

PROSPECTUS

SPRING 2021



TEZPUR UNIVERSITY

NAPAAM, SONITPUR

ASSAM, INDIA 784028

www.tezu.ernet.in

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Section I

General Information about the University

1.1 Introduction

Tezpur University was established on January 21, 1994 by an Act of Parliament of India, The Tezpur University Act, 1993 (Act No. 45 of 1993), as a non-affiliating and residential Central University. The University is located at Napaam, about 15 km east of Tezpur town in the Sonitpur District of Assam. The serene and green University Campus of about 262 acres provides an excellent ambience including modern infrastructure conducive for learning and dedicated research. The academic programmes, offered in the University, have a distinct focus on Science, Technology, Management, Humanities, and Social Sciences, reflecting the objectives of the University. At present, the University offers a number of Programmes of Under-Graduate Degree/Diploma/Certificate, Integrated Programmes, Post-Graduate Degree/Diploma and Doctor of Philosophy Degree in various Disciplines. The University offers Add-on courses on Yoga and Violin too.

During the last 25 years of its existence, the University has engaged itself in the process of capacity building, both in terms of infrastructure and human resource development. The University has mounted tremendous efforts in developing it into a modern University incorporating all elements from the contemporary scientific and socio-cultural milieu.

The University has already developed a number of state-of-the-art laboratories, computing facilities, internet connectivity, a dedicated power supply system with DG backup and a rich library having connectivity to several digital libraries. While students' accommodation is provided in 15 well-designed hostels (including transit hostels), sufficient number of residential quarters is available for the accommodation of teaching and non-teaching staff. Other basic amenities, like central water supply, campus security, guest house, canteen, gymnasium, outdoor and indoor sports facilities, post office, banks with ATMs, schools, swimming pool, etc., are also available to cater to the needs of the University community.

Being a Central University, it is privileged to receive funds from the Ministry of Human Resource Development, Government of India, through the University Grants Commission. Faculty members of different academic Departments have been able to receive a large number of research grants amounting to crores of rupees from different funding agencies/organizations. The University promotes industry-academy alliance. The existence of prestigious industry sponsored projects in the University bears testimony to this.

1.2 Awards/Accolades

The University, established in the year 1994, and already completed glorious 25 years has succeeded in achieving a number of prestigious accolades and awards. The National Assessment and Accreditation Council (NAAC), an autonomous Institution of UGC, accredited the University with 'A' Grade for the next five years. The University was accorded the Visitor's Best University Award for the year 2016 by the President of India. The University was also ranked 30th among India's top 100 Universities in an assessment conducted by the Ministry of Human Resource Development (MHRD), Govt. of India, through the National Institutional Ranking Framework (NIRF) in 2017. Further, the University is placed in the top 601-800 Universities in the World University Rankings conducted by the Times Higher Education (THE) in 2017. The QS (Quacquarelli Symonds) BRICS University Rankings 2018 which feature 300 top Universities from Brazil, Russia, India, China and South Africa (BRICS) placed Tezpur University in 146th rank. Tezpur University secured 100th rank in Times Higher Education (THE) Asia University Rankings 2018. The University has also featured in the 20th position in the list of top 20 world's best small universities by Times Higher Education in 2018. The University is ranked 36th in India under QS BRICS University Rankings 2019. Tezpur University is ranked 65th in overall ranking and 39th amongst all Universities under MHRD NIRF 2020.

1.3 Facilities and Services

The University offers the following major facilities and services for students and research scholars.

1.3.1 Central Library

Central Library is the focal point of all user community of Tezpur University. The Library caters to the educational and research needs of the academic community and its resources are consulted by scholars from all over the country. Central

Library has started functioning since 1994. At present, the library holds about 91209 books, 10,000+ journals (print + online), online databases, CDs and 9661 back volumes of journals.

Library is a member of e-Shodh Sindhu Consortium, DeLCON consortium and DELNET. Library users can access book database, journal database, e-journals, institutional repository, electronic thesis & dissertations and other e-resources from any terminal within the University campus. Library provides reading facility for 365 days in the year. The library is also equipped with state-of-the-art anti-plagiarism tools for finding similarity scores of various intellectual properties generated by the University.

The library is continuously striving to adopt the best practices in all endeavours of its activities. The library is fully computerized with the help of Libsys software & KOHA -open source software that supports all in-house operations of the Library.

1.3.2 Computing Facilities

The University started using computers from its very inception both in its academic and administrative activities. The University has state-of-the-art central computing facilities, in addition to Departmental computer laboratories. Apart from a large number of PCs and servers, the University also has a High Performance Computing Centre (PARAM-TEZ) consisting of 12 TF HPC system with 50TB storage capacity and 3 C-DAC's indigenously built PARAM Shavak having computing capacity of around 3 TF each. All computing facilities are in a high speed campus LAN, which is connected to the Internet through 1-Gbps National Knowledge Network (NKN) optical fiber link. Apart from this, the whole campus is Wi-Fi enabled.

1.3.3 Sophisticated Analytical Instrumentation Centre (SAIC)

The University established the Sophisticated Analytical Instrumentation Centre (SAIC) to cater to the need of various sophisticated equipment for advance research. A number of sophisticated equipment, like TEM, SEM, Single Crystal XRD, NMR etc., are installed in SAIC. The Centre also extends these facilities to other educational institutions and industries within the North East Region of India and beyond to improve and promote research in different disciplines.

1.3.4 Centre for Innovation Incubation and Entrepreneurship (CIIE)

The Centre for Innovation Incubation and Entrepreneurship (CIIE) promotes specialized knowledge in the field of entrepreneurship development, innovation and creative ideas. The Centre strives to identify and motivate talented youths to implement new ideas for the fulfillment of the larger societal objectives. The CIIE also maintains an exhibition hall, called TUNOVATION that showcases various innovations made by students and faculty members as part of their projects/ research works. It also displays collection of cultural antiques of the North East Region including musical instruments, masks and terracotta.

1.3.5 Health Services

The University has a Health Centre to provide health care services to students, faculty members, staff and their families with its own medical and paramedical staff. As of now, the Health Centre has over 5000 beneficiaries, including the people working at the University construction sites. It offers OPD services. One Medical Officer is always available for 24 hours on emergency duty. The cases requiring hospitalization are referred to the referral hospitals at Tezpur. Ambulance service is available round the clock. A stock of common medicines including lifesaving drugs are maintained and supplied free of cost. Routine laboratory investigations are also done free of cost.

Advanced equipment, such as Auto analyser (fully automatic), Hormone Analyser (Mini-Vidas), Ultrasound scanning, ECG and X-ray, required for laboratory investigations are made available at the Health Centre for the benefit of the University community. A set of appliances for person with disability are kept separately.

The University has engaged Specialists of different disciplines (Pediatrics, Obstetrics and Gynecology), who visit the Health Centre on different days of the week on regular basis for the benefit of the University community. Psychiatrist from LGBRIMH also visits the University regularly for offering counseling on stress related problems. One Sonologist visits the Health Centre once a week for ultrasound scanning. One Physiotherapist visits twice a week for physiotherapy related

treatment. Besides, annual health checkup for employees, fogging in the campus, pulse polio immunization camps and blood donation camps are organized in the campus as per the directive of the University/Government.

All the students of the University are provided mediclaim coverage for their hospitalized expenditure. A nominal fee for payment of the premium is charged at the time of admission. The mediclaim policy for the students will be effective from the last week of August although the admission process begins quite early.

1.3.6 Student Accommodation

The University provides separate accommodation for men and women students and research scholars, having more than 3700 capacity. The University also has a married research scholars' hostel with capacity of accommodating more than 30 married research scholars. However, hostel seats will be allotted on merit basis as per availability. Due to limited seats, mere admission to the university does not guarantee hostel accommodation.

1.3.7 Scholarships

Students of Tezpur University can avail various scholarships offered by Govt. Organizations/ Agencies, such as:

- Institutional fellowship for meritorious Ph.D. students
- Inspire Scholarship
- AICTE Doctoral Fellowship
- UGC Research Fellowship
- DBT scholarship
- National Fellowship for Scheduled Caste Students (Ministry of Social Justice and Empowerment Department of Social Justice and Empowerment, GoI)
- National Fellowship and Scholarship for Higher Education of ST Students, etc.

As per the records of recent past, there is a waiting time for the release of the first installment of the Scholarship, due to the time taken for official procedures which is beyond the control of the University.

1.3.8 Culture & Sports

The University provides opportunities for students to excel in various cultural and sports activities. The University has basketball, badminton, volleyball and tennis courts; cricket and football grounds with flood light facilities. The University has a well-equipped multi gymnasium and training facilities for Archery. The University also encourages students to participate in various zonal, national and international levels cultural, literary and sports competitions organized by Association of Indian Universities (AIU), New Delhi.

Tezpur University Student Council (TUSC)

The University has a vibrant student council for the welfare of the students. The members of the councils are elected annually by students through secret ballots.

Tezpur University Alumni Association (TUAA)

TUAA was formed in the year 2000 to create a network of the alumni of the University. The Association aims to build an active pool of resources for the student community in coordination with the well-placed alumni.

Academic Calendar

The University adheres to a well-planned calendar specifying the schedule of academic activities. All events including examinations are held according to that calendar. Prospective students are advised to go through the current calendar to get acquainted with the academic events of the University. The academic calendar for the year 2019 is available in the University webpage.

1.4 Curriculum

Each academic programme of the University is comprised of a set of Courses, some of which are core and others are elective. There are two types of elective courses - (1) Discipline specific electives (DSE) offered by the Department which are specific to the programme; and (2) Generic or open electives which are to be chosen by the students of other Departments. Flexibility is there for students to opt for elective Courses on their own choices from a pool of courses. The

University follows the choice based system of UGC for all programmes except for engineering which follows AICTE model. The Courses across the Departments are designed in such a way that multiple teaching pedagogies can be incorporated in delivering the contents of a Course.

The medium of instruction and examination at all the levels in the University is English, except for courses on languages such as Hindi, Assamese, Chinese, German, etc. In framing the courses, care is taken so that students are NOT burdened with formal lectures only. There is adequate provision for seminars, tutorials, case studies, guided field work, etc., whatever necessary, to promote the habit of independent thinking. To relate theoretical knowledge to the practical field, proper measures are taken to conduct case studies and guided field works from real life problems. Group Discussion is also used as a teaching pedagogy to increase the analytical capability and creativity of the students.

1.5 Evaluation System

Students are evaluated through a relative grading system. The University follows a continuous comprehensive evaluation system, under which a student is evaluated through a number of tests and assignments spread over the entire semester. Finally, a Letter Grade is awarded against each Course based on these assessments.

A Letter Grade signifies the level of standard of qualitative/quantitative academic achievement, which a student attains in a particular course/research work. Each of the Letter Grades represents a Grade Point as tabulated below:

Letter Grade	Grade Point	Description
O	10	Outstanding
A+	9	Excellent
A	8	Very Good
B+	7	Good
B	6	Above average
C	5	Average
P	4	Pass
F	0	Fail
Ab	0	Absent

The letter Grades 'O' to 'P' are qualifying Grades, while 'F' and 'Ab' are disqualifying Grades. The 'Ab' Grade is awarded if a student remains absent in the evaluation components without any valid reason. The students, awarded with the 'F' or 'Ab' Grade in a Course are required to re-register the Course.

Additionally, there are some other Grades followed in University as stated below:

Letter Grade	Status	Remarks/ Context
I	Incomplete	Some evaluation components remain incomplete due to an extraordinary situation faced by the student. This Grade should be converted to any of the regular Grades mentioned above by completing the left out component(s) within the first month of the next semester.
X	Extended Project	A project work remains incomplete and it is extended to the next semester.
S	Satisfactory	Successful completion of a Foundation/ Audit Course.
U	Unsatisfactory	Unsuccessful in completing a Foundation/ Audit Course.
W	Withdrawn	(i) The student withdraws the Course after the last date for withdrawal of Courses. (ii) Deficit in attendance.

1.6 Important Academic Rules

Course Registration

A student needs to register for some courses/research work(s) in each semester through a Registration Card. The course adviser appointed by the Head of a Department/Centre assists the students in selecting courses for a semester. The Registration Card contains four copies; one each for the Academic Section, Department, Hostel Warden and the student.

Attendance Requirement

All students must attend every lecture, tutorial and practical classes of each course registered by them. To account for late registration, sickness or such other contingencies, the minimum attendance requirement will be 75% of the classes. Students with shortage in attendance in a course will not be allowed to appear in the semester end examination and they will be awarded W (withdrawn) grade in the course.

Renewal of Admission

Every student will renew his/her admission in all the successive semesters on the notified dates. On specific reasons, students may be allowed to take admission within one week of the notified date with late fee.

Requirement for the Award of Degree/Diploma/Certificate

A student shall be required to satisfy the following conditions for the award of Degree/Diploma/Certificate:

- To obtain a qualifying Grade in each of the registered Courses.
- To earn the minimum credit required for the award of Degree/Diploma/Certificate within the prescribed maximum duration of the programme (maximum credit load allowed per semester is 25).
- To secure a minimum CGPA of 4.5.

Termination of Candidature or Withdrawal of Awarded Degree/ Diploma/Certificate

The candidature of a student in a Programme may be terminated at any stage in future. Even an already awarded Degree/Diploma/Certificate may be withdrawn, under various circumstances, such as:

- Failing to complete successfully all the components of the Programme within the maximum period of completion specified for the Programme.
- Establishment of deliberate suppression of any previous fact in the application form or at the time of admission, which may determine the eligibility for admission.
- Production/submission of any false/tempered document at the time of application/admission.
- Serious violation of any clause of the Regulations on Maintenance of Discipline and Hostel Rules prescribed by the University.

- (e) Indulging in ragging inside or outside the University campus. Students are advised to visit www.ugc.ac.in or www.tezu.ernet.in for UGC Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009.
- (f) During the study period in the University, involvement in any criminal/offensive activity, that may be punishable according to the Law of the country.

1.7 Important Rules

- (a) During studentship of the University, students are governed by the disciplinary rules of the University, on and off the campus.
- (b) Motorized vehicles by students are not allowed in the campus. Students are advised to avoid vehicles, rather may use bicycles.
- (c) Consumption or possession of any kind of alcoholic beverages/items is strictly prohibited. Also, entering/staying in the campus in an inebriated state will be considered as an offence.
- (d) There may be penalty for violation of discipline including maintenance of cleanliness, late payment of hostel dues etc.
- (e) Participation of the students/boarders in university/hostels' common events, like celebrations, competitions are subject to their willingness and is not mandatory.

SECTION II
Ph.D. Programme

2.1 Departments Offering PhD Programme

The following departments/ centre of Tezpur University will offer Ph.D. programme in Spring 2021.

Sl. No.	Programme	Department /Centre	School
1.	Ph.D. in Civil Engineering	Civil Engineering	Engineering
2.	Ph.D. in Computer Science and Engineering	Computer Science and Engineering	
3.	Ph.D. in Electronics and Communication Engineering	Electronics and Communication Engineering	
4.	Ph.D in Electrical Engineering	Electrical Engineering	
5.	Ph.D. in Energy	Energy	
6.	Ph.D. in Mechanical Engineering	Mechanical Engineering	
7.	Ph.D. in Cultural Studies	Cultural Studies	Humanities and Social Sciences
8.	Ph.D. in Sociology	Sociology	
9.	Ph.D. in Social Work	Social Work	
10.	Ph.D. in Business Administration	Business Administration	Management Sciences
11.	Ph.D. in Environmental Science	Environmental Science	Sciences
12.	Ph.D. in Mathematical Sciences	Mathematical Sciences	
13.	Ph.D. in Molecular Biology and Biotechnology	Molecular Biology and Biotechnology	
14.	Ph.D. in Physics	Physics	

Important information regarding the Ph.D. programme of the University are highlighted below.

2.2 Course Work, Course Registration and Attendance Requirement

2.2.1 Course Work

A student admitted to the Ph.D. programme shall be required to complete specified course work prior to the submission of Plan of Research as per the recommendation of the Departmental Research Committee (DRC)/ Centre's Research Committee (CRC). Currently the scholars are required to complete a total of 16 credits (1 credit generally consists of one-hour lecture/ tutorials or two hours of practical in a week). As a step initiated by the University towards implementation of Choice Based Credit System (CBCS), out of the stipulated credit requirement 4 credits should be from another department. All selected candidates have to complete the course work within the first two semesters. In order to continue research a candidate must secure a CGPA (Cumulative Grade Point Average) of 6.0 or more. During the course work, students shall report at the Department/Centre regularly and attend classes or do assigned tasks.

2.2.2 Course registration

The courses opted by the students in a semester are to be registered on the specified date(s). For newly admitted students, registration of courses shall take place during 16-17 January 2020 along with the admission formalities.

2.2.3 Attendance requirement

All students including Ph.D. scholars must attend every lecture, tutorial and practical classes of the course registered by him/her. However, to account for late registration, sickness or other such contingencies, the attendance requirement will be a minimum 75.0% of the classes. Students with deficiency in attendance in a course will not be allowed to appear in the Term-end examination and will be assigned W grade in the course.

2.2.4 Renewal of admission

Every student will renew his/her admission in the successive semesters on or before the notified dates. No student is allowed to get himself/herself admitted after scheduled date.

2.2.5 Monitoring the progress of research

During the period of research work scholars shall be in touch with their supervisors and give at least one seminar in each semester on experiments/ field work/ library work completed during the Semester. Except part-time students, other categories of students shall be generally available in the Department/ Centre unless they are engaged in experiments/ field work/ library work elsewhere with prior permission of the supervisors.

2.3 Categories of Candidates

The University shall admit Ph.D. students under the following categories:

a) Full Time: Students under this category shall work full time for the Ph.D. courses/ research. They may apply for fellowship/assistantship available from different funding agencies.

b) Sponsored: Candidates may be sponsored by recognised R&D organisations, national institutions, other universities, government organizations or industries. They shall be admitted through the normal process, and they shall not be entitled to any fellowship/assistantship from the University. They shall work full time for the Ph.D. courses/research. Scanned copy of the Sponsorship / No Objection Certificate from the employer in the prescribed format given in **Annexure I** will be required to upload while submitting the application form.

c) Project Fellows: Students working on different research projects at Tezpur University may be admitted to the Ph.D. programme provided they satisfy the eligibility criteria, subject to the consent of the Principal Investigator of the project.

d) Part Time*: Candidates employed in nearby academic institution /University (including Tezpur University)/ R&D organizations may be considered for admission into the Ph.D. programme of Tezpur University, following the normal admission procedure. They shall have to fulfil the stipulated requirements for Ph.D. admission.

***The University encourages full time scholars and as such the applicants shall be admitted as Part-time scholars only in exceptional cases.**

2.4 General Criteria as per UGC Guidelines for Admission into PhD Programme

- Master's degree or a professional degree declared equivalent to the Master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade 'B' in the UGC 7-point scale (or an equivalent grade in a point scale wherever grading system is followed) or an equivalent degree from a foreign educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions.
- Candidates possessing a Degree considered equivalent to M.Phil. degree of an Indian Institution, from a Foreign Educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions, shall be eligible for admission to Ph.D. programme.
- Relaxation of 5% of marks, from 55% to 50%, or an equivalent relaxation of grade, may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/ Differently-Abled and other categories of candidates as per the decision of the Commission from time to time, or for those who had obtained their Master's degree prior to 19th September, 1991. The eligibility marks of 55% (or an equivalent grade in a point scale wherever grading system is followed) and the relaxation of 5% to the categories mentioned above are permissible based only on the qualifying marks without including the grace mark procedures.

2.5 Admission Procedure

Interested eligible candidates may APPLY ONLINE through the University Website by paying application fee of Rs.800/- only (Rs.400/- for SC, ST and PWD category). Additional bank charge may apply.

The candidates are required to fill-in the application form online in the University website www.tezu.ernet.in. Candidates should read and follow the instructions (that are available on the website) carefully while filling in the relevant columns of the online application form. Payment of application fee is to be made online through Debit card / Credit card or NET-banking. The transaction detail is to be printed and preserved for later reference

Candidates having valid UGC-NET/JRF, UGC-CSIR NET/JRF, DBT-JRF, ICAR-NET, ICMR-JRF and GATE are eligible to apply for Ph.D. programme for the Spring semester 2021. Selection will be based on their performance in the personal interview scheduled to be held during 10th -11th February, 2021. The names of the candidates eligible for personal interview will be published in the University website. No individual call letter shall be sent

The fee structure for Ph.D. programme is given in **Annexure II**.

2.6 Eligibility Criteria for Pre-Requisite and area of research for admission to various disciplines of Ph. D. programmes (Spring Semester 2021)

Pre-Requisite, area of research for admission in to various disciplines of Ph. D. programmes (Spring Semester 2021)

A. UGC eligibility criteria in the Prospectus may be referred to.

B. Pre-requisites and area of research:

Sl.No	Department	Pre-requisite	Area of Research
1	Business Administration	M.B.A. , M.Com. , M.A. / M.Sc. in Economics, M.A. in Psychology/ Sociology/Social Work/ Cultural Studies, MCA , M.T.M. / M.T.A. FCA/ FCS/ FICWA.	Financial Management ,General Management/Accounting , Taxation/Tourism Marketing, Consumer Behavior, Advertising/Change Management and Human Resource Management, Organization Behavior/Business Optimization, Operations, Quality, Operation in Tourism / Rural Development, Entrepreneurship Development/ Intellectual Property Right, Supply Chain Management, Community Based Tourism.
2	Civil Engineering	(a) M.E./M.Tech. /M.Sc.(Engg.) in Civil Engg. or allied areas or (b) M.Sc. in relevant discipline with minimum 70% marks in aggregate or equivalent CGPA or (c) B.E. / B.Tech with 75% marks in aggregate or equivalent CGPA with a valid GATE Score. Minimum two recommendation Letters from the Institute/University from where B.E./B.Tech degree was obtained.	Geotechnical Engineering/Environmental Engineering
3	Computer Science & Engineering	M.Tech. in Computer Science/ I.T./ Electronics MCA M.Sc. in Computer Science/ I.T. B.E. / B.Tech with 75% marks in aggregate or equivalent CGPA with a valid GATE Score. Minimum two recommendation Letters from the Institute/ University from where B.E./B.Tech degree was obtained.	Software Define Network, Bioinformatics & Network Security, Natural Language Processing Speech Processing, Wireless Networks, Cognitive Radio Networks, Data Mining, Image Processing, Pattern Recognition, Machine Learning, Data Science, Algorithms, Remote Sensing Image, Analysis, Bioinformatics, Computational Biology, Resource Allocation in CRN, 5G, Internet of Things, Blockchain, Network Security, Software-Define Networking, Trust& Reputation, Speech Processing, Artificial Intelligence.
4	Cultural Studies	M.A. in any of the disciplines in Humanities or Social Sciences with a uniformly good academic career. Candidates with UGC JRF, UGC NET or NE SET will be given preference.	Popular Culture, Media & Culture.
5	Electrical Engineering	(a) ME/MTech/MS/ in Electrical/ Electronics/Communication/ Power	Control system, chaos, waste water management, biomédical applications.

		System/Power Electronics/ Instrumentation/Control/ Computer Science & Engineering/ MBBS with MD/MS and any other relevant discipline. (b) BE/BTech with 75% marks in aggregate or equivalent CGPA with a valid GATE Score. Minimum two recommendation Letters from the Institute/ University from where B.E./B.Tech degree was obtained.	
6	Electronics & communication Technology	M.E. / M.Tech. / M.Sc. Engg. / M.S. in Electronics/ Communication/ Electronics Design/ Electrical/ Instrumentation/ Control/ Microwave/ Biomedical/ Bioelectronics/ Bio -Technology/ Computer Science/ Information Technology. M.Sc. in Electronics/ Physics/ Applied Mathematics. MCA with Physics, Chemistry and Mathematics in Bachelor degree, MBBS with MD/ MS degree. B.E. / B.Tech with 75% marks in aggregate or equivalent CGPA with a valid GATE Score. Minimum two recommendation Letters from the Institute/ University from where B.E./ B.Tech degree was obtained.	Image Processing, Computer vision & Deep learning for signal/Image Analysis, Robotics.
7	Energy	M.Sc. / M.E. / M.Tech. degree in Energy Technology/ Energy Management/Energy related Engineering and Technology/ Physics/ Chemistry/Agriculture Allied subjects.	Renewable Energy, Bioenergy and Biofuels, Energy -Environment interaction, Biomass Gasification, Building Energy and Thermal Comfort, Photovoltaic Systems, Hybrid Energy Systems, Fuel Cell, Hydrogen Energy, Graphene, Energy Storage, Electrochemical Systems, Energy Conservation and Management, Instrumentation & Control, Grid Integrated System, Solar Photovoltaics system, RAC, Heat Transfer, Nano fluids, Hydrogen Energy.
8	Environmental Science	Masters in any Science/ Applied Science / Engineering discipline with at least 55% marks or equivalent CGPA. At Bachelor's level the candidate must have attended Science / Technology programme.	Botanicals as pesticides, Insect plant interactions-ecology, Fluvial Geomorphology, riverine hazards, application of RS & GIS in atmospheric, hydro-geomorphic studies, Air pollution Meteorology, climate impact modelling, noise pollution and deep learning, Ecology, Eco hydrology, Nanotechnology in Environmental Research, Indoor air pollution, human environment interactions, Plant stress physiology C-sequestration and CHG emission from agricultural and forest, Ecosystem.

			Water and sediment geochemistry environmental pollution.
9	Mathematical Sciences	M.A. / M.Sc. in Mathematics or M.A./M.Sc. in Statistics with requisite background in Mathematics.	Non-parametric Statistics, Computational Fluid Dynamics, Harmonic Analysis
10	Mechanical Engineering	M.E. / M.Tech. / M.Sc. (Engg.) in Mechanical Engg. or allied areas. B.E. / B.Tech with 75% marks in aggregate or equivalent CGPA with a valid GATE Score. Minimum two recommendation Letters from the Institute/University from where B.E./B.Tech degree was obtained.	Design/Optimization, CAD-CAM, Soft computing, System Design, Mechatronics ,3D printing Technology, Materials Engineering and Manufacturing, Micro alloying, Thermo-Mechanical Processing, Microstructural Characterization, Mechanical Metallurgy, Failure Analysis, Tribology, Creep and High Temperature Deformation Behavior, Computational Material Science
11	Molecular Biology and Biotechnology	Masters in any branches of Life Sciences/ Physical Sciences/ Chemical Sciences/ Mathematical Sciences/ Agricultural Sciences / Veterinary or Sciences / Engineering Sciences /Medical Sciences or in any allied field. B. Tech./ B. E. degree with 80% marks in CGPA (with GATE score > 90.00 percentile) in Chemical Engineering/ Chemical Sciences/ Bioinformatics or any allied field. MBBS or BVSc. degree with at least 60% marks or equivalent CGPA. Apart from the above, candidates having consistently good academic record will be preferred.	Molecular Plant microbe interactions, Biochemistry in relation to meditation, asana and food, Microbial Biofilm Cancer Biology Biological waste management, Systems biology and Bioinformatics Inflammation Bioinformatics and Computational Biology Molecular Virology DNA structure & promoter engineering
12	Physics	M.Sc. in Physics/ Electronics/ Geophysics/ Material Science/ Applied Mathematics/ Nanoscience and Technology/ Biotechnology/ Environmental Science and Chemical Science. M.Phil., M.Tech. in Solid State Material/ Material Science/ Electronics/Energy/ Nanoscience and Technology/ Biotechnology/ Environmental Science and Chemical Sciences. B.Tech. in Engineering Physics with 80% marks in aggregate or equivalent CGPA.	High Energy Physics, Plasma Physics, Nanoscience and Soft Matter, Neutrino Physics, Applied photonics, Biomedical instrumentation, Astroparticle Physics.
13	Sociology	Post Graduation in Sociology / Cultural Studies/ Anthropology (with specialization in Social Anthropology) / Economics / History / Political Science / Philosophy / Mass	Tribal Studies, Marginality Studies, Social Movements, Agrarian Studies, Sociology of Religion, Northeast India Studies, Sociology of Culture, Sociology of Science.

		Communication / English / Law / Management/ Social Work.	
14	Social Work	MA in Social Work and allied Social Sciences such as Sociology, Psychology, Rural Development, Development Studies, Law, Public Health, Education and Management.	Social Work & Mental Health, Disaster Management, Street Children, Substance and Application of Social Work Methods, Rural Development, Sustainable Development.

Relaxation in requisite qualifications for SC/ST candidates shall be followed as per Central Govt. Rules. Reservation of seats for SC/ST/OBC (NCL), Kashmiri Migrant and Person with Disability (PWD) candidates shall also be as per Central Govt. Rules. The prescribed format of OBC (NCL) certificate is given in **Annexure III**. A candidate with at least 40% permanent disabilities shall be considered under the PWD category.

Recognised Supervisors and their areas of specialization: The names of available supervisors and their areas of research interests have been indicated in the Departmental Profiles in **Section III**. For detail information, candidates may contact the Department or browse through the specific faculty's webpage available in www.tezu.ernet.in.

Section III
Departmental Profiles

School of Engineering

CIVIL ENGINEERING (Year of Establishment: 2009)

The Department of Civil Engineering of Tezpur University was established in the year 2009 under the School of Engineering for offering B. Tech. Degree. Ph.D. Programme was initiated in spring, 2011 and the M. Tech. programme of the department was started from Autumn, 2018. The Department aims to provide quality education, research and professional experiences that enable its graduates to become leaders in their professional careers, to pursue excellence in research and to serve the profession, community and nation, and to be competitive in the international scene.

Programmes offered

1. Ph.D.
2. M. Tech. in Civil Engineering (Specialization in Geotechnical Engineering)
3. B. Tech. in Civil Engineering

Faculty and Areas of Interest

Professor		
1.	Utpal Kumar Das,* Ph.D. (GU)- HoD and Dean, P&D	<i>Geotechnical Engineering</i>
Associate Professor		
1	Kamal Uddin Ahamad,* Ph.D. (IITG)	<i>Environmental Engineering</i>
Assistant Professor		
1.	Ankurjyoti Saikia*, Ph.D. (TU)	<i>Geotechnical Engineering</i>
2.	Binanda Khungur Narzary, M.Tech. (IITG)	<i>Transportation Engineering</i>
3.	Debaraj Bailung Sonowal, M.Tech. (IITR)	<i>Structural Engineering</i>
4.	Shailen Deka*, Ph.D. (IITG)	<i>Geotechnical Engineering</i>
5.	Jayanta Deori Bharali, M.Tech. (IITG)	<i>Transportation Engineering</i>
6.	Rituraj Buragohain, M.Tech. (IITG)	<i>Water Resources Engineering</i>
7.	Karabi Bharadwaj, M.E. (NITS)	<i>Structural Engineering</i>
8.	Arunav Chakraborty, Ph.D. (GU)	<i>Geotechnical Engineering</i>

*Recognized Ph.D Supervisor

LEGENDS: **GU**-Gauhati University, **P&D**– Planning and Development, **TU**-Tezpur University, **IITG**-Indian Institute of Technology Guwahati, **IITR**-Indian Institute of Technology Roorkee, **NITS**– National Institute of Technology Silchar, **AEC**-Assam Engineering College Guwahati, **HoD**- Head of the Department.

Facilities

The Department has the following Laboratory facilities

Computational Laboratory Facilities

- MatLab and Simulink R2011b
- Civil FEM for Ansys, version 12.1
- Plaxis 2D
- ETABS Version 9
- AutoCAD
- SAP 2000, v-20

Core Departmental Laboratories

- Geotechnical Engg. Laboratory-I
- Geotechnical Engg. Laboratory-II
- Structural Engg. & NDT Laboratory
- Environmental Engg. Laboratory -I
- Environmental Engg. Laboratory –II
- Transportation Engg. Laboratory
- Water Resources Laboratory
- Surveying Laboratory
- Computational Laboratory

Selected Publications

- Narzary, B.K. and Ahamad, K.U., Equivalent Modulus for Fine-Grained Subgrade Soil, Journal of Transportation Engineering, Part B: Pavements (ASCE), 2020, 146(2).
- Goswami, M and Chakraborty A., *Study on the Failure Pattern of Layered Soil using Finite Element Method*, Geotechnical Engineering Journal of the SEAGS & AGSSEA, 51(4), December 2020 ISSN 0046-5828
- Narzary, B.K. and Ahamad, K.U., Estimation of Equivalent Modulus of Fine-Grained Subgrade Soil from Numerical Model, Journal of Transportation Engineering, Part B: Pavements (ASCE), 2020, Accepted for Publication.

For more information please visit the departmental website <http://www.tezu.ernet.in/dcivil>

COMPUTER SCIENCE AND ENGINEERING

(Year of Establishment: 1994)

The Department of Computer Science and Engineering was established in 1994. It is one of the oldest Departments of the University. The Department was recognized as a Centre of Excellence in Machine Learning and Big Data Analytics by MHRD, Government of India under FAST. The Department also acquired recognition of UGC under Special Assistance Programme (SAP DRS Phase II). During 2005-2009 and 2018-2023 the Department received support from the Department of Science and Technology (DST), Govt. of India under the FIST- programme. The Department has also been recognized as ISEA member, MeitY, GoI and BRICS-NU Member. The Department has been carrying out active research in the fields of computational theory, computer networks, network security, mobile computing, soft computing and data mining, natural language processing, workflow management, qualitative spatial reasoning, web services, rehabilitation robotics, pattern recognition, computer vision, bioinformatics, image processing, speech processing, algorithms and optimization techniques, machine learning and remote sensing image analysis.

Programmes offered

1. Ph.D.
2. Master of Computer Application (MCA)
3. M. Tech. in Information Technology
4. M. Tech. in Computer Science and Engineering
5. B. Tech. in Computer Science and Engineering

Faculty and Areas of Interest

Professor		
1.	Dilip Kumar Saikia, * Ph.D. (IITKgp), Pro Vice-Chancellor	<i>Networks, Mobile Computing</i>
2.	Dhruba Kumar Bhattacharyya, * Ph.D. (TU), Dean, Academic Affairs	<i>Data Mining, Network Security, Bio-informatics</i>
3.	Smriti Kumar Sinha, * Ph.D. (TU)-Dean, School of Engineering	<i>Workflow Automation, Web Theory</i>
4.	Utpal Sharma, * Ph.D. (TU)	<i>Natural Language Processing</i>
5.	Nityananda Sarma, * Ph.D. (IITG)	<i>Wireless Networks and Mobile Computing</i>
6.	Bhogeswar Borah, * Ph.D. (TU)- HoD	<i>Data Mining, Image Processing</i>
7.	Sarat Saharia, * Ph.D. (TU)	<i>Pattern Recognition</i>
Associate Professor		
1.	Bhabesh Nath, * Ph.D. (TU)	<i>Data Mining</i>
2.	Siddhartha Sankar Satapathy, * Ph.D. (TU)	<i>Computational Biology and Bioinformatics, Wireless Sensor Network</i>
3.	Sanjib Kumar Deka, * Ph.D. (TU)	<i>Cognitive Radio Network, Operating System</i>
4.	Debojit Boro, * Ph.D. (TU)	<i>Network Security</i>
Assistant Professor		
1.	Sarangtheml botombi Singh, * Ph.D. (TU)	<i>Service Oriented Systems, Trust and Reputation</i>
2.	Loitongbam Basantakumar Singh, M.Tech. (TU)	<i>Object Recognition, Trust and Reputation</i>

3.	Rosy Sarmah,* Ph.D. (TU)	<i>Data Mining, Bioinformatics, Image Processing</i>
4.	Arindam Karmakar,* Ph.D. (ISI)	<i>Algorithms, Computational Geometry</i>
5.	Sanghamitra Nath,* Ph.D. (TU)	<i>Speech Processing</i>
6.	Swarnajyoti Patra,* Ph.D. (JU)	<i>Pattern Recognition, Machine Learning, Remote Sensing, Image Analysis</i>
7.	Shobhanjana Kalita, *Ph.D. (TU)	<i>Knowledge Representation and Reasoning</i>
8.	Nabajyoti Medhi, *Ph.D. (NITM)	<i>Software Defined Networking, Wireless Networks, Network Security, Cloud Computing, Web Technologies</i>
9.	Monisha Devi, M. Tech. (TU)(Guest Faculty)	<i>Cognitive Radio Networks</i>
10.	Ram Charan Baishya. (TU)(Guest faculty)	<i>Data Mining, Network Security</i>

***Recognized Ph.D Supervisor**

LEGENDS: IITKgp-Indian Institute of Technology Kharagpur, TU-Tezpur University, IITG-Indian Institute of Technology Guwahati, ISI-Indian Statistical Institute Kolkata, JU-Jadavpur University Kolkata, NITM- National Institute of Technology Meghalaya, HoD-Head of the Department

Facilities

The Department has the following Laboratory facilities

The Department has several state-of-the-art computer laboratories, viz:

- Basic Programming Laboratories
- Software Engineering Laboratory
- Hardware Laboratory
- Mobile Computing Laboratory
- High Performance Computing (23 T Flops speed and 50 TB storage) centre
- IoT Laboratory

The Department houses the following Research / Special Computing Facilities:

- Network/Information Security Laboratory
- Biomimetic and Cognitive Robotics Laboratory
- Natural Language Processing Laboratory
- Cognitive Radio Network Research Laboratory
- Malware Research Laboratory

Departmental Library

The Department has a library with a collection of more than 2238 book volumes in the field of computer science and information technology. The library also receives 8 international and 3 national journals in the field of computer science. The digital libraries of ACM, IEEE, are accessible to the Department.

Research Activities

- No. of papers published in the year 2019-2020: 28
- No of ongoing research projects: 08
- No. of current Ph.D. scholars: 65

Selected Publications

- Mandal K, Sarmah R. and Bhattacharyya D. K., POPBic: Pathway-based Order Preserving Biclustering algorithm towards the analysis of gene expression data. IEEE/ACM Transactions on Computational Biology and Bioinformatics. 17(1). 2020
- Thokchom S. and Saikia D. K., Privacy preserving integrity checking of shared dynamic cloud data with user revocation. Journal of Information Security and Applications. 50(1).2020
- Jyoti P, Shree M, Joshi C, Prakash T, Ray SK, Satapathy S. S. and Masakapalli S. K. The Entner-Doudoroff and non oxidative pentose phosphate pathways bypass glycolysis and the oxidative pentose phosphate pathway in *Ralstonia solanacearum*. Msystems. 5(2). 2020
- Das A. and Patra S. A rough-GA based optimal feature selection in attribute profiles for classification of hyperspectral imagery. Soft Computing. 24(2). 2020
- Boro D, Haloi M. and Bhattacharyya D. K. A fast self-similarity matrix-based method for shrew DDoS attack detection. Information security Journal: A global perspective. 29(2). 2020
- Borah S. and Borah B. Prediction Error Expansion (PEE) based Reversible polygon mesh watermarking scheme for regional tamper localization. Multimedia Tools and Applications. 79. 2020

ELECTRONICS AND COMMUNICATION ENGINEERING

(Year of Establishment: 1997)

Established in 1997, the Department of Electronics and Communication Engineering is one of the oldest departments in the University. Starting with an M.Tech Programme in Electronics Design and Technology in 1997, the department has subsequently introduced another M.Tech. programme in Bioelectronics under the "Teaching and Research in Interdisciplinary and Emerging Areas" scheme of the University Grants Commission. The department expanded its academic activities to undergraduate programmes, first with a B.Tech. programme in Electronics and Communication Engineering in 2006 followed by another B.Tech. programme in Electrical Engineering in 2014 (currently under the department of Electrical Engineering since October, 2016). The department also carried out implementation of a three-year diploma programme in Advanced Diploma in Healthcare Informatics and Management under the career oriented scheme of the University Grants Commission (2012-2017). In addition, the department offers Ph.D. programme in different areas including Signal and Image Processing, Bioelectronics, Biosensors, Microwave Engineering, Communication Engineering and Microelectronics.

The department is supported by:

- DST-FIST
- DeitY -MIT
- UGC-SAP(DRS-I)

Programmes offered

1. Ph.D.
2. M.Tech. in Electronics Design and Technology
3. M.Tech. in Bioelectronics
4. B. Tech. in Electronics and Communication Engineering

Faculty and Areas of Interest

Professor	
Partha Pratim Sahu,* Ph.D. (JU)-HoD	<i>Optical Networks and its Components, Clinical Instrumentation, Micro-fabrication</i>
Jiten Chandra Dutta,* Ph.D. (JU)	<i>Biosensors and Bioelectronics, Neurobioengineering,</i>
Satyajib Bhattacharyya,* Ph.D. (DU)	<i>Microwave Antennas, Absorbing Materials</i>
Santanu Sharma,* Ph.D. (TU)	<i>Semiconductor Devices, Bioelectronic Devices, Vehicular Electronics, Power Electronics</i>
Soumik Roy,* Ph.D. (TU)	<i>Neuroengineering.</i>
Bhabesh Deka,* Ph.D. (IITG)	<i>Signal/Image Processing, Computer Vision, Deep Learning for signal and image analysis</i>
Vijay Kumar Nath,* Ph.D. (IITG)	<i>Image and Video Processing</i>
Associate Professor	
Nayan Moni Kakoty,*Ph.D. (TU)	<i>Robotics, Biomedical Signal Processing</i>
Deepika Hazarika*, Ph.D.(TU)	<i>Image Processing</i>

Ratul Kumar Baruah, *Ph.D. (IITG)	<i>Nanoelectronics, VLSI, MEMS</i>
Assistant Professor	
Riku Chutia, Ph.D. (TU)	<i>E-nose, Instrumentation and Signal Processing, Embedded System</i>
Biplot Mondal,* Ph.D. (JU)	<i>VLSI and MEMS Devices</i>
Durlav Sonowal, Ph.D. (TU)	<i>Sensors, Signal Processing</i>
Ananya Bonjyotsna, M. Tech. (TU)	<i>Audio Processing</i>
Priyanka Kakoty, M. Tech. (TU)	<i>Intelligent Instrumentation</i>
Rupam Goswami,*Ph.D. (NIT Silchar)	<i>Micro/Nano-electronics and VLSI,Bio/Memristive Sensors, Charcoal Electronics</i>

***Recognized Ph.D Supervisor**

LEGENDS:GU-Gauhati University Guwahati; JU-Jadavpur University Jadavpur; DU- University of Delhi Delhi,TU-Tezpur University, IITG-Indian Institute of Technology Guwahati, HoD-Head of theDepartment

Facilities

The Department has the following Laboratory facilities

- Basic Electrical Engineering Laboratory
- Basic Electronics Laboratory
- Design and Prototyping Laboratory
- M.Tech. Project Laboratory
- Software Simulation Laboratory
- Communication Laboratory
- Microwave Laboratory
- DSP Laboratory
- Computer Vision and Image Processing Laboratory
- Instrumentation Laboratory (Supported by AICTE under MODROB)
- Bioelectronics Laboratory
- Neuro engineering Laboratory
- Optical Fibre Laboratory
- Micro fabrication/MEMS Facility

Research Laboratories

- Power Electronics Laboratory (Vehicular Electronics)
- Microwave Engineering Laboratory
- Wireless Communication Engineering Laboratory
- E-nose Laboratory
- Intelligent Imaging and Vision Research Laboratory

Major Equipment

- RIE (Reactive Ion Etching)
- PECVD (Plasma Enhanced Chemical Vapour Deposition)
- Photolithography
- Vacuum coating unit (Thermal evaporation and E-Beam Technology)
- Oxidation Furnace

- Laminar Air Flow Unit
- Spin coating unit
- Prism Coupler Water De-ionizer
- Thickness measurement instrument
- Stereo-microscope etc.

Research Activities

- No. of papers published in the year 2019-2020: 39
- No of ongoing research projects: 10
- No. of current Ph.D. scholars: 32

Selected Publications

- E. K. Lee, R. K. Baruah, J. W. Leem, W. Park, B. H. Kim, A. Urbas, Z. Ku, Y. L. Kim, M. A. Alam, C. H. Lee, "Fractal Web Design of a Hemispherical Photodetector Array with Organic-Dye-Sensitized Graphene Hybrid Composites", *Advanced Materials*, vol. 20 (46), 202004456, 2020.
- R. Narzary, S. Maity, P. P. Sahu Coupled ZnO-SnO₂ Nanocomposite for Efficiency Enhancement of ZnO-SnO₂/p-Si Heterojunction Solar Cell, *IEEE Transactions on Electron Devices*, 2020.
- B. Deka, S. Datta, H. U. Mullah and S. Hazarika, Diffusion-weighted and Spectroscopic MRI Super-resolution using Sparse Representations, *Biomedical Signal Processing and Control*, vol. 60, 2020.
- J. C. Dutta and H. R. Thakur High performance Dual-Gate Carbon Nanotube Ion-Sensitive Field Effect Transistor with high- κ top gate and low- κ bottom gate dielectrics. *IEEE Sensors Journal*. 19(14). 2019.

For more information please visit the departmental website <http://www.tezu.ernet.in/delect>

ELECTRICAL ENGINEERING (Year of Establishment: 2014)

The Department of Electrical Engineering, Tezpur University was established in 2014. 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. The Department currently offers B.Tech. in Electrical Engineering. This programme aims at producing engineers with sound basic and applied knowledge in electrical engineering. Department plans to expand its teaching and research infrastructure, enhance its industrial and research collaboration, and implement modern techniques for training to realize the above goal. The key areas of faculty expertise of the department include Power System Engineering, Power Electronics, Nonlinear Analysis-Theory, Methods and Applications, Control Systems, Fractional Order Chaotic Systems, Converter and Inverter Topologies, Sensor Technologies, Smart Grid Technologies and Policy Design, Distributed Generation Based System Optimization, Renewable Energy Management, Bio-electronics and Neuro Engineering.

Programmes offered

1. Ph.D.
2. B. Tech. in Electrical Engineering

Faculty and Areas of Interest

Professor		
1.	Soumik Roy,* Ph.D. (TU), HoD	<i>Neuroengineering, Digital System Design, Instrumentation</i>
Assistant Professor		
1.	Rahat Mahboob, PhD (JMI) *	<i>Sensors and Sensing Technology; Electronics Instrumentation; Wireless Sensor, IoT, signal conditioning circuit, Food Sensor & Technology</i>
2.	Manashita Borah, Ph.D. (NITS) *	<i>Control Systems, Chaos and Fractional Order Systems, biomedical applications, waste water management, IoT</i>
3.	Barnam Jyoti Saharia, M.Tech.(NITA)	<i>Power Electronic Converters for Renewable Energy Applications, Hybrid PV-Wind Energy System Modeling and Optimization, Fuzzy and Neural Network Applications in Power Point Tracking of PV Systems, 5 Optimization in Power Electronic Converters Design, Artificial Intelligence in Renewable Energy Applications</i>
4.	Anish Ahmad, PhD	<i>Power Electronics and Drives, Vehicular Electronics, Instrumentation and its Control, Control techniques in Power Electronics, Electric Vehicle/Hybrid Electric Vehicle and Microgrid</i>
5.	Rumi Rajbongshi, Ph.D. (NITS) (Guest Faculty)	<i>Load frequency control, voltage control, power system operation and control, solar photovoltaic, techno economic assessment of hybrid system for rural electrification</i>

***Recognized Ph.D Supervisor**

LEGENDS: **GU**– Gauhati University, **JMI**-Jamia Milia Islamia New Delhi, **NITS**– National Institute of Technology Silchar, **NITA**– National Institute of Technology Agartala, **IIT-BHU** - Indian Institute of Technology (BHU) Varanasi, **HoD**- Head of the Department.

Facilities

The Department has the following Laboratory facilities

- Basic Electrical Engineering Laboratory
- Network Laboratory
- Measurement and Instrumentation Laboratory
- Electrical Machine Laboratory
- Power Systems Laboratory

Selected Publications

- Manashita Borah and B. K. Roy, "Hidden multistability in four fractional-order memristive, meminductive and memcapacitive chaotic systems with bursting and boosting phenomena", European Physical Journal Special Topics, vol ..., pp. ..., 2020, Springer (accepted). (SCI, JCR IF=1.668)
- Manashita Borah and B. K. Roy, "Systematic construction of high dimensional fractional-order hyperchaotic systems" , Chaos, Solitons and Fractals, vol. 131, pp. 2020, Elsevier. (SCI, JCR IF=3.764)
- M. R Mahboob, M. Manas, M. N Anwar, A. Sinha, S. Sharma "A Novel approach for IoT based Wearable Health Monitoring and Messaging System" Journal of Ambient Intelligence and Humanized Computing, Springer, (Accepted) August 2018.
- Manashita Borah, "On Coexistence of Fractional-order Hidden attractors", Journal of Computational and Nonlinear Dynamics, vol. 13, pp. 090906-(11 pages) 2018, American Society of Mechanical Engineers (ASME). (SCI, JCR IF=1.661)
- Siddiqui,A. ,Mahboob, M. Rand Tarikul, I. A Passive Wireless Tag With Digital Readout Unit for Wide Range Humidity Measurement. IEEE Transactions on Instrumentation and Measurement, vol. 66, no.5, pp. 1013-1020, 2017.

For more information please visit the departmental website <http://www.tezu.ernet.in/dee>

ENERGY

(Year of Establishment: 1996)

The Department of Energy has been one of the vibrant academic Department of the University, engaging itself with a mandate to produce a qualified manpower pool in the field of energy, development of new and efficient energy technologies, R & D and extension activities in diverse areas of energy. The Department offers a two-year (four semesters) AICTE approved M. Tech. programme in Energy Technology, One year Post Graduate Diploma in Renewable Energy and Energy Management (under distance education mode through CODL) and Ph. D. in energy related areas. The thrust areas of research are Biomass energy, Solar energy, Energy-Environment interface, Energy Conservation and Management, Energy Efficiency, Climate Responsive Buildings, Hydrogen Energy, Fuel Cell and Rural Hybrid Energy. Apart from teaching and research, the department also organizes training programmes, workshops and seminars in the relevant areas of energy. The Faculty of the Department has successfully completed a number of international collaborative research projects, and has on-going international collaborative projects like Indo-Brazil, Indo-Hungary, Indo- UK. The Department also has fifteen on-going research projects.

Programmes offered

1. Ph.D.
2. M.Tech. in Energy Technology
3. Post Graduate Diploma in Renewable Energy and Energy Management (through CODL)

Faculty and Areas of Interest

Professor	
Debendra Chandra Baruah,* Ph.D. (PAU)- HoD	<i>Renewable Energy and Energy Management</i>
Dhanapati Deka,* Ph.D. (TU)-DSW	<i>Biofuels, Catalytic transformation of biomass to biofuel and chemical, Bioenergy and Environment</i>
Rupam Katak, * Ph.D. (TU)	<i>Biomass and Bioenergy, Biofuels, Energy Environment interaction</i>
Associate Professor	
Sadhan Mahapatra,* Ph.D. (IISc)	<i>Biomass Gasification, Climate Responsive Buildings, Decentralized Energy Options, Energy Conservation</i>
Assistant Professor	
Pradyumna Kumar Choudhury,* Ph.D. (TU)	<i>Energy Conservation and Management, Integration of Renewable Energy Systems</i>
Biraj Kumar Kakati,* Ph.D. (IITG)	<i>Fuel Cell, Hydrogen Technology and Redox Flow Battery, Graphene, Nanocatalyst.</i>
Nabin Sarmah,* Ph.D. (HWU)	<i>Solar Energy, Photovoltaic, Energy Systems</i>
Vikas Verma,* Ph.D. (IITR)	<i>Thermal Engineering, Solar Thermal Energy, Heat Transfer</i>

*Recognized Ph.D Supervisor

LEGENDS: PAU-Punjab Agriculture University, TU-Tezpur University, DSW-Dean, Student's Welfare, IISc.– Indian Institute of Science Bangalore, IITG- Indian Institute of Technology Guwahati, HWU-Heriot Watt University United Kingdom, IITR– Indian Institute of Technology Roorkee, HoD-Head of the Department

Facilities

The Department has the following Laboratory facilities

Laboratory

The Department is equipped with various equipment and systems such as Gas Chromatograph, power analyser, Automatic Bomb Calorimeter, Biomass gasifier system, Solar radiation measuring equipment, Wind electric generator, Single cylinder 4-stroke petrol engine Test Rig with electrical Dynamometer, Fibertech apparatus, Toxic Gas analyzer, UV-visible spectrophotometer, TOC Analyser, Diesel Engine Test Rig, Hydrocarbon type Analyser, Pyrolyser, TBP Apparatus, Multi-channel Data Logger, Fuel Cell, Anaerobic Gas Jar Systems, Dual Fuel Engine, Vacuum Distillation Apparatus, Microhydel test set-up, Multisim, Portable Gas Analyser, PG Stat 302N, Solar thermal collector test set-up, Peristaltic Pump, BOD Incubator, Ultrasonicator, Autoclave, Programmable Muffle Furnace, Biodiesel Production Unit, Oxidation Stability Apparatus, Cloud point & Pour Point Apparatus, C-Residue Apparatus, Flash Point Apparatus, Potentiometric titrator, and various renewable energy systems.

In addition, the Department has a full-fledged computer Center with 12 nos. of PCs. Various softwares like, Matlab, PV Syst, Ansys, RSM are also available in the Departmental Laboratories.

Departmental Library

A good number of books, video cassettes and CDs on Energy and related areas are available for the students. A number of national and international journals related to different areas of energy are also being subscribed by Central Library of the University.

Scholarship

MHRD fellowships are available for GATE qualified candidates. NEC fellowships are available for the students from North East regions. Other scholarships being availed by the candidates are UGC NFOBC, DST, DBT, NFST, AICTE NDF and ICCR.

Research Activities

- No. of papers published in the year 2019-2020: 30
- No of ongoing research projects: 15
- No. of current Ph.D. scholars: 35

Selected Publications

- Brahma, B., Narzary, R. and Baruah, D.C., Acetamide for latent heat storage: Thermal stability and metal corrosivity with varying thermal cycles. *Renewable Energy*, 145: 1932-1940, 2020.
- Gohain, M., Laskar, K., Phukon, H., Bora, U., Kalita, D., and Deka, D. Towards sustainable biodiesel and chemical production: multifunctional use of heterogeneous catalyst from littered *Tectona grandis* leaves. *Waste Management*, 102, 212-221, 2020.
- Choudhury, N. D., Bhuyan, N., Bordoloi, N., Saikia, N., and Kataki, R. Production of bio-oil from coir pith via pyrolysis: kinetics, thermodynamics, and optimization using response surface methodology. *Biomass Conversion and Biorefinery*, 1-18, 2020.

For more information please visit the departmental website <http://www.tezu.ernet.in/dener>

FOOD ENGINEERING AND TECHNOLOGY

(Year of Establishment: 2006)

The Department of Food Engineering and Technology (FET) was established in the year 2006 with the aim of creating skilled human resources in the engineering aspect of food processing in order to cater to the needs of the rapidly growing food processing sector. Since its inception the Department has been imparting Post Graduate education in the area of food processing and engineering. The B. Tech. programme in Food Engineering and Technology (FET), which was started in the year 2010, has the accreditation of the National Board of Accreditation (NBA) as a Tier-I programme. The Department also offers Ph. D. in Food Engineering and Technology.

The B.Tech. and M.Tech. programs of the Department are approved by the All India Council for Technical Education (AICTE). AICTE offers PG Scholarship to GATE qualified students joining the M.Tech. programme of the Department. Students from the department have been benefited from MHRD's schemes for North-East under ISHAN UDAY, ISHAN VIKAS etc. B. Tech. and M. Tech. students are finding placements in organizations such as, Tata global beverages, ITC Ltd, Himalayan Foods, Adani Wilmar, Britannia, Parle Agro, Mother Dairy, etc. *Ph. D. scholars of department availed the various International Fellowships such as Fulbright-Nehru Doctoral Research Fellowship, Commonwealth SPLIT-SITE Ph.D Programme, Newton Bhabha Ph.D Placement Programme, UNESCO / Peoples republic of China (The Great Wall) Scholarship, Indo-US Fellowship for Women in STEMM etc.*

The department has well developed laboratories for teaching and research created from grants received from various agencies viz., HRD grant from the Ministry of Food Processing Industries (MoFPI), Govt. of India, grant under the FIST programme (Level I) from the Department of Science and Technology (DST), grant under the UGC- SAP (DRS-I) programme of the University Grant Commission, and grant under the NEQIP Scheme of the AICTE. With its expertise in food quality testing, and with the support from the MoFPI, the Department has established one NABL accredited Food Quality Control Laboratory to facilitate the entrepreneurs and various organizations.

Research activities at the Department are supported by sponsoring agencies like UGC, MoFPI, DST, DBT, DRDO, ICAR, AICTE, MSME, ASTEC, etc. Various projects carried out at the Department aims at developing effective and low cost technologies for the society. Some developed food products and processes have also been patented by the faculties. Workshops, conferences and seminars are organized regularly in the Department for knowledge sharing among peers as well as for motivating local youths to start their own enterprises.

Programmes offered

1. Ph.D.in Food Engineering and Technology
2. M. Tech. in Food Engineering and Technology
3. B. Tech. in Food Engineering and Technology
4. B.Voc in Food Processing

Faculty and Areas of Interest

Professor	
Charu Lata Mahanta,* Ph.D. (CFTRI)	<i>Rice Science and Technology, Product Development, Food Quality and Nanotechnology</i>
Sankar Chandra Deka,* Ph.D. (HAU)	<i>Food Biochemistry and Food Quality, Fermented Foods</i>
Manuj Kumar Hazarika,* Ph.D. (IITKgp)	<i>Food Materials Engineering, Food Industrial Engineering, Food Design.</i>
Brijesh Srivastava,* Ph.D. (IITKgp)	<i>Process and Food Engineering, Fruits and Vegetable Processing and Machineries, Non-Thermal Processing</i>
Nandan Sit,*Ph.D. (TU)- HoD	<i>Food Engineering, Biochemical Engineering, Food Biotechnology</i>
Associate Professor	
Poonam Mishra,*Ph.D. (TU)	<i>Nano Composite, Fruits and Vegetable Technology, Function Food, Biosensors.</i>

Laxmikant S. Badwaik,* Ph.D. (TU)	<i>Food Packaging, Food Safety and Laws, Food Processing Waste Utilization</i>
Assistant Professor	
Amit Baran Das, Ph.D. (IITG)	<i>Food Process Modeling, Optimization in Food Engineering, Product Technology Development</i>
Nishant Rachayya Swami Hulle, * Ph.D. (IITKgp)	<i>Food Process Technology, Non Thermal Processing, Product Development</i>
Guest faculty	
Sourav Chakraborty, M.Tech. (TU)	<i>Food Engineering, Food Process Simulation and Modeling</i>
Tabi Ghosh, M.Tech. (TU)	<i>Food Engineering, Food Process Technology</i>

***Recognized Ph.D Supervisor**

LEGENDS: **CFTRI**-Central Food Technological Research Institute Mysore, **HAU**-Haryana Agricultural University Hisar, **IITKgp**-Indian Institute of Technology Kharagpur, **IITG**-Indian Institute of Technology Guwahati, **TU**-Tezpur University, **NDRI**- National Dairy Research Institute Haryana, **HoD**-Head of the Department

Facilities

The Department is well equipped with processing and analytical equipment and is in the process of strengthening it with the state of the art facilities. Great emphasis is laid on the practical aspects for processing of foods and quality assurance. List of some major equipment available with department are as follows: HPLC, Atomic Absorption Spectrometer (AAS), GC-MS, Supercritical fluid extractor, Texture Analyser, Dynamic Rheometer, Rapid Visco Analyser, Hunter Lab Color Spectrophotometer, UV-Vis Spectrophotometer, Water activity meter, Freeze Dryer, Lyophilizer, Lab. Scale Spray Drier, Tray Drier, Drum Drier, Fluidized Bed Drier, Laboratory Pasteurizer, Canning Unit, Baking Oven, Basic Engineering Equipment in heat transfer and fluid mechanics, Hammer Mill, Ball mill, Paddy Huller, Paddy Sheller, Binocular Microscope, BOD Incubator, Rotary Vacuum Evaporator, Photoflurometer, Biohazard Safety Cabinet, Packaging Equipment, Laminar Flow, Fruit Crusher, etc.

Research Activities

- No. of papers published in the year 2019-2020: 50
- No of ongoing research projects: 10
- No. of current Ph.D. scholars: 48

Selected Publications

- Gautam, G., Duary, R.K., Gupta,K., and Mahanta, C.L., Inhibition mechanism of 3-hydroxy-3-methyl-glutaryl-CoA reductase by tocotrienol-rich rice bran fraction optimally extracted with ultrasonic energy, International Journal of Biological Macromolecules, 164, 1328-1341, 2020.
- Borah, P. K., Das, A. S., Mukhopadhyay, R., Sarkar, A., and Duary, R. K. Macromolecular design of folic acid functionalized amylopectin–albumin core–shell nanogels for improved physiological stability and colon cancer cell targeted delivery of curcumin. Journal of Colloid and Interface Science, 580, 561-572, 2020.
- Basumatary, B., Bhattacharya, S., and Das, A. B. Olive (*Elaeagnus latifolia*) pulp and leather: Characterization after thermal treatment and interrelations among quality attributes. Journal of Food Engineering, 109948, 2020.
- Biswas, B. and Sit, N. Effect of ultra sonication on functional properties of tamarind seed protein isolates. Journal of Food Science and Technology, 57, 2070–2078, 2020

For more information please visit the departmental website <http://www.tezu.ernet.in/dfpt>

MECHANICAL ENGINEERING (Year of Establishment: 2006)

The Department of Mechanical Engineering was established in the year 2006 under the School of Engineering for offering B. Tech degree in Mechanical Engineering. Subsequently, M.Tech and Ph.D. programmes were started in the year 2013. The vision of the department is to emerge as a centre of excellence producing quality engineers and conducting cutting-edge research. Both the B.Tech and M. Tech. (Mechanical Engineering) programmes are approved by AICTE. Moreover, B. Tech Mechanical Engineering programme is accredited by National Board of Accreditation with effect from 01/01/2016

Programmes offered

1. Ph.D.
2. M. Tech. in Mechanical Engineering (Two Specializations)
 - 2.1. M. Tech. in Thermal and Fluid Engineering
 - 2.2. M. Tech. in Machine Design
3. B. Tech. in Mechanical Engineering

Faculty and Areas of Interest

Professors	
Dilip Datta,* Ph.D.(IITK)	<i>Design, Optimization and Operational Research</i>
Tapan Kumar Gogoi,* Ph.D. (TU), HoD	<i>Thermodynamic modeling, simulation and analysis of multi-generation and solar hybrid systems</i>
Partha Pratim Dutta,*Ph.D. (TU)	<i>Renewable energy and Drying Technology</i>
Assistant Professors	
Paragmoni Kalita, * Ph.D. (IITG)	<i>Computational Fluid Dynamics , High speed flows</i>
Polash Pratim Dutta,*Ph.D. (IITG)	<i>CAD, Laser Forming, Mechatronics, Soft Computing</i>
Sushen Kirtania,* Ph.D. (IITG)	<i>Composite Materials, Carbon Nanotubes, Carbon Nanotubes Based Composites, Finite Element Method, Fracture Mechanics</i>
Prabin Haloi, M.E. (GU)	<i>Fluid and Thermal Engineering</i>
Sanjib Banerjee,* Ph.D. (IITG)	<i>Materials and Manufacturing</i>
Monoj Bardalai,*Ph.D. (GU)	<i>Thermal Engineering, Renewal Energy Conversion</i>
Satadru Kashyap, Ph.D. (TU)	<i>Manufacturing and Materials Science</i>

*Recognized Ph.D Supervisor

LEGENDS: *IITK*-Indian Institute of Technology Kanpur, *TU*-Tezpur University, *BIT*- Birla Institute of Technology, Jharkhand, *IITG*-Indian Institute of Technology Guwahati, *GU*-Gauhati University, *UA*-University of Alberta, Canada, *AIT*- Asian Institute of Technology, Bangkok, *BESUS*-Bengal Engineering and Science University, West Bengal, *AEC*- Assam Engineering College, Guwahati, *NITS* - National Institute of Technology ,Silchar , **HoD**- Head of the Department.

Facilities

The Department has the following Laboratory facilities

The Department has several state-of-the-art computer laboratories, viz:

- CAD Laboratories
- Fluid Mechanics Laboratory
- Theory of Machine Laboratory
- Engineering Mechanics Laboratory
- Strength of Materials Laboratory
- Thermal Science Laboratory (Refrigeration and Air Conditioning/Heat Transfer)
- Material Science Laboratory
- IC Engine/Automobile Laboratory
- Kinematics Laboratory
- Turbo-Machinery Laboratory
- Vibration Laboratory
- Metrology laboratory
- Renewable Energy Laboratory

Central Workshop

This is a central facility well equipped with CNC lathe machine, CNC milling machine, high speed precision lathe machine, conventional lathe machines, shaping machine, vertical milling machine, horizontal milling machine, universal milling machine, high precision surface grinding machine, universal tool and cutter grinder, radial drilling machine, pillar drilling machine, double ended pedestal grinding machine, slotting machine, arc welding machine, oxyacetylene gas welding setup, TIG welding and MIG welding machine, power hacksaw, sheet bending roller machines, plate bending machine, manual shearing machine, cutting force dynamometer, etc.

Research Activities

- Number of papers published in the year 2019-2020: 18
- Number of ongoing research projects: 01
- Number of current Ph.D. scholars: 15

Selected Publications

- Gogoi T. K. and Hazarika P. Comparative assessment of four novel solar based triple effect absorption refrigeration systems integrated with organic Rankine and Kalina cycles. *Energy Conversion and Management*, 226 (2020) 113561
- Nondy J. and Gogoi T. K. A comparative study of metaheuristic techniques for the thermoenviromomic optimization of a gas turbine based benchmark combined heat and power system. *ASME J. of Energy Resources Technology*, 143(6)(2021) 062104.
- Kalita Z., Datta D., Bi-objective corridor allocation problem using a permutation-based genetic algorithm hybridized with a local search technique, *Soft Computing*, 23 (3) (2019) 961–986
- Deka A., Datta D. Multi-objective optimization of annular fin array subject to thermal load. *Journal of Thermophysics and Heat Transfer*, 33(1) (2019), 254-263
- Dutta P., Dutta P.P. and Kalita P., Thermal performance studies for drying of *Garcinia pedunculata* in a free convection corrugated type of solar dryer, *Renewable Energy*, 163 (2021) 599-612.

- Kalita, P., Dass A.K., and Hazarika J., A new approach for numerical-diffusion control of Flux-Vector-Splitting schemes for viscous-compressible flows. International Journal of Numerical Methods for Heat and Fluid Flow, 2020, DOI: 10.1108/HFF-08-2019-0627

For more information please visit the departmental website <http://www.tezu.ernet.in/dmech>

School of Humanities and Social Sciences

CULTURAL STUDIES

(Year of Establishment: 1996)

Established in 1996, the Department of Cultural Studies of Tezpur University took the lead in the establishment of the UGC's prestigious 'Centre with Potential for Excellence in Particular Area' at Tezpur University in 2016. With faculty members from the country and abroad, the department engages in an analysis of society, culture and expressive forms from a wide range of disciplinary engagements. The academic curricula of the Department aim towards understanding of emergent socio-cultural issues which include memory, ethnicity, migration, nationalism, gender, media, heritage, aesthetics, cyber-cultures, environment, and the daily life of people in contemporary times. The Department mediates global concerns and theoretical approaches of the discipline with issues that are of local importance in order to document and study the rich cultural heritage, including the folk and oral inheritances of the region. The Department is currently supported by UGC-SAP (DRS-II) and has been able to build up a rich and effective network with prominent institutions (of India and abroad) and communities through its regular field investigations and students' internships.

Programmes offered

1. Ph. D.
2. M.A. in Cultural Studies

Faculty and Areas of Interest

Professor	
Debarshi Prasad Nath,* Ph.D. (RGU)	<i>Cultural Theory and Contemporary Culture, Comparative Literature and Translation, Cultural Memory</i>
Associate Professor	
Madhurima Goswami,# Ph.D. (TU)- On Lien	<i>Sanskrit Poetics, Indian Classical Performing Arts</i>
Parasmoni Dutta,* Ph.D. (TU)-HoD	<i>Heritage Studies, Popular culture, Digital humanities</i>
Assistant Professor	
JuriGogoiKonwar,* Ph.D. (DU)	<i>Medical Anthropology, Anthropology of Food and Costume</i>
Jayanta Vishnu Das*, Ph.D. (TU)	<i>Cultural Communication, Development Communication, Epistemology of Communication Studies</i>
Mandakini Baruah*, Ph.D. (TU)	<i>Gender Studies, Folklore Studies, Paremiology</i>
Hashik, N.K*, Ph.D. (UoH)	<i>Performance Studies, Community Studies, Research Methodology</i>
Moushumi Kandali*, Ph.D. (UB)	<i>Contemporary Visual Culture, Literary Cultures of India, Gender Studies, Translation and Creative Writing</i>
Adjunct Faculty	
Alison East, MPhEd (Otago)	<i>Dance Ethnography, Somatic Education & Movement Philosophies</i>

*Recognized Supervisor

LEGENDS: **RGU**-Rajiv Gandhi University Arunachal Pradesh, **TU**-Tezpur University, **DU**-Dibrugarh University, **UoH**-University of Hyderabad, **UB**-University of Baroda Gujarat, **HoD**-Head of the Department.

Facilities

The Department has well-equipped seminar-cum-conference hall, classrooms with projection facilities and audio-visual teaching aids, and an archival center-cum-edit suite. The student support infrastructure also includes the Pratibha Kath Hazarika Memorial Library and a Cultural Interpretation Centre and a dedicated space for visual memorization under the name and style of “Wall of Heroes”.

Besides, the Department has recently set up the *Neelpawan Baruah Museum of Modern Art* which is a permanent gallery of select paintings of Neelpawan Baruah

Research Activities

- No. of papers published in the year 2019-20: 15
- No. of ongoing research projects: 03
- No. of current Ph.D. scholars: 33

Selected Publications:

- P. Dutta (ed). A Catalogue of Traditional Craft Objects of North East India. Tezpur University Publication. 2019.
- Das J. V. History of Press in Assam: An analysis of Pre and post Agitation Period. International Journal of Research in Social Science. 9 (6). 2019.
- D. P. Nath, M. M. Sarma and G. K. Borah. (Ed.) The Call of the Pherengadao: Translation of Select Writings of Bishnu Prasad Rava. Katha Publications Guwahati, 2019.

For more information please visit the departmental website <http://www.tezu.ernet.in/dtcaf>

EDUCATION

(Year of Establishment: 2014)

The Department of Education was established in the year 2014 under the School of Humanities and Social Sciences. The Department aims at producing prospective teachers with sound knowledge of the content, pedagogy and skills needed for the society. The department has started postgraduate and doctoral programmes in Education from Autumn semester, 2015.

Programmes offered

1. Ph.D.
2. M.A. in Education
3. B.Ed.

Faculty and Areas of Interest

Professor	
Nil Ratan Roy,* Ph.D. (AU)-HoD	<i>Measurement and Evaluation in Education, Research Methodology, Educational Planning and Management, Curriculum Development.</i>
Associate Professor	
M.S. Siddiqui,* Ph.D. (MJPRU)	<i>Philosophy & Economics of Education, Indian Spiritual Traditions & Sufism, Islamic Philosophy of Education, Education for Sustainable Development</i>
Assistant Professors	
Yeasmin Sultana,* Ph.D. (AU)	<i>Language Education and Research Methodology</i>
R.D. Padmavathy, Ph.D. (PU)	<i>Mathematics Education, Educational Psychology, Educational Technology, e-content Development, Research Methodology and Statistics in Education, Guidance and Counselling, Environmental Education</i>
Hitesh Sharma,*Ph.D. (DAV)	<i>Method of Teaching Physical Science and Biological Science, Educational Psychology, ICT in Education, Educational Administration, Guidance and Counselling, Early Childhood Education</i>
Sashapra Chakrawarty,*Ph.D. (BHU)	<i>Biological Science, Educational Psychology, Teacher Education, Elementary Education, Special Education, Guidance and Counselling</i>
Pratima Pallai,*Ph.D. (LU)	<i>Social Science Teaching, ICT in Education, Guidance and Counselling, Measurement and Evaluation, Educational Psychology</i>
Mohammad Asif, M. Ed. (JMI)	<i>Contemporary Indian Education, Teacher Education, Educational Technology, Pedagogy of Social Science, History of Education</i>
Sradhanjali Pradhan, Ph.D. (UU)	<i>Pedagogy of Physical Science, Educational Technology and ICT in Education, Measurement and Evaluation</i>
Rajinder Singh*, Ph.D. (PU)	<i>Educational Technology, Educational Research, Special Education, ICT in Education, Language Education, Environment Education, Educational Guidance and Counselling</i>

Gopal Singh, Ph.D. (MDSU)	<i>Science Education, Learning & Teaching, Constructivism and Thinking Skills, Measurement & Evaluation</i>
Sanghamitra Das, Ph.D. (NUEPA)	<i>Gender and Education, Sociology of Education, Teacher Education, Community Participation in School Education</i>

*Recognized Supervisor \$Recognized Associate Supervisor

LEGENDS: AU-Assam University, PU-Pondicherry University, DAV-Devi AhilyaVishwavidyalaya Indore, BHU-Banaras Hindu University Varanasi, LU-Lucknow University, JMI- JamiaMillailslamiaNew Delhi, UU- Utkal University Odisha, PU^ - Panjab University, MJPRU- MJP Rohilkhand University Bareilly, MDSU- Maharshi Dayanand Saraswati University, NUEPA- National University of Educational Planning and Administration, HoD-Head of the Department

Facilities

The teaching support infrastructure includes a Psychological Laboratory and Education Technology Laboratory, Science and Mathematics resource Centre, art and craft resource Centre, ICT and Language Laboratory

Research Activities

- No. of paper published in the year 2019–20: 10
- No of ongoing research projects: 02
- No. of current Ph.D. scholars: 24

Selected Publications

- Das, J., and Padmavathy, R. D. (2019). Altruistic behaviour among high school students of assam in relation to their gender, area and type of school management. *Universal Review*, 8(6).
- Das, J., and Padmavathy, R. D. (2019). Does blogs amplify post graduate students learning experience. *International Journal of Research and Analytical Reviews*, 6(2).
- Das, P., and Roy, N. R. (2019). Emergence of activity-based approach. *International Journal of Innovative Knowledge Concepts*, 7.
- Das, S. S., and Roy, N. R. (2019). Sustainable women empowerment among the tea garden women workers in Assam: A stepping stone for holistic development. *Research Guru-Online Journal of multidisciplinary Subjects*, 13.
- Padmavathy, R. D. (2019). University graduates awareness towards cybercrime and familiarity of its terms: A comparison. *Think India Journal*, 22(4).
- Paul, R., & Roy, N. R. (2019). Heutagogy: A channel for transformation of adult learners into lifelong learners through self-determined practices. *International Journal of Applied Social Sciences*, 6(5).
- Paul, R., & Roy, N. R. (2019). Development and implementation of competency-based curriculum in higher education level-a utopia. *IJRAR International Journal of Research and Analytical Reviews*, 6.
- Paul, R., & Roy, N. R. (2019). Hitting the bull's eye: Designing the process of implementation of heutagogy to empower the adult learners. *SURAJ PUNJ Journal for Multidisciplinary Research*, 9.

For more information please visit the departmental website <http://www.tezu.ernet.in/dedu>

ENGLISH

(Year of Establishment: 1994)

The Department of English was restructured in 2019 with the separation of the Department EFL (established in 1994), into the Department in English and the Department of Foreign Languages. The Department provides instruction and carries out research in American Literature, Critical Theory, English Literature, English Language Teaching, Indian Literature in English, Linguistics, New Literatures in English and Gender and Literature. The Department of English is supported by the UGC under the Special Assistance Programme-Departmental Research Support (Phase II).

Programmes offered

1. Ph.D.
2. M.A. in English
3. M.A. in Linguistics and Language Technology
4. Integrated dual B.A. & M.A. in English

Faculty and Areas of Interest

Professor	
Bijay Kumar Danta,* Ph.D. (UU)-HoD	<i>American Literature, Critical Theory, Fiction Studies</i>
Farheena Danta,* Ph.D. (DU)	<i>American Literature, Cultural Studies, Modernist Poetics</i>
Prasanta Kumar Das,* Ph.D. (GU)-Dean-HSS	<i>Indian Writing in English, British Literature, Book History</i>
Madhumita Barbora,* Ph.D. (TU)	<i>Linguistics (Syntax, Psycholinguistics),Field Linguistics, Documentation</i>
Gautam Kumar Borah,* Ph.D. (NTNU)	<i>Linguistics, Cognitive Semantics, Philosophy of Language, Literary Theory</i>
Sravani Biswas,* Ph.D. (NEHU)	<i>Indian Writing in English, Postcolonial Studies, British Romantic Poetry</i>
Associate Professor	
Debasish Mohapatra,* Ph.D. (EFLU, Hyderabad)	<i>Curriculum Development, Materials Production, Language Policy</i>
Hemjyoti Medhi,* Ph.D. (DU^)	<i>Gender and Literature, New Literatures in English, Indian Vernacular Literature</i>
Sanjib Sahoo,* Ph.D. (TU)	<i>Indian Writing in English, Travel Writing, Contemporary British Literature</i>
Assistant Professor	
Reetamoni Narzari, Ph.D. (TU)	<i>Women's Writing, Indian Writing in English, Postcolonial Literature</i>
Pallavi Jha, Ph.D. (UoHyd)	<i>Children's Literature, Popular Culture and Literature, Postcolonial Writing</i>
Bashabi Gogoi, Ph.D. (GU)	<i>Critical Theory, Adaptation Studies</i>
Arup Kumar Nath,*Ph.D. (JNU)	<i>Language Typology, Morphology, Sociolinguistics</i>

Bipasha Patgiri, M.Phil. (JNU)	<i>Phonology (Prosody, Dialectology, Language Typology and Syntax)</i>
Esther Daimari, Ph.D. (GU)	<i>South Asian English Literature</i>
Amalesh Gope,*Ph.D. (IITG)	<i>Acoustic Phonetics , Computational Linguistics, Language Documentation</i>
Sarat Kr. Doley,* Ph.D. (EFLU, Shillong)	<i>English Language Education, Language Testing, SLA</i>

***Recognized Supervisor**

LEGENDS: **UU**-Utkal University Odisha,**DU**-Dibrugarh University, **GU**-Gauhati University, **HSS**– Humanities and Social Sciences, **TU**-Tezpur University, **NTNU**- Norweign University of Science and Technology Norway, **EFLU**- English and Foreign Language University, **NEHU**- North Eastern Hill University Shillong**DU**^ - Delhi University, **JNU**- Jawaharlal Nehru University New Delhi, **UoHyd**-University of Hyderabad , **IITG**– Indian Institute of Technology Guwahati, **HoD**- Head of the Department.

Facilities Departmental Library

Select books relating to literature, linguistics and ELT are available in the Departmental Library. The Department also has a collection of audio cassettes of English Pronunciation and spoken English and number of Video CDs on library texts. The Department has a small Computer Laboratory for the use of students and research scholars

Research Activities

- No. of papers published in the year 2018-2019:14 (J-04, Conf. P- 07, BC-02 and Book- 01)
- No. of ongoing research projects:03
- No. of current Ph.D. scholars:55

For more information one can visit the departmental website <http://www.tezu.ernet.in/deng>

MASS COMMUNICATION AND JOURNALISM (Year of Establishment: 2001)

The Department of Mass Communication and Journalism offers an energetic learning environment driven by a passion for Media and Communication Studies. The department is dedicated to the interdisciplinary examination of communication in an increasingly networked society. Just as the technological advancement yield a social environment that is constantly changing and evolving; our MA Mass Communication and Journalism (MCJ) and MA Communication for Development (C4D) programmes equip the students with the most recent developments in theory and practice while remaining true to our mission of emphasizing professional excellence along with social commitment. Over the years the department has evolved as a nodal centre for teaching-learning, training and research in communication studies with national and international collaborations. This is epitomized in the numerous accolades it is reckoned with. It has been placed at the top position among Indian universities in the Times Higher Education Asia University Ranking 2018 in the Communication & Media Studies category. Moreover, our students are well placed in some of the reputed academic institutions, national & international media houses and government and non-government organizations engaged in the development sector. The department is committed to exploring ways in which media and communications connect us with the world and how these relationships help shape the societies in which we live. Our faculty, with variety of specializations and wide ranging experience, not only stimulate the students with intellectual curiosity but also facilitate professional competency that is much demanded in an ever-changing communication environment.

Programmes offered

1. Ph.D.
2. M.A. in Mass Communication and Journalism
3. M.A. in Communication for Development

Faculty and Areas of Interest

Professor		
1.	Sunil Kanta Behera, Ph.D. (BU)	<i>Communication Theory and Research, Gender and Media</i>
2.	Abhijit Bora,* Ph.D. (GU)	<i>Print Journalism, Community Radio, Specialized Reporting, Science Communication, Media Literacy</i>
3.	Joya Chakraborty,* Ph.D. (UoH)- HoD	<i>ICT for Development, Communication for Social Change, Gender and Media, Alternative and Community Media</i>
Associate Professor		
1.	Perumal Anbarasan,* Ph.D. (JNU)	<i>Media Studies, Cultural and Subaltern Studies, International Communication, Film Studies</i>
2.	Uttam Kumar Pegu,* Ph.D. (JMI)	<i>ICT Implications on Society, Science Communication, Film Studies, Media Analysis</i>
Assistant Professor		
1.	Anjuman Borah, Ph.D. (TU)	<i>Development Communication, Television and Traditional Media</i>
2.	Perosh Jimmy Daimari, Ph.D. (TU)	<i>Film Studies, Development Communication</i>
3.	Kapou Malakar, Ph. D. (TU)	<i>New Media for Development, Multimedia Journalism, Political Communication, Online Journalism, Media Studies, Film Studies</i>

4.	ManojDeori, Ph. D. (BU)	<i>Online Journalism, Multimedia Productions, Media and Disaster Management</i>
5.	Junali Deka* Ph.D. (AU)	<i>Cultural Studies, Visual Communication, New Media and Society</i>

***Recognized Supervisor**

LEGENDS: BU- Berhampur University Odisha, GU-Gauhati University, JNU-Jawaharlal Nehru University New Delhi, UoH-University of Hyderabad Telangana, JMI- JamiaMilliaIslamia New Delhi, TU-Tezpur University Assam AU- Assam University Assam, HoD-Head of the Department.

Facilities

The Department has a spacious exclusive three-story building and is endowed with specialized equipment for print, TV, Radio and web journalism. These include industry grade HD digital video cameras, linear and non- linear editing suites, all in broadcast quality. Students get hands-on experience in multi-camera production in the well-equipped studio. An exclusive multimedia lab with latest software enables students to gather expertise in the nuances of different media productions. A very good screening room with a 100+ seat capacity is available for screening and discussion.

Research Activities

- Number of papers published in the year 2019-20:10
- Number of ongoing research projects:2
- Number of current Ph.D.scholars: 26

Selected Publications

- Pegu, U.K. (2019). Acculturation and cultural revivalism of the Mising tribe of Assam. *International Journal of Advance and Innovative Research*, 6 (1). 117-119.
- Hazarika, M., & Chakraborty, J. (2019). Women in local e-governance: A case study of assam. In *Proceedings of the 12th International Conference on Theory and Practice of Electronic Governance (ICEGOV2019)*, Melbourne, VIC, Australia, April 3-5. <https://doi.org/10.1145/3326365.3326425>
- Bora, A. (2018). A resurgent print media: regional languages to the fore. *Media 360*. Special publication of Indian Institute of Mass Communication, Dhenkanal (pp. 27 –31).

For more information one can visit the departmental website <http://www.tezu.ernet.in/dmass>

SOCIOLOGY

(Year of Establishment: 2006)

The Department of Sociology was established in 2006 with a Master's programme. Subsequently, it launched a Ph.D. programme in 2008. The Department is dedicated toward nurturing competent and socially sensitive graduates through rigorous teaching and research activities. 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, Science Studies, etc. The curriculum lays emphasis on teaching and learning of general concerns of sociology as well as issues of sociological significance in northeastern India which constitute a special focus of the teaching and research of the department. The students pursuing their Masters in the department not only have to learn critical approaches and perspectives in the classroom but are also encouraged to participate in short field visits during vacations as part of their mandatory research projects. The department also makes an effort to expose the students to the prevailing social realities through activities such as outreach programmes, regular film screening, seminars and other programmes in collaboration with other social organizations. The department was awarded the UGC-SAP (DRS-I) of University Grants Commission in 2016.

Programmes offered

1. Ph. D.
2. M. A. in Sociology

Faculty and Areas of Interest

Professor	
Chandan Kumar Sharma,* Ph.D. (DU [^])	<i>Development, Environment, Migration, Agrarian Studies, Identity Politics, Social Movements, Urbanisation</i>
Rabin Deka,* Ph.D. (DU), HoD	<i>Sociological Theories, Sociology of Movement, Agrarian Sociology</i>
Kedilezo Kikhi,* Ph.D. (NEHU)	<i>Research Methodology, Gender and Society, Sociology of Northeast India, Tribal Studies</i>
Associate Professor	
Amiya Kumar Das, * Ph.D. (TU)	<i>Sociology of Development, Sociology of Health and Illness, Sociology of Governance</i>
Assistant Professor	
Sumesh, S. S,* Ph.D. (UK)	<i>Social Stigma and Exclusion, Sociology of Body, Sexuality</i>
Nirmali Goswami,* Ph.D. (IITK)	<i>Sociology of Education, Identity of Politics, Multiculturalism</i>
Sarmistha Das*, Ph.D (TU)	<i>Gender Studies, Sociology of North East India, Land and Livelihood</i>
Subhadepta Ray*, Ph.D. (DU)	<i>Sociology of Science and Sociology of India</i>
A. S. Shimreiwung,* Ph.D. (JNU)	<i>Sociology of Religion, Environmental Sociology, Sociology of Music</i>
Pamidi Hagjer, Ph. D. (GU)	<i>Ritual Studies, Kinship, Sociological Theories</i>

*Recognized Supervisor

LEGENDS: *DU*-Delhi University, *NEHU*-North Eastern Hill University Shillong, *DU*-Dibrugarh University, *TU*-Tezpur University, *UK*-University of Kerala, *IITK*- Indian Institute of Technology Kanpur, *JNU*-Jawaharlal Nehru University New Delhi, *GU*- Gauhati University, **HoD**-Head of the Department.

Facilities

- A library with selected books and photocopied materials
- A smart class room with all modern ICT facilities
- ICT enabled classrooms
- Dedicated room for research scholars with individual cubicles
- Photocopy and Scanner machines
- Television

Research Activities

- No. of papers published in the year 2019-20: 10
- No. of ongoing research projects: 04
- No. of current Ph.D. scholars: 35

Selected Publications

- Deka, R., Borah, P. P., and Bhuyan, A. J. (2020). Ethnicity and fragmented identity: diverse forms of identity formation among the Misings of Assam. *Asian Ethnicity*. DOI: 10.1080/14631369.2020.1757403.
- Kikhi, K. (2020). The Naga homeland movement: Historical trajectory and contemporary relevance. *Economic and Political Weekly (EPW)*. 55(23). 43-48.
- Borah H.O., and Das, S. (2020). Paid and unpaid work during the Covid-19 pandemic: a study of the gendered division of domestic responsibilities during lockdown. *Journal of Gender Studies*. <https://doi.org/10.1080/09589236.2020.1863202>
- Sarmah, C.K., and Borgohain, B. (2019). The new land settlement act in Arunachal Pradesh: Road to empowerment or dispossession? *Economic and Political Weekly*, 54(23). 17-20.

For more information please visit the departmental website <http://www.tezu.ernet.in/dsoc>

SOCIAL WORK

(Year of Establishment: 2014)

The Department of Social Work was established in the year 2014 with the objective to create a just and equal society that ensures freedom from various forms of oppression and exploitation. It aims to develop competent human resources for effective professional social work practice. The Department engages with teaching and research with diverse range of individuals, groups and communities by using a framework of social justice and human rights focused on sustainable and participatory development. It facilitates active involvement in the fields of social welfare, development, and allied areas through classroom teaching blended with the component of concurrent field work practice. This approach enables the students to develop knowledge, skills, attitudes and values appropriate to the practices of social work profession, besides cultivating critical thinking and the ability to apply theory to field experiences. This further contributes in evolving an interdisciplinary perspective which enhances the understanding of social problems and developmental issues with greater efficacy.

Programme offered

1. Ph.D.
2. M.A. in Social Work

Faculty and Areas of Interest

Professor		
1.	Chandan Kumar Sharma, Ph.D. (DU)– HoD	<i>Development; Environment; Urbanisation; Agrarian Structure; Social Movements; Ethnicity; Migration; Society and Politics of Northeastern India.</i>
Assistant Professor		
1.	Apurba Saha, Ph.D. (NIMHANS)	<i>Social Work and Mental Health, Psychosocial Care in Disaster Management, Street Children and Application of Social Work Methods</i>
3.	Rajesh Kalarivayil, Ph.D. (JNU)	<i>Biomedical Governance, Innovation Studies, Science and Technology in Rural Development</i>
5.	Namami Sharma, Ph.D.(DU)	<i>Environment and Ecology, Tribal Studies, Community Development</i>
6.	Prerana Banik, M.Phil. (TISS)	<i>Food Security, Gender and Livelihood, LabourRights, Inclusive Policies and Development, Marginalised Group and Social Development</i>

LEGENDS: **DU**– University of Delhi, **NIMHANS**-National Institute of Mental Health and Neurosciences Bangalore, **JNU**-Jawaharlal Nehru University New Delhi, **TISS**- Tata Institute of Social Sciences Mumbai, **HoD**-Head of the Department.

Selected Publications

- Nair S S. and Kalarivayil R. Has India's Surrogacy Bill Failed Women Who Become Surrogates? *ANTYAJA : Indian Journal of Women and Social Change*, 3(1),2018.
- Saha A. 2018 Substance Abuse among Street Children: School Risk and Protective Factors, *Social Defence Journal*, National Institute of Social Defence, Ministry of Social Justice & empowerment, Government of India, VI. no.-02, ISSN no.00377716.

For more information please visit the departmental website <http://www.tezu.ernet.in/dsw>

CHANDRAPRABHA SAIKIANI CENTRE FOR WOMEN STUDIES (Year of Establishment: 2009)

The CSCWS completed 10 years phase of contributing to the building of Women Studies in the Tezpur University. Further it will function as a Centre to coordinate and promote studies on women belonging to the diverse socio-cultural milieu of a multicultural North East India and the 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. The Centre shall connect, coordinate and construct a community of women who would significantly contribute towards meeting objectives of gender sensitization and empowerment in this region.

Programmes offered

1. Ph.D.
2. P.G. Diploma in Women Studies

Faculty and Areas of Interest

Associate Professor & Head in Charge		
1.	Madhurima Goswami Ph.D. (TU)	Women and Development; Women History, Women, culture and performance; Women and Religion
Assistant Professor		
1.	Mousumi Mahanta , Ph.D. (TU)	Women and Health (Reproductive Health & Mental Health) ; Gender and Sexuality; Feminist Anthropology and Feminist Ethnography

LEGENDS: TU- Tezpur University

Research Activities

- No. of papers published in the year 2018– 2019:9
- No. of current Ph.D. scholars:0

Publications:

- Daimary, Ivy. Swargiary, Dina. (2019), Women and Witch-Hunting: Challenges as Victims, Mahila Pratishtha, ISSN:2454-7891, vol:4 issue:3.
- Boro. Sonali, (2018) Power game of Witch Hunting in Assam: An Analysis, International Journal for research in Social Science and Humanities, ISSN-2208-2107 Vol 4 Issue 2.
- Goswami, Madhurima. (2018), Food Culture: Space for Creativity, Protest and Negotiation, International Journal of economics and Social Sciences, ISSN 2249-7382.

For more information one can visit the Centre's website <http://www.tezu.ernet.in/wsc/>

School of Management Sciences

BUSINESS ADMINISTRATION (Year of Establishment: 1995)

The Department of Business Administration came into existence in 1995 with the objectives of producing quality management professionals and carrying out research in the areas of Finance, Human Resources, Marketing, Production and System Management. The Department has been conducting PG Diploma in Tourism Management since 2002, which has been upgraded to Master of Tourism and Travel Management with the first batch of students admitted in the Academic Year 2016-17. The Department is awarded 3rd Asia's Best B-school award for its innovation in teaching methodology in 2012, rated A+ by Business India, rated "A" by Discovery Education Media for 2012-13 and recipient of "Best Business School Award" in the category of placement (NE Region) awarded by Bureaucracy Today. The Department was conferred with "A" category by Business Chronicle B-School Survey and placed among the top 10 B-School in the Eastern Region. It was ranked 39th among all institutions offering Management Education in India by NIRF (Ministry of HRD, Govt. of India). The Department has successfully completed a research on "Microfinance and Livelihood Development" under the UGC-SAP (DRS-I) research grant.

Programmes offered

1. Ph.D.
2. Master of Business Administration(MBA).
3. Master in Tourism and Travel Management(MTTM).
4. Post Graduate Diploma in Human Resource Management (Distance Mode)

Apart from these the Department has started a short term certificate course on National Stock Exchange Certified Capital Market Professional (NCCMP) Programme from autumn semester 2017.

Faculty and Areas of Interest

Professor	
Mrinmoy Kumar Sarma,* Ph.D. (TU)	<i>Services Marketing, Tourism Marketing</i>
Chandana Goswami,* Ph.D. (GU)	<i>Financial Management, General Management</i>
Subhrangshu Sekhar Sarkar,* Ph.D. (TU)	<i>Accounting, Taxation, Social Development Issues</i>
Debabrata Das,* Ph.D. (RGU) (on lien)	<i>Financial Management, Financial Markets and Development Finance</i>
Chandan Goswami,* Ph.D. (TU)-HoD	<i>Marketing and Promotional Strategies, Consumer Behaviour, Tourism</i>
Papori Baruah,* Ph.D. (TU) - Dean, SoMS	<i>Human Resource Management, Organization Behaviour, Change Management, Rural Development, NGOs</i>
Associate Professor	
Tridib Ranjan Sarma,* Ph.D. (TU)	<i>Operations Management, Project Management, Tourism</i>
Anjan Bhuyan,* Ph.D. (TU)	<i>Economics, Rural Economics, Tourism Management, Entrepreneurship</i>
Arup Roy,* Ph. D. (TU)	<i>Microfinance, Stock Market, Development Finance, Social Entrepreneurship</i>
Assistant Professor	
Heera Barpujary, Ph.D. (TU)	<i>Knowledge Management, Web Technology</i>

Kakali Mahanta, Ph.D. (DU)	<i>Human Resource Management, Organization Behaviour</i>
Runumi Das*, Ph.D. (GU)	<i>Marketing, Rural Marketing, Human Resource Management</i>
Mridul Dutta*, Ph.D. (GU)	<i>Community Based Tourism, Intellectual Property Rights</i>
Prayash Baruah, MBA (SIU)	<i>Supply Chain Management, Logistics, Transportation</i>

***Recognized Supervisor**

LEGENDS: TU-Tezpur University, GU-Gauhati University, RGU- Rajiv Gandhi University Itanagar , SoMS-School of Management Sciences, DU-Dibrugarh University, SIU- Symbiosis International University Pune, HoD- Head of the Department

Facilities

The Department is well equipped with modern educational facilities like smart class rooms, state of the art computer laboratory and instructional audio-visual aids including video conferencing facility. The Department has an air conditioned board room for facilitating case study, group discussion etc. and air conditioned student lounge.

Research Activities

- No. of papers published in the year 2018-2019:10
- No. of ongoing research projects:02
- No. of current Ph.D. scholars:18

Selected Publications

- Goswami Chandana and Boro K. Technology Based Banking Behaviour of Urban Customers: An Empirical Study in Kamrup Metro Districts of Assam, India. Asian Journal of Research in Banking and Finance, 8(4), 20-47. 2018.
- Bharali P and Goswami Chandan. Brand Switching in Telecom Sector: An Insight into Switching Behaviour and Switching Factors. "Abhigyan" Management Journal. 36(3). 11-20. (ISSN: 0970-2385). 2018.
- Goswami S and Sarma M K. Modelling Customer Delight in Hotel Industry. Global Business Review. 20(2). 405-419. 2019.

For more information please visit the departmental website <http://www.tezu.ernet.in/dba/new/>

School of Sciences

CHEMICAL SCIENCES

(Year of Establishment: 1997)

The Department was established in the year 1997 with the objectives of providing a broad based training to the students in various disciplines related to Chemical Sciences and reach out to the society. The faculty members are actively involved in advanced research programmes in the areas of catalysis, polymers, nanocomposites, drug delivery, bioinorganic chemistry, surfactant systems, water purification technique, synthetic organic chemistry, supramolecular chemistry, theoretical chemistry and green chemistry. Apart from externally funded projects, consultancy projects are also run by faculty members of the Department. The Department has received financial assistance under UGC-SAP (DRS II) and DST-FIST (Level II) special grants for strengthening teaching, research and training.

Programmes offered

1. Ph.D.
2. M.Sc. in Chemistry
3. Integrated B.Sc. B.Ed. in Chemistry
4. Integrated dual B.Sc. & M.Sc. in Chemistry

Faculty and Areas of Interest

Professor	
M. Lakshmi Kantam, Adjunct Professor, * Ph.D. (KU)	<i>Homogeneous/ Heterogeneous Catalysis</i>
Swapan Kumar Dolui,* Ph.D. (IITKgp)	<i>Hydrogel, Electroactive Polymer, Polymers from Vegetable oil, Solar Cell</i>
Nashreen S.Islam,* Ph.D. (NEHU)	<i>Synthetic Inorganic Chemistry and Biomimetic Chemistry of Transition Metals, Catalysis</i>
Tarun Kumar Maji,* Ph.D. (CU)	<i>Polymer composite, Drug delivery</i>
Robin Kumar Dutta,* Ph.D. (NEHU)	<i>Drinking water and traditional manuscripts writing and paintings</i>
Niranjan Karak,* Ph.D. (IITKgp)- Dean R&D	<i>Synthesis of Advanced Polymers, Polymer Nanocomposites and Nanomaterials</i>
Ramesh Chandra Deka,* Ph.D. (NCL), Dean, SoS	<i>Theoretical Chemistry, Catalysis and Drug Design</i>
AshimJyoti Thakur,* Ph.D. (NEIST)	<i>Heterocyclic Chemistry, Organic Synthesis and Molecular Container Chemistry</i>
Ashwini Kumar Phukan,* Ph.D. (UoHyd)	<i>Theoretical Inorganic and Organometallic Chemistry</i>
Ruli Borah,* Ph.D. (NEIST)-HoD	<i>Ionic liquids and Catalysis, Greener organic synthesis</i>
Associate Professor	
Panchanan Puzari,* Ph.D. (IITG)	<i>Biosensors, Chemical Sensors & Molecular dynamics</i>
Utpal Bora,* Ph.D. (NEIST)	<i>Synthetic Organic Chemistry</i>
Assistant Professor	
Kusum Kumar Bania,* Ph.D. (TU)	<i>Heterogeneous Catalysis, Fuel Cell and Photocatalysis</i>
Pankaj Bharali,* Ph.D. (IICT)	<i>Inorganic Materials, Heterogeneous Catalysis, Electrocatalysis</i>

Nayanmoni Gogoi,* Ph.D. (IITB)	<i>Molecular Magnet, Functional Metal Organic Framework</i>
Bipul Sarma,* Ph.D. (UoHyd)	<i>Pharmaceutical crystallization, Porous materials</i>
Sajal Kumar Das,* Ph.D. (CDRI & JNU)	<i>Synthetic Organic Chemistry</i>
Sanjeev Pran Mahanta,* Ph.D. (Uo Hyd)	<i>Physical Chemistry, Molecular Engineering and Molecular Recognition</i>

* **Recognized Supervisor**

LEGENDS: *KU*-Kurukshetra University, *IITKgp*-Indian Institute of Technology Kharagpur, *NEHU*-North East Hill University Shillong, *CU*-Calcutta University, *R&D*- Research and Development, *NCL*- National Chemical Laboratory Pune, *SoS*- School of Sciences, *NEIST*-North East Institute of Science and Technology Jorhat, *UoHyd*-University of Hyderabad, *IITG*-Indian Institute of Technology Guwahati, *TU*-Tezpur University, *IICT*- Indian Institute of Chemical Technology Hyderabad, *IITB*- Indian Institute of Technology Bombay, *CDRI*-Central Drug Research Institute Lucknow, *JNU*-Jawaharlal Nehru University New Delhi. **HoD**-Head of the Department

Facilities

In addition to the laboratory facilities required for undergraduate-post graduate level studies and research in Chemical Sciences, the Department is equipped with sophisticated instrumentation facilities, like FT-IR spectrophotometer, CHN Analyzer, Thermal analyzer, UV-Visible spectrophotometer, Universal testing machine (UTM), Atomic absorption spectrophotometer, Polarizing microscope, Computational facilities etc. Besides these, the University has central instrumentation facilities of Scanning electron microscope, 400 MHz Nuclear Magnetic Resonance spectrophotometer, TEM, SEM, Raman spectrophotometer, Single crystal X-ray instrument, ICP-AES, GPC, HPLC, GCetc.

Research Activities

- No. of papers published in the year 2019-2020: 95
- No. of ongoing research projects: 17
- No. of current Ph.D. scholars: 86

Selected Publications

- Biswakarma N, Sarma P. J, Baruah S. D. Gour N. K. and Deka R. C. (2020). Catalytic oxidation of NO on [Au-M]- (M = Pd and Pt) bimetallic dimers: An insight from density functional theory approach. *The Journal of Physical Chemistry C*, 124, 3059-3068.
- Das A. J, Borgohain H, Sarma B. and Das S. K. (2020). Switching of regioselectivity in base-mediated diastereoselective annulation of 2, 3-epoxy tosylates and their N-tosylaziridine analogs with 2-mercaptobenzimidazole. *Organic & Biomolecular Chemistry*, 18, 7401-7413.
- Sharma M, Das B, Baruah M. J, Bhattacharyya P. K, Saikia L. and Bania K. K. (2020). Pd-NiO-Y/CNT Nanofoam: A Zeolite-Carbon nanotube conjugate exhibiting high durability in methanol oxidation. *Chemical Communications*, 56, 375-378.

For more information please visit the departmental website <http://www.tezu.ernet.in//dcs/>

ENVIRONMENTAL SCIENCE (Year of Establishment: 2004)

Initially established as a centre for Environmental Science in 2003, the centre was converted to the Department of Environmental Science in 2004, with the objective of imparting education on regional and global environmental issues. The curriculum for the M. Sc. 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 and Adaption, Hydro geochemistry, Vermicomposting, Pollution Remediation, Biodiversity Conservation and Atmospheric System Modeling.

The Department is a recipient of grant under UGC-SAP and DST-FIST.

Programmes offered

1. M. Sc. in Environmental Science
2. Ph. D.
3. PG Diploma in Environment and Disaster Management (through CODL)

Faculty and Areas of Interest

Professors	
Kali Prasad Sarma,* Ph.D. (NEHU)	<i>Water and Soil Pollution, Hydro-geochemistry& Remediation of Toxic Substances</i>
Raza Rafiqul Hoque,* Ph.D. (JNU)-HoD	<i>Atmospheric chemistry, Air pollution source apportionment and transport, Environmental PAHs</i>
Apurba Kumar Das,* Ph.D. (JNU)	<i>Geomorphology& Regional Climate</i>
Associate Professor	
Ashalata Devi,* Ph.D. (NEHU)	<i>Forest Ecology,Ecosystem Dynamics, &Wildlife and Biodiversity Conservation</i>
Assistant Professors	
Nirmali Gogoi,* Ph.D. (DU)	<i>Stress Physiology & Biochemistry</i>
Satya Sundar Bhattacharya,* Ph.D. (VB)	<i>Vermiculture, Plant Nutrition and Soil Fertility Management, Soil C management, Plant products & Nano fertilizers</i>
Sumi Handique, * Ph.D. (TU)	<i>Geochemistry of River Basins & Hydrogeochemistry</i>
Amit Prakash,* Ph.D. (JNU)	<i>Air pollution Meteorology, Noise Pollution Monitoring and Modelling, Environmental System Modelling& Urban Climate</i>
Nayanmoni Gogoi, * Ph.D. (IITG)	<i>Ecosystem functions, Geochemistry and Hydrochemistry, Geostatistics, Pollution Indexing, Nanobiotechnology & Wetland Productivity</i>
Santa Kalita, * Ph.D. (GU)	<i>Entomology & Environmental Physiology</i>
Pratibha Deka, * Ph.D. (TU)	<i>Environmental Pollution– Air, Water and Soil& Human– Environment Interactions</i>

* RecognizedSupervisor

LEGENDS :NEHU-North Eastern Hill University, JNU-Jawaharlal Nehru University, DU-Dibrugarh University, TU- Tezpur University, VB- Visva Bharati Santiniketan, IITG-Indian Institute of Technology Guwahati, GU- Gauhati University, HoD- Head of the Department.

Facilities

The Department has a sophisticated instrumentation laboratory to facilitate research and other academic activities. The laboratory has equipment, like ICP-OES, ICP-MS, HPLC, CHNS, 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. The department also has GIS laboratory and Plant experimental site/shed.

Research Activities

- No. of papers published in the year 2019-2020:39
- No. of ongoing research projects:07
- No of current Ph.D. scholars:43

Selected Publications

- Hussain, N., Chatterjee, S.K., Maiti, T.K., Goswami, L., Das, S., Deb, U., and Bhattacharya, S. S. (2021). Metal induced non-metallothionein protein in earthworm: A new pathway for cadmium detoxification in chloragogenous tissue. *Journal Hazardous Materials*, 401, 123357.
- Paul, B., Bhattacharya, S.S., and Gogoi N. (2020). Primacy of ecological engineering tools for combating eutrophication: An ecohydrological assessment pathway. *Science of the Total Environment*, STOTEN-143171.
- Paul, S., Goswami, L., Pegu, R., and Bhattacharya, S. S. (2020). Vermi remediation of cotton textile sludge by *Eudrilus eugeniae*: Insight into metal budgeting, chromium speciation, and humic substance interactions. *Bioresource Technology*, 314, 123753.
- Basumatary, H., Sah, R. K., and Das, A. K. (2020). Bankline dynamics and their effects on protected areas along the Brahmaputra river. *CATENA*, 197, 104947.
- Hazarika, S., Borah, P., and Prakash, A. (2019). The assessment of return probability of maximum ozone concentrations in an urban environment of Delhi: A Generalized Extreme Value analysis approach. *Atmospheric Environment*, 202, 53-63.

For more information one can visit the departmental website <http://www.tezu.ernet.in/denvsc>

MATHEMATICAL SCIENCES (Year of Establishment: 1994)

The Department was started in July 1994 with the objective of producing trained manpower for undertaking research and teaching in mathematics and allied branches of basic or applied sciences. So far 25 batches of students have successfully completed their M.Sc. in Mathematics, 7 batches of students have successfully completed their Integrated M. Sc. in Mathematics and 2 batch of students have successfully completed their Integrated B. Sc. B.Ed. (Major in Mathematics) from the department. Besides this, 58 scholars have done their Ph.D. in Mathematics from the department. The Department carries out research in the areas of Number Theory, Operator Theory, Fuzzy Topology, Finite Element Method, Algebraic Graph Theory, Algebra (Group Theory and Ring Theory), Computational Fluid Dynamics, Probability Distributions, Coding Theory etc. The Department is currently supported by the UGC under its SAP (DRS-II) scheme and DST-FIST grant.

Programmes offered

1. Ph.D.
2. M.Sc. in Mathematics
3. Integrated B.Sc. B.Ed. (Major in Mathematics)
4. Integrated dual B.Sc. & M.Sc. in Mathematics

Faculty and Areas of Interest

Professor	
Nayandeep Deka Baruah, Ph.D. (TU)	<i>Number Theory, Ramanujan's Mathematics</i>
Debajit Hazarika, Ph.D. (JMI)	<i>General Topology, Fuzzy Sets and Applications</i>
Munmun Hazarika, Ph.D. (TU)-HoD	<i>Functional Analysis, Operator Theory</i>
Milan Nath, Ph.D. (IITG)	<i>Ordinary Graph Spectra, Inverse Eigen Value Problem</i>
Santanu Dutta, Ph.D. (TU)	<i>Statistics (Non-parametric)</i>
Dhiren Kumar Basnet, Ph.D. (DU)	<i>Algebra</i>
Associate Professor	
Bhim Prasad Sarmah., Ph.D. (GU)	<i>High Energy Astrophysics, Relativity</i>
Shuvam Sen, Ph.D. (IITG)	<i>Computational Fluid Dynamics</i>
Rajib Haloi, Ph.D. (IITK)	<i>Abstract Differential Equations</i>
Assistant Professor	
Bipul Kumar Sarmah, Ph.D. (TU)	<i>Theory of Partition, Ramanujan's Mathematics</i>
RajatKantiNath, Ph.D. (NEHU)	<i>Theory of Finite Groups</i>
DebajitKalita, Ph.D. (IITG)	<i>Algebraic Graph Theory</i>
Deepjyoti Goswami, Ph.D. (IITB)	<i>Finite Element Method</i>
Pankaj Kumar Das, Ph.D. (DU [^])	<i>Coding Theory</i>

Jayanta Borah, Ph.D.(IITG)	<i>Abstract Fractional Differential Equation, Mathematical Control Theory</i>
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* **Recognized Supervisors**

LEGENDS: **TU**-Tezpur University, **JMI**-Jamia Millia Islamia New Delhi, **IITG**-Indian Institute of Technology Guwahati, **GU**- Gauhati University, **DU**-Dibrugarh University, **IITK**-Indian Institute of Technology Kanpur, **NEHU**- North Eastern Hill University Shillong, **IITB**-Indian Institute of Technology Bombay, **DU**-Delhi University

Facilities

The Department has a computer laboratory established with financial assistance from the DST and UGC. Various Mathematical software is available in the laboratory. The laboratory is fully networked and it is linked with the Central Computer Center via LAN with access to the INTERNET. One Systems Analyst and one Technical Assistant look after the computational and networking facilities of the department.

Research Activities

- No. of papers published in the year 2019-2020: 25
- No. of ongoing research projects: 05
- No. of current Ph.D. scholars: 25

Selected Publications

- Baruah, N. D., and Kaur M. (2020). A Note on Some Recent Results of Da Silva and Sellers on Congruences for k -regular Partitions With Designated Summands. *Integers*, 20(A74), 1-6.
- Bhowal, P., Nongsang, D., and Nath, R.K. (2020). Solvable graphs of finite groups. *Haceteppe Journal of Mathematics and Statistics*, 49 (6), 1955-64.
- Hazarika, M., and Marik S. (2020). Reducing and minimal reducing subspaces of slant Toeplitz operators. *Advances in Operator Theory*, 5, 336-346.
- Pal, S. and Haloi R. (2019) On Solution to the Navier-Stokes Equations with Navier Slip Boundary Condition for Three Dimensional Incompressible Fluid. *Acta Mathematica Scientia*, 39 (6), 1628-1638.

For more information please visit the departmental website <http://www.tezu.ernet.in/dmaths/>

MOLECULAR BIOLOGY AND BIOTECHNOLOGY

(Year of Establishment: 1997)

The Department of Molecular Biology and Biotechnology (MBBT) was established in the year 1997 with the objectives to create quality human resource and to engage in quality research work in the challenging and frontier area of modern biotechnology. The Department has close linkage with the industry and academic institutes of the country and is supported by UGC-SAP (DRS-II) and DST-FIST. Department also houses ONGC-CPBT, which is a part of successful industry academia collaboration.

The current research activities in the department are in diverse areas of biotechnology which includes microbial and petroleum biotechnology, plant biotechnology, snake venom biochemistry, enzymology, protein chemistry, immunology, immune genetics and evolutionary genetics, computational biology, system biology, nano-biotechnology, plant microbe interactions, cancer genetics and chemoprevention and molecular virology.

Programmes offered

1. Ph. D.
2. M. Sc. in Molecular Biology and Biotechnology
3. Integrated M. Sc. in Life Sciences

Faculty and Areas of Interest

Professor	
Bolin Kumar Konwar, * Ph.D. (IC)	<i>Petroleum Biotechnology, Plant Biotechnology, Genetic Engineering and Metagenomics, Bioenergy</i>
Ashis Kumar Mukherjee, * Ph.D. (BU), D. Sc. (Calcutta University) (On deputation as Director IASST, Guwahati, A DST Institute, Govt. of India)	<i>Snake Venom Biochemistry and Microbial Biotechnology</i>
Shashi Baruah, * Ph.D. (PGIMER)	<i>Innate Immunity and Immunogenetics (Heterogeneity and Evolution of Immune Responses)</i>
Anand Ramteke, * Ph.D. (JNU)	<i>Cancer Genetics and Chemoprevention</i>
Suvendra Kumar Ray, * Ph.D. (CCMB-JNU)	<i>Molecular Plant -Microbe Interactions, Molecular Evolution, Food and Activities on Human Health</i>
Manabendra Mandal, * Ph.D. (IGIB)	<i>Probiotics and Nutrition, Microbial Biofilm, Bioenergy</i>
Robin Doley, * Ph.D. (TU)-HoD	<i>Snake venomomics and antivenomics</i>
Assistant Professor	
Eshan Kalita, * Ph.D. (NIPGR-GU) (On Lien, Cotton University, Guwahati)	<i>Nanobiotechnology and Plant Functional Biology</i>
Surya Prakash G. Ponnampalnam, * Ph.D. (LVPEI-UoH)	<i>Molecular Genetics and Synthetic biology</i>
Anupam Nath Jha, *Ph.D. (IISc)	<i>Computational Biophysics, Bioinformatics, Systems Biology</i>
Rupak Mukhopadhyay, *Ph.D. (IACS-JU)	<i>Inflammation, Cancer Biology</i>

Nima D. Namsa, *Ph.D. (IISc)	<i>Molecular Biology of Rotavirus</i>
Suman Dasgupta, * Ph.D. (VB)	<i>Insulin Resistance and Type 2 Diabetes</i>
Mattaparthi V. Satish Kumar, * Ph.D. (IITG)	<i>Computational Biotechnology and Bioinformatics</i>
Jyoti Prasad Saikia, * Ph.D. (TU)	<i>Plant Biotechnology</i>
Aditya Kumar, * Ph.D. (IISc)	<i>Computational Biophysics, Genomics and Bioinformatics</i>
Pankaj Barah, * Ph.D. (NTNU)	<i>Genomics, Systems Biology, Big-data in Biology, Molecular evolution</i>

* Recognized Supervisor

LEGENDS:, **JNU**-Jawaharlal Nehru University New Delhi, **IC**-Imperial College London, **BU**-Burdwan University West Bengal, **PGIMER**-Post Graduate Institute of Medical Education and Research Chandigarh, **CCMB**-Centre for Cellular and Molecular Biology Hyderabad, **IGIB**-Institute of Genomics and Integrated Biology Delhi **TU**-Tezpur University, **NIPGR**- National Institute of Plant Genome Research New Delhi, **GU**-Gauhati University, **LVPEI**-L.V. Prasad Eye Institute Hyderabad, **UoH**-University of Hyderabad, **IISc**-Indian Institute of Science Bangalore, **IACS**-Indian Association for the Cultivation of Science Kolkata, **JU**-Jadavpur University Kolkata, **VB**-Visva Bharati Santiniketan, **IITG**-Indian Institute of Technology Guwahati, **NUST**- Norwegian University of Science and Technology Norway, **HoD**-Head of the Department.

Facilities

The Department has several sophisticated instruments like, Automated DNA sequencer, UHPLC, FPLC, HPLC systems, Real Time PCR, Bioanalyzer, Spectro fluorimeter, Fluorescence Microscope, GC mass spectrometer and Fermenter. Department is equipped with a cold room, animal and plant cell culture facilities, and Bioinformatics facility (Supported by DBT). Apart from these individual faculty research laboratories are well equipped to carry out advance research.

Research Activities

- No. of papers published in the year 2019-2020 :58
- No. of ongoing research projects: 32
- No of current Ph.D. Scholars: 79

Selected Publications

- Sahu, A., Das, A., Saikia, K. & Barah, P. (2020). Temperature differentially modulates the transcriptome response in *Oryza sativa* to *Xanthomonas oryzae*pv. *oryzae* infection. *Genomics*, 112 (6),4842-4852.
- Deka, A., Sharma, M., Mukhopadhyay, R., Devi, A. & Doley, R. (2020). *Naja kaouthia* venom protein, Nk-CRISP, upregulates inflammatory gene expression in human macrophages. *International Journal of Biological Macromolecules*, 160: 602-611.

Book Published

- Konwar, B. K. (2021). *Bacterial Biosurfactant* (in process). Apple Academic Press, Inc., (CRC Press, Taylor & Francis Gr), New Jersey, USA and Ontario, Canada.

For more information please visit the departmental website <http://www.tezu.ernet.in/dmbbt>

PHYSICS

(Year of Establishment: 1998)

Department of Physics was established in 1998. It offers studies in various fields of physics leading to postgraduate and doctoral degree. The faculty members of the department are engaged in various areas of physics such as condensed matter physics, photonics, high energy physics, microwaves, plasma physics, astrophysics, neutrino physics and nanoscience & technology. The Department has collaboration with institutes like IUCAA Pune, CMACs Bangalore, IIT Guwahati, CAT Indore, VECC Kolkata, SAMEER Mumbai, University of Southampton UK, Queen's University Belfast, University of Tokyo Japan, Max Planck Institute Germany and others. The Department of Physics is also supported by UGC-SAP, DST-FIST and ISRO. The department provides a conducive and rigorous research environment.

Programmes offered

1. Ph.D.
2. M. Sc. in Physics
3. Integrated B.Sc. B.Ed. in Physics
4. Integrated dual B.Sc. & M. Sc. in Physics

Faculty and Areas of Interest

Professor	
Jayanta Kumar Sarma,* Ph.D. (GU)	<i>Theoretical High Energy Physics, Particle Physics</i>
Nidhi Saxena Bhattacharyya,* Ph.D. (DU [^])	<i>Microwave Devices, Antennas and EMI Materials</i>
Nilakshi Das,* Ph.D. (GU)	<i>Dusty Plasma Physics, Laser-Plasma Interaction</i>
Pritam Deb,* Ph.D. (JU)	<i>Nanoscience and Nano Technology, Physics of Materials</i>
Mrinal Kumar Das,* Ph.D. (GU)-HoD	<i>Theoretical High Energy Physics: Physics Beyond Standard Model, Neutrino Physics, BAU, Dark Matter</i>
Pabitra Nath,* Ph.D. (GU)	<i>Photonics</i>
Associate Professor	
Gazi Ameen Ahmed,* Ph.D. (GU)	<i>Laser Physics, Optoelectronics</i>
Dambarudhar Mohanta,* Ph.D. (TU)	<i>Condensed Matter Physics, Nanoscience</i>
Pralay Kumar Karmakar,* Ph.D. (GU)	<i>Plasma Physics, Astrophysics, Nonlinear Dynamics</i>
Ng K. Francis,* Ph.D. (GU)	<i>Particle Physics Phenomenology and Particle Cosmology</i>
Assistant Professor	
Rajib Biswas,* Ph.D. (DU)	<i>Fiber Optic Instrumentation, PCFs, Geophysical Instrumentation</i>
Rupjyoti Gogoi,* Ph.D. (GU)	<i>Astrophysics</i>
Shyamal Kumar Das,* Ph.D. (IISc)	<i>Material Science</i>
Ritupan Sarmah,* Ph.D. (IISc)	<i>Computational Material Science</i>
Moon Moon Devi,* Ph.D. (TIFR)	<i>Experimental High Energy and Astro-particle Physics, Neutrino Physics, UHE Cosmic Rays and Extensive Air Showers, Detector Instrumentation and Data Acquisition</i>

* **Recognized Supervisor**

LEGENDS: *GU-Gauhati University, DU[^]-Delhi University, JU-Jadavpur University West Bengal, TU-Tezpur University DU-Dibrugarh University, IISc-Indian Institute of Science Bangalore, TIFR– Tata Institute of Fundamental Research Mumbai, HoD-Head of theDepartment.*

Facilities

The Department has a rich collection of setups and instruments related to Photonics, Electronics, Condensed Matter Physics and Nanoscience at research level in addition to general laboratory instruments for postgraduate teaching in Physics. The Department has a 25 MW pulsed, NdYAG laser, high vacuum coating unit, X-band Microwave Bench, Electrochemical Workstation, LCR HiTester Meter, AFM, PPMS, SEM, XRD, Double Distilled water treatment plant, hot air oven, material developing facilities, semiconductor characterization set- up, UV-VIS spectrophotometer, Millipore water purification system, LB film deposition unit, spectrophotometer, vector network analyzer, spin wave instability characterization system, antenna parameter measurement facility, hydraulic press, CNC Milling Machine and other systems. The Department also has high end computational facility to carry out theoretical and astrophysics research work. The department also offers its facilities to the students of other institutes and other departments within the University.

The research activity in the department is supported by University's Sophisticated Instrument and Analytical Centre (SAIC) and the University Library.

Research Activities

- No. of papers published in the year 2019-2020: 93
- No. of ongoing research projects: 25
- No. of current Ph.D. scholars: 70

Selected Publications

- Boruah, B. S., Biswas, R., Ojah, N. (2020). Bio-inspired localized surface plasmon resonance enhanced Sensing of Mercury through Green synthesized Silver nanoparticle; Journal of Lightwave Technology, 38, 2086-2091.
- Gautam, N. and Das, M.K. (2020). Phenomenology of keV scale sterile neutrino dark matter with S4 flavor symmetry; Journal of High Energy Physics 01, 098-130.
- Nandy, S. and Das, S. K.(2019). Realizing a low-cost and sustainable rechargeable aqueous aluminum- metal battery with exfoliated graphite cathode; ACS Sustainable Chemistry and Engineering, 7, 19839-19847.

For more information please visit the departmental website <http://www.tezu.ernet.in/dphy/>

Annexure I

Prescribed Format of Sponsorship/ No Objection Certificate for Ph. D. programme

(Format for Sponsorship/ No Objection Certificate)

(The letter should be typed on the official Letter-Head of the Sponsoring Organization/ Employer/ Principal Investigator and signed by the Head of the Institution/Principal Investigator)

To

The Controller of Examinations

Tezpur University

Sub: Sponsorship/ No objection Certification of Mr./ Ms. _____ for Ph.D. programme at Tezpur University.

Dear Sir/Madam,

Mr./Ms. _____ has been working in this organization/
Project as _____ since _____

This organization has no objection to his/her being admitted to the Ph. D. programme at Tezpur University from the session starting from _____ as a part time/full time candidate.

The employee will be relieved of his/her duties in the organization to join in the Ph.D. programme if he/she is selected as part time/full time candidate (not applicable to project fellow). The part time candidate will be allowed to stay on the campus for pursuing the course work (only for part time candidate)

Date:

Signature _____

Place:

Name _____

Official Seal of the employer

1. Verified by: Signature.....Date.....
Name:.....Designation.....

2. Recommended/Not Recommended
Signature:
Name:
Chairperson, Selection Committee
Head, Department of
Date.....

Annexure II
FEE STRUCTURE FOR Ph.D. STUDENTS TO BE ADMITTED IN SPRING SEMESTER, 2021

Particular of Fee	Full Time (Hosteller)	Full Time (Non-hosteller)	Part Time	TU Employee
A. Once at the time of admission				
Admission	500	500	500	500
Registration	150	150	150	150
Identity card	50	50	50	50
Convocation	1000	1000	1000	1000
Provisional certificate	100	100	100	100
Alumni Association	500	500	500	500
B. Per semester				
* Hostel admission/re-admission	3000			
Tuition	1500	1500	2000	2000
Library	400	400	400	
Students' activity	500	500	500	500
Medical	300	300	300	
Transport	1000	1000	1000	
Laboratory (including computer usage)	1050	1050	1050	1050
Research Fee	3000	3000	4000	4000
Infrastructure and amenity	1100	1100	1100	1100
Fan, Electricity and Water charge	400	400	400	400
Students' Welfare Fund	150	150	150	150
Departmental Development Fund	2500	2500	2500	2500
**Consumable Charge	2000	2000	2000	2000
Menial Charge	1500			
*** Health Insurance	143	143		
C. Refundable Caution Deposit (Once at the time of admission)				
Caution deposit (Library and Laboratory)	2000	2000	2000	2000
Hostel Caution deposit	3000			
Total fee to be paid by the students of the Dept. of Chemical Sc./MBBT//FET/ Environmental Sc. at the time of admission	25843	18343	19700	18000
Total fee to be paid by the students of other departments at the time of admission.	23843	16343	17700	16000

* SC/ ST candidates are exempted from the paying the hostel seat rent of Rs. 675/-.

** Consumable Charge is to be paid by the Ph.D. students admitted in the Dept. of Chemical Science/MBBT//FET/ Environmental Science.

*** Students above 30 years of age are not covered in this scheme.

Annexure III

Prescribed Format of OBC(NCL) Certificate/As per Govt. format

FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES APPLYING FOR APPOINTMENT TO POSTS/ ADMISSION TO CENTRAL EDUCATIONAL INSTITUTIONS (CEIs), UNDER THE GOVERNMENT OF INDIA

This is to certify that Shri/Smt./Kum.....Son/Daughter of

Shri/Smt.....of Village/ Town

.....District/Division.....in

the.....Community which is recognized as a backward class under:

- (i) Resolution No. 12012 / 68 / 93BCC(C) dated 10 / 09 / 93 published in the Gazette of India Extra ordinary Part I Section I No. 186 dated 13 / 09 / 93.
- (ii) Resolution No. 12012 / 9 / 94BCC dated 19 / 10 / 94 published in the Gazette of India Extra ordinary Part I Section I No. 163 dated 20 / 10 / 94.
- (iii) Resolution No. 12012 / 7 / 95 BCC dated 24 / 05 / 95 published in the Gazette of India Extra ordinary Part I Section-I No.88 dated 25/05/95.
- (iv) Resolution No. 12012 / 96 / 94BCC dated 9 / 03 / 96.
- (v) Resolution No. 12012 / 44 / 96 BCC dated 6 / 12 / 96 published in the Gazette of India Extra ordinary Part I Section I No. 210 dated 11 / 12 / 96.
- (vi) Resolution No. 12012 / 13 / 97BCC dated 03 / 12 / 97.
- (vii) Resolution No. 12012 / 99 / 94BCC dated 11 / 12 / 97.
- (viii) Resolution No. 12012 / 68 / 98BCC dated 27 / 10 / 99.
- (ix) Resolution No. 12012 / 88 / 98BCC dated 06 / 12 / 99 published in the Gazette of India Extraordinary Part-I Section-I No. 270 dated 06 / 12 / 99.
- (x) Resolution No. 12012 / 36 / 99BCC dated 04 / 04 / 2000 published in the Gazette of India Extraordinary Part-I Section-I No. 71 dated 04 / 04 / 2000.
- (xi) Resolution No. 12012 / 44 / 99BCC dated 21 / 09 / 2000 published in the Gazette of India Extraordinary Par-I Section-I No. 210 dated 21 / 09 / 2000.
- (xii) Resolution No. 12015 / 9 / 2000BCC dated 06 / 09 / 2001.
- (xiii) Resolution No. 12012 / 1 / 2001BCC dated 19 / 06 / 2003.
- (xiv) Resolution No. 12012 / 4 / 2002BCC dated 13 / 01 / 2004.
- (xv) Resolution No. 12012 / 9 / 2004-BCC dated 16 / 01 / 2006 published in the Gazette of India Extra ordinary Part I Section I No. 210 dated 16 / 01 / 2006.

Shri/Smt./Kum.and/or his family ordinarily reside(s) in the

.....District/Division of state. This is also to certify that he/she does not belong to the persons/section (Creamy Layer) mentioned in Column 3 of the Schedules of the Government of India. Department of Personnel & Training O.M.No.36012/22/93Estt.(SCT) dated 08/09/93 which is modified vide OMNo.36033/3/2004Estt.(Res.) dated 09/03/2004.

Dated:.....

District Magistrate/Deputy Commissioner/Competent Authority

Seal

NOTE :

(a) The term ordinarily used here will have the same meaning as in Section 20 of Representation of the People Act. 1950.

(b) The authorities competent to issue Caste Certificates are indicated below:

(i) District Magistrate/Additional Magistrate/Collector/Deputy Commissioner/Additional Deputy Commissioner/ Deputy Collector/1st Class Stipendiary Magistrate/SubDivisional Magistrate/Taluka Magistrate/Executive Magistrate/Extra Assistant Commissioner (not below the rank of 1st Class Stipendiary Magistrate)

(ii) Chief Presidency Magistrate/Additional Chief Presidency Magistrate/Presidency Magistrate.

(iii) Revenue Officer not below the rank of Tehsil darand

(iv) SubDivisional Officer of the area where the candidate and/or his family resides.