



*Training Course:  
Plant Reliability: Modelling, Analysis and  
Prediction*

*21 - 25 June 2026*

*Cairo (Egypt)*

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

## Training Course: Plant Reliability: Modelling, Analysis and Prediction

Training Course code: EN6021 From: 21 - 25 June 2026 Venue: Cairo (Egypt) - Holiday Inn & Suites Cairo Maadi, an IHG Hotel Training Course Fees: 4410 € Euro

### Introduction

Plant reliability is a critical factor in ensuring continuous operations, minimizing downtime, and optimizing asset performance in industrial environments. Advanced reliability modeling and predictive techniques enable organizations to anticipate failures, improve maintenance strategies, and enhance operational efficiency.

This program, designed by Global Horizon Training Center, equips participants with advanced methodologies, analytical tools, and practical skills to model, analyze, and predict equipment and system reliability, supporting data-driven maintenance and operational excellence.

### Course Objectives

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

- Understand principles of reliability engineering
- Apply reliability modeling techniques
- Analyze failure data and system performance
- Use statistical methods for reliability prediction
- Implement predictive maintenance strategies
- Conduct failure mode and risk analysis
- Improve asset reliability and lifecycle management
- Support decision-making using reliability data

### Target Audience

This program is designed for:

- Maintenance and Reliability Engineers
- Asset and Operations Managers
- Mechanical and Electrical Engineers
- Oil & Gas and Industrial Professionals
- Quality and Performance Analysts
- Technical staff involved in asset management

### Outline

#### Day 1: Fundamentals of Reliability Engineering

- Introduction to reliability concepts
- Failure modes and mechanisms
- Reliability metrics MTBF, MTTR
- System reliability basics
- Safety and risk considerations

#### Day 2: Reliability Modeling Techniques

- Reliability block diagrams RBD
- Fault tree analysis FTA
- Failure mode and effects analysis FMEA
- System modeling approaches
- Practical applications

#### Day 3: Data Analysis and Statistical Methods

- Failure data collection and analysis
- Probability distributions Weibull, exponential
- Reliability prediction techniques
- Trend analysis and forecasting
- Software tools basics

#### Day 4: Predictive Maintenance and Condition Monitoring

- Predictive maintenance strategies
- Condition monitoring techniques vibration, thermography
- Data-driven maintenance
- Performance monitoring
- Integration with maintenance systems

#### Day 5: Optimization, Risk Management, and Case Studies

- Reliability-centered maintenance RCM
- Risk assessment and mitigation
- Asset lifecycle optimization
- Best practices in reliability engineering
- Case studies and real-world applications

## Registration form on the Training Course: Plant Reliability: Modelling, Analysis and Prediction

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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
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### Easy Ways To Register

Telephone:  
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place.

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