Manufacturing Technology Training
An IMTMA initiative

Plant maintenance – Electrical aspects
Date : 16 April, 2025
Venue : IMTMA Technology Centre, Bengaluru

INTRODUCTION

Business and industry runs on electricity, which is either generated or provided by a power generation plant. Any unscheduled failure of electrical setup of an industry would result in large scale production losses on one hand and would increase the cost of maintenance on the other hand.

Therefore, it is imperative for every Industry to keep the breakdown of machinery due to electrical failure to the minimum possible extent. Plant maintenance personnel, well equipped with of the entire electrical system of the industry can ensure better uptime of the industry and improve OEE.

Keeping this in mind, Indian Machine Tool Manufacturers' Association has planned to bring out **maintenance aspects of electrical components** / switchgear to enable increased availability of machinery in an industry.

FOCUS AREAS

- Maintenance aspects of Electrical switchgear used in supply system:
  - Isolators, Measuring systems, HT Breakers, Transformers, Cables, earthing systems, LT Breakers, LT Distribution Boards, Feeders, Breakers - MCCB's.
  - Sub Distribution Boards –MCCB's for each machine/equipment, Isolation facilities for each machine/equipment.
- Maintenance aspects of Electrical components in the machine
  - Motors-AC and DC, Drives, Protection-overload, short circuit, Panel cooling, various types of relays, CNC systems, Sensors, Solenoids in the Hydraulic and Pneumatic circuits.
  - Lub oil coolers, Heat exchangers, Panel air conditioners
  - Various types of control elements like push buttons, indicators, limit switches, feedback elements and safety devices.
- Various concepts of maintenance from Electrical perspective

KEY TAKE AWAYS

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

- Identify a wide range of electrical equipment & switchgear and understand their use in an industry
- Understand the principles of earthing / protection and associated protective devices
- Recognise the most common industrial motor types and understand their operation, connections
- Find ways to diagnose Electrical faults, recognise their associated symptoms and carry out necessary maintenance procedures
- Practice safe working methods on electrical systems

PARTICIPATION FEE

Rs. 6600/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 260/-
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 S H Upadhya.**

Mr S H Upadhya 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.

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.