

Scandinavian Academy
Training Center

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Riyadh - Al Khaleej District - Sheikh Abdul Aziz Bin Abdul Rahman Bin Bishr Street - 13223 - Office No. 5 | P.O.BOX : 13224

# Course: High Voltage Test Techniques

| Code | City | hotel | Start | End | price | Language - Hours |
|---|---|---|---|---|---|---|
| EE-425SA | Al Khobar | Hotel Meeting | 2027-01-24 | 2027-01-28 | 12950 SR | En - 25 |

## Introduction:

The High Voltage Test Techniques course provides an in-depth understanding of high voltage testing techniques and equipment for electrical power systems. Participants will learn about different types of high voltage tests, including power frequency withstand, partial discharge, and impulse tests, as well as the standards and regulations that govern high voltage testing. The course will cover the principles of high voltage testing, including the measurement and interpretation of test results, and the methods for ensuring safe and reliable testing practices. The course is designed for engineers, technicians, and other professionals involved in the design, commissioning, and maintenance of high voltage power systems. Through a combination of lectures, case studies, and hands-on exercises, participants will gain practical knowledge and skills for high voltage testing, as well as the safe and reliable operation of high voltage power systems.

## Course Objectives:

- Understand the principles of high voltage testing and its importance in ensuring safe and reliable operation of power systems.
- Gain knowledge of the different types of high voltage tests and their applications in electrical power systems.
- Learn about the standards and regulations that govern high voltage testing, including safety regulations and international standards.
- Acquire practical skills for conducting high voltage tests, including power frequency withstand, partial discharge, and impulse tests.

- Learn about the measurement and interpretation of test results, and the methods for ensuring accurate and reliable test data.
- Understand the importance of safety in high voltage testing and acquire practical skills for ensuring safe and reliable testing practices.
- Gain an understanding of the latest trends and innovations in high voltage testing techniques and equipment.

# Course Outline:

### Introduction to High Voltage Test Techniques

- Overview of high voltage testing
- Importance of high voltage testing
- Types of high voltage tests

### Testing Equipment

- High voltage testing equipment
- Calibration and maintenance of high voltage testing equipment
- Safety considerations in using high voltage testing equipment.

### High Voltage Testing Standards

- Overview of high voltage testing standards
- IEC, IEEE, and other relevant standards
- Interpretation of standards

### AC High Voltage Testing

- AC high voltage testing techniques
- Power frequency testing
- Very low frequency testing

- Partial discharge testing
- Cable testing

## DC High Voltage Testing

- DC high voltage testing techniques
- DC voltage testing
- DC insulation testing
- DC cable testing

## High Voltage Testing of Gas-Insulated Switchgear (GIS)

- Overview of GIS systems
- Importance of high voltage testing in GIS systems
- GIS testing techniques
- Partial discharge testing in GIS systems

## High Voltage Testing of Power Transformers

- Overview of power transformers
- Importance of high voltage testing in power transformers
- Transformer testing techniques
- Insulation resistance testing
- Applied voltage testing.

## Safety in High Voltage Testing

- Safety procedures for high voltage testing
- Personal protective equipment (PPE)
- Emergency procedures

## Case Studies and Best Practices

- Real-world examples of high voltage testing

- Best practices for high voltage testing
- Lessons learned and future trends.

**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.
- **Note: All prices are exclusive of 15% Value Added Tax (VAT).**

# Our Success Partners

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