



Electrical Engineering

# **Electrical Equipment Selection, Applications, Operation, Diagnostic, Testing, Trouble shooting and M**

# Course Introduction

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## The Electrical Equipment Selection

The "Electrical Equipment Selection, Applications, Operation, Diagnostics, Testing, Troubleshooting, and Maintenance" training program offers a comprehensive exploration of essential principles and practices in electrical equipment management. Over the course of five days, participants will delve into fundamental concepts and advanced techniques, covering the entire lifecycle of electrical equipment. From understanding selection criteria and operational principles to mastering diagnostic methods and troubleshooting strategies, participants will gain practical insights and hands-on experience to effectively manage electrical equipment in various industrial settings.

## Target Audience

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- Electrical Engineers and Technicians in the Industrial Sector
- Maintenance Managers and Supervisors
- Electricians and Electrical Contractors
- Plant Operators and Maintenance Personnel
- Facilities Managers and Building Engineers
- Energy Auditors and Sustainability Professionals

## Learning Objectives

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- Gain comprehensive knowledge of electrical equipment selection, operation, diagnostics, testing, troubleshooting, and maintenance practices.
- Familiarize oneself with industry standards, specifications, and regulatory compliance requirements related to electrical equipment.

- Develop skills in identifying, analyzing, and resolving common electrical equipment issues and malfunctions.
- Learn and apply practical insights into diagnostic techniques, testing methods, and maintenance strategies for electrical equipment.
- Implement preventive maintenance programs, optimize equipment performance, and ensure safety and reliability within their organizations.

## Course Outline

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- **DAY 01**

### **Fundamentals of Electrical Equipment Selection and Applications**

- Introduction to Electrical Equipment Selection Criteria
- Understanding Equipment Specifications and Standards
- Application of Electrical Equipment in Various Industries
- Operational Principles and Functionality of Electrical Equipment
- Importance of Energy Efficiency in Electrical Equipment

- **Day 02**

### **Operation and Maintenance of Electrical Equipment**

- Operating Procedures and Safety Precautions for Electrical Equipment
- Preventive Maintenance Techniques and Best Practices
- Troubleshooting Common Operational Issues
- Inspection and Testing Protocols for Electrical Equipment
- Understanding Regulatory Compliance in Electrical Equipment Maintenance

- **Day 03**

### **Diagnostic Techniques for Electrical Equipment**

- Introduction to Diagnostic Methods and Tools
- Understanding Electrical Equipment Performance Metrics
- Interpretation of Diagnostic Test Results

- Analyzing Performance Trends and Anomalies
- Introduction to Infrared Thermography for Equipment Diagnostics
- **Day 04**

### **Troubleshooting Electrical Equipment Issues**

- Identifying Common Electrical Equipment Failures and Malfunctions
  - Root Cause Analysis Techniques for Troubleshooting
  - Systematic Approach to Troubleshooting Electrical Circuits and Components
  - Implementing Corrective Actions and Remediation Strategies
  - Understanding Reliability Centered Maintenance (RCM) for Equipment Troubleshooting
- **Day 05**

### **Advanced Testing and Maintenance Strategies**

- Advanced Testing Methods for Electrical Equipment
- Predictive Maintenance Techniques and Condition Monitoring
- Integration of Technology for Equipment Monitoring and Management
- Developing Comprehensive Maintenance Plans and Schedules
- Introduction to Remote Monitoring and Diagnostics for Electrical Equipment

## **Confirmed Sessions**

FROM	TO	DURATION	FEES	LOCATION
May 26, 2025	May 30, 2025	5 days	4950.00 \$	England - London
July 21, 2025	July 25, 2025	5 days	4250.00 \$	UAE - Dubai
Oct. 5, 2025	Oct. 9, 2025	5 days	4250.00 \$	KSA - Al Khobar

FROM	TO	DURATION	FEES	LOCATION
Dec. 1, 2025	Dec. 5, 2025	5 days	2150.00 \$	Virtual - Online