





Course: Electrical Switchgear for Engineers

Code	City	hotel	Start	End	price	Hours
753	DUBAI (UAE)	Hotel Meeting Room	2024-09-02	2024-09-06	3450 €	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.
- o 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
- Differences

• Switchgear Arc Extinction Media and Theory

- Types of Arc Extinction Media
- Advantages



- o Differences
- Switchgear Protection and Control
 - o Switchgear Protection Scheme
 - Control requirements
- Switchgear Metering
 - Metering specifications
 - Metering requirements
- Current Transformers
 - Types
 - Accuracy
- Potential Transformers
 - Types
 - Requirements.
- Factory Acceptance Test (FAT)
 - Type test
 - Routine tests
- Handling and Storage
 - Handling procedures
 - \circ Storage requirements
- Erection
 - Safety
 - Erection Preparations
- Site Acceptance Test (SAT)
 - Description
 - Requirements
- Commissioning and Start-up.
 - o Procedures
 - Hand over system
- Trouble Shooting
 - How to deal with
 - 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:

• 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:

• 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:

• We provide both printed and digital scientific and practical materials to participants.

• Attendance and Final Result Reports:

• We prepare detailed attendance reports for participants and offer a comprehensive program evaluation.

• Professionals and Experts:

• The programs scientific content is prepared by the best professors and trainers in various fields.

• Professional Completion Certificate:

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.