction with the Vice Chancellor for SC/ST students in the beginning of the session 2016-17 (August 2016).

Displayed a Complaint Box outside the SC/ST Cell along with awareness drives as to how complaints and grievances, if any, can be lodged (hard copy or online).

Furnished information related to SC/ST students and employees to the UGC/MHRD as asked from time to time.

THE PERSONNEL OF THE CENTRE

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Centre for Innovation, Incubation and Entrepreneurship

THE CENTRE

The Centre for Innovation Incubation and Entrepreneurship was established in September 2013 which was merged with Entrepreneurship Development Cell (EDC) initially funded by AICTE. The objectives of the cell are to:

(a) Create awareness among the students of the University and the educated unemployed youths of North east India regarding entrepreneurship as a career option.

(b) Conduct training programmes in the field of entrepreneurial skill development.

(c) Develop entrepreneurship related course curriculum to incorporate in management and engineering programmes

(d) Provide guidance and facilities to first time entrepreneurs during gestation.

(e) To explore the possibility of commercialization of some of the potential technologies developed by faculty members and students of TU

(f) To form a Technology Development group at the University from enthusiastic passed out students of TU and thereby motivating for self-employment

Major facilities and equipment available

Facility	Number
Laboratory	01
TUNOVATION (A display room for developed research items)	01

Research projects, ongoing and new

Project Title	Funding Agency	Amount (Rs)	Duration	Principal Investigator
Design of a dehulling/deseeding machine for all types of oil bearing seeds	Micro Small and Medium enterprise. Govt. of India. (MSME)	5.20	2 year	DR. Uddhab Kumar Bharali & Dr. Dhanapati Deka

Design, development and testing of a green fuel powered energy efficient vehicle	MSME	6.25	2 year	Dr. Partha Pratim Dutta
Production of natural Antioxidant Enriched Sandesh using Single Screw Extruder	MSME	6.25	2years	Dr. Kishrod Kr. Dash
Development and fabrication of small capacity paddy parboiling system with process completion indicator ahead of onset of husk splitting	MSME	5.50	2years	Dr. M.K. Hazarika
Portable peripheral nerve testing instrument	MSME	5.90	2years	Prof. Manabendra Bhuyan
Polluted Air Purification Machine	MSME	2.50	2years	Mr. Paban Laskar
Low cost and user friendly portable Lift for home – for elderly person and patient	MSME	6.25	2years	Dr. Uddhab Kr. Bharali
Development of a cost effective, novel antithrombotic anticoagulant herbal drug and standardization of its biomarker assisted quality control	Biotechnology Industry Research Academia Council (BIRAC), Govt. of India	49.00	18 months	Prof. Ashis K. Mukherjee

SEMINAR/WORKSHOP/SYMPOSIA/INVITED LECTURES ORGANISED BY THE DEPARTMENT

- Skill development Training Programme on Pipe Fitting & Wall Painting, 25-27 July, 2016.
- Intra-University Sensitization Workshop on Introduction to Robotics, 30 July, 2016.

THE PERSONNEL OF THE CENTRE

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UDC

The Computer Centre

THE CENTRE

The University has a well-equipped Computer Centre (CC) with 184 latest configured Desktop Personal Computers (PCs) spread over four units of laboratories supported by high-end servers and a host of latest software packages. The resources procured through the CC are used mostly for computational works & practical courses and at times for skill tests, online interviews, workshops, etc.

The ICT-enabled Campus of the University is well supported by the Computer Centre. As a whole, it acts as a support system for the University Community in the form of Hardware, Software and Network related activities. The extent of Local Area Network (LAN) is spread throughout the campus with the use of Optical Fiber Cable (OFC) network and high speed Switching Network Devices. A part from this, the users have access to Wi-Fi facility available in hostels and residential areas of the campus.

A 70-seater state-of-the-art Video Conferencing facility is also available for Online Meetings, Interviews and Virtual Classes.

A number of Software Packages developed in-house by the CC Staff are used extensively in automation aspect of Administration as well as in Academic Departments.

Other important services rendered by the CC are the Telephony System and the Video Surveillance System which runs over the Campus LAN. The Internet facility is being facilitated through the high performance 1Gbps link of National Knowledge Network (NKN).

The University has been selected to avail the *Campus Connect WiFi* Project launched by the MHRD. The works for the said project have already started and it is expected to be operational by June 2017.

SERVICES PROVIDED BY THE COMPUTER CENTRE

The primary goal of the Computer Centre is to provide quality ICT services including computational facilities to the University community. In addition to the maintenance of the computational infrastructure, the following services are supported by the Computer Centre:

- Email & Internet Services
- Credit/audit practical courses of different Departments
- Organizing practical sessions for various workshops and refresher courses of various Acdemic Departments.
- Organizing training programmes for the University Employees
- Assist the Administration in the process of selection and procurement of computing resources

- Providing maintenance services for computers/ peripherals to the Faculty/Staff / Departments
- Maintaining and monitoring the Campus LAN.
- Maintaining and monitoring various Internet Links.
- System Administration, Network Administration and monitoring of various servers - Email, Web, Proxy, Firewall, etc.
- Maintaining the University Website and intranet portal.
- Develop, procure and maintain software for administration and others sections of the University.
- Software maintenance Services.
- Providing presentation assistance in the auditorium and conference halls.
- EPABX system administration and maintenance.
- IP CCTV Surveillance Management.

Academic programmes:

Name of the programme	PG / UG	Duration
DOEACC 'O' Level Diploma	UG	1 Year
DOEACC 'A' Level Diploma	PG	1½ Year

Student intake:

Programme	Student Intake
DOEACC 'O' Level Diploma	25
DOEACC 'A' Level Diploma	20

Major facilities and equipment available:

Equipment

SL	Particulars	Hardware (Make/Model)	Qty
1	Four Party Video Conferencing System	Polycom 8000 Series	1
2	Avaya S8500 VoIP Telephony Server with 1200 Analog line capacity	Avaya S8500	1
3	Voice Media Gateway	Avaya G650	2
		Avaya G450	2
		Avaya G700	5
		Avaya G430	2
7	L3 Switch	Extreme X450	4
		Huwawei Quidway 9303	1
8	Gigabit L2 Switch 48 Port	Extreme X350 48T	56

		Allied Telesis AT-x510L-52GT	3
9	Gigabit L2 Switch 24 Port	Extreme X350 24T	19
		Extreme X150 24T	8
		Huwawei Quidway S5324TP-PWR-SI	8
		HP 2520G	9
		Allied Telesis AT-x510L-28GT	11
10	Firewall	Huwawei Eudemon 200E-X7	1
11	Router (NKN)	Cisco ASR 1000	1

Servers

SL	Server Particulars	Hardware (Make/ Model)	Operating System and Application Platform
1	Seconday Storage Server	HP StoreEasy 1650	Windows Storage Server 2012
2	Email cum DNS Server	IBM / X226	Redhat Enterprise Linux ES 4.0/ Sendmail , Bind
3	Proxy/NAT/Firewall Server	IBM / x3630M3	Redhat Enterprise Linux ES 6.0/ Squid Proxy
4	Aruba NMS Server	HP / DL-380G5	CentOS/Aruba Airwave
5	Oracle 10g Database (old)	HP / DL-380G5	Windows 2003 Server/ Oracle 10g Suite
6	Oracle 10g Database	IBM/X3560	Windows 2008 R2 Server/ Oracle 10g DB
7	Application Server	IBM/X3560	Windows 2008 R2 Server/ MySql-XAMPP
8	File cum Kaspersky Antivirus Admin Server	HP ML350 G5	Windows 2003 Server/ Kaspersky Total Space Security Admin
9	File Server cum Programming	HP DL 180G5	Redhat Enterprise Linux ES 4.0/ Open Source
10	Video Streaming Server with Storage	IBM/X3650 + IBM/ DS3524	Windows 2008 R2 Server/ Adobe Media Server 5
11	Web Server	IBM/X3560	RHEL 6/Apache

Computer Terminals & Peripherals Available

Unit No	Unit Name/Location	Terminals & Peripherals
Unit-0	Central Computer Centre (Academic Building -2)	Terminals = 60 (Core i5 / Windows 7 Pro./Windows 10 Pro. Desktops) Laser Printer =2 Scanner = 2 Projector =1
Unit-1	Computer Centre-Cluster-1 (SoE Complex)	Terminals = 100 (Core i5 / Windows 10 Pro. Desktops) Laser Printer =1 Scanner = 1 Projector = 1
Unit-2	MIC Lab (SoE Complex)	Terminals = 12 (Core i5 / Windows 10 Pro. Desktops)
Unit-3	MIC Training Room	Terminals = 12 (Core i5 / Windows 10 Pro. Desktops) Projector = 1



Software Subscriptions

SN	Packages	Renewal Period
1	Microsoft Campus Agreement	Yearly
2	Kaspersky Total Space Security	Yearly

OTHER IMPORTANT ACTIVITIES OF THE CENTRE IN PIPELINE:

- Installation Work for Passive Components started for Campus Connect WiFi Project (MHRD Initiative) expected to operational by June 2017.
- Upgradation of all 1Gigabit Core Optical Fiber Cable(OFC) links to 10Gigabit expected to be completed by next reporting period.
- Migration of old Email & Proxy Server to High Performance Servers initiated which will be completed by May 2017.
- Augmentation of CC Cluster-2 Lab with 32 More computers completed, now the cluster have 100 Desktop Computers.

THE PERSONNEL OF THE CENTRE

Head

S Saharia, PhD (Tezpur)
Specializtion/Areas of Interest: Pattern Recognition, Image procession & Machine Intelligence
Email: sarat@tezu.ernet.in

Computer Engineer

D K Sarma, MS (Tezpur)
Specializtion/Areas of Interest: Computer Networks and Security
Email: dhiraj@tezu.ernet.in

Junior Programmers

D C Choudhury, MCA (Tezpur University)
P Rajkhowa, BE (Dibrugarh) [*on EoL*]

Senior Technical Assistant

A K Das, Diploma in Engg (CSE)

Technical Assistants

M Baruah, Diploma in Engg (CSE)
N K Deka, Diploma in Engg (Electronics & Telecommunication)
P Borah, DOEACC-A Level, MS(IT)
R. Choudhary, Diploma in Engg (CSE), CCNA

Student Assistants: 5
MTS: 3
EPABX Technicians: 1 (contractual)

The Engineering Cell

The Engineering Cell of the University was established in March 1995. It is assigned the prime responsibility of developing and maintaining the infrastructure in the University campus covering an area of about 262 acres of land. The following are the major duties and responsibilities entrusted on the Engineering Cell:

1. Allotment and execution of construction projects involving civil, electrical, water supply and sanitary works.
2. Maintenance and repairing of buildings and roads.
3. Maintenance of power supply to the university campus.
4. Maintenance of water supply to all the buildings including hostels and canteens.
5. Preparing of agenda notes and writing minutes of Building Committee meetings.
6. Maintenance and development of the University campus.

CONSTRUCTION ACTIVITIES

The following construction activities were accomplished during 2016-17.

1. Construction of Academic Building for School of Humanities and Social Sciences
2. Construction of 100 capacity RCC 3 Storied Boys Hostel.
3. Creation of Barrier free Environment –Construction of Ramps and Toilets for Person with Disabilities.
4. Extension of Dining Hall for New Women's hostel.

ONGOING CONSTRUCTION WORKS

Construction works of the following buildings taken up during the year are still continuing and likely to be completed during year 2016-17.

1. Construction of Olympic standard Swimming Pool .
2. Construction of RCC 3storied Teaching Learning Center(TLC) Building .

WORKS DONE WITH TENDER PROCESS

The following projects are expected to be started soon as awaiting for grant.

1. Construction of RCC 3storied 500 capacity Boys Hostel
2. Construction of RCC 3storied 500 capacity Girls Hostel
3. Construction of RCC 3storied Type-C & Type-D Residential Buildings.

POWER SUPPLY

The Govt. of Assam has sanctioned 2 MW of power to Tezpur University. This power is released to the

university by APDCL as per the load demand . Currently, the university is drawing 1500 KW (1.5MW) from the 132/33 KV Depota Grid Sub-Station of APDCL through a 13.50 KM long dedicated power line. This power is received at the university end through a 2 x 2.5 MVA, 33/11KV Sub-Station constructed by the university and is distributed through an 11KV H.T. Ring Main connected to 4 nos. of Sub-station of capacity 2 x 315 KVA, 11KV/0.433 KV located at peak load centres inside the campus. During 2016-17, the total hours of interruptions in supply of power to the university was 192.15 hours. Out of this maintenance shut down availed by the university was 07 hours , which was rather insignificant considering the present power crisis in Assam.

WATER SUPPLY

Four deep tube well, each 102 meters deep, associated with submersible pumps were installed in the University campus to access ground water. The treatment plant consisting of aretor , flush mixture , sedimentation tan , filter unit , chlorination , underground clear water constructed for proper treatment of raw water.

Two overhead reservoir (OHR) of capacity 3.0 lakh liter and 3.50 lakh liters were constructed to store treated water. Water from the OHR reaches the consumer points through a pipe-line network under the gravity flow.

The present requirement of water in the university campus is more than 9.00 lakh liters per day . The demand is likely to increase with the increase of new Academic Buildings , Hostels and Residential Buildings. There was no instance of interruption in supply of treated water during the concerned year.

PROPOSALS OF THE YEAR

Planning and designing of the following projects have been taken up and construction works of these projects are awaited.

1. Construction of Central Lecture Hall Complex
2. Construction of 2000 capacity Indoor Stadium.
3. Sewerage and drainage System.
4. Construction of RCC Academic Building for the Department of Physics
5. Construction of Foreign Students Hostel.
6. Construction of 100 capacity Boys &Girls Hostels under different schemes.

THE STAFF OF THE CELL

EXECUTIVE ENGINNER

R.R.Hazarika, BE (REC , Silchar)
E-mail: rrhz@tezu.ernet.in

ASSISTANT ENGINEER

J.C.Nath
G.Kalita

JUNIOR ARCHITECT

Rashmi Dutta

JUNIOR ENGINEER

D.Borkotoki
S. Goswami
S.Talukdar

Biren Sarma, Assistant
Tarani Das. MTS

The Health Centre

Introduction

The Health Centre of the University has been functioning since1995. It provides health care services to the students, the faculty members, the staff and their families. At present, we have over 5000 beneficiaries, which include people working directly or indirectly with Tezpur University.

Services /Facilities available

We offer OPD services but ten indoor beds are also available for initial care of indoor cases including emergency cases.

OPD services

The OPD timings are as follows :

Session	Morning	Evening
April to September	8.30AM to 12.30PM	4 PM to 6 PM
October to March	8.30AM to 12.30PM	3 PM to 6 PM
Saturdays and Sundays- From 10 AM to 12 NOON		

One Medical Officer is always available for 24hrs on emergency duty. The cases requiring hospitalization are referred to the referral Hospitals at Tezpur. Ambulance service is available round the clock and is provided free of cost.

A stock of common medicines including life saving drugs are maintained and are supplied free of cost. Routine laboratory investigations are also done free of cost.

OneAutoanalyser (fully automatic) and one Hormone Analyser(Mini-Vidas) are available for the routine investigations. Ultrasound scanning, ECG and X-ray facilities are also available at the Health Centre for the benefit of the University community.

We also keep a set of appliances for person with disability.

Visit by Specialists

The University has engaged Specialists of different disciplines (Paediatrics, Obstetrics and Gynaecology) who visit the Health Centre on different days of the week on regular basis for the benefit of the University community.

Psychiatrist from LGBRIMH is also visiting the University regularly for offering counselling on stress

related problems. One Sonologist visits the health centre once a week for ultrasound scanning. A Physiotherapist visits the health centre twice a week for physiotherapy of the differently abled students.

Important activities

1) The Medical Officers pay periodic visits to the hostels and canteen to assess the prevailing hygiene of the dining hall, water supply and the surroundings to prevent the outbreak of waterborne diseases amongst the boarders.
2) Annual Health Checkup programme for the employees started on 02/09/2016 for the current year.
3) Fogging in the campus was done on 05-05-2016 to prevent outbreak of vector borne diseases.
4) Pulse Polio Immunisation camps were organized on 29-01-2017 and 02-04-2017 in the campus as per directive of the Govt.
5) Blood donation camp was also organised on 28-12-2016 and 30-03-2017.

Other activities

Health checkups of students of Takshyashilla Vidyapith and KV ,Central University, Tezpur are done regularly .

Current Staff position

Sl No.	Name of the Medical staff	Designation
1.	Dr.(Mrs) J.S.Goswami, MBBS, DLO	SMO
2.	Mr Pranab Baruah , D. Pharm.	Pharmacist
3.	Mrs Eliza H. Barla, GNM	Nurse
4.	Ms Amrita Purty, GNM	Nurse
5.	Mr Anuj Baruah, BA, CMLT	Lab. Technician
6.	Mrs Niramoni Das, ANM	Lab. Technician
7.	Mr Hiten Debnath, DMRT (Contract)	Radiographer
8.	Mr Manoj Kr. Saikia	MTS
9.	Mr Jiten Rajbongshi	MTS



The Horticulture Section

The Horticulture Section of the University is entrusted to carry out landscaping and beautification activities inside the University campus. The Assistant Horticulturist employed at Horticulture Section looks after the whole horticultural/landscaping activities under the supervision of a Campus Horticultural Committee with a teacher as Coordinator. He is assisted by two supervisor along with 28 daily wage labourers and a tractor driver. The annual horticultural activities during the concerned period were the followings:

PLANTATION PROGRAMMES

A total of 767 seedlings of different ornamental plants/shrubs, fruit trees and medicinal plants were planted in different parts of the University campus, which include the Tezpur University Botanical Garden, Administrative Building, Community hall, Takshashilla Vidyapeeth, Garden near waterbody, Kendriya Vidyalaya, Cafeteria, Guest House, Health Centre, Shopping complex, VC's residence, Auditorium, Library, Additional plot, HSS Building, Dept. of Environmental Sciences, School of Management Science, School of Engineering, roads of residential colony, etc.

A plantation programme was carried out on 4 August 2016 within the premise of the Botanical Garden of the University on the occasion of JARI-BOOTI DIVAS. This was done in collaboration with Bharat Swabhimaan (Trust), Patanjali Yog Samiti, Mahila Patanjali Yog Samiti, Yuba Bharat and Kishan Panchayat, Sonitpur Disctrict, Assam. During the programme, different medicinal plants like Tulsi, Alovera, Neem and Geloi, etc. were planted.

Yet another plantation programme was carried out on 19 August 2017 in collaboration with the NGO called Rengoni, Assam. During the programme, plantation of different medicinal plants, fruit tree, avenue tree were done within the premise of Tezpur University Botanical Garden and other parts of the University campus.

MAINTENANCE OF THE EXISTING TREES

Maintenance of all existing earlier planted trees (like road side and other plantation) other than garden area were done with cleaning, fertilization and watering etc.

MAINTENANCE OF THE EXISTING GARDENS

Essential maintenance work on all the flower gardens which are located in the front of the Administrative Building, the Auditorium, the Guest House, the Library, the Community Hall, the Health Centre, the Student Activity Centre, Dept.. of Energy, Dept. .of Chemical Science, Dept. of MBBT, Dept. of Environmental Sciences, Dept. .of Mass Communication and Journalism, HSS Building, Dept of Business Administration, Academic Buildings I and II, School of Engineering, VC's residence, Garden near waterbody, the Cafeteria, the Sophisticated Analytical Instrumentation Centre, the Community hall, the Chandraprabha Saikianee Bhaban, the Shopping Complex, the Day Care Centre, the Car parking area near Administrative Building, Takshashilla Vidyapeeth, Kendriya Vidyalaya, the Children Park, Botanical Garden etc. was carried out throughout the concerned year.

MAINTENANCE OF HOUSE PLANT POTS FOR INDOOR DECORATION

Essential maintenance work was also carried out on all the house plant pots (about 850 in number) placed in the Administration Building, the Academic buildings, the Library, the Guest House, the Community Hall, the KBR Auditorium, the Health Centre, the Student Activity Centre and all other office buildings of the University.





MAINTENANCE OF VERMICOMPOST UNIT

A Vermicompost project has also been running successfully and has fulfilled the need of organic manure to some extent. About 18.90 quintals of vermicompost was produced during the concerned year.

MAINTENANCE OF THE UNIVERSITY NURSERY

The University has a nursery of its own, which has been the source of seedlings of ornamental and fruit trees of different types; shrubs; indoor plants and also some seasonal flowers for the use of the University. Essential maintenance work was carried out on the nursery throughout the concerned year.

OTHER ACTIVITIES

In addition to the above, cleaning (by jungle cutting) of different parts of University campus like surroundings of Administrative Building , different Offices and Academic Buildings , Library, Au torium, Guest House, Chandraprabha Saikianee Bhaban, Community hall, Sports Complex, Shopping Complex/Day Care Centre, Children park, Takshashilla Vidyapeeth, Kendriya Vidyalaya, Car parking area and both sides of different roads etc. were done from time to time.

The Internal Quality Assurance Cell

During 2016-2017, the Internal Quality Assurance Cell (IQAC) took several steps to foster the spirit of quality among the members of the University Community. Some of the activities of the IQAC during this period were:

1. The IQAC played its role in the visit of the NAAC Peer Team for the third cycle of accreditation during 16-19 April 2016.

2. Meeting of the full IQAC Committee with the NAAC Peer Team. While the visiting team appreciated the role being played by the IQAC, it also provided valuable suggestions for future directions in which the IQAC can act.

3. The IQAC carried out verification of applications for promotion of faculty members under CAS as per norms specified by the UGC.

4. Taking into account inputs from members and other stakeholders, the IQAC identified activities for different organs of the University for enhancement of quality.



The International Office

The International Office of Tezpur University was established in February 2013. The International Office is presently manned by a part-time Director, Professor PK Das, Dept. of English and Foreign Languages, and a part-time Deputy Director, DrRupak Mukhopadhyay, Assistant Professor, MBBT. The IO's main activity has been handling the application and enrollment process of international students. It also organizes talks and seminars on overseas education and research opportunities.

ACTIVITIES

The International Office organized a meeting of a visiting team from Begum Royeka University, Rangpur, Bangladesh with faculty of the Department of Business Administration on May 23, 2016. The possibility of academic collaboration was discussed.

On January 19, 2017 the International Office organized a meeting in the VC's office room with a Japanese delegation consisting of Mr. Yukio Takeyari, Chair, NASSCOM, Japan Council and former head of Sony India, and Mr. Takafumi Nishi, CEO, Matsubaya. The delegation was visiting Assam on Amtron's initiative to promote student exchange and placements in Japanese companies.

On February 7, 2016 the International Office organized two back-to-back information seminars (regarding Fulbright and other fellowships) for faculty and students, conducted by Sudarshan Das and Sumanta Basu of United States-India Educational Foundation, Kolkata.

Staff of the Office of the Dean

P K Das
Professor
Department of English and Foreign Languages
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Rupak Mukhopadhyay
Assistant Professor
Department of MBBT
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The Sophisticated and Analytical Instrumentation Centre

Instrumental methods of analysis form an indispensable aspect of Research and Development. Tezpur University has a number of Departments and Centers working on areas which require sophisticated analytical equipment. Sophisticated Analytical Instrumentation Centre (SAIC) at the University is set up to cater to these requirements. The Centre also extends these facilities to other educational institutions and industries within the Northeastern region and yet beyond, as many of them do not have the resources to procure and maintain sophisticated analytical instruments. The Centre also provides demonstration of instruments and their utility in different fields of research to the graduates/non-graduate students of colleges of north-east and even beyond.

Major facilities and equipment available

Sl. No.	Name	Model/Date of Installation
1	Transmission electron Microscopy (TEM)	Model : TECNAI G2 20 S-TWIN (200KV) Date of Installation : 22.10.2013
2	Single crystal XRD	Model : AXS SMART APEX-1 Date of Installation : 04.07.2012
3	Powder XRD	Model : D8 FOCUS Date of Installation : 02.11.2012
4	BET (Surface and Pore size analyzer)	Model : NOVA 1000E Date of Installation : 15.06.2011
5	Raman Spectrometer	Model : RENISHAW BASIS SERIES WITH 514 LASERS Date of Installation : 12.10.2012
6	Atomic absorption spectrometer (AAS)	Model : AAS-ICE 3500 Date of Installation : 18.09.2012
7	High Performance Liquid Chromatography (HPLC)	Model : UV VISIBLE DETECTION-2489, REFRACTIVE INDEX DETECTOR-2414, HPLC PUMP-515 Date of Installation : 08.06.2011

8	GPC (Gel Permeation Chromatography)	Model : UV/V VISIBLE DETECTION-2489, REFRACTIVE INDEX DETECTOR-2414, HPLC PUMP-515 Date of Installation : 09.06.2011
9	Scanning Electron microscopy (SEM), Dept:-Physics	Model : JSM 6390LV Date of Installation : 18.11.2008
10	NMR (multi-nuclei), Dept:- Chem. Scs	Model : ECS-400 Date of Installation : 08.04.2010
11	Gas chromatography and mass spectrometer (GC-MS), Chem. Scs., Dept:- MBBT	Model : CLARUS 600 Date of Installation : 04.02.2009
12	Thermal Analyzer (TGA-DSC), Dept:- Chem. Scs.	Model : TGA-50 & DSC-60 Date of Installation : 26.05.2006
13	CHN analyzer, Dept:- Chem. Scs.	Model : 2400 SERIES 2 Date of Installation : 24.09.2006
14	Inductively Couple plasma optical Emission Spectrophotometer (ICP-OES), Dept:- EVS	Model : OPTIMA 2100 DV Date of Installation : 04.11.2009
15	Fourier Transform Infrared Spectrometer (FTIR) Dept:- Chem. Scs., MBBT, Physics	Model : IMPACT 410 Date of Installation : 29.01.1998
16	DNA sequencer, Dept:- MBBT	Model : 3130 GENETIC ANALYZER Date of Installation : 05.07.2010

THE PERSONNES OF THE CENTRE

Professors

N Karak
Department of Chemical Sciences & Head of SAIC

Technical staff

A Hazarika,
Technical Officer
Email: anil@tezu.ernet.in

P Kurmi
Technical Assistant
Email: prakash@tezu.ernet.in

T R Nath
Technical Assistant (Contract)
Email:trnath@tezu.ernet.in

P Bharali
Glass Blower (Contract)
Email:pbharali@tezu.ernet.in

Programmes organized by the University

1. Tezpur University Intellectual Property Rights Cell celebrated World Intellectual Property Day 2016 on April 26, 207. The aim of celebrating World Intellectual Property Day was to raise awareness of how patents, copyright, trademarks and industrial design registrations impact on daily lives and to encourage respect for the IP rights of others.
2. Department of English and Foreign Languages, Tezpur University conducted a UGC SAP-DRS conference on biography: western theories, indigenous practices in Assam on 30 March 2016.
3. Tezpur University's Department of Social Work in association with the neighbouring Samdhara Gaon Panchayat observed the 125th birth anniversary of Babasaheb Dr Bhimrao Ambedkar as Rashtriya Samrasata Day on 14 April, 2016. Prof. S. K. Dutta, Head, Department of Cultural Studies explained the significance of the Rashtriya Samrasata Day and highlighted on the life and works of Dr Ambedkar on the occasion.
4. A 2-day workshop on Introduction to Robotics was organized at Tezpur University on April 29-30, 2016 under e-Yantra
5. An Intra University Sensitization Workshop on Introduction to Robotics was organized for the students of Tezpur University on July 30, 2016 with the support of Centre for Innovation, Incubation and Entrepreneurship, Tezpur University. The focus of the workshop was to make the



students aware of the state of the art in robotics, Domains of Robotics, Tools used in Robotics, Demo of mobile robots, Intelligent Robotics, Robotics at Tezpur University Vis-à-vis National Scenario and the future of robotics in India.

6. A workshop on Digital India was organized by the NSS Tezpur University on 22nd October, 2016 under the aegis of M/o Electronics and Information Technology (Government of India).
7. Department of Cultural Studies, Tezpur University with the sponsorship of Indira Gandhi Rashtriya Manav Sangrahalaya (IGRMS) organised a National Seminar on Food Cultures of India on December 01-02, 2016. The seminar discussed how as a topic of academic interest, food provides multiple points of entry to look at different cultural, economic, and environmental impact.
8. Central Library, Tezpur University in collaboration with DELNET (Developing Library Network), New Delhi organized 19th National Convention on Knowledge, Library and Information Networking (NACLIN 2016) from October 26-28, 2016 at KBR Auditorium, Tezpur University on the theme "Smart Libraries and Inspired Librarians: Managing New Technologies, Digital Content and Service". The National Convention was inaugurated by the Hon'ble Vice President of India Shri M Hamid Ansari, on October 26, 2016. The Inaugural Session was presided over by Hon'ble, Governor of Assam and Chancellor, Tezpur University, Shri Banwarilal Purohit. The Guests of Honour included Hon'ble Irrigation Minister of Assam, Shri Ranjit Dutta and Hon'able Member of Parliament, Tezpur Constituency, Shri Ram Prasad Sharma.
9. Department of Sociology, Tezpur University organised 42nd All India Sociological Conference on Rethinking Sociological Traditions of India. The conference was organised on December 27-30, 2016.
10. The School of Management Sciences, Tezpur University in association with Indian Statistical Institute (ISI), Bangalore organized Certification Programmes for Six Sigma Green Belt for the professionals and students of Northeastern region. The programme was held on March 08-11, 2017 at Tezpur University. Six-Sigma is a data driven process improvement methodology.
11. Department of Mass Communication & Journalism, Tezpur University organised a short-term special winter school under global initiative of academic networks (GIAN) on Journalism and society on January 02-13, 2017. GIAN explored how media can play the role of a catalyst for societal transformation and Discussed about the emerging trends in global media cooperation.
12. The Hindi Fortnight was observed at Tezpur University from September 01-14, 2016. Various competitions such as essay writing, quiz, recitation etc were organised to popularize the official language amongst the students, faculty and staff members. Winners were awarded with cash prizes and certificates at the time of valedictory function.
13. A one-day Industry Academia Interaction programme on "Energy Conservation and Renewable Energy intervention opportunities for industries growth in NE India" was organised in the department of Energy on March 17, 2017. The programme discussed Prevailing energy scenario and its influence on Industrial growth with a special reference to NE India and challenges in renewable energy generation.

14. The Department of Cultural Studies, Tezpur University in collaboration with Prag News organised an exhibition of Assamese cinema of the last 81 years. This event was a part of the prestigious Prag Cine Awards which was organised on 13th, 14th and 15th May, 2016 at Tezpur.

15. Department of Computer Science and Engineering Tezpur University, in association with Department of Computer Science and Engineering, IIT Guwahati organised a Workshop on IOT (Internet of Things) and Security on March 27-28, 2017. The workshop included valuable deliberations from the IITG and IIITG experts on the state-of-the-art 802.11 WiFi Networks and Cloud Security along with discussions and exchange of ideas that assured to offer an enlightening platform for the people working in this research area.



16. A series of lectures on Frontier knowledge, Imagination and Initiatives based on the works of Nobel Laureates of the year 2016 was held during 16th to 18th November, 2016. The speakers highlighted the Nobel Laureate's Field of work.

17. Department of Business Administration, Tezpur University organized the Late Professor Madhab Chandra Bora Memorial Inter-Institutional Quiz Competition on 16 November, 2016. The day is observed as Remembrance Day with the Quiz and a Memorial Oration in the fond memory of Prof. Borah, the founder Dean of School of Management Sciences.

18. North East Principals' Meeting for e-Yantra lab setup initiative in the North Eastern Region of India was held in Tezpur University, Tezpur, India on April 5, 2016. e-Yantra – a project in the Department of Computer Science and Engineering, Indian Institute of Technology Bombay

- is a flagship project of Ministry of Human Resource Development through the National Mission on Education through ICT to spread Embedded systems and Robotics education in colleges across India.

19. Teaching Learning Centre (TLC), Tezpur University, jointly with Indian Institute of Science Education and Research (IISER), Pune and the British Council organized a three-day pedagogy workshop for undergraduate science teachers from January 28-30, 2017 at Tezpur University.

20. Sponsored by Department of Biotechnology, Ministry of Science and Technology Government of India, Department of Molecular Biology and Biotechnology, Tezpur University organized National Workshop on Networks in Biological Systems on 18th-19th February, 2017. The workshop aimed at introducing and familiarizing students with the basics of various networks in the biological systems and their applications.

21. Teaching Learning Centre and Department of Education, Tezpur University organized a MHRD SPONSORED NATIONAL SEMINAR ON ISSUES AND CHALLENGES IN HIGHER EDUCATION on 21-23 November, 2016. The seminar discussed Pedagogical Issues in various disciplines at tertiary level and Challenges ahead in Higher Education.

22. Tezpur University celebrated 'International Yoga Day on 21st June, 2016 with a week long program. As a part of the event various activities, such as, Yoga camp for various age groups, Yoga demonstration and competitions, essay writing competitions were organised. All the winners were awarded with cash prizes and certificates.

23. Tezpur University observed its 24th foundation day on 21st January, 2017 with two orations by noted entrepreneur, Mr. Ranjit Barthakur, founder trustee, Balipara Foundation and Dr. Gunter Pauli, founder, Zero Emissions Research and Initiatives (ZERI). The event started with hoisting of the university's flag by the Vice Chancellor of Tezpur University, Prof. Mihir K. Chaudhuri in the presence of other dignitaries and guests.





24. The University celebrated 68th Republic Day with great fervor and joy with a day long programme. The day started with a cycle rally by the students followed by hoisting of the National Tricolour in the playground of the University by the Vice Chancellor. The felicitation and speech of the invited guests were followed by a program of patriotic songs/chorus/group dance by the students of TU, Takshashila Vidyapeeth and Kendriya Vidyalaya. A friendly cricket match by the employees of the University was played in the name of VC's Eleven and Registrar's Eleven. There were also other events of sports, like musical chair, tug of war, etc. organized for celebrating the day.

25. Northeast India's one of the biggest techno-cultural festival TechXetra was held in Tezpur University on November 04-06, 2016. The 9th edition of the fest attracted huge footfalls and exhibited many innovative ideas and technology.

26. Tezpur University celebrated 'Rashtriya Ekta Saptah' from October 31- November 6, 2016. As a part of the event various competitions, such as, Run for Unity, Essay writing competition, Inter School Skit Competition, Slogan Writing etc. were being organized for the students of Tezpur University. All the winners were awarded with cash prizes and certificates.

27. Spring Fest christened as Swarnil Basanta 2016 was held during 19-24 April 2016. Swarnil Basanta featured a number of Inter Hostel competitions. The competitions were held under the categories of Music, Dance, Literary, Fine Art and Theatrical.

28. The 20th Annual Meet of Tezpur University got underway with a colourful inaugural ceremony on February 23th, 2017. Distinguished sports personality, Dr. Subhas Basumatary, Director, Sports Authority of India, Guwahati graced the occasion as the Chief Guest. The event started with lighting of the Olympic Torch, followed by Flag Hoisting and University song. The annual meet concluded on February 26, 2017 with a Gala cultural Evening. The four-day event included various sports/ literary competitions and cultural shows.

29. Tezpur University organised "Young Ecologists Talk and Interact (YETI)" – the largest students' scientific conference in the country on ecology, evolution, conservation and social sciences on January 4th, 2017. Organized entirely by the student volunteers from across the country with support from several organizations, YETI is a unique conference providing a friendly and inspiring platform for ecologists early in their career, to present and discuss their work, exchange ideas, and strike up collaborations with contemporaries. YETI 2017 featured a series of plenary lectures, popular talks, documentary screenings, workshops and interactive sessions by prominent national and international scientists, presentations by research students, nature quiz. Yeti 2017 also featured nature film making competition for the first time.



30. The 17th edition of SAMPARK, the annual industry-academia interface event of the Department of Business Administration, Tezpur University was organised on March 03004, 2017 at Tezpur University. SAMPARK 2017 was jointly organised with the Ministry of Development of North Eastern Region (DONER) and North Eastern Finance Corporation Limited (NEDFi). The event featured a Business-Idea Challenge, lectures by noted guests, varied sessions on startups and entrepreneurship.

31. On the occasion of National Science Day (28th February), "InSCIgnis," Tezpur University's annual science fest was organised. The event showcased an array of activities ranging from experimentation and designing, astronomy exhibition, quizzes, workshops, fun events and lecture series from eminent scientists from around the globe. Professor Purushottam Chakraborty, former Senior Professor of Saha Institute of Nuclear Physics, Kolkata and Adjunct Professor of Pretoria University, South Africa delivered the Invited Talk during the event. Apart from the lecture series and workshops, a book fair was also being organized during the event.

32. Department of Law and Community College, Tezpur University in collaboration with National Human Rights Commission, New Delhi organised a day long training programme on Human Rights on March 25, 2017. The resource persons included, Hon'ble Justice Dr. M.K Sharma, former Judge, the Supreme Court of India and Hon'ble Justice Dr. A.H. Saikia, Chairperson, Meghalaya Human Rights Commission, among others.



Year in Figure

Statistics :: Employees

Teaching

Employees	As on 31.03.2016	Joined during 2016-17	Left during 2016-17	As on 31.03.2017
Professor	56	14	01	69
Associate Professor	45	07	11	41
Assistant Professor	118	29	08	139
Total	219	50	20	249

Non-Teaching

Employees	As on 31.03.2016	Joined during 2016-17	Left during 2016-17	As on 31.03.2017
Group-A	36	02	00	38
Group-B	54	01	00	55
Group-C	101	04	01	104
Group-C (MTS)	73	00	00	73
Total	264	07	01	270

Satistics: SC/ST Employees, Female / Male Employees (as on 31 March, 2017)

Teaching:

Employees	SC	OBC	ST	Gen	Female	Male	Total
Professor	04	13	05	47	11	58	69
Associate Professor	05	11	02	23	07	34	41
Assistant Professor	24	36	13	66	44	95	139
Total	33	60	20	136	62	187	249

Non-Teaching:

Employees	SC	OBC	ST	Gen	Female	Male	Total
Group-A	05	10	02	21	03	35	38
Group-B	10	20	04	21	11	44	55
Group-C	17	40	11	36	09	95	104
Group-C (MTS)	13	25	05	30	05	68	73
Total	45	95	22	108	28	242	270

STATICTICS: STUDENTS (as on 31 March 2017)

Total	Male	Female	General		SC		ST		OBC/MOBC		PWD	
			Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
3731	2135	1596	1093	862	275	166	136	149	605	407	26	12

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25 June 2016

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