CENTRE FOR CAREER DEVELOPMENT
IIT GUWAHATI

Department Placement Brochure.

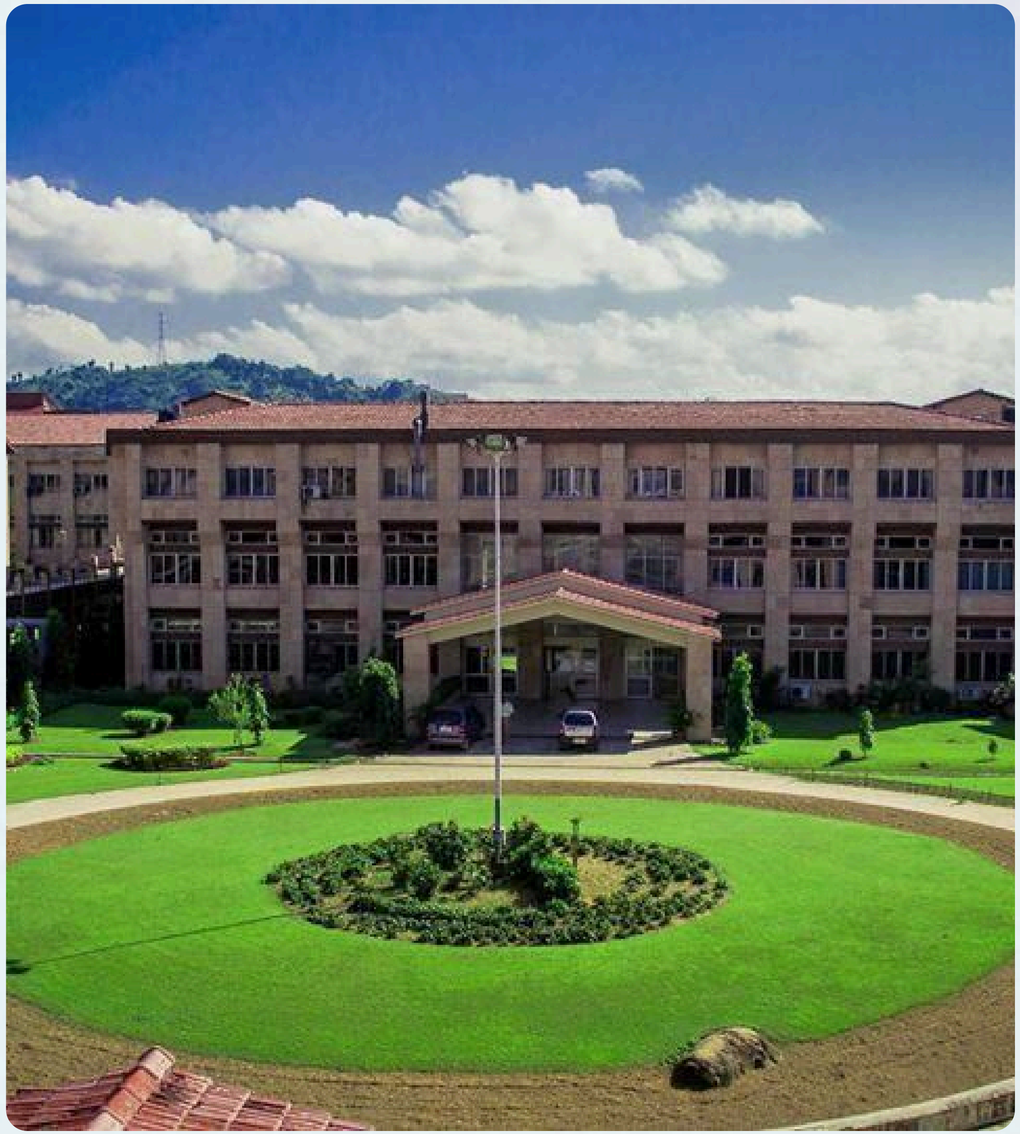
BATCH OF 2026 | School of Energy Science and Engineering

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.

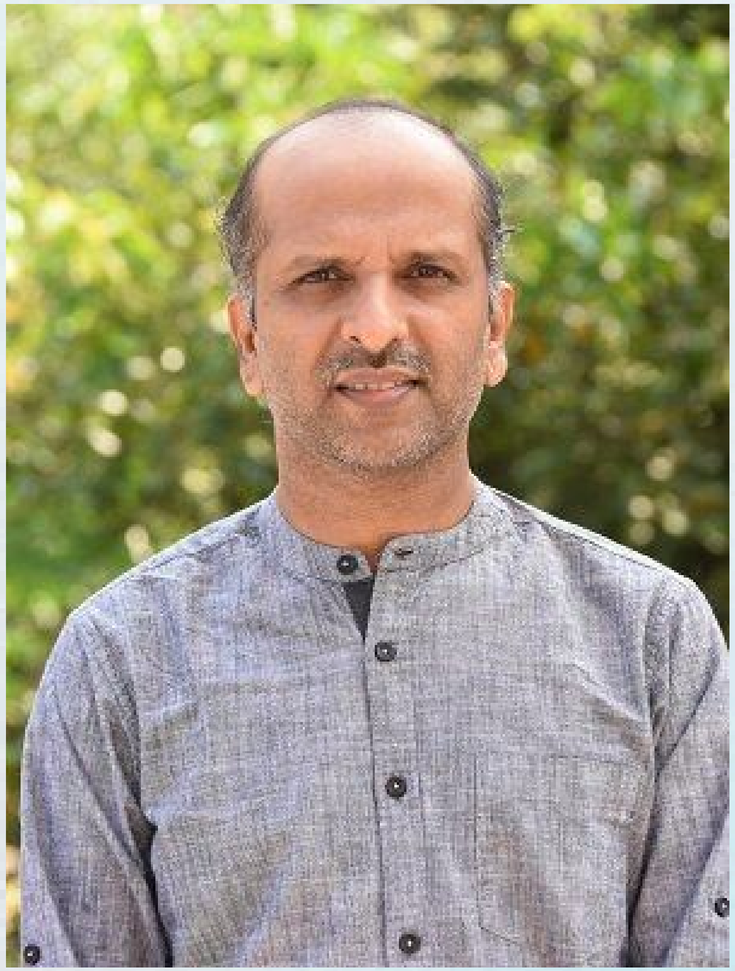
Ranked among the top 100 world universities under 50 years by Times Higher Education (THE), IIT Guwahati continues to excel globally. The Institute was ranked 42nd globally in 'Research Citations per Faculty' and 344th overall in QS World University Rankings.



About the School .

School of Energy Science and Engineering (formerly, Centre for Energy) at IIT Guwahati was established in May, 2004 to promote multidisciplinary activities focused to various facets of energy technology and systems in the form of research, teaching and consultancy. Looking into the potential and application of different energy resources from the north eastern region of India, it is emphasized that the School gives priority to activities in the field of bio-energy, small hydro-power, alternative fuels, clean coal technology, combustion and energy efficiency of systems etc. The research activities in the School are in the form of funded projects from various national and international funding agencies. The School currently has 6 dedicated faculty members from various educational and research backgrounds. Besides them, faculty members from various departments of the institute such as Electronics and Electrical Engineering, Mechanical Engineering, Biosciences and Bioengineering, Chemical Engineering and Physics are associated with the School for the promotion of interdisciplinary research for sustainable energy. To support the research work in the projects, the School has two academic programmes - Doctor of Philosophy (PhD) and Master of Science by Research (MS-R). Moreover, a new Bachelors programme (B.Tech. in Energy Engineering) has been started by the School from 2022 looking into the current demand for professionals in the field of Energy. The facilities available at the School have been a great support for the students working in different areas at IITG as well for the students of various academic and research institutions of the North East.

From the desk of HOD.



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.

Prof. Vinayak kulkarni
Head of the Department

From Department Faculty Representative.

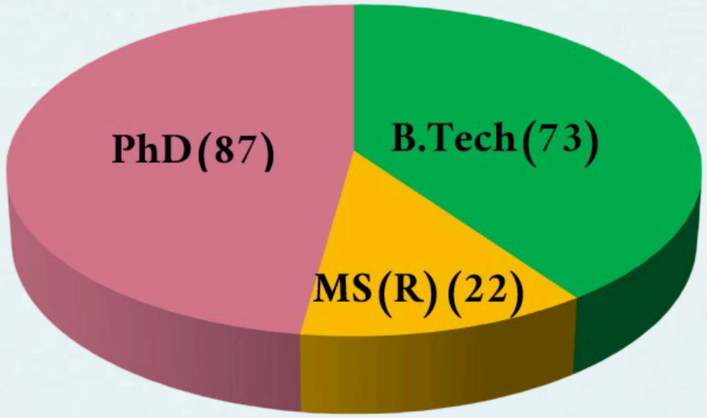
Welcome to the School of Energy Science and Engineering!

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.

Dr. E S N Raju P

Department Faculty Representative

Demographics.



Current Students		
MS(R)	9 Students (2024-2026) 13 Students (2025-2027)	Mechanical , Electrical , Electronics, Biotechnology Background
PhD	87 students	Mechanical , Electrical , Chemical,Physics,Electronics, Biotechnology Background
B.Tech	16 Students (2022-2026) 18 Students (2023-2027) 19 Students (2024-2028) 20 Students (2025-2029)	Not Applicable

B.Tech

An Undergraduate programme to create a new set of young engineers who are well equipped with the integrated knowledge of multiple-disciplines and skills to be at the forefront of the global transition to a sustainable energy future.

MS(R)

A Postgraduate programme to offer a flexible and interdisciplinary approach enabling engineers to develop a broader perspective while advancing in their disciplines and applying critical thinking abilities of their domains to create sustainable energy solutions and it's applications. MSR is a new programme and not an alternative to M.Sc. Degree . It is similar to MTech except in terms of credits of course work and project

B.Tech Course Work

Energy

- Energy Economics and Auditing
- Fuels and Combustion Engineering
- Wind and Solar Energy (Lab)
- Biomass, Biofuels and Biorefinery
- Energy and Sustainability
- Wind, Hydro and Ocean Technology
- Hydrogen and Fuel Cell Technology
- Energy Storage Systems
- Wind and Hydro Energy Laboratory
- Materials Science for Energy Applications
- Solar Energy Technology
- Energy Materials and Device Fabrication Laboratory
- Solar cell charecterization and fabrication

Electrical

- Basic Electronics course and laboratory
- Control and Instrumentation
- Electric Machines
- Power Electronics
- Power Generation, Transmission and Distribution
- Solar Energy Laboratory
- Wind and Hydro Energy Laboratory
- Distributed Energy Resources in Electric Grid

Mechanical

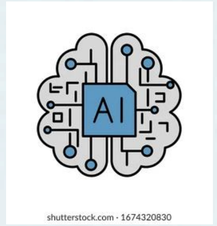
- Thermo-Fluid and Heat Transfer Laboratory
- Engineering Thermodynamics
- Heat and Mass Transfer
- Fluid Mechanics and Fluid Machines
- Automotive Vehicles

Computation

- Numerical Methods
- Machine Learning
- Data Science and Statistics
- Artificial Intelligence
- Life cycle assessment
- Energy system modelling and Simulation
- Computer Aided applied Optimization
- Introduction to Computing

Others

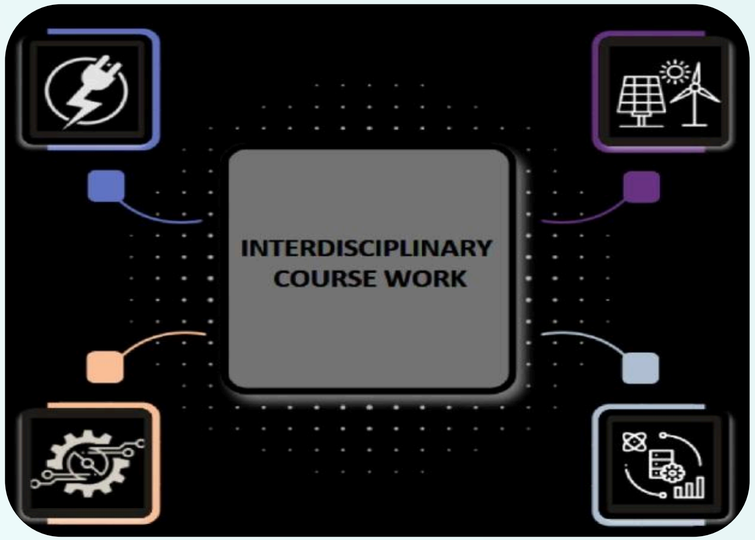
- Energy Auditing and Economics
- Community Engagement and Entrepreneurship Pragramme



MS(R) Course Work

Electrical

- Power Electronics for Electrical Vehicles
- Power Electronics for Renewable Energy systems
- Power Electronics converters
- Electrical Machines and Drive systems
- Insulation and High voltage Engineering
- Advanced Power System Monitoring



Energy

- Fundamentals of Energy Engineering
- Renewable Energy Systems
- Distributed Energy Resources in Electric Grid
- Energy Storage Systems
- Energy Economics, Planning and Management
- Advance Fuel Cell Technology
- Solar Energy Conversion Technology
- Energy Resources
- Operation and Instrumentation (Lab)

Mechanical

- Advance Energy System
- Advance Thermodynamics
- Heat Transfer
- Computational Fluid Dynamics

Others

- Energy Auditing and Economics
- Automotive Vehicles
- Computer aided applied optimization
- Energy system modelling and analysis

Key Research Areas.

Electrical

- Smart grids & microgrids
- Renewable energy integration
- Battery management systems (BMS)
- Power electronics for EVs
- Sensors, IoT & wireless monitoring
- Power electronics for energy storage
- Energy-efficient electrical systems
- Techno-economic studies in power

Mechanical

- Thermal energy storage (hydrides, composites)
- Biomass & coal gasification
- Solar building envelopes & passive cooling
- Waste-to-energy & combustion systems
- Ultrasonic/mechanical resource utilization
- Design & scaling of renewable systems
- Efficient energy harvesting technologies

Chemical

- Electrolyzers and Fuel cells
- Green Hydrogen production
- Alternate fuels
- Wastewater Treatment
- Carbon Sequestration
- Biomass-to-fuels (ethanol, butanol, biodiesel, methanol)

Energy

- Numerical modelling of energy systems
- Energy Efficiency
- Life cycle assessment
- Energy storage
- Process Optimisation
- Energy Management
- Bioenergy Processes
- Fabrication of Solar Cell

Student Projects

Project Details of MS(R) Students

- Life Cycle Assessment Of Anion Exchange Membrane Elecrolyzer For A Renewable Energy Based Integrated System For Green Hydrogen Production.
- Computational Fluid Dynamics Modelling And Analysis Of A Dual Fluidized Bed Biomass Gasifier
- Design And Development Of Scalable Power Modules For Onboard And Off -Board EV Charging Systems
- Experiment Based Design Optimization Of Immersion Cooling Systems For Hybrid Electric Vehicle Batte
- Theoritical Investigation Of Time Dependent Photovoltaic Performance Of Perovskite Solar Cells
- Techno Economic And Environmental Analysis Of Hybrid Energy Storage
- Development And Experimental Validation Of A Unified Control Scheme For Seamless Operaion Of Wind Energy Conversion Systems
- Design And Analysis Of A Renewable Energy Based Integrated System For Green Hydrogen Production
- Energy Consumption Analysis Of EV; A Modelling Approach Incorporating Diverse Energy Sources And Operation Conditions

Electrical Mechanical Chemical Renewable

Student Projects

Project Details of B.Tech Students

- AI/ML-based solar cell performance prediction
- Control of Power Electronics for Renewable Energy and EVs
- Reinforcement learning/Machine Learning for Microgrid control
- Design and Optimization of a Hybrid Electric Vehicle Powertrain
- Building a platform for carbon credit listing for a green future.
- Design of solar thermal collector -heat pump for process heat
- Green Hydrogen Generation and Utilization for Various Applications
- Design optimization of tandem perovskite solar cells

Electrical Mechanical Chemical Renewable

Student Projects

Project Details of B.Tech Students

- Developing absorbers for hybrid perovskite solar cells
- Battery Management System (BMS) for EVs
- AI and ML Applications in Renewable Energy
- Estimation and audit of the carbon credit market for Indigenous and global users
- AI/ML application in determination of Solar Resource Assessment & Forecasting
- Development of a Battery Thermal Management System for Electric Two Wheelers
- Control and Optimizaton of the Renewable Energy System
- Building integrated solar PV system

Electrical Mechanical Chemical Renewable

Ongoing Sponsored Projects

Project Title	Funding Agency
Process Development For Enriched Bio-Hydrogen Generation Through A Novel 50kW Dual Fluidized Bed Gasifier Coupled With A Sustainable Storage System	DST
Activated Carbon Harnessing Initiative From Environment -Friendly Viable Energy Sources (ACHIEVES)	NRL
Development Of A Novel Process For Co-Production Of Green Hydrogen And Aluminium From Aluminium Based Using An Energy Efficient Hybrid Thermochemical Cycle	DST SERB-ARG
Development Of High Energy Density & Fast Charging Indigeneous Li-Ion Batteries For Remotely Operated Underwater Vehicles	TIH-IITG
Development Of An Experimental Validation Platform For Control Of Power Electronics Interfaces For Distributed Energy Resources And Microgrid	SRG (IITG)
Design And Implementation Of Seamless Integration And Control For Green Hydrogen Microgrids For Sustainable And Reliable Energy Solutions	PMECRG ,ANRF
Development Of A 24hr Operational Hybrid Greenhouse Solar Dryer Integrated With Novel Biogas Auxillary Heating Unit	ASTEC
Studies Of Efficacy Of Upgradation And Utilization Of Northeastern Coal And Biomass For Gasification In A Plant Prototypr And Its Scale Up	CPRI
Modelling And Experimental Based Investigations On Integrated Energy Management Strategies For Hybrid And Electric Vehicles	IITG

B.Tech Laboratories.

Industrial Laboratories

- Thermo -Fluid and Heat Transfer
- Energy materials and Device Fabrication
- Solar and Wind
- Fuel and Combustion

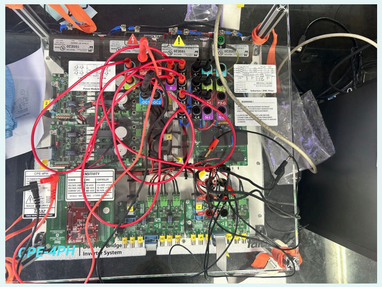
R&D Laboratories

- Analytical lab
- Fuel cell
- Solar Energy
- Advanced Clean Energy System
- Smart Microgrid
- Bioenergy lab
- Biofuel lab

Biogas Development and Training Centre

Computer Centre and Simulation Laboratory

Pensky-Marten apparatus



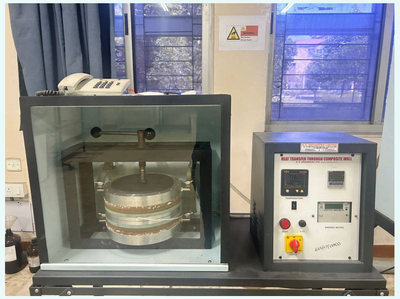
DC-DC converter

Venturimeter

Non Participating gas radiation enclousure

Boiling experimental setup

Redwood Viscometer



Heat transfer through composite wall apparatues

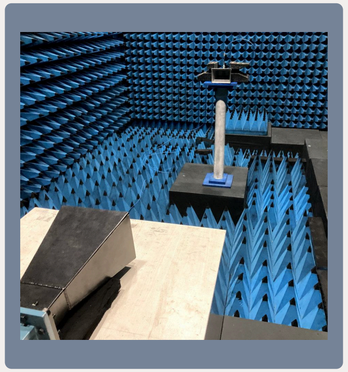
Biofuel lab

Gas chromatography

Instrument Facilities/ Laboratories.

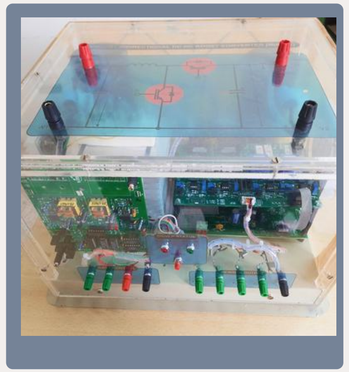
Power Electronics controller

Dual full bridge inverter system



Anechoic Chamber

Biomass Gasifier



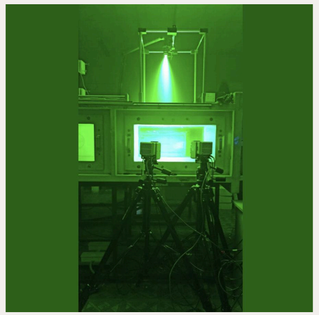
Bi-directional converter

Hydrogen storage and purification system

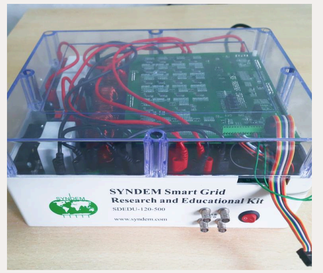
Solar Simulator

Digital signal oscilloscope

Wind Tunnel



*PIV**

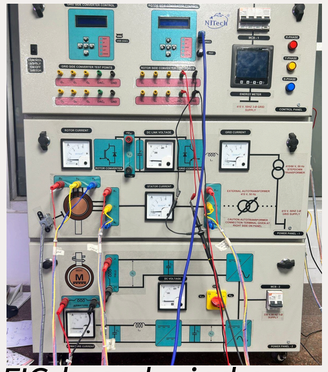


Smart Grid kit

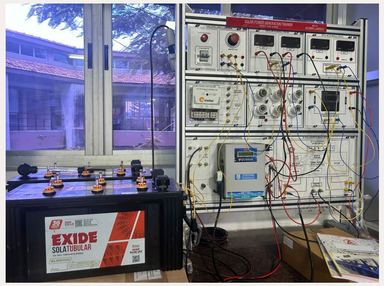
MPPT Boost converter

Instrument Facilities/ Laboratories.

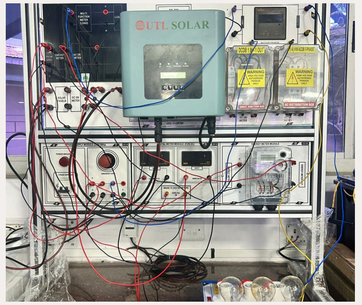
Carbolite gero furnace



DFIG based wind energy conversion system



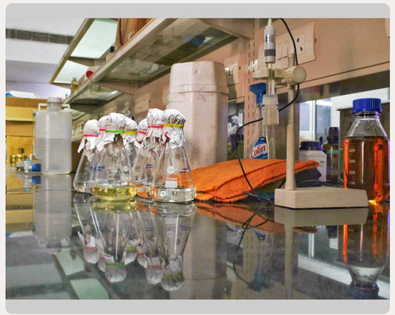
On-grid solar PV System



Off-grid solar pv system

Fumehood apparatus

Potentiostat



Biofuel Lab

Pyrolyzer

Internships

Students actively participate in diverse internship opportunities across industries, research organizations, and academic institutions. These internships allow them to gain practical exposure, hands-on experience, and a deeper understanding of real-world energy challenges.

Achievements

1. Our students won the best poster presentation award (Source : Md. Sabbir Haider Khan, Manish Kumar, and Dr E. S. N. Raju P,Best Poster Presentation Award for the paper titled “Backstepping Control Design for DFIG Wind Turbine System Using Stator Current Sensors,” presented at the 5th IEEE International Conference on Sustainable Energy and Future Electric Transportation (SeFet 2025), held at MNIT Jaipur .
2. MS(R) Students won runner up position in pan India hackathon on renewable energy(Source: Mr. Kamaksh Gurjar, Mr. Sharat Chandra, Mr. Prachurjya Jyoti Hazarika, and Mr. Shivam Raj, M.S. (R) , Runner-up Position in the Pan India IITs Hackathon on Renewable Energy, organized by the Federation of Indian Petroleum Industry (FIPI).
3. Mr. Yashkumar Jitendrabhai Parekh, was honoured with the Dr. Ramamoorthy Best Paper Award in Power Electronics at the 23rd National Power Systems Conference (NPSC 2024) for the Paper titled "Development and Experimental Validation of Cubic-Spline Based Flexible Power Point Tracking for Photovoltaic Systems Under Partial Shading".
4. Our students from B.Tech in Energy Engineering emerged as Runners-Up at Renewathon 2025, a competition organized by Fourth Partner Energy in collaboration with the Energy and Sustainability Club, IIT Bombay. The challenge addressed a critical problem in the field of industrial sustainability. All of them were offered an Internship at Mumbai.
5. At Inter IIT Techmeet 13.0 held at IIT Bombay, our B.Tech students secured 3rd position among all IITs in the Insolation Energy Consulting Problem Statement.
6. In the Albatross Problem Statement at the Inter IIT Techmeet 13.0, which involved proposing innovative refrigeration solutions, our B.Tech students achieved a Top 5 rank.
7. One of our B.Tech students, Pasupuleti Sai, was a National Finalist in the Petroleum Conservation Research Association (PCRA) Saksham Quiz. He secured 1st place in the South Zone and advanced to the National Finals conducted by the Ministry of Petroleum and Natural Gas, Government of India.

Outreach Activities

1. Our School organized International Conference on Advances in Sustainable Solutions for Energy Transitions (ASSET-2025), 02 - 04 January 2025.
2. Organized UNIDO sponsored one-day Technical workshop on Concentrating solar technologies.
3. GIAN course on Advances in Solar Collector Technologies from 3rd March to 7th March 2025
4. Technical talk on “ Futuristic Technologies in Automotive” was held under IEEE IAS chapter Guwahati subsection.

Past Recruiters

Past Recruiters

RACEnergy

TVS

vikram solar

VOLVO

Reliance New Energy

CHETAK

AJMAL SUPER 40
A TRUSTED PLATFORM FOR NEET & JEE

tsmc

JSL JINDAL STAINLESS

pwc

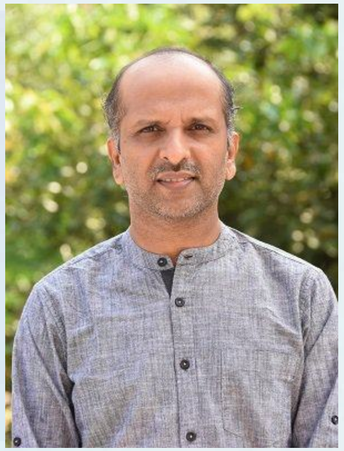
Contact Details.

Prof. Vinayak Kulkarni

Head of the Department

Mail - vinayak@iitg.ac.in

Phone -91 361 2582655



Dr. E S N Raju P

Department Faculty Representative

Mail-pesnraju88@iitg.ac.in

Phone -9491934573

Department Placement Representatives.

Sanat Nagpal
Department Placement Representative

Mail-n.sanat@iitg.ac.in
Phone-7027300051

Jajjalya kashyap
Department Placement Representative

Mail-k.jajjalya@iitg.ac.in
Phone-8473803437

Lead Student Coordinators.

Ashu Kumar
+91- 6206426039

Anirban Ghosh
+91-9434603314

Aagam Bhavesh Mehta
+91- 7715049768

Nidhin Sanilkumar
+91- 9544077328

Soumya Savarn
+91- 8905159211

Lead Student Coordinators.

Mayank Agrawal

+91- 7747961555

Rajat Gupta

+91- 9810557546

Vishnudatta I

+91-9601347674

Bhargavi Divyam

+91- 7635044169

Saikiran Yalgam

+91- 8087158106

Amal Abraham

+91- 9496319791

Phone

+91-361-258-2175
+91-361-258-2171

Website

iitg.ac.in/ccd/
iitg.ac.in/placements/
Department Website

Email

placement@iitg.ac.in (Official placement mail)
hocccd@iitg.ac.in (Head of the centre)
ccd@iitg.ac.in (CCD office)

Location

1st Floor, Administrative Building, Office of the Centre for Career Development, Indian Institute of Technology Guwahati, Assam, India - 781039