

ELECTRICAL EQUIPMENT AND SAFETY: OPERATION, CONTROL, MAINTENANCE AND TROUBLESHOOTING

“Enhancing Electrical Safety, Reliability, and Performance Through Effective Operation, Maintenance, and Troubleshooting”

Schedule

Venue (In-house)	Fees
At Your Organization Premises	Ask For The Quotation

Introduction

Electrical systems are the backbone of all industrial and commercial operations. Understanding how to operate, maintain, and troubleshoot electrical equipment safely and effectively is essential for minimizing downtime, ensuring reliability, and preventing costly accidents.

This comprehensive course provides participants with in-depth knowledge of electrical equipment, including motors, transformers, circuit breakers, switchgear, control systems, and protective devices. It focuses on safe operating procedures, preventive and predictive maintenance, and systematic troubleshooting techniques.

Participants will also learn how to identify and mitigate electrical hazards in compliance with international safety standards, ensuring both personnel and equipment protection.

Objectives

By the end of this course, participants will be able to:

- Understand the principles of electrical power systems and equipment operation
- Apply safe working practices and electrical safety procedures
- Operate and maintain electrical equipment for optimal performance
- Diagnose and troubleshoot common electrical faults effectively
- Interpret wiring diagrams, control circuits, and protection schemes
- Perform preventive and predictive maintenance to avoid equipment failures
- Ensure compliance with electrical codes and safety regulations
- Enhance equipment reliability through proper operation and maintenance techniques

Why Attend

This course equips participants with practical skills to handle real-world electrical challenges confidently and safely. Whether managing daily operations, performing maintenance, or troubleshooting failures, participants will gain the technical and safety knowledge necessary to reduce risks, improve efficiency, and extend equipment life.

It is a must-attend program for professionals responsible for electrical systems, providing hands-on insights that lead to safer and more efficient work practices.

Target Audience

This course is designed for:

- Electrical Engineers and Technicians
- Maintenance and Reliability Engineers
- Plant and Facility Engineers
- Operations Supervisors and Team Leaders
- Safety Officers and Technical Personnel
- Anyone involved in electrical system operation or maintenance

Individual Benefits

- Strengthen understanding of electrical systems and components
- Gain practical troubleshooting and diagnostic skills
- Learn safe working practices for electrical maintenance
- Improve ability to prevent and manage electrical failures
- Enhance confidence in handling live electrical environments safely

Organizational Benefits

- Improve equipment reliability and minimize downtime
- Ensure compliance with electrical safety regulations
- Reduce maintenance costs and unplanned outages
- Promote a culture of safety and preventive maintenance
- Build in-house technical expertise in electrical systems management

Instructional Methodology

The course combines theory with practical learning through:

- Expert-led presentations and safety demonstrations
- Real-world case studies and problem-solving exercises
- Electrical circuit analysis and control simulations
- Interactive workshops on maintenance and troubleshooting
- Q&A and feedback sessions for specific workplace challenges

Course Outline

- Module 1: Overview of Electrical Power Systems and Equipment
- Module 2: Electrical Safety Principles and Hazard Identification
- Module 3: Motor Operation, Control, and Protection
- Module 4: Transformers and Power Distribution Equipment
- Module 5: Switchgear, Circuit Breakers, and Fuses
- Module 6: Electrical Control Systems and Automation Basics
- Module 7: Preventive and Predictive Maintenance Techniques
- Module 8: Troubleshooting of Electrical Circuits and Equipment Failures
- Module 9: Electrical Testing, Measurement, and Documentation
- Module 10: Safety Standards, Regulations, and Best Practices

Certification

Upon successful completion, participants will be awarded a Certificate in Electrical Equipment and Safety: Operation, Control, Maintenance and Troubleshooting, recognizing their competence in safely managing and maintaining electrical systems for improved reliability and performance.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
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Interested in running this course for your team?

Please contact us:

TEL:

+601116373203

EMAIL:

info@mawaevents.net

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