

## 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

## FEE PER PARTICIPANT (PER LOGIN)

**Rs. 4500/-**

+18% GST

**IMTMA Members/ Micro Companies/ Individuals/  
Educational Institutions / Students/ IMTMA Non  
Members/ Others**

**USD 180/-**

**Overseas Participants**

**Group Concession : 20% for 3 to 5 and 30% for 6 and more delegates being nominated from the same company**

## FACULTY

This program will be delivered by **Mr. S H Upadhy** and **Mr. CS Chandrashekar**

**Mr. S H Upadhy** is a graduate in Electrical Engineering from Karnataka Regional Engineering college, Surathkal, now known as NIT-K. He has over 35 years of experience in the field of Plant Engineering in a large public sector undertaking. He has worked in taking care of manufacturing facilities, captive generation facilities, HT and LT power transmission, distribution systems, and all other utilities associated with townships. Besides maintenance, he has worked in Material engineering, Projects, after-sales service, and assembly. He has undergone training in Germany on plant engineering, machine tools, and diesel-operated HT generators. He has wide-ranging experience in conducting various technical training programs for Engineering Industries, Process Industries, and Service Industries. He is currently engaged with IMTMA as a Training faculty.

### Mr. CS Chandrashekar

He is an Electrical Engineering graduate from Bangalore University during 1990.

Mr. Chandrashekar comes with a rich experience 30+ years from various industry domains in Electrical and Control system design for Special Purpose Machines, Automation system design and execution in automotive sector, vacuum application sector, defence sector, Aerospace, space sector and nuclear power sector. He worked as head - Plant Electrical / Machine Maintenance.

## For Registration Contact

**Nagraj Hamilpure**  
**Programme Coordinator**  
9881616902  
[n.hamilpure@imtma.in](mailto:n.hamilpure@imtma.in)

## Contact Address

**INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION**  
Plot 249F, Phase IV, Udyog vihar, Sector - 18,  
Gurgaon - 122015  
Tata no- +91-124-6463101  
Tel : 0124 4014101 - 04  
Fax : +91-124-4014108



imtmatraining.67038796@hdfcbank