



an eegis company

بروجاكس للتدريب والتطوير
Projacs Training and Development

Advanced Techniques to Develop, Measure & Raise Maintenance Efficiency

الادارة المتقدمة لقياس وتطوير مشاريع الصيانة ورفع كفاءتها

28 June – 2 July 2021

Istanbul / Turkey



Introduction

This intensive 5-day course has been designed to benefit engineers and technicians who are involved in the operation and maintenance of any industrial unit. It covers all the fundamentals of Maintenance as well as the advanced techniques of maintenance planning, scheduling & monitoring as well as the technical steps required to develop and raise the maintenance efficiency of any running project. A focuses are directed on basic concepts of maintenance management, establishing a preventive and predictive maintenance programs and maintenance planning and scheduling procedures and expert systems for troubleshooting.

Course Outline

Day One

1- Types of Maintenance

- Maintenance philosophy
- Reactive maintenance
- Time based maintenance
- Condition based maintenance
- Proactive maintenance
- Application of maintenance programmers
- Causes of machine failures.
- Maintenance strategies

Day Two

The Failure Analysis and Troubleshooting System

- Troubleshooting as an Extension of Failure Analysis.
- Causes of Machinery Failures.
- Root Causes of Machinery Failure.
- Expert system for maintenance
- Methods of fault analysis
- Vibration analysis and diagnostic

Day Three

1. Inspection & remaining life evaluation of process plant equipment
2. Basics of NDT
3. Applying the predictive approach
4. Surviving the maintenance shutdown
5. The planning & scheduling machines

Generalized Machinery Problem-Solving Sequence

- Situation Analysis. Cause Analysis.
- Action Planning and Generation.
- Decision Making. Planning for Change. References.

Day Four

Machinery Component Failure Analysis

- Rolling-Element Bearing Failures and Their Causes.
- Troubleshooting Bearings.
- Gear Failure Analysis.
- Lubrication. Defects
- Wear. Scoring. Surface Fatigue.
- Failures from the Manufacturing Process.
- Gear-Coupling Failure Analysis.

Build a and implement a preventive maintenance program

- Applying the predictive approach
- Computer applications in maintenance experience documentation and expert system

Day Five

1. Perform maintenance planning and scheduling
2. Manage maintenance spare parts
3. Building PM program
 - Inspection
 - Adjustments
 - Testing
 - Calibration
 - Replacements

Training Method

- Pre-assessment
- Live group instruction
- Use of real-world examples, case studies and exercises
- Interactive participation and discussion
- Power point presentation, LCD and flip chart
- Group activities and tests
- Each participant receives a binder containing a copy of the presentation
- slides and handouts
- Post-assessment

Program Support

This program is supported by interactive discussions, role-play, and case studies and highlight the techniques available to the participants.

Schedule

The course agenda will be as follows:

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|---------------------|------------------|
| • Technical Session | 08.30-10.00 am |
| • Coffee Break | 10.00-10.15 am |
| • Technical Session | 10.15-12.15 noon |
| • Coffee Break | 12.15-12.45 pm |
| • Technical Session | 12.45-02.30 pm |
| • Course Ends | 02.30 pm |

Course Fees*

- **2,950USD**
**VAT is Excluded If Applicable*