



**Energy, Electrical Engineering**



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# Course: Electrical Switchgear for Engineers

Code	City	hotel	Start	End	price	Hours
753	Washington (US)	Hotel Meeting Room	2024-07-22	2024-07-26	6950 €	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
  - Differences
- **Switchgear Arc Extinction Media and Theory**
  - Types of Arc Extinction Media



- Advantages
- Differences
- **Switchgear Protection and Control**
  - 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
  - Storage requirements
- **Erection**
  - Safety
  - Erection Preparations
- **Site Acceptance Test (SAT)**
  - Description
  - Requirements
- **Commissioning and Start-up.**
  - 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:**
  - 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.