Manufacturing Technology Training
An IMTMA initiative

Electrical Engineering Fundamentals for Non-Electrical Engineers
Date : 15 to 16 December, 2025
Venue : IMTMA Technology Centre, Bengaluru

INTRODUCTION

Electricity is an energy that is a vital part of any industrial setup. From an office to a boiler or any machinery, everything runs on electricity. Hence the knowledge of electrical engineering becomes imperative for successful utilization of electrical energy and operation of electrical equipment.

As a non-electrical engineer, you may want to broaden your perspective on different areas of electrical engineering, ensure that the gaps in your understanding of electrical aspects are filled, and thereby work seamlessly with electrical technicians/support personnel.

Keeping this in mind, IMTMA has planned this program is aimed at covering **Electrical engineering fundamentals for non-electrical engineers.**

FOCUS AREAS

This program covers the important aspects of electrical engineering required for nonelectrical engineers to understand the domain.

- Basics of electricity, generation principles,
- Electric power and circuit fundamentals
- Voltage, current, resistance, energy – Units, laws, measuring techniques
- Power fundamentals, Electrical load fundamentals
- Major electrical equipment in Industry – AC machines, DC machines, Transformers, Generators, Relays, Diodes, Transistors, Rectifiers, Invertors, Batteries, Thyristors, Fuses, Earthing system, Semi-conductors
- Electrical Standards and codes
- Power factor and Load characteristics
- Electrical shock and electrical safety practices
- Various concepts of maintenance from Electrical perspective

KEY TAKE AWAYS

At the end of the program, the participants shall be able to:

- Understand the underlying principles of electrical engineering
- Learn some important laws of electrical engineering
- Know different types of electrical systems, viz, single-phase and three-phase systems
- Apply the relevant electrical aspects learnt to your respective work areas
- Practice safe working methods on electrical systems

PARTICIPATION FEE

Rs. 4999/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 200/-
Overseas Participants

Group Concession : 10% for 3 to 5 and 20% for 6 and more delegates being nominated from the same company

FACULTY

This program will be conducted by **Mr. PRABHAKARA.**

Mr. PRABHAKARA, is an Electrical Engineer having more than 30 years of experience as a Trainer in the field of Electrical, Electronics, Instrumentation, THT & SMT process, PLC, Industrial Control, Electrical Installation, Facility Management Services, Designing & wiring of Electrical Control Panels for industrial applications.

Worked with various companies like NTTF Electronic Training Centre, Solectron Centum & Facility Management Companies.

Freelance Trainer & Consultant for NTTF, GTTC, KGTTI, Triveni Turbines ,Various Facility Management Companies & Certified JURY member at NSDC – India Skill competition at State & National Level.

For Registration Contact

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REGISTRATION : Prior registration for participation is necessary. Number of participants is limited and will be accepted on 'First Come First Serve' basis. A Certificate of participation will be issued to participants.
Important Information : Participation fee includes, course material, working lunch and tea / coffee. Interested companies are requested to register online by clicking on 'REGISTER' button and by filling up the nomination authority and participant's details in specified form.