MAWA EVENTS

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

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

DIGITAL SOLUTIONS FOR FABRIC MAINTENANCE (DRONES, AI, AND ROBOTICS)

"Revolutionizing Fabric Maintenance through Next-Gen Digital Technologies."

Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

► **Available delivery methods:** In-House Training

Introduction

Fabric maintenance in complex industrial environments such as oil & gas, marine, and infrastructure is being transformed by digital innovation. This course provides a hands-on exploration of how drones, AI-driven diagnostics, and robotics can be applied to structural integrity inspections, corrosion management, and maintenance activities. Participants will gain both strategic insights and technical knowledge to plan, evaluate, and implement digital fabric maintenance programs.

Objectives

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

- Understand the capabilities of drones, AI, and robotic systems in fabric maintenance
- Design digital inspection workflows and maintenance planning strategies
- Analyze data collected by intelligent systems for corrosion detection and surface degradation
- Evaluate the ROI and safety improvements from digital maintenance technologies
- Create a roadmap for digital transformation in their maintenance processes

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Why Attend

Traditional fabric maintenance methods are costly, risky, and time-consuming. This course enables professionals to harness digital technologies for safer, more accurate, and cost-efficient inspections, leading to extended asset life and operational reliability.

Target Audience

- Asset Integrity & Fabric Maintenance Engineers
- Inspection Engineers
- Operations & Maintenance Managers
- Corrosion Engineers
- Reliability Engineers
- Digital Transformation Leaders
- Project and Facility Managers

Individual Benefits

- Upskill in emerging inspection technologies
- Increase workplace safety and operational efficiency
- Develop cross-functional capability in digital maintenance
- Enhance career competitiveness in future-ready industries

Organizational Benefits

- Reduced maintenance downtime and operational disruptions
- Safer inspections in hazardous or inaccessible areas
- Improved accuracy in corrosion monitoring and asset assessment
- Strategic cost savings via automation and data-driven maintenance

Instructional Methodology

- Case studies of drone and robotics usage in real industry settings
- Demonstration of AI-based maintenance software tools
- Workshop on digital implementation planning
- Interactive simulations and data analysis exercises
- Videos and technical walkthroughs of digital inspections

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Course Outline

DETAILED 5-DAY COURSE OUTLINE (CUSTOMIZABLE)

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: Fabric Maintenance in the Digital Era

- Module 1: Fabric Maintenance Fundamentals & Industry Challenges (07:30 – 09:30)
- Module 2: Digitalization Trends in Maintenance – Global Benchmarks (09:45 – 11:15)
- Module 3: Key Technologies Overview: Drones, AI, Robotics (11:30 – 01:00)
- Module 4: Case Study: Offshore Platform Maintenance Transformation (02:00 – 03:30)

Day 2: Drones for Inspection and Data Collection

- Module 1: Drone Technology in Maintenance – Capabilities & Types (07:30 – 09:30)
- Module 2: Regulations, Safety, and Flight Planning for Industrial Sites (09:45 – 11:15)
- Module 3: Visual & Thermal Imaging: Data Acquisition Techniques (11:30 – 01:00)
- Module 4: Workshop: Interpreting Drone-Captured Maintenance Data (02:00 – 03:30)

Day 3: AI and Predictive Analytics for Fabric Maintenance

- Module 1: AI Algorithms for Surface Degradation & Corrosion Detection (07:30 – 09:30)
- Module 2: Data Integration from Drones, Sensors & Inspections (09:45 – 11:15)
- Module 3: Machine Learning Applications in Predictive Maintenance (11:30 – 01:00)
- Module 4: Demo Session: AI-Based Corrosion Recognition Software (02:00 – 03:30)

Day 4: Robotic Maintenance and Automation

- Module 1: Types of Maintenance Robotics – Crawlers, Climbers, & Submersibles (07:30 – 09:30)
- Module 2: Surface Preparation, Coating, and Cleaning by Robots (09:45 – 11:15)
- Module 3: Safety Benefits & Deployment Case Studies (11:30 – 01:00)
- Module 4: Panel Discussion: Human-Robot Collaboration in Maintenance (02:00 – 03:30)

Day 5: Strategy, ROI, and Implementation Roadmap

- Module 1: Developing a Digital Maintenance Transformation Strategy (07:30 – 09:30)
- Module 2: Cost-Benefit Analysis and Justifying Investment (09:45 – 11:15)
- Module 3: Integration with CMMS and ERP Systems (11:30 – 01:00)
- Module 4: Roadmap Presentation and Certification Wrap-Up (02:00 – 03:30)

Certification

Participants will receive a Certificate of Completion in Digital Solutions for Fabric Maintenance (Drones, AI & Robotics), validating their knowledge in future-ready asset maintenance technologies.

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.

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