

# Best Strategies for Maintenance Planning the Reliability Methodologies Recommendations, Execution and Challenges

أفضل الاستراتيجيات في التخطيط للصيانة الاعتمادية  
وتوثيق الأساليب وتنفيذ التوصيات

07 – 11 June 2021

Barcelona/ Spain



## Introduction

The maintenance philosophies are one of the major parts in our era. The definition between maintenance and repair issues is one of the major concerns. The application of the developed maintenance techniques such as the RPN and the FMEA techniques together with the trouble shooting techniques will be discussed.

## Objectives

The course will be directed towards the true understanding of the preventive and predictive maintenance taking into account the new developed techniques that are obeyed in the application of such maintenance philosophies. Case studies will be implemented together with video clips and photographs and catalogues for the true implementation with the studied subject

## Who Should Attend?

- Mechanical and Electrical Engineers
- Maintenance Engineers and Supervisors

## Course Outline

### Day One

- Introduction to Maintenance
- Types of maintenance
- Maintenance strategies
- Depreciation Vs consumption of machines and equipment
- Machine life time and its relation to failure

### Day Two

- Depreciation curves
- Machine useful life
- Types of Maintenance Programs
- Introduction to mechanical fault diagnosis
- Preventive maintenance
- Predictive maintenance
- Reliability centered maintenance

### Day Three

- How to initiate RCM
- Case studies
- Time Based Maintenance (TBM)
- Condition Based Maintenance (CBM)
- Maintenance management
- Maintenance management budget
- CMMS that can be achieved

### Day Four

- Implementing a planned maintenance system
- Maintenance responsibilities
- Why planned maintenance?
- Advantages of planned maintenance program
- Maintenance work order form
- Time-driven ABC vs. traditional ABC
- Avoid failure and fault
- FMEA

### Day Five

- Benefits of FMEA
- FMEA procedure
- Profit Priorities from Activity-Based Costing
- The critical path method (CPM)
- PERT chart and GANTT chart
- Spare parts

### 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, case studies and highlight the techniques available to the participants.

### Schedule

**The course agenda will be as follows:**

- |                     |                  |
|---------------------|------------------|
| • 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\*

- **4,500USD**  
*\*VAT is Excluded If Applicable*

## مقدمة

فلسفه الصيانة هي واحدة من الأجزاء الرئيسية في عصرنا. وتعريف او توضيح الفرق بين الصيانة والإصلاح هي واحدة من الاهتمامات الرئيسية. وسوف تناقش تطبيق تقنيات الصيانة المتقدمة مثل RPN وتقنيات FMEA جنباً إلى جنب مع تقنيات توثيق الأساليب وتنفيذ التوصيات.

## الاهداف

سيتم توجيه مسار المشاركين نحو الفهم الحقيقي للصيانة الوقائية والتنبؤية مع مراعاة التقنيات المتقدمة الجديدة التي يتم تطبيقها في الصيانة. وسيتم تنفيذ دراسات الحالة جنباً إلى جنب مع استعراض فيديوهات وصور وكتالوجات لتنفيذ صحيح لموضوع البرنامج.

## الحضور

- مهندس الميكانيكا
- مهندس الكهرباء
- مهندس الصيانة