



Maintenance & Reliability Management

Condition-Based Maintenance Implementation Strategies

Course Introduction

Condition-Based Maintenance (CBM) focuses on monitoring the real-time condition of equipment and performing maintenance only when necessary, based on data-driven insights. This approach helps to minimize downtime, extend asset life, and reduce unnecessary maintenance costs, making it a highly effective strategy for improving operational efficiency and reliability.

This training program will cover every aspect of implementing CBM, from setting up a monitoring system and analyzing condition data to developing a strategy and continuously improving it. Participants will learn how to integrate CBM with other maintenance strategies, evaluate its cost-effectiveness, and use it to optimize maintenance processes.

Target Audience

This course is designed for maintenance managers, engineers, technicians, and anyone responsible for implementing or managing a condition-based maintenance program within an organization.

Learning Objectives

- Understand the fundamentals and benefits of condition-based maintenance.
- Learn how to set up and manage a condition monitoring system.
- Gain skills in analyzing and interpreting data for CBM decisions.
- Develop a clear strategy for implementing CBM within your organization.
- Learn how to evaluate and improve CBM programs for long-term success.

Course Outline

• 01 DAY ONE

Introduction to Condition-Based Maintenance (CBM)

- Overview of Condition-Based Maintenance (CBM)
- Key differences between CBM and other maintenance strategies (PM, PdM, etc.)
- Benefits of implementing CBM in operations
- The role of CBM in improving equipment reliability
- Key components of a CBM program
- Understanding asset condition monitoring
- Challenges in implementing CBM effectively

• 02 DAY TWO

Setting Up a Condition Monitoring System

- Introduction to condition monitoring technologies (vibration, temperature, pressure, etc.)
- Selecting the right monitoring equipment for your assets
- Installing and setting up monitoring devices
- Data collection techniques and best practices
- Real-time data transmission and analysis
- Integrating condition monitoring systems with existing maintenance systems
- Setting thresholds and alerts for condition-based actions

• 03 DAY THREE

Data Analysis and Interpretation for CBM

- The importance of data analysis in CBM
- Types of data to collect (vibration, acoustics, temperature, etc.)
- Tools for analyzing condition monitoring data
- Identifying trends and patterns in asset condition data
- Setting up automated data analysis for predictive insights
- Translating data findings into actionable maintenance decisions

• 04 DAY FOUR

Developing and Implementing a CBM Strategy

- Steps to develop a condition-based maintenance strategy
- Defining the scope and objectives of CBM

- Integration with existing preventive or predictive maintenance strategies
- Establishing maintenance schedules based on asset condition
- Training staff to use CBM technologies and data
- Evaluating the effectiveness of your CBM strategy
- Continuous improvement and optimization of the CBM program

• 05 DAY FIVE

Cost-Benefit Analysis and Continuous Improvement

- Conducting a cost-benefit analysis for CBM implementation
- How CBM reduces downtime and lowers maintenance costs
- Comparing CBM to other maintenance strategies in terms of cost and efficiency
- Measuring the ROI of CBM programs
- Implementing feedback loops and monitoring system performance
- How to continuously improve your CBM program

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 25, 2025	May 29, 2025	5 days	4250.00 \$	KSA - El Dammam
Sept. 29, 2025	Oct. 3, 2025	5 days	4250.00 \$	UAE - Dubai
Dec. 1, 2025	Dec. 5, 2025	5 days	4950.00 \$	Indonsia - Jakarta