



JB INSTITUTE OF ENGINEERING & TECHNOLOGY

(UGC Autonomous)

Yenkapally(V), Moinabad(M), R.R.District, Hyderabad-500075 www.jbiet.edu.in



Accredited by NBA & NAAC, Approved by AICTE & Permanently Affiliated to JNTUH

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

M.TECH

ELECTRICAL POWER SYSTEMS



2-Year Full-Time Program

Eligibility:

B.E./B.Tech in Electrical & Electronics Engineering

Minimum 60% aggregate marks

ADMISSIONS

OPEN FOR 2025-26

CONTACT

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ABOUT THE DEPARTMENT

The Department of Electrical and Electronics Engineering was established in 1998. The Department has been offering the B.Tech in Electrical and Electronics Engineering program since its inception and the M.Tech in Electrical Power Systems since 2004.

- B.Tech Intake: 30 Students
- M.Tech Intake: 12 Students
- NBA Accredited (Tier 1) B.Tech Program with the highest score
- Recognized JNTUH Research Centre
- 3 JNTUH-Recognized Ph.D. Supervisors guiding research scholars
- Established Institution of Engineers (India) – Students Chapter
- Vibrant Students Technical Association (ELEXSA)



M.Tech – Electrical Power Systems (EPS) – Course Highlights

Program Objectives:

- Impart advanced knowledge in planning, operation, and control of modern power systems
- Develop expertise in power system stability, protection, and reliability
- Prepare students for careers in research, industry, consultancy, and academia

Key Areas of Study:

- Power System Analysis and Operation
- Power System Dynamics and Control
- Power System Protection and Relaying
- High Voltage Engineering
- Flexible AC Transmission Systems (FACTS)
- Renewable and Distributed Generation Integration
- Smart Grid Technologies

Laboratory Facilities:

- Power System Simulation Laboratory with modern software tools
- Power System Protection Lab
- Power Electronics Lab
- IPCS Global Pvt Ltd. Industry-Supported Lab
- Research and Development Lab

Faculty Expertise:

- Highly qualified faculty with rich academic and industry experience
- 3 Ph.D. supervisors recognized by JNTUH

Research & Development:

- Recognized JNTUH Research Centre
- Opportunities to work on funded projects and consultancy
- Support for publishing papers and participating in conferences

Infrastructure:

- 12 well-equipped laboratories
- LCD projectors in all classrooms
- Dedicated departmental library resources

Career Opportunities in:

Private Sector

- Power & Energy Companies (Siemens, ABB, GE, Tata Power, BHEL) – design, project execution, maintenance, and automation
- Infrastructure & Construction Firms (Larsen & Toubro) – electrical systems, project operations, and technical consultancy
- IT & Consulting (TCS, Infosys, Wipro, HCL) – system design, analytics, infrastructure consulting—especially in smart grids and energy IT solutions
- Energy Startups & EV Sector – EV charging, battery tech, renewable automation

Government Sector

- Engineering Services via UPSC ESE – Assistant Director/Executive Engineer
- Public Sector Undertakings (PSUs) – NTPC, NHPC, BHEL, PGCIL, and CPSEs like ONGC/IOCL
- Research Labs and Defense Organizations – DRDO, ISRO, CSIR labs, and CPRI
- DISCOMS – Assistant Engineer, Sub Engineer
- State TRANSCO/GENCO Companies – Operations and Maintenance