



CENTRE FOR CAREER DEVELOPMENT
INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

SCHOOL OF ENERGY SCIENCE AND ENGINEERING.

Batch of 2027 | PLACEMENT & RECRUITMENT

B.TECH · MS(R) · PHD



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About IIT Guwahati

Established in 1994, Indian Institute of Technology Guwahati is the sixth member of the IIT fraternity and one of India's premier institutions for higher education, research, and innovation.

Within a short span, the Institute has emerged as a global centre of excellence in science, technology, management, and design.

The picturesque campus spans 285 hectares on the northern bank of the Brahmaputra River, approximately 20 km from the heart of Guwahati city.

Surrounded by scenic hills and open spaces, it offers a perfect environment for learning, research, and holistic development.

IIT Guwahati offers a wide array of academic programmes including B.Tech., B.Des., BSc (Hons), M.Tech., M.Des., M.Sc., MBA, M.A., MS(R) and Ph.D.

across 11 departments, 9 interdisciplinary centres, and 5 schools, covering major disciplines in engineering, science, humanities, healthcare, and management.

The Institute has built world-class infrastructure and

houses state-of-the-art laboratories and National Centres of Research that support cutting-edge research.

Students are encouraged to take up interdisciplinary coursework, pursue minor degrees, and choose from a rich variety of open and interdepartmental electives.

IIT Guwahati has signed MoUs with top international universities, facilitating semester exchanges and summer internships, thereby broadening students' global exposure.

Our students regularly intern at leading global firms and research institutions, gaining invaluable real-world experience.

Ranked among the top 100 world universities under 50 years by Times Higher Education (THE), IIT Guwahati continues to excel globally.

The Institute was ranked 42nd globally in 'Research Citations per Faculty' and 344th overall in QS World University Rankings.



Director's Message



Indian Institute of Technology Guwahati was established in **1994** by an Act of Parliament. The academic programmes started with 65 students in three undergraduate programmes in 1994. The institute is now dispersedly and heterogeneously organized in eleven departments, nine academic centres and five schools in numerous undergraduate and postgraduate programmes in a wide array of both conventional and emerging areas of science, engineering, technology, humanities and social sciences. The institute has six research centres and an excellent central library, in addition to other research facilities. The institute has built world-class infrastructure across a 285-hectare campus on the north bank of the Brahmaputra, and is committed to promote entrepreneurship activities.

IIT Guwahati continues to maintain its superior position in various international and national rankings. IIT Guwahati secured the **8th position** among the top engineering institutions in India in the **NIRF 2025 Rankings**, released by the Ministry of Education.

Additionally, IIT Guwahati has been ranked as the **11th best university** in the country, IIT Guwahati has been ranked **2nd** in the '**Swachhata Ranking**' conducted by the Govt. of India. IIT Guwahati has been ranked as the **top ranked university in 2019 for IT developers** by HackerRank in the Asia-Pacific region.

The Institute has a very good central library, which provides library and information services to support teaching, learning, and research activities by creating state-of-the-art facilities. It is housed on a four-storey building having a floor area of about **7,500 sq. metre**. It houses over **two lakh** carefully computerised and Wi-Fi facility is provided within the library building for connecting to the internet and accessing the Institute's electronic resources. The sports facilities of the Institute are of international standard. The students get adequate opportunities, motivated, bright, and very eager to perform after they graduate.

IIT Guwahati has extensive facilities for cultural and creative activities too. For example, the Technical Board promotes technology, creativity and innovation. IIT Guwahati helps in shaping up bright minds with proper perspective. IIT Guwahati hosts two supercomputing facilities **PARAM-Kamrupa (838 TF)** and **PARAM-Ishan (1250 TF)** to carry out research activities in various scientific domains including forecasting of weather and climate, bioinformatics, computational chemistry, molecular dynamics, artificial intelligence (AI) and machine learning and especially data science.

Because of the excellent performance of the students of IIT Guwahati in all the fields of study and research, guided by the dynamic faculty members and with the full support of the non-teaching employees, IIT Guwahati has earned a proud feature in the coveted list of young universities (**under 50 years of age**) of the world selected by the Times Higher Education (THE) magazine.

With Best Wishes,

Prof. Devendra Jalihal

Director, IIT Guwahati



SCHOOL OVERVIEW

About the School

The School of Energy Science and Engineering (SESE), IIT Guwahati, established in May 2004, is a multidisciplinary centre for education, research and innovation in energy technology and sustainable energy systems. The School brings together expertise from diverse engineering and science disciplines to address emerging challenges in the energy sector.

The School promotes interdisciplinary activities in **energy technology** and **sustainable energy systems** through research, teaching and consultancy. It combines fundamental knowledge with practical applications to address challenges in energy security, efficiency and sustainability.

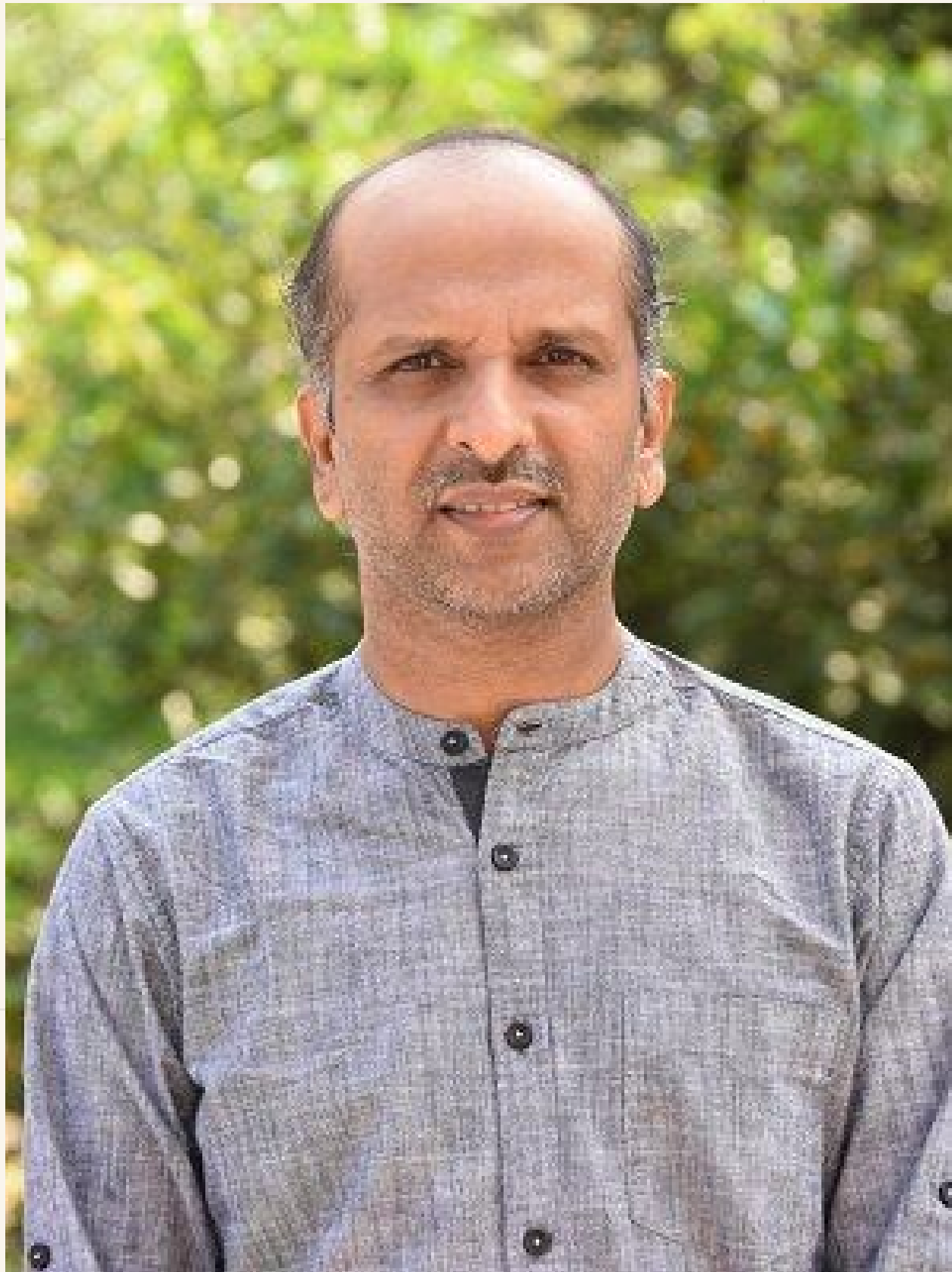
The School offers **B.Tech. in Energy Engineering**, **M.S. (by Research)** and **Ph.D.** programmes, providing students with opportunities to explore advanced concepts in energy science, technology and sustainable energy systems, with a special focus on **automation and AI** for next-generation energy solutions.

The School's research spans renewable energy, energy storage, hydrogen and fuel cells, bioenergy and biofuels, energy efficiency, combustion and alternative fuels, with growing emphasis on automation and AI in energy systems.

Faculty and students engage in interdisciplinary research through collaborations and funded projects, addressing contemporary energy challenges using experimental, analytical and computational approaches. With a strong academic environment and access to the wider IIT Guwahati ecosystem, SESE prepares students to contribute to India's transition towards a reliable, efficient and sustainable energy future.



Head of School's Message



“

Welcome to the School of Energy Science and Engineering! We, at IIT Guwahati, are committed to protect both the people and the environment while utilizing the resources and simultaneously contributing towards energy security as well as economic development. The school houses an excellent milieu of able faculties, state-of-the art laboratories and a good number of meritorious students coming from interdisciplinary engineering backgrounds working on various aspects of energy research. The alumni of this School have proven their competence by excelling in some of the most competitive environments around the globe. As the Head of School, I proudly present the current final year batch to all potential recruiters. Our past recruiters are already familiar with the high standards our alumni have set. For new recruiters, we are confident that the excellence of the current batch will catalyze the beginning of a long and prosperous relationship with IIT-Guwahati.

With Best Wishes,

Prof. Vinayak Kulkarni

Head of Department · School of Energy Science and Engineering

From Department Faculty Representative

“

It is my pleasure to introduce the graduating students of the School of Energy Science and Engineering for campus placements. Our students are rigorously trained through a curriculum that blends core mechanical and electrical engineering with advanced modules in renewable energy, hydrogen and fuel cells, storage systems, and sustainability. Alongside technical depth, they gain hands-on laboratory experience, industry-oriented problem-solving exposure, and strong foundations in communication, leadership, and entrepreneurship. This combination ensures they are not only technically competent but also adaptable, collaborative, and aligned with the evolving demands of the energy and allied sectors.

I am confident that our graduates will bring innovation, dedication, and impact to the organizations they join. We warmly welcome recruiters to engage with them and explore opportunities for collaboration.

With Best Wishes,

Dr. E S N Raju P

Department faculty representative · School of Energy Science and Engineering



ACADEMIC PROGRAMMES

Programmes Offered



Bachelor of Technology (B.Tech)

ADMISSION VIA JEE ADVANCED

The B.Tech. in Energy Engineering is an eight-semester undergraduate programme designed to provide a strong foundation in energy science, engineering and sustainable energy systems.

The curriculum covers thermodynamics, heat and mass transfer, fluid mechanics, combustion, electrical systems, solar and wind energy, hydrogen and fuel cells, energy storage, energy materials, simulation and sustainability.



Master of Science by Research — MS(R)

ADMISSION VIA GATE, WRITTEN TEST & INTERVIEW

The M.S. by Research programme offers advanced training in cutting-edge energy technologies, preparing students for high-impact careers in industry, R&D and innovation.

Current student projects include:

- Next-generation solar cells (perovskites, tandem)
- Green hydrogen and electrolyser technologies
- Battery and energy storage systems (including AI/ML based modelling and optimisation)



Doctor of Philosophy (PhD)

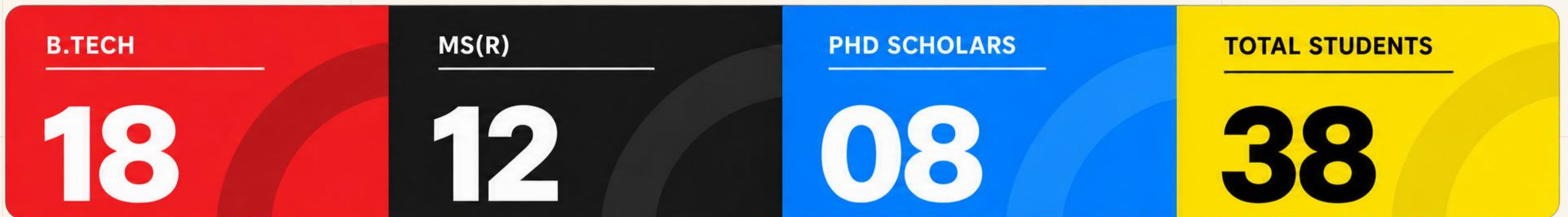
ADMISSION VIA GATE, WRITTEN TEST & INTERVIEW

The Ph.D. programme focuses on advanced, open-ended research aimed at contributing to science and technology in Energy Science and Engineering.

Scholars work on multidisciplinary research problems while developing advanced problem-solving, experimental and analytical skills through research projects and collaborative work with academic and industry partners.

Student Strength

PROGRAMME	GRADUATING YEAR	STUDENTS
Bachelor of Technology	Batch of 2027	018
Master of Science by Research	Batch of 2027	012
Doctor of Philosophy	Batch of 2027	008
Total		038



Curriculum Highlights

10 COURSES

Core courses

Engineering Thermodynamics

Heat & Mass Transfer

Fluid Mechanics & Fluid Machines

Fuels & Combustion Engineering

Energy & Sustainability

Electrical Circuits & Electronics

Electrical Machines

Power Electronics

Renewable Energy Systems

Energy Storage Systems

10 ELECTIVES

Electives

Solar Energy Technology

Wind Energy Technology

Hydrogen & Fuel Cells

Biomass & Biofuels

Energy Materials

Smart Grid & Microgrids

Electric Vehicles

Energy Economics & Auditing

Energy System Modelling

Life Cycle Assessment

10 LABS

Laboratory courses

Thermo-Fluid & Heat Transfer Lab

Solar Energy Laboratory

Wind Energy Laboratory

Energy Materials & Device Fabrication Lab

Fuel & Combustion Laboratory

Energy Storage Laboratory

Electrical & Power Electronics Lab

Control & Instrumentation Lab

Bioenergy & Biofuel Laboratory

Simulation & Modelling Laboratory

PEOPLE

Faculty

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Dr. Prateek

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Research Areas

SELECT Student Projects 

	Thermodynamic and Exergy-based Parametric Investigation of an Integrated Hydrogen Liquefaction and Liquid Hydrogen Storage System Hydrogen energy Liquefaction Energy storage
	Automation of Photoelectrochemical Carbon Dioxide Reduction Process automation Photoelectrochemistry CO ₂ utilization
	Modelling and Control of Power Electronic Devices for UAV Design Power electronics Control systems UAV
	Photo Electrochemical Carbon Dioxide Reduction to Methanol using AEM in Aqueous Electrolyte Medium CO ₂ reduction Methanol production AEM electrolysis

SELECT Faculty Projects 

	AI-based Optimization of Renewable Energy Systems Machine learning Energy system optimization Smart grids
	Automation and Control of Next-Generation Energy Systems Process automation Control systems Renewable integration
	Machine Learning for Energy Prediction and Management AI/ML Forecasting Energy analytics
	Intelligent Battery Management and Control for Energy Storage Systems AI-based control Battery management Energy storage

KEY Research Themes 

	Renewable Energy Systems Solar, wind, biomass and sustainable fuels
	Energy Conversion & Storage Batteries, hydrogen, thermal energy storage
	Materials & Chemical Processes Functional materials, catalysts, bio-based chemicals
	AI, Automation & Digitalization Machine learning, system optimisation, digital twins
	Sustainable Technologies Life cycle assessment, techno-economic analysis and policy studies

MS Research Students and their research projects



Aparna Udayan
(Roll No.: 254351010)

Bio- based phase
change materials
CV : [Links](#)



Arnab Mukherjee
(Roll No.: 254351003)

Hydrogen liquification
and storage
CV : [Links](#)



Bilton Narzary
(Roll No.: 254351004)

Perovskite solar cells
CV : [Links](#)



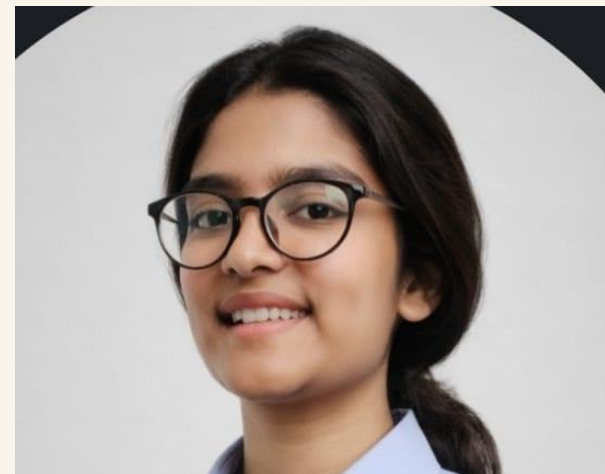
Debarpita Panda
(Roll No.: 254351005)

Automation and control
in electrolyzer
CV : [Links](#)



Debasish Parashar
(Roll No.: 254351006)

Power electronics for
UAV design
CV : [Links](#)



Rupali Desale
(Roll No.: 254351007)

Bioethanol production
from biomass
CV : [Links](#)



Govind
(Roll No.: 254351008)

High temperature reactor
design(CO2) electrolyzer
technologies and renewable energy
system
CV : [Links](#)



Hitesh Maske
(Roll No.: 254351009)

Green hydrogen (techno
-economic & policy)
CV : [Links](#)



Jaideep Kumar Sisodiya
(Roll No.: 254351010)

Thermal management and
thermal energy storage,
VARs with renewables
CV : [Links](#)



Joytirmoy Chakraborty
(Roll No.: 254351011)

Ev battery digital twin
CV : [Links](#)



Pawan G Ramteke
(Roll No.: 254351012)

LCA and techno-
economic analysis of
perovskite solar cell
CV : [Links](#)



Raunak Das
(Roll No.: 254351013)

Grid-forming control for
microgrids
CV : [Links](#)

Laboratories & Facilities



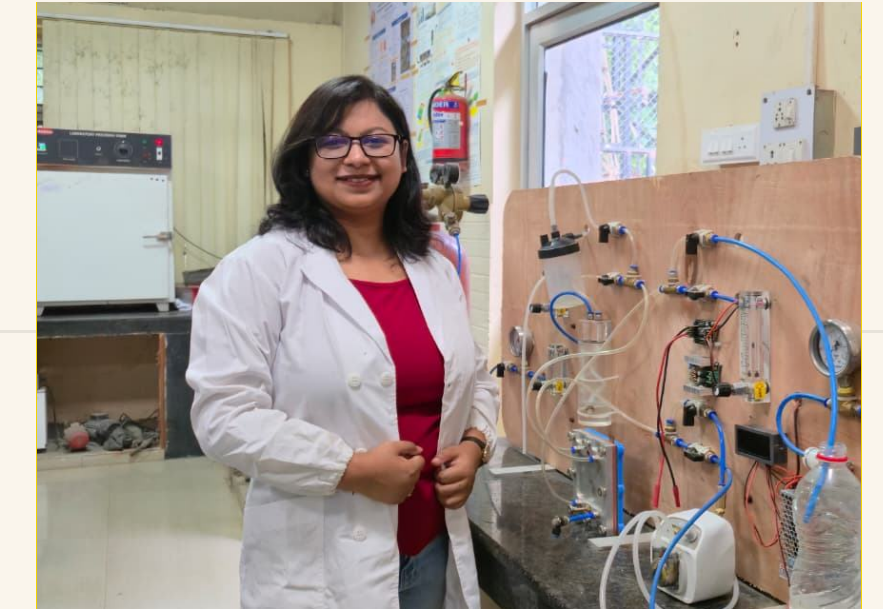
Thermo-Fluid and Heat Transfer Laboratory



Energy Materials and Device Fabrication Laboratory



Solar & Wind Laboratory



Fuel and Combustion Laboratory



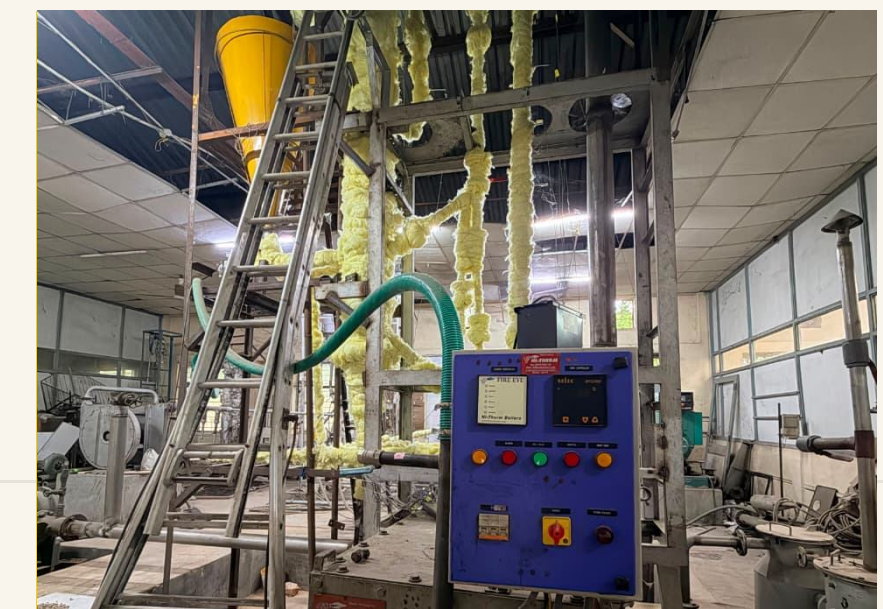
Analytical Lab



Bioenergy Laboratory



Biofuel Laboratory



Energy Conversion Laboratory

Laboratories & Facilities



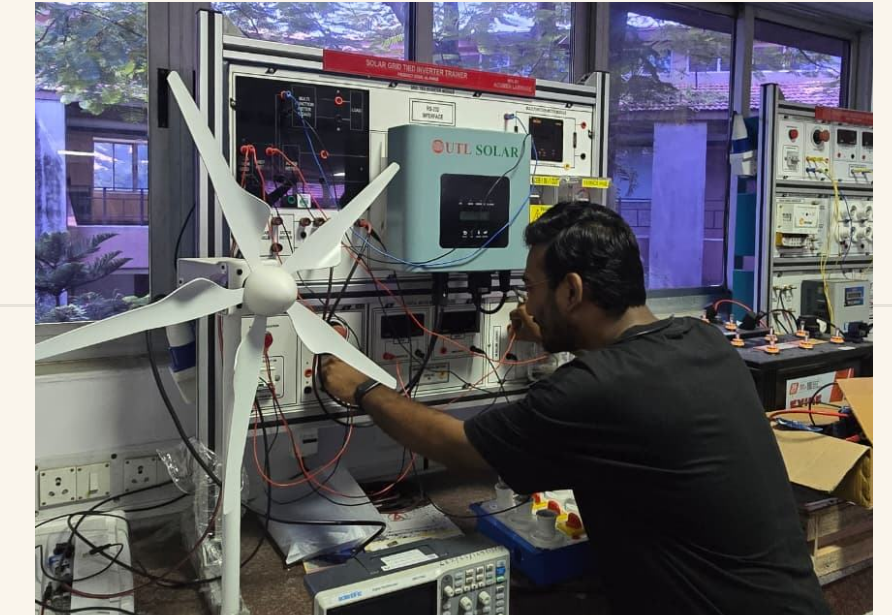
Fuel Cell Laboratory



Solar Energy Laboratory



Advanced Clean Energy System Laboratory



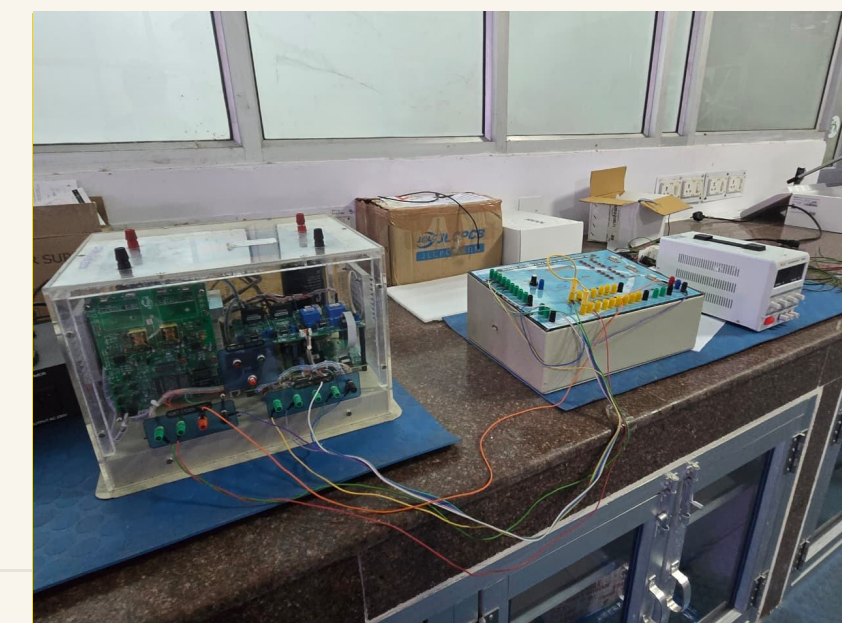
Smart Microgrid Laboratory



Computer Centre and Simulation Laboratory



BIOGAS DEVELOPMENT AND TRAINING CENTRE



Power and energy system laboratory



Laboratory for mobility and design of sustainable vehicle

Achievements

IIT-Guwahati



Pan-India IITs Renewable Energy Hackathon

RUNNER-UP • 2025

A team of M.S.(R) students – **Kamaksh Gurjar**, **Sharat Chandra**, **Prachuriya Jyoti Hazarika** and **Shivam Raj** – secured the **Runner-up** position in the Pan-India IITs Hackathon on Renewable Energy, organised by the Federation of Indian Petroleum Industry (FIPI). The team was also invited to attend India Energy Week 2025.



L&T TECHgium Competition

2ND RUNNER-UP • 2025



M.S.(R) students **Amulya Saxena**, **Yash Parekh** and **Rishi Purohit** secured the 2nd Runner-up position in the L&T TECHgium competition, highlighting the School's strength in innovation and industry-oriented problem solving.



Faculty Distinctions

Best Paper Award • 2026

Ms. Siddhi & Dr. E. S. N. Raju P.

Received the Best Paper Award for "Development and Comparative Performance Evaluation of Capacitor- and Inductor-Based Active Balancing Circuits for Lithium-Ion Battery Packs."

Best Poster Award • ODICON 2026

Jalajaya Baksh Kashyap (M.S.R.) & Dr. E. S. N. Raju P.

Received the Best Poster Award for their work on control strategies for Dual Active Bridge DC-DC Converters.

Best Poster Presentation Award • SeFeT 2025

Md. Sabbir Haider Khan & Manish Kumar & Dr. E. S. N. Raju P.

Best Poster Presentation Award for research on DFIG wind-turbine control using stator-current sensors.

Technical Consultant • IAEA

Dr. Farrukh Khalid

Technical Consultant for the International Atomic Energy Agency (IAEA), Vienna, with additional recognition through outstanding reviewer awards in major energy journals.



Student Distinctions

Best Poster Award • 2025

Akshay Kumar

Best Poster Award at an international conference in Bangkok, Thailand.

Best Oral Presentation • 2025

Amab Kumar Roy

Best Oral Presentation at the Global Conference for Decarbonization of Energy and Materials, Singapore.

Best Presenter • 2025

Aishwarya

Best Presenter in Oral Presentation at the 6th International Conference on Biofuels and Bioenergy, Rome, Italy.

Best Poster Presentation • SeFeT 2025

Md. Sabbir Haider Khan & Manish Kumar

Best Poster Presentation for research on DFIG wind-turbine control using stator-current sensors at IEEE SeFeT 2025, MNIT Jaipur.

Student Activities & Clubs

Students of the School of Energy Science and Engineering actively participate in the vibrant student life at IIT Guwahati. Alongside academics and research, students engage in institute-wide clubs, **technical activities**, **cultural events**, **entrepreneurship** and **sustainability initiatives**.

The student-led ecosystem at IIT Guwahati provides a platform for students to collaborate across disciplines, take initiative and gain hands-on experience. Participation in clubs, competitions, festivals and institute-wide activities helps students build leadership, teamwork, creativity and communication skills, while fostering a strong sense of community beyond their academic curriculum.



Finance &
Economics Club



Technical
Board



Cultural
Board



National
Service Scheme



Prakriti
Club



Consulting &
Analytics Club



Sports
Board



Student's web
committee

Past Recruiters



Contact details



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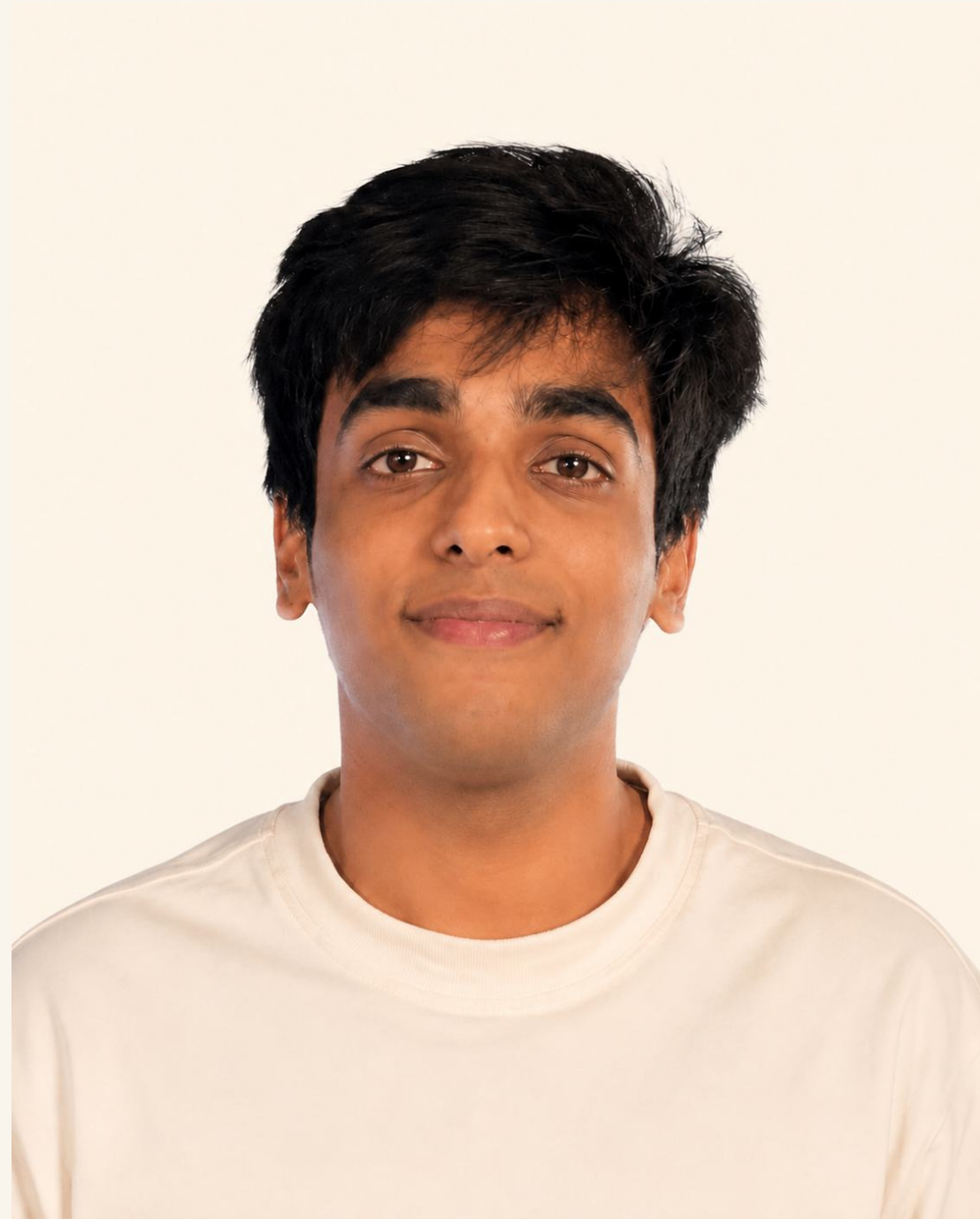


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Mr. Vishesh Jindal

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Lead Student Coordinators



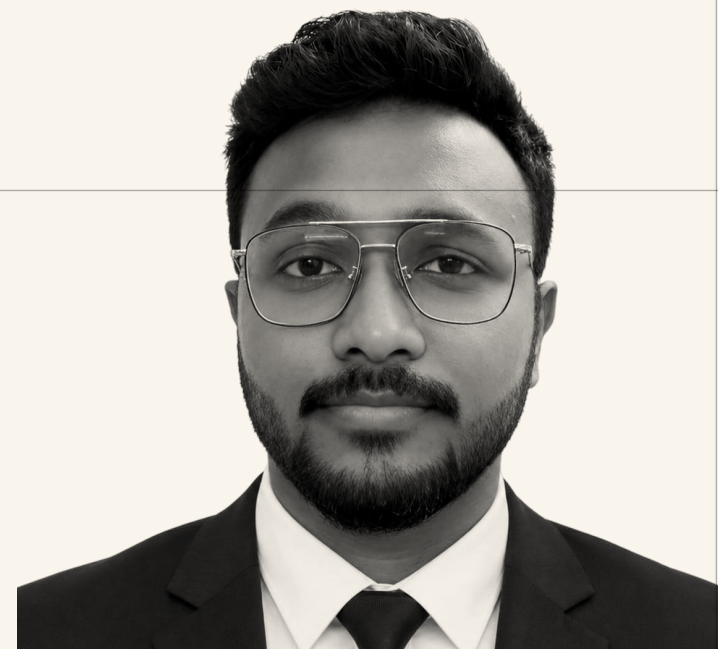
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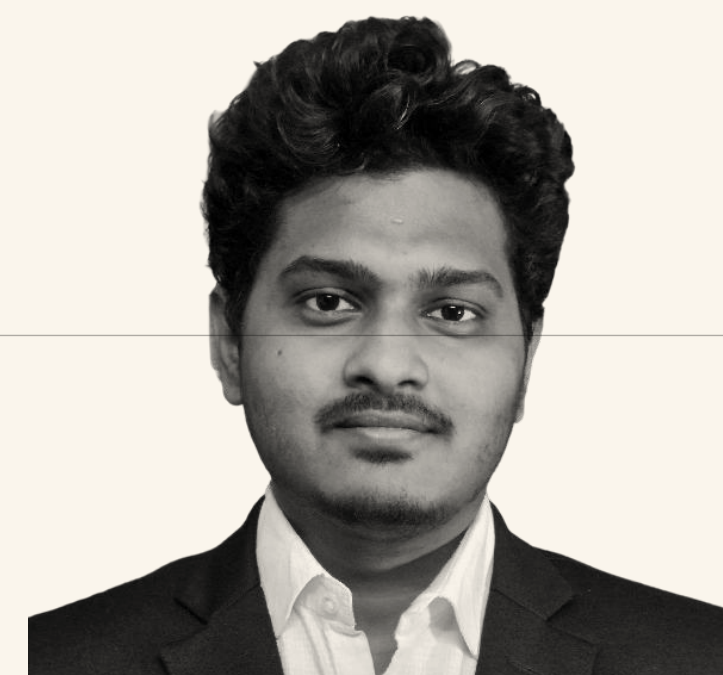
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Contact Us

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