MAWA EVENTS

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

Phone: +601116373203 | **Email:** info@mawaevents.net

EQUIPMENT FAILURE ANALYSIS AND PREVENTION

"Identify Root Causes, Eliminate Failures, and Enhance Equipment Reliability for Sustainable Operations"

Schedule

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

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

Introduction

Unexpected equipment failures can cause costly downtime, safety incidents, and production losses. Understanding why equipment fails—and how to prevent those failures—is critical for improving reliability, extending asset life, and optimizing maintenance strategies.

This course provides a comprehensive understanding of the mechanisms, causes, and prevention of equipment failures. Participants will learn how to perform root cause analysis (RCA), interpret failure modes, and implement corrective and preventive actions. The course also covers predictive maintenance techniques, reliability tools, and case studies from various industries to help participants apply concepts in real-world situations.

By mastering failure analysis and prevention methods, participants will be able to reduce operational risks, minimize costs, and improve overall equipment effectiveness (OEE).

Objectives

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

- Understand the fundamental causes and mechanisms of equipment failure
- Apply structured failure analysis techniques such as RCA and FMEA
- Identify failure patterns through data analysis and condition monitoring
- Develop corrective and preventive action plans
- Enhance maintenance strategies using reliability-centered principles
- Implement predictive and proactive maintenance practices
- Improve communication between operations, maintenance, and engineering teams
- Build a sustainable system for continuous reliability improvement

MAWA EVENTS

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

Phone: +601116373203 | **Email:** info@mawaevents.net

Why Attend

This course equips professionals with the technical and analytical skills to investigate equipment failures systematically and prevent recurrence. By integrating failure analysis with reliability and maintenance planning, participants will gain practical methods to improve productivity, reduce downtime, and protect valuable assets.

Attending this course ensures you can move from reactive maintenance to proactive reliability management—saving time, money, and resources.

Target Audience

This course is ideal for:

- Maintenance and Reliability Engineers
- Mechanical, Electrical, and Production Engineers
- Operations and Maintenance Supervisors
- Technical and Inspection Staff
- Plant Managers and Asset Integrity Professionals
- Anyone involved in maintenance, repair, or equipment management

Individual Benefits

- Gain expertise in identifying and eliminating root causes of failures
- Strengthen technical problem-solving and diagnostic skills
- Learn to interpret failure data and apply reliability tools
- Improve ability to prevent unplanned breakdowns
- Enhance professional credibility in maintenance and reliability functions

Organizational Benefits

- Reduce downtime and maintenance costs through proactive strategies
- Increase equipment reliability and performance
- Strengthen safety and operational integrity
- Improve asset lifecycle management and cost-effectiveness
- Foster a culture of continuous improvement and reliability

Instructional Methodology

The course emphasizes practical learning through:

- Expert-led presentations and technical discussions
- Real-life industrial case studies and examples
- Group exercises on root cause and failure analysis
- Data interpretation and maintenance strategy development
- Interactive Q&A sessions and problem-solving workshops

MAWA EVENTS

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

Phone: +601116373203 | **Email:** info@mawaevents.net

Course Outline

Module 1: Introduction to Equipment Failure and Reliability Concepts

Module 2: Types and Mechanisms of Equipment Failures

Module 3: Data Collection and Failure Mode Identification

Module 4: Root Cause Analysis (RCA) Techniques

Module 5: Failure Modes and Effects Analysis (FMEA)

Module 6: Condition Monitoring and Predictive Maintenance

Module 7: Preventive and Proactive Maintenance Strategies

Module 8: Human Factors and Organizational Causes of Failures

Module 9: Case Studies on Failure Investigation and Prevention

Module 10: Developing a Failure Prevention and Reliability Improvement Plan

Certification

Upon successful completion, participants will be awarded a Certificate in Equipment Failure Analysis and Prevention, recognizing their ability to analyze, diagnose, and prevent equipment failures through structured methodologies and reliability-based maintenance practices.

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**