

# Electrical Engineering Fundamentals for Non-Electrical Engineers Date: 9 to 10 July, 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, Indian Machine Tool Manufacturers' Association 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**

After undergoing the programme, the participants will be able to learn -

- 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. 10450/-

+18% GST

IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others USD 415/-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

Shruthi GS Programme Coordinator 9886331231

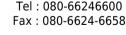
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## **Contact Address**

INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION

@ BIEC, 10th Mile, Tumkur Road, Madavara Post,
Bangalore - 562 123
Tel: 080-66246600





**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