



External Training Course

Implementing Effective Preventive & Predictive Maintenance Programmes

From 26 Aug. To 30 Aug. 2024

From 14 Oct. To 18 Oct. 2024

From 16 Dec. To 20 Dec. 2024

**Richmond Istanbul Taksim Hotel
Istanbul, Turkey**

**Mr. Ghanem F. Al-Otaibi
GM & Institute Owner**

☛ **Tel.: 00965 22248901**

☛ **Mob.: 00965 65548855**

☛ **Email: admin@agi-kw.com**

☛ **Fax: 00965 22204999**

☛ **Mob.: 00965 97273712**

☛ **Email: agi-kw@hotmail.com**

W/SITE: WWW.AGI-KW.COM

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Fees: 1750 KD

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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 GLOMACS Maintenance Engineering training seminar on Implementing Effective Preventive & Predictive Maintenance Programmes 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. This training seminar will highlight:

- Preventive & predictive maintenance strategies and their position within Asset Management.
- Risk Based Maintenance.
- Maintenance & reliability engineering best practices.
- Best practices in planning and scheduling (workflow management).
- The application of CMMS.
- Monitoring & managing performance with Key Performance Indicators (KPI's).
- Continuous improvement aspects.

OBJECTIVES

At the end of this training seminar, you will learn to:

- Understand how world-class organizations solve common planning problems.
- Improve productivity through 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.

TRAINING METHODOLOGY

This training seminar on Implementing Effective Preventive & Predictive Maintenance Programmes will be conducted along interactive workshop principles. There will be a variance of lectures and practical exercises. Experiences from different areas will be discussed. There will be many opportunities for discussion and sharing experiences.

COURSE OUTLINE

DAY 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.

DAY 2: Developing the CMMS

- Database & Structure.
- CMMS & Workflow.
- CMMS & Maintenance Strategies.
- Asset Register.
- Configuration Management.

DAY 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.

DAY 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.

DAY 5: Control of the Maintenance Process

- Implementation Stages of Preventive & Predictive Maintenance Strategies.
- CMMS Integration.
- Reporting – Use of (Key) Performance Indicators.
- Case Study.



Course Details & Agenda:

Day 1 Agenda

8.30	9.00	Opening Remarks (30 Min.).
9.00	11.30	<u>DISCUSS COURSE TOBICS:</u> <ul style="list-style-type: none"> • The Need for Maintenance. • Developing the CMMS. • The Planning Function. • Predictive Maintenance. • Control of the Maintenance Process.
11.30	12.00	Coffee Break
12.00	14.00	<u>The Need for Maintenance:</u> <ul style="list-style-type: none"> • Maintenance & Asset Management as a Business Process. • Risk Based Maintenance (RBM): <ul style="list-style-type: none"> ○ Causes of Failure. ○ Likelihood & Severity of Failure - Risk Analysis. ○ Failure Mode Effect & Criticality Analysis (FMECA). ○ Choosing the (preventive) Maintenance Tasks. • Optimization of Maintenance Decisions: <ul style="list-style-type: none"> ○ Failure Pattern Identification. ○ Statistical Analysis of Failures. ○ Weibull Analysis. • Zero Base Budgeting: <ul style="list-style-type: none"> ○ Define the Production Requirement. ○ Define the Maintenance Requirement.
14.00	14.30	Questions and Discussion
14.30		Buffet Lunch

Day 2 Agenda

9.00	11.30	<u>Developing the CMMS:</u> <ul style="list-style-type: none"> • Database & Structure. • CMMS & Workflow.
11.30	12.00	Coffee Break
12.00	14.00	<u>Developing the CMMS:</u> <ul style="list-style-type: none"> • CMMS & Maintenance Strategies. • Asset Register. • Configuration Management.
14.00	14.30	Questions and Discussion
14.30		Buffet Lunch

Day 3 Agenda

9.00	11.30	<u>The Planning Function:</u> <ul style="list-style-type: none"> • The Maintenance Workflow and How It Relates to the Preventive Maintenance Strategy. • Roles & Responsibilities in Work Preparation, Planning and Scheduling.
11.30	12.00	Coffee Break
12.00	14.00	<u>The Planning Function:</u> <ul style="list-style-type: none"> • Principles of Work Preparation & Planning. • Principles of Scheduling. • Network Planning.
14.00	14.30	Questions and Discussion
14.30		Buffet Lunch

Day 4 Agenda

9.00	11.30	<u>Predictive Maintenance:</u> <ul style="list-style-type: none"> • Potential Failure Analysis (PFA): <ul style="list-style-type: none"> ○ Integration of PFA with FMECA & RBM. ○ Understanding the P-F Interval. ○ Decide which Technologies to Apply.
11.30	12.00	Coffee Break
12.00	14.00	<u>Predictive Maintenance:</u> <ul style="list-style-type: none"> • Predictive Maintenance Technologies: <ul style="list-style-type: none"> ○ Vibration Analysis. ○ Visual Inspection. ○ Infrared Thermography. ○ Temperature Sensitive Labels. ○ Megger Tests. ○ Ultrasonics. ○ Oil Analysis.
14.00	14.30	Questions and Discussion
14.30		Buffet Lunch

Day 5 Agenda

9.00	11.30	<u>Control of the Maintenance Process:</u> <ul style="list-style-type: none"> • Reporting – Use of (Key) Performance Indicators. • Case Study.
11.30	12.00	Coffee Break
12.00	14.00	<u>Control of the Maintenance Process:</u> <ul style="list-style-type: none"> • Reporting – Use of (Key) Performance Indicators. • Case Study.
14.00	14.30	Questions, Discussion & Conclusion Training Course.
14.30		Buffet Lunch