



ডিব্ৰুগড় বিশ্ববিদ্যালয়  
Dibrugarh University

Accredited 'A' grade by NAAC



# Dibrugarh University Institute of Engineering and Technology, Dibrugarh University

AICTE Approved

A CONSTITUENT INSTITUTE OF DIBRUGARH UNIVERSITY

## ADMISSION BROCHURE

ACADEMIC SESSION : 2023-24

*"We believe technocrats are the  
builders of the nation"*

Email : [duietadmission@dibru.ac.in](mailto:duietadmission@dibru.ac.in)

Dibrugarh, Assam - 786004

## Dibrugarh University

Dibrugarh University was established in the year 1965 under the provision of the Dibrugarh University Act, 1965 enacted by the Assam Legislative Assembly as a State University for academic and research excellence. It is situated adjacent to National Highway 37, at the place called Rajabheta, which is about 5 km from the Tea & Oil rich headquarters of Dibrugarh, Assam. The University is well connected by rails, roads and air. The nearest airport Mohanbari, is at a distance of about 15 km and the nearest railway station is at a mere distance of 5 km. The University's campus spreads over 550 acres. Dibrugarh University is well equipped with all the infrastructure which includes hostel for students, residential accommodation, market complex, ATM, post office, bank, recreation centre, day care centre, students' activity centre, cafeteria, health centre, playgrounds and educational & recreational park together with high speed NKN internet connectivity. The University is also maintaining a tea garden spread over 60 acres of land situated in the original location of Rajabhata Tea Estate.



# Dibrugarh University Institute of Engineering & Technology (DUIET)



Dibrugarh University Institute of Engineering & Technology (DUIET), is a constituent college of Dibrugarh University imparting technical education since 2009 and was established with due approval from the All India Council for Technical Education (AICTE), and necessary permission from the Government of Assam. The Institute is producing quality technical man power required by the different nearby industries in particular and global need in general. At present, the Institute is offering 4-year B. Tech. programme in - Computer Science & Engineering, Electronics & Communication Engineering, Mechanical Engineering and Petroleum Engineering. The Doctoral programme in Engineering and Technology have already being started from the academic year 2021-22. The Institute has been endeavouring to impart quality education with a mission to cope up with the present technological changes happening throughout the globe. Henceforth, we are regularly updating our course curriculum which is fully aligned with the digital transformation happening in different fields of Engineering and Technology i.e with the Fourth Industrial Revolution or Industrie 4.0. State of the art digital infrastructure and teaching learning resources have been introduced to cope up with Education 4.0 which directly is connected to Industrie 4.0. Moreover, our alumni are spreading across the globe both in academics and industries including research and development which add to the grandeur achievement of the institute. The University has a full fledged Training and Placement Cell and a Centre for Technology Innovation and Incubation to conduct the placement activities of students and prepare the students to be self reliant.

## Newly Introduced Skill Based Certification Courses in First Year

- PCB Design and Fabrication
- Drilling Technology
- Data Analysis in SciLab and Excel
- MS-Office and MS Project Management
- Professional English Writing
- Forensic Investigation

## Major grants received from the Govt. of India.

- NEQIP in 2013 (Rs. 7.00 crores)
- TEQIP-III in 2017 (Rs. 10 crores)

**From the academic year 2022-2023, three new (minor) courses will be introduced as per AICTE Model Curriculum and in compliance with NEP 2020 and Industrie 4.0 in addition to the existing B.Tech programmes.**

- B. Tech in CSE with minor in Artificial Intelligence and Machine Learning
- B. Tech in ECE with minor in IoT and Data Science
- B. Tech in ME with minor in Additive Manufacturing

# Vision & Mission

## Vision

"To be an institution of academic excellence, globally networked and universally respected, with best in class faculty and students that will unceasingly strive to create an open teaching learning environment by promoting passion for quality, creativity, innovative enquiry and cutting edge research, both basic and applied, thereby empowering its academic community to be ethical, learned, industry friendly, socially conscious and environmentally sensitive to make a difference in people's lives".

## Mission

- To be an Institution of Academic Excellence.
- To develop best in class faculty and students.
- To develop an Integrated and Interdisciplinary Research and Scholarship Community.
- To establish an efficient placement cell.
- To develop a socially conscious and Environmentally Sensitive Community.



## DIRECTOR'S MESSAGE

**Dr. Mukul Ch. Bora**

Ph.D, IIT Ghy; M.Tech, IIT Kgp



**Dear Aspirants**

I, on behalf of the Dibrugarh University Institute of Engineering and Technology welcome you to this vibrant environment of academic community. The institute facilitates quality education to help you in achieving your goal and becoming a nation builder. Thank you for showing your interest in us.

DUIET has been imparting technical education for young people who entered its community and attained their transformation into responsible citizens, technocrats or corporate leaders. By joining DUIET, you are embarking on an education system that is meant to be transformative – academically, socially, and personally. “Excellence and Values” are our guiding principles which are reflected in every activity of the Institute. I expect you to honour the values and standards of the Institute through your conduct as a student.

The mission at DUIET is to provide a safe, secure environment in which every student will acquire the skills and knowledge necessary to become an accomplished and productive member of the global community. The faculties are a very dedicated group of individuals who continue to focus on providing the best possible instruction for our students.

It is important for the students to be involved in the co-curricular activities such as sports, clubs, and community service for their greater academic achievement. It is expected that you venture beyond your “comfort zones” both inside and outside the classroom. Take maximum advantage of these facilities, participate fully and evolve yourself into a brand.

Entrepreneurial activities by the students are encouraged and promoted through the Institute Innovation Council (IIC). From the academic year 2022-2023, new minor courses are introduced as per AICTE Model Curriculum and in compliance with NEP 2020 and Industrie 4.0. These courses will give opportunities to the students to gain expertise in the most fascinating and fastest growing areas of advanced technology.

Once again, I welcome you all to the DUIET family of shared principles and values. Wish you a happy, healthy, and fruitful years ahead.

**Looking forward to welcoming you to the Institute.**



# COMPUTER SCIENCE AND ENGINEERING

## ABOUT THE DEPARTMENT

The Department of Computer Science & Engineering was started in August 2009 with AICTE recognition. The department has a team of six highly qualified, experienced, and dedicated faculty and two staff members to impart quality technical education. The department caters to the latest requirements and demands of the IT Industry and aims at providing a valuable workforce for the Indian Silicon Valley.

The department has high-speed broadband internet connectivity at all the labs which are necessary to complete the different practical ventures. The department has been facilitated under a voluminous library located at the Core building of DUIET, which caters to the needs of students, research scholars, and faculty.

## VISION

To build a strong research and teaching environment that responds swiftly to the challenging problems of the humanity.

## MISSION

- To provide sustainable state-of-art education and research in Computer Science and Engineering.
- To promote continuous industry-academic interface and national level collaborative ventures.
- To cultivate human and social values, entrepreneurship skills and professional ethics among the technocrats.

## MAIN COURSES OFFERED

- Data and File Structure.
- Computer Architecture & Organization.
- Object Oriented Programming.
- Formal Language and Automata Theory.
- Database Management Systems.
- Operating System.
- Computer Networks.
- Software Engineering.
- Artificial Intelligence.
- Compiler Design.
- Cloud Computing.
- Natural Language Processing.
- Neural Network and Deep Learning.
- Cryptography and Network Security.
- Internet of Things

## MAJOR LABORATORIES

### NETWORK LABORATORY

#### Tools and softwares

1. LAN Trainers
2. NETSyst
3. SecureIT
4. NS3, NS2, OMNET
5. WiCOMM-T
6. Data communication trainer

### INTERNET OF THINGS LABORATORY

Server with a 32 GB graphics card (Tesla T4) for Machine learning and Deep Learning work.

### ARTIFICIAL INTELLIGENCE AND ROBOTICS LABORATORY

1. Turtle Bot 2
2. Robotic Hand
3. Arduino Uno Learning kits
4. Raspberry Pi 3 learning kit
5. Microsoft Kinect Sensor
6. Wheeled and Legged Robotic Kits
7. Sensors and Actuators

## FACULTY MEMBERS

### Associate Professor & HOD

\*Dr. Nomi Baruah

### Assistant Professors

\*Dr. Moirangthem Tiken Singh

\*Dr. Sudipta Majumder

\*Mr. Kaushik Das

\*Dr. Rabinder Kumar Prasad

\*Dr. Abhijit Boruah

### Sr. Instructors

\*Mr. Luit Saikia

\*Ms. Bikokhita Dutta

### PROGRAMMING LABORATORIES (2 NOS)

#### Tools and softwares

1. GNU C/C++
2. VIM Editor
3. MySQL
4. PhP
5. Python

### IMAGE PROCESSING LABORATORY

#### Tools and softwares

1. Matrox Imaging Library
2. Matrox GatorEye

## JOB PROSPECTS

1. Software Developer
2. Web Developer
3. Data Scientist
4. Database Engineer
5. Network Security Engineer
6. Full Stack Developer
7. Mobile App. Developer
8. Computer Hardware Engineer
9. Video Game Developer
10. Computer Forensics Investigator



## RESEARCH PROJECTS

- CRS (Collaborative Research Scheme) Projects
- Project Name: A Study on Deterministic Model for HIV/AIDS through Stability Analysis and Approximate Analytical Method.  
Co-Principal Investigators: Dr. Sudipta Majumder
- Project Name: Efficient Execution of User Applications in Mobile Edge Computing Platform  
Co-Principal Investigators: Mr. Kaushik Das

## ACHIEVEMENTS

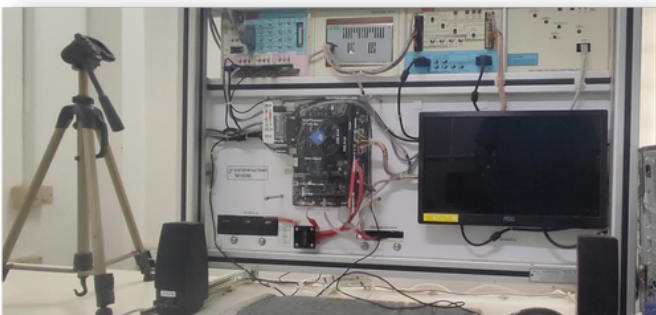
- Patent granted  
**Title:** A LiDAR point classification system for visualizing and processing LiDAR data and its method there of  
**Inventors:** Arpan Phukan, Pronam Phukan, Rohit Sinha, Shyamal Hazarika, Abhijit Boruah  
**Patent Office:** IP Australia
- Over 50 numbers of publications in Journals and Conferences by faculties and students.

### NEW COURSE OFFERED

**B.Tech in CSE with minor in Artificial Intelligence and Machine Learning**

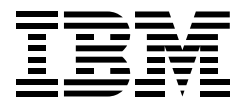
### RESEARCH DEGREE OFFERED

**PhD in Computer Science and Engineering**





## MAJOR RECRUITERS





# ELECTRONICS AND COMMUNICATION ENGINEERING

## ABOUT THE DEPARTMENT

Electronics and Communication Engineering (ECE) is a core department of DUIET established in 2009 with the aims of providing leadership in the field of ECE and pioneering interdisciplinary research. At DUIET ECE Department, continuous valuable efforts are put forth to provide the latest and state-of-the-art curriculum that finds applications in the industries. The department is equipped with advanced experimental labs that support technologies and platforms along with high-end computational facilities. The infrastructure and lab facilities are upgraded from time to time and provide adequate opportunities for students and researchers to learn and innovate. The department endeavours to arm the students to be industry-ready with comprehensive practical as well as theoretical knowledge as per NEP 2020 guidelines and Industrie 4.0 readiness requirements.

## VISION

To be a globally recognized centre of excellence in Electronics and Communication Engineering catering to the ever challenging industrial demand and emerging social needs.

## MISSION

- To be a centre for training human resources by creating adequate infrastructure and knowledge pool.
- To encourage creation of learning and teaching environment and to establish a strong industry-academia interface for meeting the emerging demands of the industry.
- To initiate and encourage product-oriented research for establishing a self-sustaining and wealth creating focal point to serve the society.
- To collaborate with reputed academic institutions and R&D laboratories for academic excellence and collaborative research.

## MAIN COURSE OFFERED

- Semiconductor Devices and Circuits
- Digital Circuit and Logic Design
- Microprocessor and Microcontroller
- Analog and Digital Communication
- Digital Signal Processing
- Computer Networks
- Object Oriented Programming
- Electrical Machines
- Satellite Communication
- Analog Integrated Circuit
- Control Systems
- Internet of Things
- Wireless Communication
- Speech & Audio Processing
- Image Processing
- Artificial Intelligence
- Pattern Recognition

## OFFERED OPEN ELECTIVE (NEW)

- Communication Technology and Sensors
- Military Electronics and System Engineering
- Optimization Techniques
- Robotics
- IC Technology
- Cyber Security
- Big Data Analytics
- Electric Vehicles
- Internet of Things (IOT)
- VLSI
- Machine Learning
- Deep Learning

### NEW COURSE OFFERED

**B.Tech in ECE with Minor in IoT and Data Science**

### RESEARCH DEGREE (BROAD AREAS)

**Doctoral Program (PhD)**

- **Electronics & Communication Engineering**
- **Information Theory**

## FACULTY MEMBERS

### Assistant Professors & HOD (i/c)

\*Dr. Bhargabjyoti Saikia

### Assistant Professors

\*Dr. Haraprasad Mondal

\*Mr. Gurumayum Robert Michael

\*Mr. N.K. Kaphungkui

\*Ms. Parismita Gogoi

\*Mr. Ningombam Hemarjit Singh

### Sr. Instructors

\*Ms. Madhumita Tamuli Phukan

\*Mr. Arijit Duwarah

## INFRASTRUCTURE

- Department of ECE spans over three floors.
- Adequate number of smart class rooms.
- Well-equipped and furnished AC labs.
- Well-furnished staff rooms.
- Excellent library facilities within the engineering campus.
- Well-equipped Seminar hall.
- Wi-Fi & LAN connectivity.

## ACHIEVEMENTS

- **Patent:** 6 Granted; 1 filed.
- Won Robot Design Competition, IEEE TENCON, Auckland, New Zealand in 2021.
- **Journal Papers: 74**
- **Conference Papers: 34**
- **Book Chapters: 15**

## HIGHER EDUCATION OPPORTUNITIES

- M.Tech (Electronics design, Communication Engineering, Nano Technology, Sensor technology, Optical communication system, VLSI design, Signal Processing, Bio-Electronics, Biomedical Instrumentation)
- M.S
- M.B.A
- Integrated PhD

## CAREER PROSPECTS

- Consumer electronics sector
- Telecommunication and IT industries
- Health care equipment manufacturing
- Government sector such as DRDO, ISRO, HAL, BEL, AAI, BSNL, AIR, Indian Army, Indian Navy, Indian Airforce etc.
- Semiconductor and chipset industries
- Software industries
- Automobile industries

## JOB PROSPECTS

- Electronics Engineer
- Network Planning Engineer
- System Control Engineer
- Field Test Engineer
- Wireless Security Engineer
- Wireless Architecture Engineer
- VLSI Engineer
- Electronics Design and Development Engineers
- Research and development software Engineer
- RF Engineer
- Electronic Test Engineer
- Consumer Support Engineer

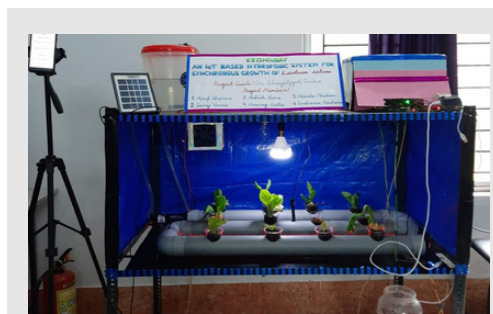
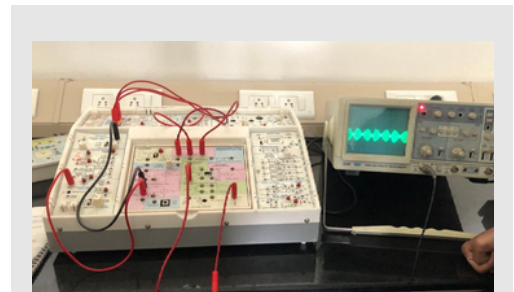
## MAJOR LABORATORIES

Major laboratories are Basic Electronics lab, Electronics Devices Laboratory, Digital Laboratory, Communication Laboratory, Microprocessor and Microcontroller Laboratory, Embedded lab, Microwave Engineering Laboratory, Optical Communication, PCB design lab, Control and Instrumentation laboratory.

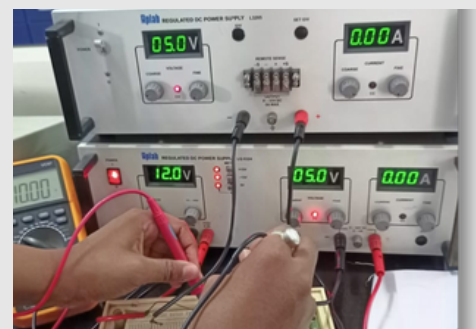
## TOOLS AND SOFTWARES

Optical power meter
Optical fibre transmission kit
VSWR meter
VLSI development platform with wireless communication
GSM trainer kit
DSP trainer kit
Advance Digital communication system trainer
Electrical and electronics system trainer
PCB prototype machine
NI DAQ trainer
Logic analyser
Spectrum Analyser
NI wireless sensor kit

Matlab
Scilab
NI Labview
TINA V10 for PCB design
NI MultiSim
NetSim
KeiL Software
Cadence EDA tool



Automated IoT based low cost hydroponic system



## MAJOR RECRUITERS



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**Oil India Limited**



# MECHANICAL ENGINEERING

## ABOUT THE DEPARTMENT

The Department of Mechanical Engineering was established in the year 2009 as a part of DUIET. It offers B.Tech programme in ME as well as minor course in Additive Manufacturing. It imparts quality education in order to enable the students to solve complex real life problems in different interdisciplinary domains. It has state-of-the-art laboratories and a central Engineering Workshop to provide hands-on-training in different domains of Mechanical Engineering. The department carries out research in the field of Thermal Science, Computational Fluid Dynamics, Renewable Energy etc. and also offers research programme leading to PhD in Mechanical Engineering.

## VISION

To be a centre of academic excellence in Mechanical Engineering space engaged in quality education and research producing highly skilled, ethical and socially sensitive technocrats.

## MISSION

- To establish an academic infrastructure that facilitates an excellent learning-teaching environment thereby empowering students to be globally competitive.
- To instill in its academia a research culture conducive to collaborative research with reputed academic Institutes and industries for innovation and technology incubation.
- To instill professional and environmental ethics in students thereby encouraging and empowering them to work for sustainable development so as to bring about a change in peoples' lives.

## MAIN COURSES OFFERED

- Applied Thermodynamics
- Electrical Technology
- Fluid Mechanics
- Material Science
- Machine Drawings
- Manufacturing Technology
- Solid Mechanics
- Dynamics of Machinery
- Mechanical Measurements and Instrumentation
- Heat and Mass Transfer
- Manufacturing Technology
- Industrial Engineering
- Mechanical Vibration
- Refrigeration and Air Conditioning
- Optimization Methods in Engineering
- Numerical Methods & Computation.
- Energy Management/ Computer Aided Design (CAD)
- Automobile Engineering
- Design of Transmission system
- Microprocessor in Automation
- Finite Element Analysis

## FACULTY MEMBERS

### Assistant Professors & HOD (i/c)

\*Dr. Madhurjya Saikia

### Assistant Professors

\*Dr. Pranjal Sarmah

\*Mr Partha Pratim Borthakur

\*Mr Rupam Deka

\*Dr. Dipankar Das

\*Mr. Amit Talukdar

\*Dr. Saroj Yadav

\*Ms Elora Baruah

\*Mr Keshab Bishwakarma

### Sr. Instructors

\*Mr. Bhairabjit Gogoi

\*Mr. Sidartha S. Sharma

## ELECTIVE

- Powerplant Engineering
- Non conventional Sources of Energy
- Computational Fluid Dynamics and Heat Transfer
- Advance Manufacturing Processes
- Quality engineering
- Convection and Mass Transfer

## NEW COURSE OFFERED

**B.Tech in ME with minor in Additive Manufacturing**

## RESEARCH DEGREE OFFERED

**PhD in Mechanical Engineering**

## JOB PROSPECTS

- Aerospace and Automotive Industries
- Armed Forces and the Ministry of Defence, e.g. Defence Engineering and Science Group (DESG)
- Construction and building services
- Energy utilities, including nuclear
- Engineering consultancies
- Government agencies
- Manufacturing industries
- Biomedical Engineering
- Oil and gas industries, including petrochemical industries
- Process industries, including pharmaceuticals, food and cosmetics
- The public sector, including the Civil Service, local authorities, hospitals and educational institutions
- Research establishments, both academic and commercial
- Sports Engineering
- Transport, including road and railways

## MAJOR LABORATORIES

- Engineering Mechanics Laboratory
- Basic Thermodynamics Laboratory
- Fluid Mechanics Laboratory
- Heat Transfer Laboratory
- Dynamics of Machinery Laboratory
- Strength of Materials Laboratory
- Metrology Laboratory
- Hydraulic Machinery Laboratory
- Applied Thermodynamics Laboratory
- Computational Lab



## ACHIEVEMENTS AND RECOGNITIONS

- "A Multipurpose Utility Vehicle For Loading And Offloading Materials Such As Litter , Building Material And The Like", is invented by Abinash Sarmah, Chandan Lahkar, Doop Singh, Prajnyan Ballav Goswami, Prantrishna Neog and Samiron Neog. The project was guided by Mr. Rupam Deka and was officially patented by The Govt. of India.
- Entrepreneurial achievement: "Sugaree - A Food Delivery Service" is a great food order & delivery application started by Sandeep Raj Tamuli , who is an alumnus of the Department of Mechanical Engineering, DUIET. He launched this app in various parts of Assam and is currently achieving great heights in the field of entrepreneurship.
- **Publications:** Over 60 numbers of publications in Journals and Conferences by faculties and students.
- **Patents:** 2 granted and 1 filed.



## MAJOR RECRUITERS



**Brahmaputra Cracker  
and Polymer Limited**

**Infosys**



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**Oil India Limited**



**DreamGains**



# PETROLEUM ENGINEERING

## ABOUT THE DEPARTMENT

The PE Department came into existence in 2009 by realizing the need for developing human resource and technocrats as the natural petroleum resources are in abundant in this area of our country. This is the first undergraduate course in the North-East India which aims to produce technocrats having in-depth knowledge on examining the geology of formation, locating the natural resources, reservoirs and extraction of the same upto surface using drilling technology. SPE and FIPL Students Chapter, Dibrugarh University provide platform for budding students to interact with Industry expert as well as showcase their knowledge and project work.

Sister departments of the Dibrugarh University offering M. Tech & M.Sc. Degree programmes in Petroleum Technology and Applied Geology extend all kinds of co-operation in the smooth running of this department of DUIET. Senior faculties of these departments render their services in training our students.

## VISION

To be a place of globally recognized center of academic excellence in Petroleum Engineering and Technology.

## MISSION

- To impart quality technical education, encourage research and development through state-of-the-art facilities and excellence in learning-teaching environment.
- To provide a platform for developing employability and entrepreneurship, fostering leadership qualities, professional ethics, co-curricular activities and societal commitments.
- To create a conducive ambiance to mold quality human resource for the petroleum industry through upgrading knowledge and skills.

## MAIN COURSES OFFERED

- Drilling Engineering
- Production Engineering
- Reservoir Engineering
- Geology of Petroleum
- Petroleum Exploration
- Chemistry of Petroleum & Petroleum Refining
- Petrochemicals
- Principles and Methods of Surveying
- Petroleum Formation Evaluation
- Health, Safety, Security and Environment in Petroleum Industry
- Offshore Operations
- Natural Gas Engineering
- Enhanced Oil Recovery/IOR
- Coal Bed Methane & Shale Gas
- Natural Gas Hydrates and CNG&LNG
- Well Servicing and Work over
- Pipeline Engineering
- **Artificial Intelligence and Machine Learning in Oil and Gas Industry (Newly introduced course)**

## MAJOR LABORATORIES

- Drilling Fluid Laboratory
- Production Engineering Laboratory
- Reservoir Engineering Laboratory
- Geology of Petroleum Laboratory
- Chemistry of Petroleum Laboratory
- Petroleum Product Testing Laboratory



## FACULTY MEMBERS

### Associate Professor & HOD

\*Dr. Prasenjit Talukdar

### Assistant Professors

\*Dr. Nayan Medhi

\*Dr. Chayanika Borah

\*Mr. Prasun Banik

\*Dr. Bondita Robidas

\*Dr. Bhaskarjyoti Saikia

### Sr. Instructor

\*Mr. Sen Weing Gohain

\*Mr. Debojit Gogoi

## RESEARCH DEGREE OFFERED

PhD in Petroleum Engineering

## ACHIEVEMENTS

- Department encourages students to do their project work on Machine Learning (ML) and Artificial Intelligence (AI). In effort of the faculty members of the dept., students have presented their work on ML & AI at NERC, 2022, IIT, Guwahati and at Oil & Gas Workshop, 2019, Dibrugarh University.

- **Glimpses of Gate Performance**

Year	All India Rank (AIR) of the students
2022	AIR-23
2021	AIR-18, AIR-21, AIR-386
2020	AIR-19, AIR-56
2019	AIR-19, AIR-78

- Manna Mukherjee, a final year student presented a poster at **NERC 2022, IITG** on the topic "Development of Directional Drilling Well Profile Design app using Python".
- Jahnavee Bharadwaj, a final year student awarded 2nd best presenter in **National Conference on Water Management** with special emphasis on risk management on the topic "Digital Oilfield and Integrated Operations in Oil and Gas Industry: A critical review" organized on May 5 - 6, 2022 by the Department of Petroleum Technology, Dibrugarh University and DST-SERB Govt. of India.
- Surajeet Bhattacharjee, a final year student has been selected for **MS in Petroleum Engineering in Skolkovo Institute of Science and Technology (Skoltech), Moscow, Russia.**
- **Federation of Indian Petroleum Industry (FIPI)** organized 11th annual convention on 31st march 2022 at Ranghar, Dibrugarh University, for the first time in the North-East.
- **Society of Petroleum Engineers (SPE) Dibrugarh University Students Chapter** have been conferred Student Chapter Excellence Award on 2022.

## JOB PROSPECTS

- Oil and gas industries, including plant industries
  - Reservoir Engineer
  - Production and Workover Engineer
  - Drilling Engineer
- Petroleum Geologist and Geophysicist, Logging Engineer
- Fire and safety
- Energy utilities and economics
- Government agencies such as DGH
- Engineering and design consultancies
- Service industries associated with petroleum upstream, midstream and downstream
- PSUs, Civil Services, Banks
- Educational institutions
  - IIT, NIT, PDP, UPES etc.
- Research establishments, both academic and commercial

## MAJOR RECRUITERS



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**Oil India Limited**



**Weatherford**<sup>®</sup>



**HALLIBURTON**



**UDIPTA DRILLING FLUIDS CORPORATION**



**YOUR PERFECT BANKING PARTNER**



# BASIC SCIENCE AND HUMANITIES

## ABOUT THE DEPARTMENT

The Department was established in 2009 since the inception of the Institute and is committed towards moulding of promising engineers with the basic knowledge of Physics, Chemistry, Mathematics and English (communication skills). It aims to create an environment for academics and research with societal concern. The syllabus of all the courses under the domain of this department is followed in accordance with AICTE model syllabus for the Engineering students. The department of Physics, Chemistry and English have full-fledged laboratories for B.Tech programme.

## VISION

“Our vision is to be a department of global relevance by creating socially concerned high quality technocrats with strong foundations in Physics, Chemistry, Mathematics and Communications skills.

## MISSION

- To mould promising engineers with the basic knowledge of Physics, Chemistry, Mathematics and Communication skills.
- To develop innovative skills for practicing Science and Technology in day-to-day life.
- To explore innovative ideas in contributing to the advancement of Science and Technology.
- To create a thrust for research with social concern by applying fundamentals of Basic Science and Humanities in real time situations.

## MAJOR LABORATORIES



## COURSE CURRICULUM

### 1. Mathematics

- Mathematics-I (Calculus, sequence and series, multivariable calculus and matrices)
- Mathematics-II (Ordinary differential equations of first and higher order, basic probability, continuous probability distributions and bivariate distributions, applied Statistics)
- Mathematics-III (Partial differential equations, complex variables and transform calculus)
- Discrete Mathematics
- Probability and Stochastic Processes
- Numerical Methods
- Applied Linear Algebra

### 2. Chemistry

- Chemistry-I
- Chemistry of Petroleum

### 3. Physics

- Introduction to Electromagnetic Theory
- Semiconductor physics

### 4. English

- Business Communication and Professional Skills.
- Technical English.
- Corporate Communication and Soft Skills Development.
- Language laboratory for the development of LSRW skills and professional excellence in soft skills development.
- Job etiquette and Management.
- Engineering Ethics.

## RESEARCH AREAS

### 1. Mathematics

Numerical Analysis  
Fluid Dynamics  
Graph Theory

### 2. Chemistry

Green Energy  
Corrosion Studies

### 3. Physics

Material science  
Lasers and Photonics  
Space Physics  
Astro and Plasma Physics

### Major Laboratories

- Engineering Physics laboratory
- Engineering Chemistry laboratory
- Chemistry of Petroleum Laboratory
- Language Laboratory

## FACULTY MEMBERS

### Assistant Professors & i/c Basic Science and Humanities

\*Dr. Gitalee Sharma (Chemistry)

### Assistant Professors

\*Dr. Barnali Sharma (Mathematics)

\*Dr. Niranjana Bora (Mathematics)

\*Dr. Purabi Gogoi (Physics)

\*Dr. Barsha Dutta Kakoty (Physics)

\*Ms. Dermee Pegu (English)

### LAB DEMONSTRATOR

\*Ms. Dolly Handique (Chemistry)

\*Ms. Jyotimoni Bora (Physics)

### LAB HELPER

\*Ms. Bidisha Gogoi (Chemistry)

\*Mr. Bhargav Gogoi (Physics)

### OFFICE ASSISTANT

\*Manjeet Sonowal



AICTE mandate 21 days Induction Programme for newly admitted 1st year students





# ENGINEERING WORKSHOP

## ABOUT THE DUIET WORKSHOP

The Engineering Workshop is an integral part of the B.Tech programme which enables all students of DUIET to undergo the hands-on training which gives the exposure to the practical domain.

The Engineering workshop is well equipped with the latest state-of-the-art machinery. A few of them are listed below:

- Automatic Lathe Machine
- Universal Milling Machine
- Arc Welding Machine
- Shaper Machine
- TIG Welding
- Hydraulic Drilling Machine
- CNC Lath
- MIG Welding Machine
- Hydraulic Saw

### Workshop Superintendent

\*Mr. Pankaj Konwar

### Technical Staff

\*Mr. Mintu Bora, Jr. Instructor

\*Mr. Pradip Kumar Sharma, Jr. Instructor



## ELIGIBILITY CRITERIA

**Eligibility Criteria for candidates seeking admission to the First Semester B. Tech. Programme shall have to fulfill the following norms:**

1. Candidates should have passed 10+2 examination with - Physics, Chemistry, and Mathematics except Computer Science and Engineering and Electronics and Communication Engineering for which Chemistry is not mandatory as per AICTE Approval Process Handbook (APH) 2023-2024.

-Candidates must obtain at least 45% marks (40% marks in case of candidates belonging to a reserved category) in the above subjects.

OR

Passed D.Voc.in the same stream or allied sector.

(The Universities will offer suitable bridge courses such as Mathematics, Physics, Engineering drawing, etc., for the students coming from diverse backgrounds to prepare Level playing field and desired learning outcomes of the program)

2. Must have CEE Assam-2023 (Engineering) or JEE-2023 (Mains) score.

3. The candidate must be a citizen of India with a permanent resident certificate of Assam [Not applicable for candidates of JEE-2023 (Mains)].

4. Candidates from abroad shall have to fulfill the requisite conditions prescribed by the Govt. of India.

5. The candidate must not be above 21 years or below 17 years of age on 1st August 2023.

6. There shall be a relaxation of 03 (three) years in the upper age limit for SC/ST candidates.

However, the maximum age limit for B.Sc. passed students is 22 years.

7. The Candidate must possess a good moral character.

8. The Candidate must be physically and mentally fit.

9. The student will have to produce the Citizenship Certificate at the time of admission. Students from abroad shall have to fulfill the requisite conditions as prescribed by the Govt. of India.

## Lateral Entry to 3rd Semester B. Tech program

**The Eligibility Criteria for Lateral Entry to the 3rd Semester B. Tech. programme shall be as follows:**

1. Passed minimum THREE years (Lateral Entry) Diploma examination with at least 45% marks (40% marks in case of candidates belonging to reserved category) in ANY branch of Engineering and Technology recognized by AICTE.

OR

Passed B.Sc. Degree from a UGC recognized University with at least 45% marks (40% marks in case of candidates belonging to reserved category) and passed 10+2 examination with Mathematics as a subject.

2. The candidates must be physically fit and have good moral character.

3. The student will have to produce the Citizenship Certificate at the time of admission. Students from abroad shall have to fulfill the requisite conditions as prescribed by the Govt. of India.

## BREAK-UP OF THE INTAKE CAPACITY FOR ADMISSION TO THE FIRST SEMESTER

The intake capacity for admission at First Semester level to any branch of study of B.Tech. Programmes is divided as follows:

1. 25% of the total intake in each programme will be admitted from the JEE-2023 (Mains) qualified candidates. Preference will be given to the candidates having higher JEE percentile.
2. 75% of the total intake in each programme will be admitted from the CEE-2023 (Engineering) qualified candidates. Preference will be given to the candidates having higher CEE score.
3. Once admitted, through JEE category, candidates will not be eligible for taking admission through CEE category and vice versa.
4. In case of any tie in JEE/CEE candidates, the following order of conditions will be applied for breaking the tie:
  - i. JEE/CEE ranking
  - ii. Average mark of any three subjects among the 14 subjects
  - iii. Total marks obtained in 12th class or equivalent.
  - iv. Date of Birth

**Note: vacant seats remaining in category (1) will be converted to category (2) and vice-versa.**

Statutory Reservation Policy of the Dibrugarh University as well as the Govt. shall be followed in admission to the First Semester curriculum of each branch individually. Once a candidate from any of the reserved category takes admission in general category, he/she will forfeit the eligibility for considering him/her in the reserved category. Similarly, if the candidate takes admission in the reserved category he/ she will not be allowed to take admission in general category afterwards. This is applicable even in the case of withdrawal of admission against reserved/ general category.

**The following table shows the category-wise break-up of seats in various First semester programme**

SL.NO	PROGRAMME	TOTAL	FOR CEE 2022 QUALIFIED CANDIDATE(75%)						FOR JEE 2022 QUALIFIED CANDIDATE(25%)					
			SC	ST(P)	ST(H)	OBC/MOBC(NCL)	GENERAL	ENDOWMENT	SC	ST(P)	ST(H)	OBC/MOBC(NCL)	GENERAL	ENDOWMENT
1	CSE	60	3	5	2	7	24	4	1	2	1	2	7	2
2	ECE	60	3	5	2	7	24	4	1	2	1	2	7	2
3	ME	60	3	5	2	7	24	4	1	2	1	2	7	2
4	PE	50	3	4	2	6	19	4	1	1	1	2	6	1

**Note:** Seats under EWS are to be filled as per norms of DTE i.e 10% of the total seats.

## ADMISSION PROCEDURE

Students seeking admission to First Semester of any B. Tech. Programme at Dibrugarh University Institute of Engineering & Technology must fill in the online Application Form and deposit the requisite fee accordingly. The hard copy of the computer generated application form should be saved by the applicant for future reference. Any student who wishes to apply through CEE-2023 as well as JEE-2023 qualified category could apply in a single application, but shall have to mention the authentic scores of both entrance examinations in the specific columns.

*Applications without a copy of the paid bank challan of the requisite amount will be summarily rejected.*

## COUNSELLING & ADMISSION

*“In the event of any dispute/controversy, the decision of the admission committee will be final and binding”*

The counseling cum admission dates, cut-off marks and URL(link) will be notified accordingly in the Dibrugarh University website(www.dibru.ac.in) as well as in the local newspapers.

## ALLOTMENT OF BRANCH

Subject to the availability of seats, a candidate selected for admission will be offered a branch of his/her choice on the basis of CEE -2023/JEE-2023 (Mains) scores

## FEE STRUCTURE

Semester	Admission Fee	Course Fee	Total Fee
1st Semester	10,745/-	50,000/-	60,745/-
2nd Semester	Nil	50,000/-	50,000/-
3rd Semester	10,745/-	50,000/-	60,745/-
4th Semester	Nil	40,000/-	40,000/-
5th Semester	10,745/-	40,000/-	50,745/-
6th Semester	Nil	40,000/-	40,000/-
7th Semester	10,743/-	40,000/-	50,745/-
8th Semester	Nil	40,000/-	40,000/-

## ADMISSION WITHDRAWAL & REFUND OF FEES

If a student already admitted to the B.Tech programme in DUIET desires to withdraw from the programme, he/she must immediately inform the Director, DUIET through an e-mail at **duiet.btech@gmail.com** and must formally apply for seat withdrawal in writing.

1. A student getting admission in the first counseling should inform the Director DUIET about his withdrawal of seat through e-mail or in writing before the second counseling date.
2. A student getting admission in the second counseling should inform the Director DUIET his withdrawal of seat through e-mail or in writing before the commencement of classes.
3. Refund of Fees will be made to eligible students after deduction of necessary withdrawal fee.
4. A student withdrawing his/her seat within 14 days of commencement of classes shall be eligible for refund of fee subjected to the fact that the seat vacated by him/her is filled up by any student from the waiting list. However, refund of fee to such student shall be made after deduction of proportionate tuition fees.
5. Under no circumstances fee shall be refunded to any student whose vacated seats remain vacant or could not be filled-up.
6. The University shall entertain no application for refund after 14 days of commencement of class under any circumstances.



**For regular updates regarding admission, kindly visit the  
Dibrugarh University website (<https://dibru.ac.in/>)**

## STUDENT ACTIVITIES



**VARSIITY WEEK OF DIBRUAGR H UNIVERSITY**



**TECHNO-CULTURAL FESTIVAL OF DUIET "AUXESIS"**

## OTHER FACILITIES

### SPORTS

The Dibrugarh University Sports Board look after the Sports and Cultural activities of the students of the University and the affiliated colleges by regularly organizing Annual Sports Meet, Tournaments, and Cultural Meet. The University at times send teams to various Inter Varsity Tournaments. The University has a developed Sports Ground, Volleyball Court, Indoor Stadium, Gymnasium, etc. with the necessary infrastructure for promotion of games and sports. Moreover, some of the hostels of the University also have their own multi-gym facilities.



### STUDENT'S COUNSELLING & GUIDANCE CELL

There are Students' Counseling and Guidance Cells for the benefit of students both at the departmental and central level. Students may approach the cells for counseling regarding academic, personal and career matters. There is also a Student Advisory Committee for the benefit of students.



### EDUCATIONAL LOAN

The Institute extends guidance and support facility to the student in availing educational loan from banks.



### INTERNET CENTRE

There is a Central Internet facility in the University, which is located in the LNB Library. Students can use this facility at a nominal charge. Besides, all departments including Dibrugarh University Institute of Engineering & Technology have separate internet connectivity all over the campus.

## **HOSTEL FACILITIES**

Being a constituent Institute of the Dibrugarh University, the student of Dibrugarh University Institute of Engineering & Technology avail the University hostel accommodation facilities. At present a large number of the students (both male and female) are staying in two professional hostels of the Dibrugarh University. Two more hostels has been constructed recently for the students of Dibrugarh University Institute of Engineering & Technology exclusively which, accommodates about 260 engineering students (boys). These two hostel buildings are in use since 2013.

## **MEDICAL FACILITIES**

The University has a well-equipped 10 bedded Health Centre providing quality health care facilities to the entire University community. In a medical emergency, students can avail the 24 hr. Ambulance Service to carry them to the nearby Assam Medical College & Hospital or elsewhere as and when necessary. There is also a compulsory Health Insurance facility for all the students.

## **AUDITORIUM**

'Rang-Ghar', the auditorium of the Dibrugarh University is well equipped with sophisticated light and sound system and has a capacity of 1,200 seats. Major cultural and other academic programs are organized here. Furthermore, Dibrugarh University Institute of Engineering & Technology's Core Building Complex has an open air theatre which accommodates around 600 students.

## **CAFETERIA & CANTEEN**

The University has three canteens and one cafeteria for the benefit of students, faculty members, officers and employees. Dibrugarh University Institute of Engineering & Technology Cafeteria is housed in a recently constructed modern double storied building and is located within the Institute's campus offering hygienic food and delicious food to the staff & students.

## **GRIEVANCE REDRESSAL CELL (GRC)**

The GRC is a forum where grievances of all the students, teachers, officers and employees of the Dibrugarh University are accepted and steps are taken to address and solve those grievances. The Vice-Chancellor, Dibrugarh University is the Appellate Authority of the GRC.



## STUDENTS' FEEDBACK



My time in Dept. of CSE DUIET has definitely made a huge impact on my life and myself as a person. I was blessed to be part of an aspiring group of people and mentored by very talented faculties and seniors to achieve my goals. We all face through problems in life but what I learned in last 4 years from this institute is that if you work hard and keep believing in yourself you can always achieve anything. Thanks to department for providing me with the platform and resources to work for my goals.

**Hillol Upamanyu, Wipro(CSE)**



My name is Force Lugembe Ndege, a former international student from Dibrugarh University and a current postgraduate student at Istanbul Technical University in Istanbul, Turkey. Thanks to the teachers at Dibrugarh University Institute of Engineering and Technology for their relentless effort on ensuring a quality education that is internationally recognized is availed by the students. It was really a great privilege for me to learn under their tutorage. As an international student at Istanbul Technical University, I carry the spirit of DUIET and I serve as an ambassador for Dibrugarh University

**Force Lugembe Ndege (PE)**

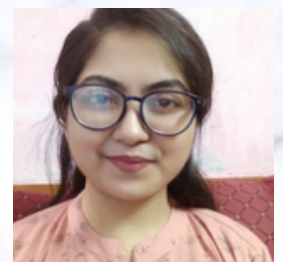
The 4 years of my B.Tech life that I spent here in DUIET as a student of CSE will always remain a memorable journey for me. The faculties and staff here at the Dept. of Computer Science and Engineering, DUIET are very accommodating and helpful and made us feel at home, helped us tremendously. I was blessed with talented seniors who guided us throughout and a network of alumni who will always be there for us no matter where we are. I will forever treasure the time I spent here and will always be grateful for the opportunities provided to enhance my skills and gain confidence for my future endeavours.

**Shatabdi Kaushik, Wipro(CSE)**



I would like to thank all my faculty members, friends and everyone else who has always been there by my side and it was a pleasure getting to know all of them. And I also believe we should keep putting efforts and never give up. In between those small failures and success, life happens!

**Mousumi Sutradhar, Mphasis (ECE)**



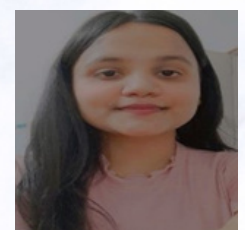
I want to extend my gratitude to the teaching fraternity of DUIET who were very helpful. They guided me throughout my learning period and supported me in each step. I would also like to convey my regards to my friends, my seniors and juniors for sticking with me through thick and thin. This journey has been a wonderful one.

**Suchismita Bhattacharya, Cognizant (ME)**



My journey to this goal was long ,with countless challenges and obstacles, but its finally coming to fruition. My focus was to get a job along with my B.Tech degree and Thankfully I got placed in INFOSYS. I am thankful to the institute and all the faculty members for continuous support and efforts and also for inspiring me throughout my journey.

**Shimli Halder, Infosys (ECE)**





My experience in DUIET was one of maturing and learning to handle problems as they came along and to keep my focus on that, which would be expected from a prospective Engineer. I am thankful to the institute and all the faculty members for their continuous efforts and support that has paid off finally. I would also like to thank our respected seniors for their guidance and excellent juniors for their love.

**Bishal Gupta, Cognizant (ECE)**



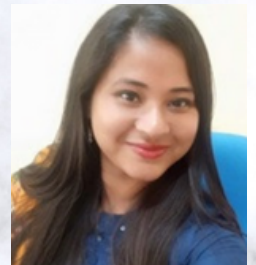
4 years of Btech taught me more than just engineering. After completing my 12th, I was sure enough I wanted to pursue Engineering in Mechanical, but wasn't sure if I could do it. I couldn't have done it without the support and guidance of my professors, seniors and friends. I received enormous help from my teachers in every aspect of life, may it be in class while solving a problem or while preparing for interview. I also received enormous help in carrying out my projects and made me love my subjects more.

Also, Seniors and batchmates were also there to help me throughout to make my DUIET journey wonderful.

**Priyakhi Medhi, OIL INDIA LIMITED(M.E)**

DUIET provided me the base to a better future. It was a privilege to be a part of this temple of learning where faculties are the strong pillars who held the roots and helped to enhance the technical mind to survive in the up surging corporate world.

**Ms Dimpy Chetia, OIL (PE)**



I choose to be a Mechanical Engineer because since School life I have been interested in machinery and my parents also wanted me to be a Mechanical Engineer.

I joined DUIET on 18th July 2018. In the beginning, most of us were shy and not that frank, but with the help of the induction program, the shyness diminished slowly. Also, it helped me a lot to adjust with a new environment. I am very grateful to all the faculty members because they have always helped me a lot. They always make the subjects easy for me when I was in doubt with my studies. They were always supportive and hard-working. They helped a lot during my OIL India placement, and because of their hard efforts right now I am successful. So Once again Thank You To all my professors.

**Debasish Das, Oil India, (M.E)**



The staff of the Petroleum Engineering Department are supportive. The aura of the college provides an excellent reading space. The faculty is friendly and ready to assist you in issues that you might hover initially. The laboratory facilities are quite good and the instructors are available to teach you regarding the uses of the equipments.

**Manna Mukherjee, ONGC, (PE)**



“B.Tech CSE in DUIET!” the best decision I have ever made in my life, which indeed helped me grow intellectually and also in person. We all have qualities that require building up and thanks to my faculties who nurtured me and helped me build all those qualities to be future ready. I am thankful to the department for providing me all the opportunities where I could put use to those qualities and go ahead in life. I will always be grateful for being a part of such a prestigious department.

**Dhruvanshu Prabal Goswami, Capegimini(CSE)**

