



*Training Course:  
Gas Detection Systems: Design, Installation, and  
Compliance*

*17 - 21 January 2027  
Istanbul (Turkey)  
DoubleTree by Hilton Istanbul Esentepe*

## Training Course: Gas Detection Systems: Design, Installation, and Compliance

Training Course code: EN235464 From: 17 - 21 January 2027 Venue: Istanbul (Turkey) - DoubleTree by Hilton Istanbul Esentepe Training Course Fees: 6825 ₺ Euro

### Introduction

Gas detection systems are essential for ensuring safety in environments where hazardous gases may be present. Effective system design, proper installation, and strict compliance with international standards are critical to preventing incidents and maintaining safe operations.

This program, designed by Global Horizon Training Center, equips participants with the technical knowledge and practical expertise required to design, install, and ensure compliance of gas detection systems across industrial and commercial applications.

### Course Objectives

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

- Understand design principles for gas detection systems
- Select appropriate detection technologies based on risk assessment
- Develop system layouts aligned with international standards
- Apply best practices in installation and commissioning
- Ensure compliance with safety regulations and industry codes
- Perform inspection, testing, and system validation
- Identify and mitigate common design and installation challenges
- Integrate gas detection systems with broader safety infrastructures

### Target Audience

This program is designed for:

- Electrical and Instrumentation Engineers
- HSE Engineers and Safety Officers
- Design and Project Engineers
- Maintenance and Facility Management Professionals
- Oil & Gas and Petrochemical Industry Personnel
- Technicians responsible for installation and commissioning

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### Outline

#### Day 1: Principles of Gas Detection System Design

- Fundamentals of gas hazards and risk assessment
- Types of gases and detection requirements
- Design considerations based on facility type and risk level
- Overview of international standards IEC, NFPA, ATEX
- System specifications and performance criteria

#### Day 2: Detection Technologies and System Selection

- Overview of gas detection technologies IR, catalytic, electrochemical, PID
- Fixed vs. portable detection systems
- Sensor selection and application criteria
- Environmental and operational considerations
- System selection based on hazard scenarios

#### Day 3: Installation and Commissioning Practices

- Installation standards and site preparation
- Detector placement and coverage optimization
- Wiring, cabling, and hazardous area requirements
- Commissioning procedures and functional testing
- Documentation and system handover

#### Day 4: Compliance, Inspection, and Maintenance

- Regulatory frameworks and compliance requirements
- Inspection routines and testing protocols
- Calibration procedures and maintenance schedules
- Audit preparation and documentation
- Managing system lifecycle and upgrades

#### Day 5: Integration, Safety Systems, and Case Studies

- Integration with fire and emergency systems
- Interface with control systems SCADA, BMS
- Alarm management and response planning
- Incident prevention and safety improvements
- Case studies and practical applications

## Registration form on the Training Course: Gas Detection Systems: Design, Installation, and Compliance

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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  
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