



*Training Course:  
Modern Electrical Power System*

*6 - 10 June 2027  
Sharm El-Sheikh (Egypt)  
Sheraton Sharm Hotel*

## Training Course: Modern Electrical Power System

Training Course code: EN12332 From: 6 - 10 June 2027 Venue: Sharm El-Sheikh (Egypt) - Sheraton Sharm Hotel Training Course Fees: 5100 € Euro

### Introduction

Modern electrical power systems are evolving rapidly to meet increasing demand, integrate renewable energy, and enhance reliability and efficiency. Advanced technologies such as smart grids, digital monitoring, and automated control systems are transforming the way electricity is generated, transmitted, and distributed.

This program, designed by Global Horizon Training Center, equips participants with comprehensive knowledge of modern power system concepts, technologies, and operational strategies to manage and optimize electrical networks effectively.

### Course Objectives

By the end of this program, participants will be able to:

- Understand the structure and operation of modern power systems
- Analyze generation, transmission, and distribution networks
- Apply concepts of smart grids and digital transformation
- Manage power system stability and reliability
- Integrate renewable energy sources into the grid
- Utilize monitoring and control systems SCADA/EMS
- Identify and mitigate system faults and disturbances
- Improve system performance and efficiency

### Target Audience

This program is designed for:

- Electrical and Power Engineers
- Utility and Energy Sector Professionals
- Transmission and Distribution Engineers
- SCADA and Control Room Operators
- Maintenance and Operations Personnel
- Technical Specialists in power systems

### Outline

#### Day 1: Fundamentals of Modern Power Systems

- Overview of power system structure generation, transmission, distribution
- Evolution of electrical power systems
- Key components and technologies
- Introduction to smart grids
- Power system challenges and trends

#### Day 2: Power Generation and Renewable Integration

- Conventional power generation systems
- Renewable energy sources solar, wind, hydro
- Grid integration challenges
- Energy storage systems
- Hybrid power systems

#### Day 3: Transmission and Distribution Systems

- Transmission line design and operation
- Distribution network configurations
- Voltage control and reactive power management
- Power losses and efficiency
- System planning and expansion

#### Day 4: Control, Protection, and Automation

- Power system protection schemes
- Relays and fault detection
- SCADA and Energy Management Systems EMS
- Automation and digital control
- Cybersecurity considerations

#### Day 5: Stability, Reliability, and Optimization

- Power system stability steady-state and transient
- Reliability indices and performance metrics
- Load forecasting and demand management
- System optimization techniques
- Case studies and real-world applications

## Registration form on the Training Course: Modern Electrical Power System

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

### Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
Telephone / Mobile: .....  
Personal E-Mail: .....  
Official E-Mail: .....

### Company Information

Company Name: .....  
Address: .....  
City / Country: .....

### Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
Telephone / Mobile: .....  
Personal E-Mail: .....  
Official E-Mail: .....

### Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
- ☐ Please invoice me
- ☐ Please invoice my company

### Easy Ways To Register

Telephone:  
+201095004484 to  
provisionally reserve your  
place.

Fax your completed  
registration  
form to: +20233379764

E-mail to us :  
info@gh4t.com  
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Complete & return the  
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to: Global Horizon  
3 Oudai street, Aldouki,  
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