

ENGINEERING EXCELLENCE IN ELECTRICAL EQUIPMENT

ELC030

COURSE OVERVIEW

This intensive 5-day course provides participants with in-depth knowledge and practical skills in the engineering, operation, and maintenance of critical electrical equipment such as transformers, inverters, and uninterruptible power systems (UPS). Through a blend of theory, case studies, and hands-on exercises, attendees will gain expertise in design, maintenance, troubleshooting, and optimization to enhance equipment performance and reliability.

COURSE OBJECTIVES

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

- Understand principles and operating fundamentals of transformers, inverters, and UPS.
- Apply best practices in the design, selection, and installation of electrical equipment.
- Develop effective maintenance and troubleshooting techniques for optimal performance.
- Integrate advancements and innovations in electrical equipment technology.
- Ensure compliance with industry standards and safety regulations.

WHO SHOULD ATTEND

This course is ideal for electrical engineers, maintenance engineers, utility and plant engineers, project managers, technical managers, and professionals involved in the design, operation, and maintenance of electrical equipment, this course will benefit anyone seeking to enhance their knowledge of electrical equipment engineering and safety.

COURSE DURATION

5 Working Days

COURSE OUTLINES

1. Fundamentals of Electrical Equipment

- Course overview and objectives
- Introduction to transformers, inverters, and UPS, focusing on components and safety standards

2. Transformers

- Transformer types and applications
- Core design, performance, maintenance practices, and troubleshooting techniques

3. Inverters

- Inverter types, functions, and applications
- Power conversion, performance optimization, and fault diagnosis

4. Uninterruptible Power Systems (UPS)

- Overview and types of UPS systems
- Design, configuration, maintenance, and testing procedures

5. Integration and Advanced Topics

- Integrating transformers, inverters, and UPS
- Emerging technologies and smart grid applications
- Case studies, best practices, and practical exercises

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