MAWA EVENTS

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

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

MODERN APPROACHES IN MAINTENANCE & OPERATIONAL INTELLIGENCE

"Leverage Data, Digital Tools, and Advanced Strategies to Transform Maintenance Performance"

Schedule

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

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

Introduction

The convergence of maintenance engineering with data analytics and digital technology is reshaping how industrial assets are managed. Operational Intelligence (OI) integrates real-time monitoring, predictive analytics, and decision-support systems to provide a 360-degree view of asset health and performance.

This advanced training program equips maintenance and operations professionals with the tools, technologies, and methodologies needed to transition from reactive and preventive approaches to proactive, data-driven asset management. It focuses on integrating IoT, CMMS/EAM platforms, and KPIs with business objectives to drive maintenance excellence and operational efficiency.

Objectives

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

- Apply operational intelligence concepts to maintenance and asset performance
- Integrate CMMS, sensor data, and dashboards into maintenance decision-making
- Use predictive analytics to reduce failures and increase equipment uptime
- Implement modern strategies such as prescriptive maintenance and digital twins
- Align maintenance practices with business intelligence for better ROI

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 unlock real-time visibility into asset performance and failure risks
- Upgrade from traditional maintenance to intelligent, condition-based planning
- Understand how to link maintenance data with KPIs, OEE, and strategic targets
- Gain hands-on experience with digital tools and performance dashboards
- Join the next wave of smart maintenance leaders shaping Industry 4.0

Target Audience

This program is designed for:

- Maintenance engineers, planners, and supervisors
- Reliability and asset performance managers
- Plant and operations managers in manufacturing, energy, and process industries
- CMMS administrators and maintenance analysts
- Industrial automation and digital transformation teams

Individual Benefits

Key competencies that will be developed include:

- Operational intelligence application in asset management
- Predictive and prescriptive maintenance methodologies
- Digital tools integration (CMMS, IoT, sensors, dashboards)
- Root cause analytics and performance-based planning
- Maintenance strategy optimization using data-driven insights

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved decision-making based on real-time maintenance intelligence
- Reduced downtime and increased asset reliability through predictive strategies
- Optimized use of resources and reduced maintenance costs
- Stronger alignment of operations with reliability and business goals
- Increased digital maturity and readiness for Industry 4.0

Instructional Methodology

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

- Strategy Briefings – Core frameworks for intelligent maintenance and OI integration
- Case Studies – Industry applications of predictive maintenance and data analytics
- Workshops – Interactive sessions using KPIs, digital dashboards, and reliability models
- Peer Exchange – Shared insights from participants across industries
- Tools – Templates for data mapping, OEE dashboards, RCA, and digital maturity assessment

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: Foundations of Operational Intelligence & Digital Maintenance

- Module 1: Introduction to Operational Intelligence (07:30 – 09:30) • Key drivers of smart maintenance • Evolution from preventive to predictive to prescriptive
- Module 2: Intelligent Maintenance Strategies (09:45 – 11:15) • Decision hierarchy in asset maintenance • Linking maintenance to business value
- Module 3: Workshop – Maturity Assessment (11:30 – 01:00) • Digital readiness checklist and benchmarking
- Module 4: Group Discussion – Barriers & Enablers (02:00 – 03:30) • Sharing real-world challenges and initiatives

Day 2: Data-Driven Maintenance Execution

- Module 1: Maintenance Intelligence Framework (07:30 – 09:30) • Structure of CMMS, EAM, and data ecosystems • What data to collect and why
- Module 2: Using KPIs and Dashboards for Performance (09:45 – 11:15) • MTBF, MTTR, OEE, and asset availability • Building visualizations that drive action
- Module 3: Workshop – KPI Design and Dashboard Creation (11:30 – 01:00) • Design an interactive dashboard using a real case
- Module 4: Peer Exchange – Best Practice Dashboards (02:00 – 03:30) • Review and critique dashboard designs

Day 3: Predictive & Prescriptive Maintenance Tools

- Module 1: Condition-Based Maintenance (07:30 – 09:30) • Sensors, real-time monitoring, and failure thresholds • Use cases in oil, utilities, and manufacturing
- Module 2: Predictive Maintenance and Analytics (09:45 – 11:15) • Machine learning, AI in asset performance • Failure prediction models and analytics engines
- Module 3: Prescriptive Maintenance Planning (11:30 – 01:00) • Moving from insight to action • Combining scenarios, outcomes, and cost impact
- Module 4: Workshop – Predictive Use Case Simulation (02:00 – 03:30) • Teams use data to build a predictive response model

Day 4: Integration, Automation & Digital Twin Technology

- Module 1: Integrating IoT, CMMS & OT Data (07:30 – 09:30) • Architecture for smart maintenance systems • Ensuring data accuracy and flow
- Module 2: Introduction to Digital Twins (09:45 – 11:15) • Real-time simulation of assets • Use in design, diagnostics, and decision support
- Module 3: Workshop – Mapping a Digital Twin (11:30 – 01:00) • Create a basic digital twin model for a rotating asset
- Module 4: Roundtable – Future of Maintenance 4.0 (02:00 – 03:30) • Discussing innovation trends and capability needs

Day 5: Implementation, Change Management & Review

- Module 1: Building a Maintenance Intelligence Roadmap (07:30 – 09:30) • Strategy, leadership, and team capacity building • Pilot to scale-up planning
- Module 2: Governance & Sustainability (09:45 – 11:15) • Cybersecurity, data governance, audit, and compliance • Measuring long-term performance improvement
- Module 3: Action Plan Development (11:30 – 01:00) • Participants prepare individual implementation roadmaps
- Module 4: Final Presentations & Certification Wrap-Up (02:00 – 03:30) • Group presentations and feedback

Certification

Participants will receive a Certificate of Completion in Modern Approaches in Maintenance & Operational Intelligence, confirming their ability to apply digital tools and strategies that enhance maintenance planning, performance monitoring, and operational decision-making in industrial environments.

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**