





# Course: Grounding and Bonding of Electrical Systems

Code	City	hotel	Start	End	price	Language - Hours
332	Al Baha	Hotel Meeting	2025-11-09	2025-11-13	12450 SR	En - 25

# **OVERVIEW**

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

- Identify and prevent safety hazards to personnel who come in contact with electrical systems
- Prevent equipment failures and malfunctions by employing proper grounding techniques
- Interpret codes and standards related to grounding
- Ensure proper operation of communication, computer and control systems by proper grounding and bonding
- Apply to your projects lightning protection methods

# Description

Grounding and bonding systems ensure that electrical systems are safe from electric shock and fires by limiting the voltage imposed by lightning, line surges, or unintentional contact with high voltage lines as well as a ground-fault. An integrated approach of theory and practice will ensure you have a firm foundation of knowledge when you begin your next design or construction project, or when you encounter problems in your electrical system which must be corrected for safety, operational or power quality reasons.

Case studies will be presented to discuss grounding and bonding applications in a



variety of areas (industrial and substation) in order to reinforce fundamental grounding principles common to a variety of applications.

#### Who Should Attend

- Electrical Engineers
- Design Engineers Managers
- Project Managers
- Power Quality Specialists
- Maintenance Managers Consultants
- Electronics and Controls personnel
- Traffic Signal Designers and Operators
- Technologists

# **Course Outline**

- Grounding
- Grounding vs. bonding
- Electrical code requirements and standards
- Grounding resistance and resistivity
- Substation grounding
- Electronic equipment
- Lightning protection
- Measurement techniques



The Scandinavian Academy for Training Center adopts the latest scientific and professional methodologies in training and human resource development, aiming to enhance the efficiency of individuals and organizations. Training programs are delivered through a comprehensive approach that includes:

- Theoretical lectures supported by PowerPoint presentations and visual materials (videos and short films).
- Scientific evaluation of participants before and after the program to measure progress and knowledge acquisition.
- Brainstorming sessions and practical role-playing to simulate real-life scenarios.
- Case studies tailored to align with the training content and participants work nature.
- Assessment tests conducted at the end of the program to evaluate the achievement of training objectives.

Each participant receives the training material (both theoretical and practical) in printed form and saved on a CD or flash drive. Detailed reports, including attendance records, final results, and overall program evaluations, are also provided.

Training materials are prepared professionally by a team of experts and specialists in various fields. At the end of the program, participants are awarded a professional attendance certificate, signed and accredited by the Scandinavian Academy for Training Center.

# **Program Timings:**

• 9:00 AM to 2:00 PM

# The program includes:

- A daily buffet provided during the sessions to ensure participants comfort.
- A closing ceremony on the final day to distribute certificates and celebrate participants achievements.