MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

PROACTIVE PREVENTIVE AND PREDICTIVE MAINTENANCE SOLUTIONS

"Minimizing Downtime and Maximizing Equipment Reliability through Smart Maintenance Strategies"

Schedule

Date	Venue	Fees (Face-to-Face)
07 – 11 Sep 2026	London – UK	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

In today's asset-intensive industries, unplanned equipment failures can lead to costly downtime, safety risks, and disrupted operations. A shift from reactive to proactive maintenance using preventive and predictive methodologies can dramatically increase reliability, reduce costs, and extend asset lifecycles.

This 5-day intensive course provides a strategic and practical foundation in implementing world-class preventive and predictive maintenance systems. Participants will learn how to plan, execute, and optimize maintenance tasks using data-driven tools such as condition monitoring, reliability-centered maintenance (RCM), and predictive analytics.

Objectives

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

- Differentiate between preventive, predictive, and reactive maintenance approaches
- Develop and implement effective maintenance schedules and inspections
- Apply predictive technologies such as vibration, infrared, and oil analysis
- Identify failure modes and implement RCM and FMEA techniques
- Build KPIs and performance dashboards for maintenance effectiveness

MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

Why Attend

- Learn how to reduce equipment downtime and maintenance costs
- Master best practices in maintenance planning and resource allocation
- Enhance asset performance through condition-based strategies
- Improve safety, compliance, and audit readiness
- Gain hands-on experience with predictive tools and real-world case studies

Target Audience

This program is designed for:

- Maintenance engineers and technicians
- Reliability and asset integrity engineers
- Plant managers and operations supervisors
- Maintenance planners and inspectors
- Mechanical engineers and condition monitoring specialists

Individual Benefits

Key competencies that will be developed include:

- Expertise in failure prediction and prevention methods
- Ability to plan and manage preventive maintenance schedules
- Skills in using diagnostic tools like thermography and vibration analysis
- Capability to apply RCM and FMEA to critical assets
- Understanding of maintenance KPIs and benchmarking

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Reduced unplanned downtime and increased asset availability
- Cost-effective maintenance strategies aligned with risk profiles
- Improved planning and execution of maintenance tasks
- Enhanced workforce capability in condition monitoring and diagnostics
- Better decision-making through maintenance performance data

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – Detailed sessions on maintenance philosophies, systems, and tools
- Case Studies – Real examples of proactive maintenance successes and failures
- Workshops – Interactive sessions on planning, diagnostics, and system design
- Peer Exchange – Discussions on challenges and experiences in maintenance practices
- Tools – Maintenance strategy templates, FMEA worksheets, and KPI dashboards

MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

Course Outline

DETAILED 5-DAY COURSE OUTLINE

Training Hours: 7:30 AM – 3:30 PM Daily Format: 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Maintenance Strategy Foundations

- Module 1: Maintenance Approaches and Evolution (07:30 – 09:30) • Reactive, preventive, and predictive maintenance comparison • Total productive maintenance (TPM) and reliability-centered maintenance (RCM) • Maintenance as a value driver
- Module 2: Asset Criticality and Failure Modes (09:45 – 11:15) • Identifying critical assets and components • Understanding failure types and causes • Introduction to failure mode and effects analysis (FMEA)
- Module 3: Maintenance Program Development (11:30 – 01:00) • Structuring maintenance tasks and intervals • Inspection planning and standard procedures • Integration with CMMS systems
- Module 4: Workshop – Failure Analysis Scenarios (02:00 – 03:30) • Analyzing typical equipment failure modes • Linking failures to maintenance tasks • Group presentations

Day 2: Preventive Maintenance Systems

- Module 1: Planning and Scheduling PM Activities (07:30 – 09:30) • PM task design and frequency setting • Resource planning and backlog management • PM compliance and auditability
- Module 2: Spare Parts and Lubrication Strategies (09:45 – 11:15) • Spare part inventory management • Lubrication best practices and contamination control • Condition-based replacement
- Module 3: Inspection and Checklist Design (11:30 – 01:00) • Visual inspections and operator care • Standardizing and digitizing checklists • Mobile inspection tools
- Module 4: Workshop – PM Optimization Plan (02:00 – 03:30) • Evaluating PM effectiveness • Eliminating redundant tasks • Rebuilding a sample PM program

Day 3: Predictive Maintenance Technologies

- Module 1: Vibration and Acoustic Monitoring (07:30 – 09:30) • Basics of vibration analysis • Common vibration patterns and fault detection • Use of accelerometers and sensors
- Module 2: Thermography and Infrared Applications (09:45 – 11:15) • Infrared scanning for motors, bearings, and panels • Temperature trending and hot spot detection • Interpreting thermal images
- Module 3: Oil and Lubricant Analysis (11:30 – 01:00) • Wear particle analysis • Contamination and viscosity monitoring • Lube sampling practices
- Module 4: Workshop – Predictive Data Interpretation (02:00 – 03:30) • Review of sample PdM data sets • Condition reports and action triggers • Building a condition monitoring schedule

Day 4: Reliability Engineering Tools and Techniques

- Module 1: Reliability-Centered Maintenance (RCM) (07:30 – 09:30) • RCM principles and logic • Functional failures and risk prioritization • Aligning RCM with PM/PdM
- Module 2: Root Cause and Failure Analysis (09:45 – 11:15) • Fishbone diagrams and 5-Why analysis • Chronic vs. sporadic failures • Building a corrective action plan
- Module 3: MTBF, MTTR and Maintenance Metrics (11:30 – 01:00) • Calculating reliability indicators • KPI dashboards and data interpretation • Maintenance benchmarking
- Module 4: Workshop – FMEA Exercise (02:00 – 03:30) • Identifying potential failures • Ranking by severity and occurrence • Prioritizing risk mitigation

Day 5: Maintenance Systems and Digital Tools

- Module 1: CMMS and Maintenance Digitalization (07:30 – 09:30) • Computerized maintenance management systems • Data entry, work order flows, and reporting • Mobile maintenance applications

- Module 2: Integrating IoT and Smart Sensors (09:45 – 11:15) • Overview of predictive analytics platforms • Remote monitoring and alerts • Real-time data and AI applications
- Module 3: Maintenance Strategy Review (11:30 – 01:00) • Audit and evaluation of maintenance strategies • Continuous improvement techniques • Strategy alignment with business goals
- Module 4: Final Assessment and Wrap-Up (02:00 – 03:30) • Final knowledge check • Developing an action plan • Certification and closing discussion

Certification

Participants will receive a Certificate of Completion in Proactive Preventive and Predictive Maintenance, verifying their readiness to plan, implement, and manage maintenance programs that drive performance, reliability, and cost-efficiency.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**