



**JB INSTITUTE OF ENGINEERING & TECHNOLOGY**

(UGC Autonomous)

Yenkapally(V), Moinabad(M), R.R.District, Hyderabad-500075 [www.jbiet.edu.in](http://www.jbiet.edu.in)



**nirf-Innovation**  
National Institutional Ranking Framework for Innovation  
Ministry of Education, Government of India



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