

# TECHNICAL OPERATION, DIAGNOSTICS AND MAINTENANCE MASTERCLASS

Start Date:	22/12/2025	End Date:	26/12/2025
Categories:	Engineering & Maintenance	Venues:	Amsterdam
Formats:	In Person	Instructors:	

## OVERVIEW

This MasterClass provides an in-depth exploration of the critical aspects of technical operations, diagnostics, and maintenance. Participants will gain advanced knowledge and practical skills essential for optimizing asset performance, ensuring operational reliability, and implementing effective maintenance strategies within complex technical environments.

## OBJECTIVES

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

- Master advanced diagnostic techniques for identifying root causes of technical failures.
- Develop comprehensive preventive and predictive maintenance plans based on industry best practices and data analytics.
- Understand and apply relevant industry standards (e.g., ISO 55000) for asset management and maintenance.
- Enhance troubleshooting skills for complex technical systems and equipment.
- Implement effective strategies for maintenance resource optimization and cost control.
- Improve communication and collaboration between operations, maintenance, and engineering teams.

## COURSE OUTLINE

1- Advanced Diagnostic Methodologies 2- Strategic Maintenance Planning & Execution 3- Asset Performance Management & Reliability Engineering 4- Maintenance Technologies & Digitalization

## TARGET AUDIENCE

Maintenance Managers, Reliability Engineers, Operations Supervisors, Technical Leads, Senior Technicians, and anyone responsible for the operational integrity and maintenance of technical assets.

## METHODOLOGY

The MasterClass will utilize a blend of expert-led presentations, case studies from various industries (e.g., manufacturing, energy, transportation), interactive workshops, diagnostic tool demonstrations, and group problem-solving sessions focused on real-world technical challenges.

## CONCLUSION

Upon completion of this MasterClass, participants will be equipped with the advanced knowledge and practical skills to significantly improve the efficiency, reliability, and cost-effectiveness of their organization's technical operations and maintenance programs, ensuring sustained asset performance and operational excellence.

## DAILY AGENDA

### Day 1: Foundations of Technical Operations & Diagnostics

This day focuses on establishing a strong understanding of core technical operational principles and introduces fundamental diagnostic methodologies, including common failure modes and initial troubleshooting steps.

### Day 2: Advanced Diagnostic Techniques & Root Cause Analysis

Participants will delve into sophisticated diagnostic tools and techniques, such as vibration analysis, thermography, and non-destructive testing, alongside structured Root Cause Analysis (RCA) frameworks like FMEA and FTA.

### Day 3: Strategic development of preventive and predictive maintenance programs

This day covers the strategic development of preventive and predictive maintenance programs, incorporating reliability-centered maintenance (RCM) principles and asset management standards like ISO 55000.

### Day 4: Maintenance Execution, Optimization & Technologies

Focus shifts to the practical execution of maintenance tasks, optimizing resource allocation, and exploring the impact of emerging technologies like IoT, AI, and CMMS on maintenance efficiency.

### Day 5: Performance Metrics, Continuous Improvement & Future Trends

The final day emphasizes key performance indicators (KPIs) for technical operations and maintenance, strategies for continuous improvement, and an outlook on future trends shaping the field.

*For more information, please contact us:*

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