



Department of Energy

School of Engineering, Tezpur University

Tezpur, Assam, India



Placement Brochure 2012

SPECIALIZED KNOWLEDGE

PROMOTES

CREATIVITY

कल्पना



Contents

From the Vice-Chancellor	Page 1
From the HOD's Desk	Page 2
A Brief Introduction	Page 3
Laboratory Facilities	Page 4
Department of Energy at a Glance	Page 5
M.Tech. Program in Energy Technology	Page 6
Students' Profiles	Page 7
Activities Gallery	Page 9
Our Alumni	Page 11
Placement Procedure & Facilities for Recruiters	Page 12
How to Reach Tezpur University	Page 13
The University at a Glance	Page 13
Contact Us	Page 14

*From
The Vice-Chancellor*

Best of Luck.

*I am pleased to note that the students of M.Tech., Energy Technology of our University are bringing out a “**Placement Brochure**” for the Department. I understand the students wish to showcase their academic and extra-curricular profiles through this document to the prospective employers and others. I am sure the brochure will highlight the Department’s equipment and related sophisticated facilities along with some information on the research activities. Any affirmative contribution to the domain of “Renewable – Green and Sustainable” Energy is the order of the day!*

I wish the 2010-12 batch of M.Tech. Energy Technology students a grand success and a bright career ahead.



Mihir K. Chaudhuri

15 March 12

Professor Mihir K. Chaudhuri
Ph.D., Dr.rer.nat., FASc, FNA
Vice-Chancellor
Tezpur University

From the HOD's desk...

It is with pleasure that I introduce our graduating students of 2012.

Ever since its establishment in 1996, the Department of Energy at Tezpur University has been striving to make its students technically robust and rationally cognizant through well researched practical strategy. As a result, the Department at Tezpur University has now been able to make its presence felt in the industry and academic spheres in the country as well as abroad. The visible presence of our alumni in various highly reputed industries and academic institutions bears testimony to this fact.

The Department is committed to equip its students with analytical skills, making them resourceful and inculcating leadership. It has always been at the forefront in upgrading the course structure and the research labs with changing trends and paradigm shifts.

The research labs of the Department are equipped with the latest instruments which are made available to the students to foster their plans for research. It is led by a team of committed faculty from various disciplines with a wealth of experience in both research and industry. The students are exposed to well-defined academic programs along with a host of sports, cultural and organizational activities on the beautiful and pristine campus of Tezpur University.

On behalf of the Department, I take great pleasure in inviting you to participate in the placement process at the campus. With your continued support, we look forward to a bright future of the students.



D C Baruah
Professor and Head
Department of Energy
Tezpur University

A Brief Introduction ...



Tezpur University

Tezpur University was established in 1994, by an Act of Parliament. The main objective of this Central University is to offer employment oriented and interdisciplinary courses to meet the regional, national and global aspirations.



Department

The Department of Energy was started in 1996, with an aim to produce manpower pool in the field of energy, develop new and efficient energy technologies, R & D and extension activities in diverse areas of energy. The Department offers AICTE approved M. Tech. programme in Energy Technology and PhD in energy related areas. The thrust areas of research are Biomass energy, Solar energy, Hydro energy, Energy-Environment interaction and Energy Conservation and Management.

Faculty

The Department is endowed with young, vibrant and dynamic faculty members who are well qualified to impart quality education and are also involved in prominent R&D projects sponsored by The Department of Science and Technology (DST), All India Council for Technical Education (AICTE), University Grants Commission (UGC) , Ministry of New and Renewable Energy (MNRE). They also run consultancy projects for Government, PSU as well as well known private organizations. The Department is also visited by renowned experts from universities and industries all over India and abroad.

Students

The postgraduate students have built a vibrant and creative atmosphere in which both theoretical and experimental activities can flourish.



Students are provided in-depth and hands-on training in various specialized equipment, such as...

BIOMASS GASIFICATION SYSTEM FOR THERMAL ENERGY APPLICATIONS (10 kW)

BIOMASS GASIFICATION SYSTEM FOR ELECTRICITY GENERATION (5 kW)

BIODIESEL PRODUCTION PILOT PLANT AND CHARACTERIZATION FACILITIES

LABORATORY SCALE PYROLYSER

DISTILLATION AT REDUCED PRESSURE APPARATUS

BRIQUETTING MACHINE

1 kW PV POWER PLANT (WITH BATTERY BANK)

FIBERTECH APPARATUS

ULTRASONICATOR

UV-VISIBLE SPECTROPHOTOMETER

TOC ANALYSER (CHN ANALYSER)

SOLAR THERMAL COLLECTORS INCLUDING TEST SET-UP

SOLAR CROP DRYERS

DIGITAL POWER ANALYSER

AUTOMATIC WEATHER STATION

EXHAUST GAS ANALYZER

WIND ELECTRIC GENERATOR

IC ENGINE TEST RIGS FOR ENGINE PERFORMANCE TESTING (COMPUTERIZED DIESEL ENGINE , DUAL-FUEL ENGINE)

LOAD BANK FOR PERFORMANCE TESTING OF HONDA GEN-SET COUPLED TO 5 kW BIOMASS GASIFICATION SYSTEM

TEMPERATURE SENSING SYSTEM WITH EIGHT CHANNEL PROBE

HYDRO-ELECTRICITY POWER PLANT WITH PERFORMANCE TEST FACILITIES

Department of Energy at a glance...



Students working in
Solar and Energy Materials Lab



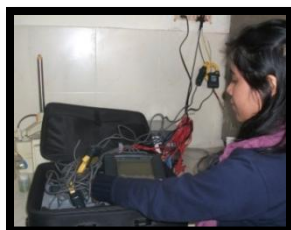
Material for catalyst preparation
at Biomass Lab



A transesterification experiment in
progress at Biodiesel Plant



Students working in Energy Conservation Lab



10 kW Biomass Gasifier



Students working in
Bio-fuel Laboratory



Automatic Weather Station



Micro-Hydel Power Plant



Performance testing of C.I. engine at
Computerized Diesel Engine Test Rig

More photos can be found on the following
URL : <http://www.tezu.ernet.in/dener/>

M.Tech. Program in Energy Technology

Admission Process

Through **GATE** (Graduate Aptitude Test in Engineering) and **TUEE** (Tezpur University Entrance Examination) conducted all over India

Eligibility

B.E/B. Tech./AMIE in Mechanical /Electrical /Electronics /Instrumentation/Chemical/ Agricultural Engineering/ Energy Engineering or M. Sc. in Physics and Chemistry with a minimum of 50% marks in aggregate.

Program

This is a 4-semester program.
The first two semesters involve course work and the last two deal with working on a research problem.

First Semester

Core Courses

Fuel Technology
Biomass Energy
Solar Energy Utilization
Heat Transfer
Non-Conventional Energy Sources
Numerical Methods and Computational Techniques
Energy Lab – I

Credit Requirement

1 st Semester	20
2 nd Semester	20
3 rd Semester	08
4 th Semester	16

Total Credits
64

Elective Courses

Advanced Bio-energy,
Advanced Solar Thermal
Energy, Solar
Photovoltaic Energy,
Petroleum Refining,
Petroleum Exploration,
Drilling & Production,
Wind Energy Utilization,
Hydrogen Energy & Fuel
Cell, Energy, Climate
Change & Carbon Trade

Second Semester

Core Courses

Power Plant Engineering
Energy, Ecology and Environment
Energy Management and Auditing
Energy Economics and Planning
Elective – I
Elective – II
Energy Lab – II

The curriculum has a right balance of **theory** & **experiment** - covering courses on **renewable** and **traditional sources of energy**.

Third & Fourth Semesters

The students undergo **Major project (Part I)** and **Major project (Part II)** in these two semesters (Exclusive and exhaustive research).

Need based research collaborations are also undertaken for project works with outside laboratories such as Indian Institute of Technology, Guwahati, Indian Institute of Technology, Bombay, National Chemical Laboratories, Pune, National Productivity Council, Guwahati, The Energy and Resources Institute, New Delhi, TUV-Rheinland, Pune, Indian Institute of Petroleum, Dehradun, National Physical Laboratories, Delhi, Jadavpur University, Ministry of New and Renewable Energy, GOI etc.

Save Energy
Reduce your Carbon Footprint



Students' Profiles

21 eligible post graduates, currently in their fourth semester, raring to go and make their mark

**ANTARA BRAHMA**

B.E. (Electrical Engg.)

Areas of Interest : Biomass Energy, Energy and Environment

Email : antara_156@yahoo.com

**ARUN JYOTI NATH**

B.E. (Mechanical Engg.)

Areas of Interest : Biomass Gasification, Fluid Mechanics, Heat Transfer, I.C. Engines.

Email : arunjec4@gmail.com

**ASHISH KUMAR SINGH**

M.Sc. (Physics)

Areas of Interest : Solar Cell, Solar Thermal Applications

Email : ashishddu@gmail.com

**BHASKARJYOTI MEDHI**

B.E. (Chemical Engg.)

Areas of Interest : Experimental & Computational Fluid Dynamics, Rheology, Hydro energy

Email : m.bhaskarjyoti@gmail.com

**BIBHA BORO**

B.E. (Electrical Engg.)

Areas of Interest : Solar Energy Utilization and Application, Biomass Energy, Clean Development Management, Hydrogen and Fuel Cell

Email : bibbhaboro@indiatimes.com

**BIKASH KUMAR SAHU**

B.Tech. (Electrical Engg.)

Areas of Interest : Solar PV system, Wind Energy, Hybrid System, Electrical Power Systems

Email : bikashkumar.sahu@gmail.com

**BISWAJIT GOGOI**

B.Tech. (Mechanical Engg.)

Areas of Interest : Heat and mass transfer, IC engines, Thermodynamics, Power Plant Engineering, Biomass cook stoves and Fuel cell

Email : gogoi.bj.69@gmail.com

**CHANDAN DAS**

M.Sc. (Chemical Sciences)

Areas of Interest : Synthesis of Catalysts and Hydrogen production, Photocatalysis

Email : chandan_d@ymail.com

**DEEPIYOTI BARMAN**

B.E. (Mechanical Engg.)

Areas of Interest : Energy Efficiency, Management, and Audit

Email : rupdeep.2008@rediffmail.com

**DEEPIYOTI BORA**

M.Sc.(Physics)

Areas of Interest : Biodiesel production and its application in C.I engines, Solar PV applications

Email : dbora865@gmail.com

**HEMANTAJEET MEDHI**

B.E. (Chemical Engg.)

Areas of Interest : Heat & Mass Transfer, Fluid Mechanics, Gasification

Email : jeethemanta.medhi12@gmail.com



Save Energy
Reduce your Carbon Footprint

Students' Profiles

**KAUSHIK HAZARIKA**

B.E. (Mechanical Engg.)

Areas of Interest : Energy conservation, Heat transfer

Email : enthalpy011@gmail.com

**LITON BASAK**

M.Sc. (Physics)

Areas of Interest : Energy Management, Biodiesel, Solar PV, CDM, nuclear physics

Email : cutelee_124@rediffmail.com

**MANDAPALLI BALASRINIVASA RAO**

AMIE (Mechanical Engg)

Areas of Interest : Solar Ponds, FPCs, Wind Energy Utilisation

Email : mbsraoene10020@gmail.com

**PINAKPANI BARUAH**

B.E. (Mechanical Engg.)

Areas of Interest : Energy Conservation, Biomass Conversion

Email : ppbaruah09@gmail.com

**PLABAN BORA**

B.E. (Chemical Engg.)

Areas of Interest : Energy and Environment

Email : bncplaban@gmail.com

**RAJESH KUMAR BHAMU**

B.Tech. (Mechanical Engg.)

Areas of Interest : Solar thermal devices and thermal power plant, Energy Management & Auditing, Energy Economics

Email : kumarbhamu@gmail.com

**RAJIV SAHA**

M.Sc.(Instrumentation)

Areas of Interest : Petroleum Production, Petroleum Refining, Instrumentation and Quality Control

Email : saharajib26@gmail.com

**RANA SENGUPTA**

M.Sc. (Physics)

Areas of Interest : Clean Development Mechanism, Biomass Energy Utilisation, Biofuels

Email : ranayou.sengupta3@gmail.com

**SANZIDA TASMIN ALI**

B.E. (Mechanical Engg.)

Areas of Interest : Energy Conservation, Wind Energy Utilization, Mechanics

Email : tasmin.ali@gmail.com

**SUNNY BHARALI**

B.E. (Chemical Engg.)

Areas of Interest : Photocatalysis, Hydrogen energy

Email : bharalisunny@yahoo.in



Activities Gallery



The University seeks to create not just engineers, but individuals with a well-rounded personality. The students of the Department of Energy have made ample usage of the opportunities available to them for extra-curricular and co-curricular activities. There are athletes in this 2010-12 batch who have represented the university at the highest level in the Inter university sports meets. The students have been actively participating as key organizers in Tezpur University's National level festivals such as *TechXetra* and other activities. Clubs and campus societies are also being represented by the students of the Department.

The Department of Energy, Tezpur University regularly organizes energy-talks which invite eminent experts both from industry and academic domain

University of Nottingham, UK

Nanyang Technological University, Singapore

IISc, Bangalore

Abo Akademi, Finland

Heriot-Watt University, UK

IITs

CNRS, France

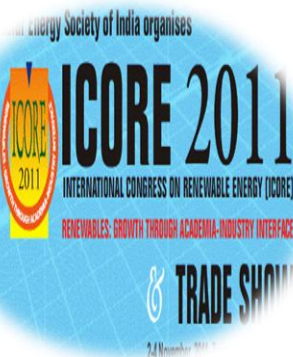


The Department also hosts national as well as international level conferences in which impressive voluntary student participation has been witnessed. Some of the recent activities are ...

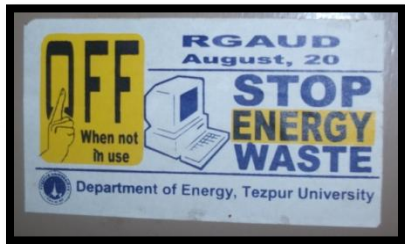
- ✚ 10-day ISTE workshop on Solar Photo voltaics: Fundamentals, Technologies and Applications, 12-22th December 2011
- ✚ International Congress on Renewable Energy (**ICORE-2011**), 2-4th November 2011
- ✚ National Conference on Renewable Energy (**NCRE-2010**) for Development of Underdeveloped Areas with particular reference to North East India, 23-25th March 2010

A few recent industrial visits...

- ✚ NEEPKO, Ranganadi Hydro Electric Plant, Arunachal Pradesh
- ✚ Hindustan Paper Corporation Ltd., Nagaon Paper Mill, Assam



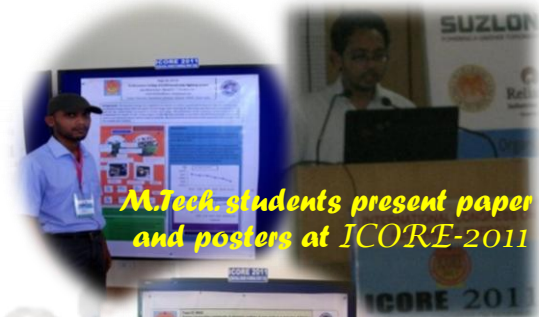
Activities Gallery



Sticker-Ticket designed by the Department on the occasion of Rajiv Gandhi Akshaya Urja Divas (RGAUD)



Students' Field Visit



M.Tech students present paper and posters at ICORE-2011



Interaction with delegates

ICORE-2011



"Agro-Climatic Zone Based Mapping of R&E Resources in Assam"

A post-project workshop (Dec 2011)



Workshop on Solar PV (Dec 2011)



Visit to a local Biogas Plant



"Unmilon" Department Wall Magazine



Victory!

Our Alumni

The Alumni of this Department have proven their competence by excelling in some of the most competitive environments around the globe, be it in the industry or academia.

Govt. and Private Organizations

- GE Energy
- Siemens India
- TUV-Nord
- Winrock
- TUV-Rheinland
- SGS India
- The Energy and Resources Institute (TERI)
- Hindustan Aeronautics Limited (HAL)
- National Productivity Council (NPC)
- C-WET
- SSS-NIRE
- Ministry of New and Renewable Energy (MNRE)
- OIL
- NRL
- ONGC
- Naguya University (Japan)
- Tezpur University etc.

Higher Studies

- Imperial College London (UK)
- Cardiff University (UK)
- Heriot-Watt University (UK)
- National University of Singapore (Singapore)
- Nanyang Technological University (Singapore)
- University College of Cork (Ireland)
- IIT- Bombay
- IIT- Delhi
- IIT- Guwahati etc.

Please find details at –
<http://www.tezu.ernet.in/dener/>

Placement Procedure & Facilities for Recruiters

AS PER THE GUIDELINES OF TEZPUR UNIVERSITY PLACEMENT CELL, THE PLACEMENT PROCEDURE FOLLOWS A SIMPLE AND TRANSPARENT PLACEMENT POLICY.

- ✚ Organizations are invited via emails, telephone calls and faxes.
- ✚ Organizations interested in recruiting students of the Department must fill up the **Job Declaration Form** (JDF), downloadable from our website <http://www.tezu.ernet.in/dener/> in which information related to job description, job profile, place of posting, remuneration etc. are to be clearly mentioned.
- ✚ Organizations are requested to fill in the JDF with due care and send it back via email to placement.energy@tezu.ernet.in. The JDF serves as an introduction to the job profile for the candidates.
- ✚ The JDFs of all the Organizations are scrutinized and dates for campus visit are allotted to the companies accordingly. The dates can be suitably adjusted, keeping common interests in mind.
- ✚ The procedure for selection of candidates is as per the policy of the organization concerned.

THE INTERESTED COMPANIES WOULD BE PROVIDED ALL KINDS OF LOGISTIC SUPPORTS SUCH AS:

- Lodging and boarding arrangements in the University Guest House
- Arrangement of Auditorium/Halls and providing Audio-Visual facilities for pre-placement talks
- Helping in conducting written tests, group discussions and individual interviews



Guest House interior



Conference Room



Conference Hall

Video conferencing facilities are also available for recruiters

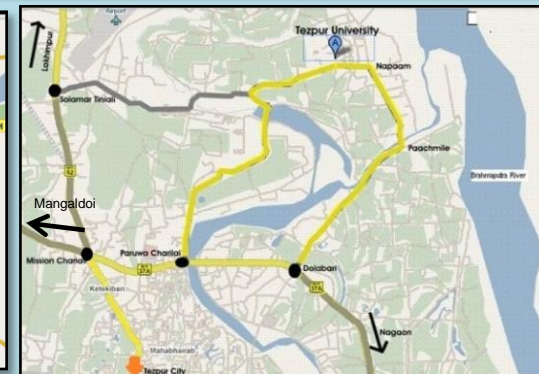
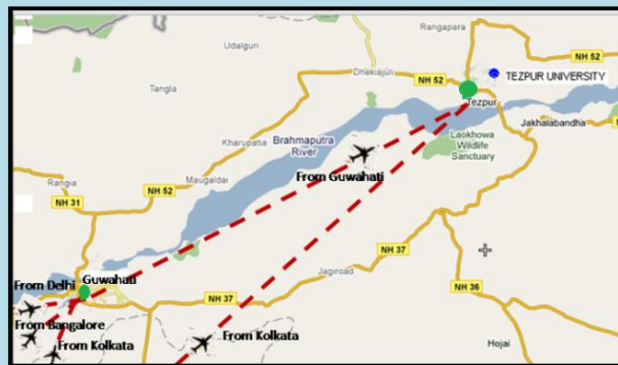
The city nearest to Tezpur town is Guwahati (Assam), also known as the "Gateway of the Northeast".

ROAD CONNECTIVITY

Tezpur is well connected with Guwahati by road. Regular bus services are available from Guwahati (ISBT/Machkhowa) to Tezpur ASTC Bus Station via Nagaon or Mangaldoi.

- o National Highway No. 31 via Jalukbari upto Baihata Chariali and NH 52 from Baihata Chariali via Mangaldoi.
Distance : 181 kms
- o National Highway No. 37 via Nagaon upto Kaliabor Tiniali and NH 37A from Kaliabor Tiniali via Kolia Bhomora bridge.
Distance : 198 kms.

How to Reach Tezpur University



AIR CONNECTIVITY

From Kolkata to Tezpur - Direct Alliance Air flights (Mon, Wed and Fri)
Between Tezpur and Guwahati - one ATR flight (Mon, Wed and Fri)
Between Guwahati and other important cities - several daily flights

RAIL CONNECTIVITY

Nearest main rail hub is Guwahati which has good connectivity of railway networks with other important places.



University Gate



Academic Block



Administrative Block



Central Library



Guest House



Hostels

The university
at a glance

Contact Us

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Napaam, Sonitpur, Assam-784028, India
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: +91 9954449475 (Mobile)
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STUDENT REPRESENTATIVES

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