





Course: Electrical Switchgear for Engineers

Code	City	hotel	Start	End	price	Hours
753	Cairo (Egypt)	Hotel Meeting Room	2024-04-14	2024-04-18	3050 €	25

Objective

This scope includes material that enables attendees to have in-depth understanding of theory of operation of electrical switchgear and essential issues relevant to daily operation and maintenance of motor control centers and low-voltage, medium-voltage and high-voltage switchgear

Who should Attend

- Electrical Engineers.
- Senior technicians who work in the electrical control and power utilities.
- Technicians who would like to refresh their knowledge.
- Mechanical and chemical Engineers who are interested in control subjects.

Outline

• Introduction to Electrical Switchgear:

- General information about switchgear.
- Switchgear use.
- Switchgear requirements.
- Codes and Standards.
- Types of Switchgear:
 - Classification of switchgear.
 - Switchgear construction:
 - The switchgear assembly.
 - Switchgear enclosures.
 - Mechanical degree of protection.
 - Busbars.
- Switchgear Earthing System
 - Switchgear Earthing Requirements
 - Components Earthing
- Medium Voltage Circuit Breakers, Fused Contactors and Load Break Switch
 - Description for Each Item
 - \circ Differences
- Switchgear Arc Extinction Media and Theory
 - $\circ\,$ Types of Arc Extinction Media
 - $\circ \ Advantages$



- Differences
- Switchgear Protection and Control
 - Switchgear Protection Scheme
 - Control requirements

• Switchgear Metering

- $\circ~$ Metering specifications
- \circ Metering requirements

• Current Transformers

- Types
- Accuracy
- Potential Transformers
 - \circ Types
 - Requirements.

• Factory Acceptance Test (FAT)

- $\circ\,$ Type test
- \circ Routine tests

• Handling and Storage

- $\circ~$ Handling procedures
- $\circ \ {\rm Storage} \ {\rm requirements} \\$
- Erection
 - Safety
 - Erection Preparations
- Site Acceptance Test (SAT)
 - \circ Description
 - Requirements
- Commissioning and Start-up.
 - \circ Procedures
 - $\circ~$ Hand over system

• Trouble Shooting

- $\circ~$ How to deal with
- \circ Requirements



The Scandinavian Academy employs modern methods in training and skills development, enhancing the efficiency of human resource development. We follow these practices:

- Theoretical Lectures:
 - We deliver knowledge through advanced presentations such as PowerPoint and visual materials, including videos and short films.
- Scientific Assessment:
 - $\circ\,$ We evaluate trainees skills before and after the course to ensure their progress.
- Brainstorming and Interaction:
 - We encourage active participation through brainstorming sessions and applying concepts through role play.
- Practical Cases:
 - $\circ\,$ We provide practical cases that align with the scientific content and the participants specific needs.
- Examinations:
 - $\circ\,$ Tests are conducted at the end of the program to assess knowledge retention.
- Educational Materials:
 - $\circ\,$ We provide both printed and digital scientific and practical materials to participants.
- Attendance and Final Result Reports:
 - $\circ\,$ We prepare detailed attendance reports for participants and offer a comprehensive program evaluation.
- Professionals and Experts:
 - $\circ\,$ The programs scientific content is prepared by the best professors and trainers in various fields.
- Professional Completion Certificate:
 - $\circ\,$ Participants receive a professional completion certificate issued by the Scandinavian Academy for
 - Training and Development in the Kingdom of Sweden, with the option for international authentication.
- Program Timings:
 - Training programs are held from 10:00 AM to 2:00 PM and include buffet sessions for light meals during lectures.