MAWA EVENTS

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

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

MAINTENANCE & RELIABILITY GAP ANALYSIS & OPTIMIZATION

"Closing Performance Gaps and Building High-Reliability Maintenance Systems"

Schedule

Date	Venue	Fees (Face-to-Face)
18 – 22 May 2026	Singapore	USD 3495 per delegate

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

Introduction

Modern industrial operations depend heavily on reliable assets and well-structured maintenance systems. However, many organizations face persistent gaps between current practices and world-class standards—resulting in unplanned downtime, excess costs, and safety risks.

This comprehensive 5-day course empowers maintenance, engineering, and operations professionals to systematically assess their existing programs and close performance gaps. Participants will learn proven frameworks such as Reliability-Centered Maintenance (RCM), Total Productive Maintenance (TPM), and ISO 55000. Through benchmarking, diagnostics, and interactive workshops, the course equips teams to optimize asset performance and build a culture of continuous improvement.

Objectives

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

- Conduct a structured gap analysis of maintenance and reliability programs
- Benchmark practices against international standards (RCM, TPM, ISO 55000)
- Identify root causes of downtime, high maintenance cost, and inefficiency
- Develop optimization plans to improve reliability, safety, and performance
- Apply KPIs and reliability metrics to monitor improvement progress

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Why Attend

- Diagnose the weak points in your current maintenance strategy
- Learn global best practices in asset care and equipment reliability
- Build cross-functional alignment around reliability improvement goals
- Reduce unplanned breakdowns and extend asset life
- Use structured tools to move from reactive to proactive maintenance

Target Audience

This program is designed for:

- Maintenance and reliability engineers
- Plant and operations managers
- Asset integrity and performance specialists
- Engineering and technical supervisors
- Anyone responsible for uptime, safety, or equipment performance

Individual Benefits

Key competencies that will be developed include:

- Maintenance strategy assessment and reliability benchmarking
- Root cause identification and failure prevention
- Use of KPIs and performance indicators (MTBF, MTTR, OEE)
- Optimization of preventive, predictive, and corrective practices
- Planning and executing long-term reliability improvements

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved equipment reliability and uptime
- Lower maintenance costs through better planning and prevention
- Alignment of maintenance practices with business performance goals
- Fewer incidents and increased workforce efficiency
- Stronger asset management compliance with ISO and safety standards

Instructional Methodology

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

- Framework Briefings – RCM, TPM, ISO 55000, and best practices
- Benchmarking Tools – M&R maturity models and diagnostic checklists
- Case Studies – Asset failures and successful improvement campaigns
- Workshops – Gap analysis, KPIs review, and improvement planning
- Tools & Templates – Reliability scorecards, action plans, audit formats

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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: Introduction to Reliability and Maintenance Best Practices

- Module 1: Defining Maintenance & Reliability Performance (07:30 – 09:30) • Types of maintenance: reactive, preventive, predictive, and proactive • Key metrics: MTBF, MTTR, availability, OEE
- Module 2: Global Standards and Excellence Models (09:45 – 11:15) • RCM, TPM, ISO 55000 overview • Best practice maturity levels and benchmarking
- Module 3: Gap Analysis Framework and Process (11:30 – 01:00) • Step-by-step diagnostic methodology • Tools for assessment and baseline scoring
- Module 4: Workshop – Conduct a Self-Assessment (02:00 – 03:30) • Evaluate current state of maintenance functions

Day 2: Planning and Scheduling Optimization

- Module 5: Work Management and Job Planning (07:30 – 09:30) • Planning roles, backlog management, and work order systems • Standard job plans and BOMs
- Module 6: Maintenance Scheduling and Resource Allocation (09:45 – 11:15) • Weekly, daily, and long-range schedules • PM compliance and workforce efficiency
- Module 7: CMMS and Data Management (11:30 – 01:00) • Configuration, reporting, and mobile integration • Using data to drive improvements
- Module 8: Workshop – Optimize a Weekly Schedule (02:00 – 03:30) • Rebuild a sample schedule using best practices

Day 3: Preventive and Predictive Maintenance Strategy

- Module 9: Preventive Maintenance Program Review (07:30 – 09:30) • Criticality analysis and task effectiveness • Optimizing PM intervals and coverage
- Module 10: Predictive Tools and Condition Monitoring (09:45 – 11:15) • Vibration, thermography, ultrasound, oil analysis • Integration into maintenance plans
- Module 11: Failure Modes and Risk-Based Approaches (11:30 – 01:00) • FMEA, risk matrix, and critical asset focus • RCM light and risk-based inspection
- Module 12: Workshop – PM Optimization Scenario (02:00 – 03:30) • Evaluate and revise a PM strategy

Day 4: Root Cause Analysis and Performance Improvement

- Module 13: Root Cause Failure Analysis (RCFA) Methods (07:30 – 09:30) • 5 Whys, Fishbone, Fault Tree, and Apollo models • Linking symptoms to systemic causes
- Module 14: Reliability Improvement Campaigns (09:45 – 11:15) • Targeting chronic failures and bad actors • Success factors and team alignment
- Module 15: KPI Dashboards and Monitoring Tools (11:30 – 01:00) • Leading vs lagging indicators • Trend charts, dashboards, and reviews
- Module 16: Workshop – Build a Reliability Scorecard (02:00 – 03:30) • Customize indicators to your plant

Day 5: Culture, Change, and Long-Term Planning

- Module 17: Reliability Culture and Change Management (07:30 – 09:30) • Leadership, accountability, and workforce buy-in • Barriers to adoption and solutions
- Module 18: Strategic Asset Management Planning (09:45 – 11:15) • Linking M&R with lifecycle cost and asset strategy • ISO 55001 asset plans
- Module 19: Final Gap Closure and Roadmap Planning (11:30 – 01:00) • Setting improvement targets and timelines • Resource planning and budgeting
- Module 20: Capstone – Present Your Optimization Plan (02:00 – 03:30) • Group presentations of action plans

Certification

Participants will receive a Certificate of Completion in Maintenance & Reliability Gap Analysis & Optimization, confirming their ability to evaluate existing maintenance programs, identify improvement opportunities, and implement optimized reliability strategies in line with global standards.

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**