

# € TRAINING

Maintenance & Reliability Best Practices



3 - 7 November 2024  
Cairo (Egypt)



# Maintenance & Reliability Best Practices

REF: O388 DATE: 3 - 7 November 2024 Venue: Cairo (Egypt) - Fee: 4465 Euro

## Introduction:

Lower revenues due to lower commodity prices have placed equipment life-cycle costs under the management spotlight like never before. Maintainers are faced with the challenge to deliver the same levels of equipment safety, reliability, and availability with smaller budgets. This Maintenance Engineering training course on Maintenance & Reliability Best Practices introduces the practical tools and practices that organizations need to adopt to drive down their equipment life-cycle costs in practical ways.

This Maintenance Engineering training course emphasizes the most effective strategies, policies, tactics, and practices that are needed to ensure the reliability, integrity, and durability of the physical assets through their life-cycle.

## Course Objectives:

At the end of this course the participants will be able to:

- Understand the concepts of costs, capital, profit and ROI
- Understand the cost impact of unanticipated failure
- Apply proactive policies to reduce future maintenance costs
- Structure and analyze failure data to reduce repetitive failures
- Identify root causes of unanticipated failure costs
- Reduce resource costs through efficient work management practices

## Targeted Audience:

- Planners
- Supervisors
- Engineers
- Reliability Engineers
- Maintenance Team Leaders and Managers
- Operations Team Leaders and Managers

## Course Outlines:

### Unit 1: Equipment Life-cycle Cost Introduction:

- Definitions of Reliability, Maintenance & Asset Management
- The Concept of Costs, Capital, Profits, and Return On Investment
- The Asset Healthcare Model
- Key Areas of Asset Management
- Open Discussion Sessions

### Unit 2: Cost Factors and Causes:

- The Real Cost of Unanticipated Failure
- Asset Performance Standards

- The Forms of Asset Failure and Degradation
- The Causes and Nature of Asset Failure and Degradation
- The Effects, Cost, and Risks of Asset Degradation

### Unit 3: Breaking the Cycle of Degradation and Costs:

- Programmed Maintenance
- Programmed Maintenance Intervals
- Condition-based Maintenance Intervals
- Implementing Optimised PM Programs
- Optimizing Spares to Support the Maintenance Program

### Unit 4: Cost Reduction through Defect Elimination:

- Failure Data Collection and Analysis
- The Impact of Chronic Failures vs. Intermittent Failures
- Focus Improvement through Pareto Analysis
- Quantify losses in Life Cycle Terms
- Rigorous Root Cause Analysis Techniques
- Discussion of Software and Templates to Support Analysis

### Unit 5: Work Management converts Strategy to Practice:

- Work Identification and Defect Reporting
- The Importance of Backlog
- Planning for Quality and Reliability
- Capacity Planning
- Scheduling for Efficiency
- Work Logistics and Preparation
- Checklists and Practical Aspects Work Quality Control
- Final Discussion and Evaluation