

Advanced Management For Measuring And Developing Maintenance Projects And Raise Their Efficiency





# Advanced Management For Measuring And Developing Maintenance Projects And Raise Their Efficiency

## Introduction:

This training course aims to identify the scientific methods for evaluating performance in the maintenance department, and to identify the modern methods and systems used in maintenance engineering, where work and tasks entrusted to the maintenance department are listed. During the application of that knowledge, there should be feedback to address any defect in performance or to raise the effectiveness of work.

Maintenance is a major contributor to business profitability, through its impact on equipment capacity, product quality, safety, health and environment, and production cost.

The results and benefits of implementing a world-class maintenance operation should lead to a significant improvement in plant profits, as well as many intangible benefits such as enhanced customer satisfaction, employee pride, and vendor relationships.

Maintenance planning is fundamental to the success of operations. If the goal is to have a world-class organization, the maintenance strategy has a critical role to play in this task, based on the business objectives. This strategy cannot be viewed as separate from other functions, but rather as an integral part of A complete approach to high plantemainteen avorter.

strategy must represent the best available techniques, procedures and practices relevant to the business objectives of the organization, and the strategy must define the processes and procedures required to achieve the highest possible degree of maintenance management and effectiveness, while minimizing the total life cycle costs of new assets and the current operating costs of existing assets.

## Course objectives

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

- Understand, plan maintenance, prepare schedules and controls required to manage maintenance during operation.
- Understand maintenance, planning, schedules and work control methods required to manage maintenance during off time.
- Assessing how the maintenance management system that operates using the automated account contributes to enhancing and supporting real-time information for maintenance planning.
- Prepare schedules and control systems effectively.
- Evaluate the necessary practical requirements for a maintenance management system that operates using an automated account.
- Evaluating and developing the most advanced maintenance strategy and the necessary procedures to make the most of spare parts and how specialized computer-based systems contribute to facilitating these activities.
- · Gain knowledge of modern maintenance patterns.
- Gain knowledge of the methods used in determining the necessary resources for the applications of modern maintenance engineering systems.

# **Targeted Audience**

Managers and supervisors in the maintenance and technical management sectors.



- Managers, heads of administrative departments, and those responsible for managing operation and maintenance.
- All engineers, technicians and everyone involved in maintenance, production and operation.
- · Decision makers and makers.
- Business owners in the fields of production, procurement, maintenance and technical support.
- Everyone who finds himself in need of this course and wants to develop his skills and experience.

### Course Outline

# Unit 1:

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Learn the basics of maintenance management systems.

- The concept and approach of maintenance management as a mode of business or commerce.
- Identify the types and strategies of maintenance and the factors affecting them.
- Preparing project engineers to work as maintenance engineers.
- Identifying the appropriate maintenance method for the facility and how to determine which is better: self-maintenance or contractual maintenance.
- Clarify the types of maintenance contracts.
- Conditions to be fulfilled in the contract according to the FIDIC formula.
- Preparing maintenance contract documents.

#### Unit 2:

- Identifying and dealing with the maintenance contractor's strategies.
- · Evaluation of maintenance bids.
- Supervising maintenance contracts.
- Securing spare parts through maintenance contracts.
- Receipt and delivery to the site in maintenance contracts.
- Preparing the necessary specifications for purchasing computer programs to manage maintenance work.
- Evaluating the available computer programs and selecting the most appropriate ones.
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#### Unit 3:

program.

- Calculation of maintenance effectiveness indicators.
- Determining the appropriate criteria for measuring performance.
- Develop plans for preventive maintenance and follow up on those plans.
- Develop plans for the maintenance of stops and umrahs and follow up their implementation.
- Flexibility in modifying plans to meet emergency work.
- Evaluating the financial and accounting performance of the maintenance department.
- Performance appraisal of spare parts inventory management.
- Workshop includes:
- The general criteria for maintenance evaluation and how to prepare the necessary data for that evaluation.
- Develop plans for preventive maintenance, repair maintenance, overhauls, maintenance of stops, follow-up of those plans, and flexibility in modifying them to meet emergencies.
- Measurement of financial and accounting performance, as well as performance measurement for inventory management and the availability of spare parts upon request as a level of service.



## Unit 4:

- Expected Maintenance.
- Productive Maintenance.
- Preventive Maintenance.
- Computer-based maintenance.
- Breakdown and Failure Finding.

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Change the way the system operates.

- Definition the Functions and Performance Criteria .
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- Planning and Scheduling of Maintenance Activities.
- · Applying Performance Based Estimates.
- Review through Case Study. Course Review by Case Study
- Maintenance and Repair.

# Unit 5:

- Planned Maintenance.
- · Building a Shutdown Planning.
- Estimating Methods.
- Planning Economics.
- Dealing With Delays.
- Prioritizing Maintenance Work.
- Dealing with Emergencies.
- Maintenance Calendars.
- Weekly and Daily Schedules.
- Definitions and Diagramming Methods.
- Determining the Critical Path and the Importance of slack.
- Balancing Downtime and Shutdown Costs.