

**Course Overview:**

Switchgear plays an important role in the safe and reliable distribution of electrical power. Failure to quickly and efficiently disconnect faults downstream in the network, or a failure within the switchgear itself is costly, resulting in loss of supply, damage to equipment and possible injury, to personnel.

It is therefore important that switchgear is selected, installed, operated and maintained correctly, embracing an overall asset management regime that is both economic and effective in securing a high level of system reliability.

**Course Objective:**

Delegates will gain a detailed appreciation of the following:

- Types and rating of switchgear - substation layouts and design - indoor and outdoor
- Switchgear components CT's, VT's, protection relays and cable terminations
- Calculation of fault levels
- Basic earth fault, unit and overload protection schemes
- Safe operational policies, including safety rules and safety documents
- Asset management of equipment
- Diagnostic tools - insulation testing, partial discharge testing, thermal imaging and potential test equipment.
- Make and break testing of trip and contact systems test equipment
- Safe maintenance policies, including safe working practice in switch rooms, indoor and outdoor substations
- National fault reporting schemes

**Course Outline:**

Introduction to Switchgear  
Distribution Switchgear  
Switching, Safety and Earthing Requirements  
HV Gas Insulated Switchgear and Auxiliary Plant Maintenance  
Maintenance and Testing

**Who Should Attend:**

This course is intended for engineers and technicians from substation, distribution station, power utilities, transmission and maintenance in electricity companies. Participants need no specific requirements other than basic understanding of electrical equipment in his work area to gain maximum.

**Training Language:**

EN / AR

**Training Methodology:**

- Presentation & Slides
- Audio Visual Aids
- Interactive Discussion
- Participatory Exercise
- Action Learning
- Class Activities
- Case Studies
- Workshops
- Simulation