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Asset Management & Maintenance Performance Mastery: Tools, Techniques, and Metrics

PIK836-0927 TH-BK-1

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Place	: Bangkok	**Venue**	: Novotel Bangkok on Siam Square (392 44 Siam Square Soi 6, Pathum Wan, Khet Pathum Wan, Bangkok, 10330, THAILAND) - TBC		
Start Date	: 13-09-2027	**End Date**	: 17-09-2027	**PPP**	: £4550

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If you can't train them, you can't blame them!

Short Description:

This intensive course provides a comprehensive exploration of the principles, methodologies, and tools essential for effective asset management and maintenance performance optimisation. Grounded in globally recognised frameworks such as ISO 55000 and PAS 55, the program equips participants with a deep understanding of asset lifecycle management, strategic alignment, and risk-informed decision-making. Emphasis is placed on integrating asset management into organizational objectives, enhancing reliability, and ensuring sustainable value delivery across the enterprise. Participants will gain exposure to asset classification, stakeholder requirements, and criticality analysis, building a foundation for data-driven maintenance planning and performance measurement. Through a blend of theoretical instruction and applied learning, the course introduces modern maintenance strategies—ranging from preventive and predictive to condition-based and reliability-centred maintenance (RCM). Participants will engage with advanced tools and metrics, including MTBF, MTTR, OEE, and asset health indices, to monitor and improve asset performance. The course also addresses the role of digital technologies such as CMMS, IoT, and analytics in driving operational excellence. By the end of the program, attendees will be equipped to develop maintenance scorecards, apply root cause analysis (RCA), and design continuous improvement initiatives that align with strategic asset management plans.

Course Overview:

COURSE OBJECTIVES

- Understand and apply the core principles of asset management based on ISO 55000 & global best practices.
- Develop & implement effective maintenance strategies including preventive, predictive, & reliability-centred maintenance (RCM).
- Identify & utilise key maintenance performance metrics such as MTBF, MTTR, OEE, & asset availability.
- Plan & optimise maintenance activities using tools like FMEA, RCA, & asset criticality analysis.
- Leverage digital technologies including CMMS, IoT, and analytics to enhance asset performance & decision-making.
- Align asset & maintenance strategies with organisational goals to improve reliability, cost-efficiency, & risk management.
- Design & present a strategic asset management improvement plan incorporating continuous improvement methodologies.

TARGET AUDIENCE

- Maintenance Managers, Engineers, & Supervisors responsible for plant & equipment reliability.
- Asset Managers & Reliability Engineers involved in lifecycle planning & performance optimisation.
- Operations & Production Managers seeking to align maintenance with operational goals.
- Facility Managers & Infrastructure Coordinators overseeing physical asset portfolios.
- CMMS/EAM System Users & Analysts involved in asset data & maintenance planning.
- Project & Engineering Professionals engaged in capital asset acquisition or renewal.

- Health, Safety & Environment (HSE) & Quality Assurance personnel concerned with risk and compliance in maintenance practices.

Program Outline:

PROGRAM CONTENT

DAY : Foundations of Asset Management

1. Understand the principles and lifecycle of physical asset management (PAS 55 & ISO 55000)
2. Define asset types, classifications, and their roles in business value creation
3. Identify stakeholders, risk factors, and performance expectations
4. Explore the alignment between asset strategy and organizational goals
5. Review global best practices and maturity models in asset management

DAY 2: Maintenance Strategies & Planning

1. Differentiate between reactive, preventive, predictive, and reliability-centred maintenance (RCM).
2. Learn how to develop a risk-based maintenance strategy.
3. Understand work planning, scheduling, & resource optimisation.
4. Explore tools for failure mode & effects analysis (FMEA/FMECA).
5. Apply maintenance task optimisation & interval setting.

Day 3: Performance Measurement & KPIs

1. Identify key maintenance & asset performance indicators (KPIs).
2. Analyse data using MTBF, MTTR, availability, reliability, & OEE.
3. Learn benchmarking techniques & target setting.
4. Develop a maintenance scorecard & performance dashboard.
5. Understand data collection, reporting frequency, & visualisation tools.

DAY 4: Technology in Asset & Maintenance Management

1. Explore Computerized Maintenance Management Systems (CMMS) and EAM platforms.
2. Introduce Industry 4.0 tools: IoT, sensors, & predictive analytics.
3. Understand integration between CMMS, ERP, & condition monitoring tools.
4. Examine case studies on digital asset performance optimisation.
5. Evaluate ROI & business case for technology implementation.

Day 5: Continuous Improvement & Asset Strategy Optimisation

- Learn root cause analysis (RCA) & failure investigation techniques.
- Explore Total Productive Maintenance (TPM) & Lean maintenance concepts.
- Conduct asset criticality assessment & lifecycle cost analysis.
- Develop a continuous improvement roadmap & action plan.
- Engage in group case studies & develop a draft Asset Management Plan (AMP).