MAWA EVENTS

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

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TRANSPORT INFRASTRUCTURE PERFORMANCE AND MAINTENANCE

"Enhancing the Reliability, Safety, and Sustainability of Transport Systems Through Effective Maintenance Management."

Schedule

Venue (In-House)	Fees
At Your Organization Premises	Ask for the Quotation

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

Introduction

Transport infrastructure — including roads, bridges, railways, airports, and seaports — is vital for the smooth functioning of national economies and regional development. However, maintaining its performance and reliability poses a significant challenge due to aging assets, budget constraints, and increasing traffic demand. Effective maintenance management ensures that infrastructure remains safe, functional, and cost-efficient throughout its lifecycle.

This course provides participants with an in-depth understanding of performance evaluation, asset management, and maintenance strategies for transport infrastructure. It covers performance indicators, inspection techniques, preventive maintenance planning, and the use of modern technologies such as GIS, sensors, and predictive analytics. Participants will gain practical tools to design and implement maintenance programs that enhance infrastructure resilience and long-term sustainability.

Objectives

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

- Understand the principles of infrastructure performance measurement and maintenance management.
- Identify key performance indicators (KPIs) for roads, rail, and air transport systems.
- Develop and implement preventive and predictive maintenance strategies.
- Apply asset management frameworks for optimizing maintenance investments.
- Use data-driven approaches for condition assessment and decision-making.
- Integrate sustainability, safety, and cost-effectiveness in maintenance programs.
- Evaluate maintenance performance and develop continuous improvement plans.

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Why Attend

Infrastructure performance directly impacts economic productivity, mobility, and safety. This course equips participants with the expertise to assess, monitor, and maintain transport assets effectively. It is designed to help engineers, planners, and policymakers adopt modern techniques that extend infrastructure life, reduce operational costs, and ensure service reliability. Participants will also explore the latest innovations in maintenance technologies and asset management systems used globally.

Target Audience

This course is designed for:

- Transport and Civil Engineers
- Infrastructure Maintenance and Asset Managers
- Highway and Railway Engineers
- Airport and Port Facility Managers
- Project Planners and Operations Supervisors
- Public Works and Transport Department Officials
- Infrastructure Consultants and Auditors

Individual Benefits

- Gain practical knowledge of performance assessment and maintenance planning.
- Learn to apply analytical tools for infrastructure condition monitoring.
- Improve decision-making in maintenance prioritization and budgeting.
- Strengthen your expertise in asset management and sustainable maintenance.
- Increase your technical credibility and professional advancement opportunities.
- Acquire real-world insights into global best practices in infrastructure management.

Organizational Benefits

- Extend the life of transport assets through effective maintenance management.
- Reduce operational and repair costs through preventive strategies.
- Improve safety, reliability, and service quality across infrastructure networks.
- Strengthen compliance with international infrastructure management standards.
- Enhance data-driven decision-making and performance evaluation.
- Build a sustainable maintenance culture within the organization.

Instructional Methodology

The training program combines interactive instruction with applied learning through:

- Expert-led lectures and technical demonstrations
- Case studies of global infrastructure maintenance programs
- Group discussions and scenario-based exercises
- Practical workshops on performance analysis and asset management
- Use of simulation and decision-support tools (GIS, performance models, etc.)
- Hands-on projects for developing maintenance improvement plans

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Course Outline

Module 1: Introduction to Transport Infrastructure Systems and Asset Management

Module 2: Performance Indicators and Condition Assessment Methods

Module 3: Preventive and Predictive Maintenance Strategies

Module 4: Maintenance Planning, Scheduling, and Budgeting

Module 5: Risk Management and Safety in Infrastructure Maintenance

Module 6: Data Collection, Monitoring, and Performance Analysis Tools

Module 7: Technology in Maintenance – GIS, IoT, and Remote Sensing Applications

Module 8: Sustainable Maintenance Practices and Environmental Considerations

Module 9: Case Studies: Best Practices in Infrastructure Maintenance Programs

Module 10: Developing a Maintenance Improvement Plan

Certification

Participants who successfully complete the program will receive a Certificate of Completion in Transport Infrastructure Performance and Maintenance, acknowledging their capability to design, implement, and manage effective performance and maintenance systems for transport infrastructure.

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**