



*Training Course:  
Strategic Production Engineering for Smart  
Manufacturing*

*10 - 14 August 2025*

*Cairo (Egypt)*

*Holiday Inn & Suites Cairo Maadi, an IHG Hotel*

## Training Course: Strategic Production Engineering for Smart Manufacturing

Training Course code: EN236137 From: 10 - 14 August 2025 Venue: Cairo (Egypt) - Holiday Inn & Suites Cairo Maadi, an IHG Hotel Training Course Fees: 4200 € Euro

### Introduction

Production Engineering is evolving to meet the demands of smart manufacturing, digital transformation, and global competitiveness. Organizations require a new generation of engineers who not only understand traditional manufacturing systems, but can also lead innovation, automation, and continuous improvement initiatives.

This 5-day training program is designed to equip professionals with a strategic understanding of modern production engineering practices, including digital integration, system optimization, data-driven operations, and agile manufacturing methods. Participants will explore how to build flexible, efficient, and intelligent production systems aligned with Industry 4.0.

### Course Objectives

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

- Understand the role of production engineering in digital and smart manufacturing.
- Design efficient and adaptive production systems.
- Apply tools for real-time monitoring, automation, and performance optimization.
- Use data analytics to improve decision-making and operational control.
- Integrate lean, agile, and sustainable practices into production strategies.

### Target Audience

This program is ideal for professionals in engineering, operations, and industrial management, including:

- Production Engineers and Plant Managers.
- Industrial and Systems Engineers.
- Process Improvement Specialists.
- Manufacturing and Operations Leaders.
- R&D and Automation Engineers.

## Outlines

### Day 1: The Future of Production Engineering

- Evolution of production systems in the era of smart manufacturing.
- Key trends: digitalization, connectivity, real-time control.
- Role of production engineering in Industry 4.0.
- Interactive workshop: Assessing your current production maturity level.

### Day 2: Smart Systems Design & Optimization

- Designing agile and flexible production lines.
- Integrating sensors, IoT, and cyber-physical systems.
- Simulation tools and digital twins for production planning.
- Case study: Optimizing a digital production flow.

### Day 3: Real-Time Monitoring & Automation

- Smart automation: robotics, PLCs, and machine learning.
- Production monitoring systems SCADA, MES.
- Predictive maintenance using AI and sensor data.
- Hands-on session: Building a simple smart monitoring plan.

### Day 4: Data-Driven Production Engineering

- Using production data for performance analysis.
- Key KPIs: throughput, downtime, cycle time, yield.
- Data visualization dashboards for operations control.
- Workshop: Creating a data-driven decision support model.

### Day 5: Agile, Lean & Sustainable Production

- Integrating lean and agile practices in modern factories.

- Sustainable engineering and resource-efficient design.
- Managing rapid change and continuous improvement.
- Group exercise: Designing a lean-smart production system.

## Registration form on the Training Course: Strategic Production Engineering for Smart Manufacturing

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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
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### Easy Ways To Register

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