





# **Course: Modern Power System Protective Relaying**

Code	City	Hotel	Start	End	Price	Language - Hours
331	Hamburg (Germany)	Hotel Meeting Room	2025-07-14	2025-07-18	5950€	En - 25

### **OVERVIEW**

### After participating in this course, you will be able to:

- use your knowledge of protection techniques
- further your understanding of protective devices
- determine your own relay settings
- apply your awareness of recommended practices in protection schemes
- understand problems generally faced and solutions

### Description

Protection of low, medium and high voltage power systems requires an understanding of system faults and their detection, as well as their safe disconnection from the power system. This course presents a comprehensive and systematic description of the concepts and principles of operation and application of protection schemes for various power system elements such as feeders, transformers, motors, buses and generators. This course deals with protection systems from a practical perspective and includes important functional aspects such as testing and coordination of protection systems.

This course is specially designed for industries and utilities which depend on proper system protection for operational efficiency and minimizing damage to equipment.

### Who Should Attend



- Engineers
- Technicians and Technologists in the Industrial, Consulting and Utility fields
- Those Involved in Design, Regulatory Inspection, Operation and Maintenance

## **Course Outline**

- Power System Faults
- Components of Power System Protection Schemes
- Current Transformers and Voltage Transformers
- Feeder Overcurrent Protection
- Coordination of Electrical Protection Systems
- Motor protection
- Bus Protection
- Transformer Protection
- Generator Protection
- Cogeneration and Non-Utility Generation (NUG) Protection
- Transmission Line Protection
- Capacitor Protection



The Scandinavian Academy for Training and Development 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 coffee break sessions during lectures.