MAWA EVENTS

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

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BIG DATA FOR MAINTENANCE STRATEGIES

"Leverage Data Analytics, AI, and Predictive Insights to Revolutionize Maintenance Performance."

Schedule

Venue (In-house)	Fees
At Your Organization Premises	Ask For The Quotation

Introduction

In today's competitive industrial environment, maintenance management is evolving rapidly with the power of Big Data and analytics. Organizations are shifting from reactive maintenance to predictive and prescriptive strategies, using real-time data, IoT sensors, and machine learning to prevent failures before they happen.

The Big Data for Maintenance Strategies course provides participants with the knowledge and tools to collect, analyze, and interpret maintenance data to enhance reliability, reduce costs, and extend asset lifespan. Through case studies and hands-on exercises, participants will learn how data-driven decision-making transforms maintenance operations into a strategic advantage.

Objectives

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

- Understand the fundamentals of Big Data analytics and its role in maintenance and reliability engineering.
- Collect and process data from equipment, sensors, and IoT systems for actionable insights.
- Develop predictive maintenance models using machine learning techniques.
- Apply data visualization tools to track performance and anticipate failures.
- Integrate data-driven decision-making into maintenance planning and scheduling.
- Evaluate the ROI of data-driven maintenance initiatives and optimize resource utilization.

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Why Attend

As industries embrace digital transformation, maintenance professionals who understand Big Data gain a decisive edge. This course bridges the gap between traditional maintenance practices and the latest analytics-based strategies. Whether you are a maintenance engineer, reliability leader, or data analyst, this program will equip you with the analytical mindset and technical skills to boost performance and reduce unplanned downtime.

Target Audience

This course is ideal for:

- Maintenance and Reliability Engineers
- Plant and Operations Managers
- Asset and Facilities Managers
- Industrial Data Analysts and IoT Specialists
- Predictive Maintenance Professionals
- Engineers responsible for performance optimization and asset lifecycle management

Individual Benefits

- Gain a deep understanding of predictive and prescriptive maintenance analytics.
- Learn how to use data for accurate decision-making and improved reliability.
- Build skills in IoT integration, data visualization, and failure prediction.
- Reduce maintenance costs and extend equipment lifespan.
- Increase your professional value in an industry rapidly adopting data-driven methods.
- Master analytical tools that can be applied immediately to your work environment.

Organizational Benefits

- Improve asset reliability through data-driven maintenance strategies.
- Reduce downtime and maintenance costs with predictive insights.
- Enhance performance monitoring using real-time analytics.
- Develop a proactive maintenance culture within the organization.
- Integrate advanced technologies like AI, IoT, and machine learning for continuous improvement.
- Support sustainable operations through optimized resource utilization.

Instructional Methodology

This training adopts a hands-on, analytical approach combining:

- Interactive lectures and guided data analysis sessions
- Real-world case studies from industry applications
- Demonstrations of predictive maintenance software and tools
- Group exercises and maintenance data workshops
- Step-by-step tutorials for developing maintenance dashboards
- Continuous feedback and Q&A sessions

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Course Outline

Module 1: Introduction to Big Data in Maintenance Management

Module 2: Data Sources, Sensors, and IoT in Maintenance

Module 3: Data Collection, Storage, and Processing Techniques

Module 4: Fundamentals of Predictive and Prescriptive Maintenance

Module 5: Machine Learning Applications for Failure Prediction

Module 6: Building Dashboards and Data Visualization Tools

Module 7: Condition-Based Monitoring and Real-Time Analytics

Module 8: Integrating Big Data into Maintenance Planning Systems (CMMS/EAM)

Module 9: Case Studies in Data-Driven Maintenance Excellence

Module 10: Capstone Project – Designing a Predictive Maintenance Strategy

Certification

Upon successful completion, participants will receive a Certificate in Big Data for Maintenance Strategies, recognizing their expertise in leveraging analytics and digital technologies to optimize maintenance performance, reliability, and asset management.

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**

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