



*Training Course:  
Solar Photovoltaic (PV) Technology*

*4 - 8 July 2027  
Cairo (Egypt)*

## Training Course: Solar Photovoltaic (PV) Technology

Training Course code: EN234721 From: 4 - 8 July 2027 Venue: Cairo (Egypt) - Training Course Fees: 4410 € Euro

### Introduction

Solar Photovoltaic PV technology is a key enabler of the global transition toward clean and sustainable energy. By converting sunlight directly into electricity, PV systems provide reliable, scalable solutions for residential, commercial, and utility-scale applications. Understanding PV principles, system components, and performance factors is essential for effective deployment and optimization.

This program, designed by Global Horizon Training Center, equips participants with the technical knowledge and practical insights required to design, install, operate, and maintain solar PV systems in accordance with industry standards.

### Course Objectives

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

- Understand the principles of solar energy and photovoltaic conversion
- Identify PV system components and configurations
- Design and size solar PV systems based on energy requirements
- Select appropriate modules, inverters, and balance-of-system components
- Apply best practices for installation and system integration
- Evaluate system performance and energy output
- Perform basic maintenance and troubleshooting
- Ensure compliance with safety and regulatory standards

### Target Audience

This program is designed for:

- Electrical and Renewable Energy Engineers
- Solar Installation Technicians
- Project Engineers in renewable energy
- Facility and Energy Managers
- Maintenance and Operations Personnel
- Professionals interested in solar energy technologies

### Outline

#### Day 1: Fundamentals of Solar PV Technology

- Introduction to solar energy and PV principles
- Types of PV cells and modules
- Solar radiation and site assessment
- PV system types grid-tied, off-grid, hybrid
- Components of PV systems

#### Day 2: PV System Design and Sizing

- Load analysis and energy demand assessment
- System sizing and configuration
- Selection of PV modules and inverters
- Electrical design and wiring considerations
- Design software tools and applications

#### Day 3: Installation Practices and Safety

- Site preparation and mounting systems
- Panel installation and alignment
- Electrical connections and grounding
- Safety standards and procedures
- Quality control during installation

#### Day 4: System Performance and Monitoring

- Performance evaluation and energy output analysis
- Monitoring systems and data analysis
- Identifying performance issues
- Maintenance strategies
- Troubleshooting PV systems

#### Day 5: Integration, Storage, and Advanced Applications

- Integration with energy storage systems
- Grid connection and net metering
- Smart PV systems and digital tools
- Energy efficiency and optimization
- Case studies and real-world applications

## Registration form on the Training Course: Solar Photovoltaic (PV) Technology

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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  
or training@gh4t.com

Complete & return the  
booking form with cheque  
to: Global Horizon  
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Giza, Giza Governorate,  
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