Global Horizon
TRAINING CENTER

Training Course:
Building Automation Systems (BAS)

20 - 24 July 2025
Dubai (UAE)
Residence Inn by Marriott Sheikh Zayed Road, Dubai

Training Course:
Building Automation Systems (BAS)

Training Course code: EN235839 From: 20 - 24 July 2025 Venue: Dubai (UAE) - Residence Inn by Marriott Sheikh Zayed Road, Dubai Training Course Fees: 5300 ⬜ Euro

Introduction

Building Automation Systems BAS are critical for modern building management, enabling energy efficiency, cost reduction, and improved occupant comfort. This training program provides a comprehensive understanding of BAS components, communication protocols, integration techniques, and troubleshooting methods. Participants will gain both theoretical knowledge and practical skills in managing and optimizing BAS.

Target Audience

- Facility managers and engineers
- HVAC technicians and contractors
- Electrical and mechanical engineers
- IT professionals involved in smart building technologies
- Energy and sustainability managers

Objectives

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

- Understand the fundamentals of BAS and its role in building management
- Identify and operate key components of BAS, including controllers, sensors, and actuators
- Work with industry-standard communication protocols such as BACnet, Modbus, and LonWorks
- Optimize building energy efficiency using BAS features
- Troubleshoot and maintain BAS for long-term operational efficiency
- Understand cybersecurity risks and strategies for BAS protection

Training Program Outline

Day 1: Introduction to Building Automation Systems BAS

- Overview of BAS and its importance in modern buildings
- Components of BAS: Controllers, sensors, actuators, and interfaces
- BAS architecture and system integration
- Overview of industry standards and protocols ASHRAE, ISO, etc.
- Hands-on: Exploring a BAS interface

Day 2: BAS Communication Protocols & System Integration

- Understanding communication protocols:
  - BACnet - Open standard for building automation
  - Modbus - Industrial automation and control
  - LonWorks - Networked control systems
- BAS system interoperability and integration with HVAC, lighting, security, and fire systems
- Cloud-based BAS and IoT integration for smart buildings
- Hands-on: Setting up and configuring BACnet and Modbus communication

Day 3: BAS Energy Management & Optimization

- The role of BAS in energy efficiency and sustainability
- Demand response and load management strategies
- HVAC optimization and smart scheduling techniques
- Case studies: Successful BAS implementation for energy savings
- Hands-on: Configuring energy-saving automation strategies

Day 4: Troubleshooting & Maintenance of BAS

- Common BAS issues and their root causes
- Diagnosing system errors using BAS software
- Predictive maintenance and remote monitoring
- Updating firmware and software for BAS components
- Hands-on: Simulating and resolving BAS system faults

Day 5: BAS Cybersecurity & Future Trends

- Cybersecurity threats in BAS: Risks and vulnerabilities
- Securing BAS networks: Firewalls, encryption, and access control
- The role of AI and machine learning in future BAS developments
- Emerging trends in smart buildings and digital twins
- Hands-on: Implementing cybersecurity best practices in BAS

Registration form on the Training Course:
Building Automation Systems (BAS)

Training Course code: EN235839 From: 20 - 24 July 2025 Venue: Dubai (UAE) - Residence Inn by Marriott Sheikh Zayed Road, Dubai Training Course Fees: 5300 Euro

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 3 Oudai street, Aldouki, Giza, Giza Governorate, Egypt. |