

Batch-2025-27 Sem-2

M.Tech in EE

Technical Seminar/Mini Project

Sub-Code_ELE624

Choose any one of the following 30 Project Topic

A. Power Systems and Smart Grid

1. Smart Grid Technology and Applications
2. Power System Stability Analysis Using FACTS Devices
3. Load Frequency Control in Power Systems
4. Renewable Energy Integration into Power Grid
5. Microgrid Operation and Control
6. Flexible AC Transmission System (FACTS) Devices Study

B. Renewable Energy Systems

7. Solar Power Generation and Grid Integration
8. Wind Energy Conversion System
9. Hybrid Renewable Energy System (Solar-Wind)
10. Energy Storage Systems in Renewable Energy
11. Solar MPPT Techniques for Maximum Power Extraction
12. Battery Energy Storage System for Smart Grid

C. Power Electronics and Drives

13. Multilevel Inverter for Power Applications
14. Electric Vehicle Charging System Design
15. Variable Frequency Drive (VFD) Applications
16. Power Quality Improvement Using Active Filters
17. DC-DC Converter for Renewable Energy System
18. PWM Techniques for Inverter Applications

D. Electrical Machines

19. Condition Monitoring of Induction Motor
20. Fault Detection in Transformer Using AI Techniques
21. Brushless DC Motor Control Techniques
22. Energy Efficient Motors and Their Applications
23. Transformer Protection Techniques

E. Control Systems and Automation

24. PLC-Based Industrial Automation System
25. SCADA System in Power Distribution
26. IoT-Based Smart Energy Meter
27. Automatic Power Factor Correction System
28. Smart Home Automation Using IoT

F. High Voltage Engineering

29. High Voltage Transmission Line Insulation Study
30. Lightning Protection System for Power Stations