### **ABOUT US**

Established in 2012, the Department of Electrical Engineering at IUST offers a B. Tech, M. Tech and Ph.D. in Electrical Engineering. The department has modern infrastructure, qualified faculty trained at reputed institutions, and a curriculum aligned with current industry needs. Undergraduate students receive foundational training in electrical energy systems covering generation, transmission, control, and conversion — and are also exposed to emerging technologies fields like Artificial Intelligence and Robotics. The curriculum includes options for Minor Specialization/Honors in areas like Energy Systems Engineering, Computational Mechanics, VLSI design and Technology, Sustainability Engineering, and Space Technology, promoting interdisciplinary learning. Well-equipped labs provide hands-on experience in key areas such as electromechanical systems, power systems, control systems and computation.



#### **PROGRAMS OFFERED**

B. Tech:

Electrical Engineering

#### **B. Tech Honors in:**

Energy Systems Engineering

### **Minor Specializations in:**

- Artificial Intelligence and Machine Learning
- Sustainability Engineering
- Computational Mechanics
- VLSI design and Technology
- Food Quality and Safety
- Space Technology



### M.Tech :

 Electrical Engineering with Specialization in Electrical Vehicle Technology

Ph. D

Electrical Engineering



## Department of Electrical Engineering

# Achievements

- Graduates of the department have been placed in government sectors as well as renowned national and international companies, including JSW, Mount Vector Energy Inc., and Larsen & Toubro Ltd.
- Our students have secured Ph.D. and postdoctoral positions at prestigious institutions worldwide, including IITs, NITs, and Imperial College London.
- Several alumni have successfully qualified for competitive examinations such as GATE, JKAS etc.
- The department actively promotes entrepreneurship, with students undertaking startup initiatives and innovation-driven projects.
- Faculty members and students have also undertaken extramural research projects funded by agencies such as DST-SERB, JKST&IC, and CIED.

## Faculty

The faculty of the Electrical Engineering Department have exceptional academic credentials, with degrees from highly renowned institutions such as IITs and NITs and advanced specializations across diverse fields within electrical engineering. Faculty members are distinguished by their highquality publications in top-tier journals demonstrating impactful research with high citation counts and strong h-indices.

In addition to publications, several faculty members are involved in working towards technological interventions in local problems which has resulted in multiple patents for the department. The department has secured substantial research funding of more than 1.3 crores from prominent funding bodies, enabling significant projects in power systems, efficiency, and energy emerging technologies that contribute to both academic knowledge and practical industry solutions. This commitment positions the Engineering Electrical Department prominently in research, innovation, and advanced education in the field.

"In the hum of a machine and the flash of a circuit, an electrical engineer finds poetry, innovation, and infinite potential."

"We Step-Up, We Transform."

### **Facilities**

Cutting-edge labs and research facilities support students in achieving global competencies and advancing engineering solutions for a sustainable future.

### Laboratories available:

- 1. High-end Simulation and Computational Lab (with licensed software such as MATLAB, ANSYS, HOMER, PSCAD)
- 2. Power Systems Lab (with inclusion of Solar 500 W-Virtual grid interactive trainer kit)
- 3. Electrical Machines Lab (with advanced Dissectible Machine System)
- 4. Power Electronics and Drives Lab
- 5. Measurement and Instrumentation Lab
- 6. Basic Electrical Engineering Lab
- 7. Control Systems Lab

