

# € TRAINING

Best Preventive Maintenance Management  
Practices Technology & Management  
Practices



# Best Preventive Maintenance Management Practices Technology & Management Practices

## Introduction:

Effectively planned Preventive & Predictive Maintenance which is integrated with the workflow is critical for a successful company and an integral part of maintenance management strategies such as RCM, RBM, TPM, and even 6-Sigma. This comprehensive 5-day training course has been designed to benefit both qualified new professionals as well as experienced professionals who may be involved in the rollout of a comprehensive Maintenance & Asset Management process or auditing an existing process. It covers all the steps required in developing a successful Preventive & Predictive Maintenance Program from failure behavior and finding the right preventive maintenance task until a well-managed preventive & predictive maintenance program, fully integrated with the workflow and the CMMS.

Leading industrial organizations are evolving away from reactive "fix-it-when-it-breaks" management into preventive and predictive management "anticipating, planning, and fix-it-before-it-breaks". This evolution requires well-planned and executed actions on several fronts.

## Course Objectives:

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

- Understand how world-class organizations solve common planning problems
- Improve productivity through the use of better, more timely information
- Implement a practical and effective predictive maintenance effort
- Improve consistency and reliability of asset information
- Optimize preventive and predictive maintenance strategies

## Targeted Audience:

- Maintenance Managers & Supervisors
- Personnel designated as planners or identified to become planners
- Predictive Maintenance Technicians & Supervisors
- Key leaders from each Maintenance craft
- Maintenance & Reliability engineers
- Materials Management Managers/Supervisors
- CMMS key users

## Course Outlines:

### Unit 1: The Need for Maintenance:

- Maintenance & Asset Management as a business process
- Risk-Based Maintenance RBM
  - Causes of Failure
  - Likelihood & Severity of Failure - Risk Analysis
  - Failure Mode Effect & Criticality Analysis FMECA
  - Choosing the preventive maintenance tasks
- Optimization of Maintenance Decisions

- Failure Pattern Identification
- Statistical Analysis of Failures
- Weibull Analysis
- Zero Base Budgeting
  - Define the production requirement
  - Define the maintenance requirement

## Unit 2: Developing the CMMS:

- Database & structure
- CMMS & workflow
- CMMS & Maintenance Strategies
- Asset register
- Configuration management

## Unit 3: The Planning Function:

- The maintenance workflow and how it relates to the preventive maintenance strategy
- Roles & responsibilities in work preparation, planning, and scheduling
- Principles of work preparation & planning
- Principles of scheduling
- Network planning

## Unit 4: Predictive Maintenance:

- Potential Failure Analysis PFA
  - Integration of PFA with FMECA & RBM
  - Understanding the P-F Interval
  - Decide which Technologies to Apply
- Predictive maintenance technologies
  - Vibration analysis
  - Visual inspection
  - Infrared Thermography
  - Temperature-sensitive labels
  - Megger tests
  - Ultrasonics
  - Oil analysis

## Unit 5: Control of the Maintenance Process:

- Implementation stages of preventive & predictive maintenance strategies
- CMMS integration
- Reporting - use of Key Performance Indicators
- Case study