

## Electrical Maintenance

### Objectives:

Breakdowns in electrical equipment may result in plant shutdowns. Maintenance of motors, motor starters and switchgears will result in increased lifetime of the equipment and improved machine availability. It will also contribute to minimizing energy consumption. Thus, training of personnel enhances capabilities in the area of proper maintenance and also boosts morale/motivation, which is essential for the plant's productivity

The training course provides training in relay testing and fault finding, basic calculations for assessing dimensional capabilities of installations, checking and maintaining transformers and protection equipment, design, layout, degrees of protection of MCCs, motor starter measurements and diagnostics, relationship between load torque and motor torque, inspection and maintenance of motors with brushes, principles of speed regulation for AC/DC motors, measurements and fault finding for motors, safety procedures and hazards

### Participants:

This course addresses Electrical engineers working in maintenance, preparation office, inspection and preventive maintenance.

### Course Outlines:

- Introduction to Electrical Maintenance
- Design Considerations of Cement Plant Electric Installations.
- Grounding Systems.
- Electricity Distribution Networks.
- Transformers
- Protection of Power Transformers
- Medium Voltage Switchgear Maintenance.
- Low Voltage Switchgear.
- Cable Networks and Earthing Network.
- Introduction to Preventive Maintenance System.
- Motors and Starters. .
- AC Drives.
- DC Drives.
- Instrumentation / Field Protection Devices. .
- Kiln Shell Scanner, Cooler Scanner and CCTV Camera Systems.
- Safety Regulations