MAWA EVENTS

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

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ENVIRONMENTAL MANAGEMENT SYSTEMS - ENVIRONMENTAL MONITORING & MODELLING

"Build Capacity for Compliance, Sustainability, and Environmental Risk Control"

Schedule

Date	Venue	Fees (Face-to-Face)
21 – 25 Jun 2026	Manama, Bahrain	USD 3,495 per delegate
04 – 08 Oct 2026	Riyadh, KSA	USD 3,495 per delegate

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

Introduction

Environmental management has become an essential element of corporate responsibility and regulatory compliance. With the increasing emphasis on sustainability, pollution control, and data-driven decision-making, professionals must be equipped to monitor environmental impacts and model future scenarios effectively.

This comprehensive course provides practical knowledge on implementing Environmental Management Systems (EMS), environmental monitoring strategies, and modeling techniques. It emphasizes real-time data analysis, risk mitigation, and regulatory reporting under ISO 14001 and related frameworks.

Objectives

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

- Understand the structure and requirements of an ISO 14001-compliant EMS
- Plan and implement environmental monitoring programs for air, water, soil, and noise
- Analyze and interpret environmental data using modeling techniques
- Identify, assess, and control environmental risks and impacts
- Report environmental performance in line with legal and stakeholder expectations

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Why Attend

- Gain hands-on skills in monitoring and modelling environmental parameters
- Improve your ability to manage environmental compliance and sustainability reporting
- Enhance your understanding of EMS components and ISO 14001 requirements
- Learn to use tools for impact prediction, risk analysis, and performance tracking
- Contribute to your organization’s environmental sustainability strategy

Target Audience

This program is designed for:

- Environmental engineers, HSE officers, and sustainability managers
- EMS coordinators and compliance officers
- Professionals involved in environmental monitoring, reporting, or auditing
- Consultants and public sector officials in environmental protection and planning

Individual Benefits

Key competencies that will be developed include:

- Environmental data collection and analysis
- Monitoring design and sample planning
- Application of air, water, and noise modeling tools
- Environmental risk assessment and mitigation
- EMS auditing and performance reporting

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved environmental compliance and risk control
- Enhanced monitoring capabilities and reporting accuracy
- Stronger alignment with ISO 14001 and regulatory standards
- Data-driven support for environmental decision-making
- Contribution to sustainable development goals (SDGs) and ESG reporting

Instructional Methodology

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

- Strategy Briefings – Overview of EMS standards, environmental policies, and regulations
- Case Studies – Real-world environmental monitoring and mitigation success stories
- Workshops – Exercises in sampling design, risk evaluation, and modeling
- Peer Exchange – Discussion of monitoring practices, tools, and local challenges
- Tools – Templates for monitoring plans, risk registers, and ISO 14001 documentation

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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: EMS Fundamentals and ISO 14001 Overview

- Module 1: Introduction to Environmental Management Systems (07:30 – 09:30) • Importance of EMS in modern organizations • Overview of ISO 14001:2015 structure and clauses • Environmental policies, objectives, and legal compliance
- Module 2: Environmental Aspects and Impacts (09:45 – 11:15) • Identifying environmental aspects and impacts • Determining significance and risk levels • Integrating EMS into business operations
- Module 3: Documentation and Planning (11:30 – 01:00) • EMS procedures and documentation hierarchy • Environmental planning and operational control
- Module 4: Workshop – EMS Scope & Aspects Mapping (02:00 – 03:30) • Defining EMS scope and aspect-impact registers

Day 2: Monitoring and Measurement – Air, Water, Soil, and Noise

- Module 1: Designing a Monitoring Program (07:30 – 09:30) • Establishing objectives, parameters, and methods • Sampling strategies and standards compliance
- Module 2: Air Quality Monitoring (09:45 – 11:15) • Air pollutants, sampling methods, and ambient standards • Real-time monitoring equipment and data interpretation
- Module 3: Water and Soil Quality Monitoring (11:30 – 01:00) • Sampling water bodies and wastewater streams • Soil testing protocols and contamination assessment
- Module 4: Workshop – Field Sampling Design (02:00 – 03:30) • Participants design a site-specific sampling plan

Day 3: Environmental Modelling Tools and Techniques

- Module 1: Introduction to Environmental Modelling (07:30 – 09:30) • What is modeling and why it matters • Model selection and input data requirements
- Module 2: Air Dispersion Modeling (09:45 – 11:15) • Using models like AERMOD or CALPUFF • Interpreting output and communicating results
- Module 3: Water and Noise Modeling (11:30 – 01:00) • Predicting water pollution pathways and noise impact • Modeling tools and validation methods
- Module 4: Workshop – Scenario-Based Modeling (02:00 – 03:30) • Teams simulate an environmental scenario using basic models

Day 4: Risk Assessment, Mitigation & Compliance

- Module 1: Environmental Risk Assessment (07:30 – 09:30) • Risk identification, probability, and consequence analysis • Environmental risk matrix and registers
- Module 2: Mitigation Measures and Controls (09:45 – 11:15) • Operational control procedures and engineering solutions • Emergency preparedness and response
- Module 3: Regulatory Compliance and Permitting (11:30 – 01:00) • Local and international regulatory frameworks • Reporting obligations and permit conditions
- Module 4: Workshop – Risk Register Development (02:00 – 03:30) • Creating and updating environmental risk profiles

Day 5: Performance Reporting, Auditing & Review

- Module 1: Monitoring Data Reporting (07:30 – 09:30) • Structuring and formatting environmental reports • Trends, exceedances, and corrective action planning
- Module 2: EMS Auditing and Performance Evaluation (09:45 – 11:15) • Internal audit planning and nonconformance tracking • ISO 14001 audit protocols
- Module 3: Management Review and Continuous Improvement (11:30 – 01:00) • Management review agenda and inputs • Using audit and monitoring data for EMS enhancement
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Module 4: Final Review & Wrap-Up (02:00 – 03:30) • Summary of learning • Personal action plan and feedback

Certification

Participants will receive a Certificate of Completion in Environmental Management Systems – Environmental Monitoring & Modelling, validating their skills in implementing EMS frameworks, conducting environmental monitoring, and applying modeling techniques for sustainability and compliance.

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**