

Environmental Management Systems: Monitoring and Modelling

23 – 27 August 2027
Barcelona (Spain)

UK Training

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Why This Course

Organizations across all sectors are under increasing pressure to improve environmental performance, meet regulatory requirements, and demonstrate measurable sustainability outcomes. A well-designed Environmental Management System EMS, supported by robust monitoring and modelling techniques, enables organizations to move beyond compliance toward proactive environmental stewardship.

This intensive 5-day program equips environmental professionals, engineers, sustainability managers, and compliance officers with the knowledge and practical tools required to design, implement, and enhance EMS frameworks. Through applied exercises and case-based learning, participants will gain the confidence to analyze environmental data, build predictive models, and drive continuous improvement initiatives.

What You'll Learn and Practice

By attending this course, you will:

- Understand the structure and core components of Environmental Management Systems.
- Apply environmental monitoring techniques to collect reliable data.
- Analyze and interpret environmental data for informed decision-making.
- Develop and utilize environmental models to predict impacts and assess risks.
- Implement EMS strategies that enhance sustainability and performance.
- Measure and improve environmental outcomes using performance indicators.

The Program Flow

Day 1: Introduction to Environmental Management Systems

- EMS principles, structure, and frameworks
- ISO 14001 standards and key requirements
- Developing environmental policies
- Identifying environmental aspects, impacts, and risk priorities

Day 2: Environmental Monitoring Techniques

- Air quality monitoring methods and instrumentation
- Water quality assessment tools and sampling techniques
- Soil contamination testing and analysis
- Noise and vibration monitoring approaches

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A graphic illustration of a chessboard with several chess pieces. A large gold king piece is prominent in the foreground, with other pieces like a silver pawn and a gold pawn visible. The background features concentric circles, suggesting a strategic or analytical theme.

Day 3: Data Analysis and Interpretation

- Statistical analysis of environmental data
- Trend evaluation and forecasting methods
- Using GIS for environmental mapping and spatial analysis
- Data visualization and reporting techniques

Day 4: Environmental Modelling

- Fundamentals of environmental modelling
- Air dispersion modelling concepts and applications
- Water quality modelling techniques
- Life cycle assessment LCA modelling for sustainability evaluation

Day 5: Implementing EMS and Continuous Improvement

- Designing environmental management programs
- Setting measurable objectives and targets
- Establishing environmental performance indicators KPIs
- Conducting audits and management reviews for continual improvement

Individual Impact

- Stronger capability to design and manage effective EMS frameworks.
- Enhanced technical skills in monitoring, data analysis, and modelling.
- Improved confidence in interpreting environmental performance results.
- Practical tools to support sustainability and regulatory compliance efforts.

Organizational Impact

- Improved environmental compliance and risk management.
- Data-driven decision-making for sustainability initiatives.
- Reduced environmental impacts and enhanced corporate reputation.
- Structured continuous improvement aligned with international standards.

Training Methodology

- Interactive workshops and real-world case studies.
- Practical exercises in monitoring data analysis and modelling concepts.
- Group discussions on regulatory and sustainability challenges.
- Action planning sessions for EMS implementation and improvement.

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A graphic of a chessboard with several chess pieces (a king, a queen, a rook, and a pawn) positioned on it. The board is white and black, and the pieces are gold and silver. The graphic is located in the bottom right corner of the page.

Beyond the Course

Participants will leave ready to:

- Implement and strengthen Environmental Management Systems within their organizations.
- Analyze environmental performance using reliable data and modelling tools.
- Develop predictive insights to reduce environmental risks.
- Drive continuous improvement toward long-term sustainability goals.

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