تحليلات الصيانة: اتخاذ القرارات القائمة على البيانات لضمان الاعتمادية والتحسين في اللغة العربية

Duration: 5 Days

Language: ar

Course Code: IND04 - 137

Objective

:By the end of this course, participants will be able to

- .Apply decision analysis techniques to solve maintenance and reliability challenges
- .Evaluate and manage risks using structured methods like FMEA and fault tree analysis
- .Use multi-criteria decision-making (MCDM) to prioritize maintenance actions
- .Optimize resource allocation and minimize downtime through analytics
- .Leverage CMMS and ERP systems to improve planning and scheduling
- .Build an action plan to implement maintenance analytics in their own organization

Audience

:This course is ideal for

- .Maintenance & Reliability Managers and Supervisors
- .Planners and schedulers in maintenance operations
- .Operations and production supervisors
- .Reliability engineers and analysts
- .CMMS administrators and key users
- .Materials & inventory managers involved in maintenance support

- .Anyone involved in optimizing maintenance strategies and decisions

Training Methodology

This highly interactive course combines expert-led presentations, group discussions, real-world case studies, and software-assisted exercises. Participants will work on practical examples, apply .user-friendly decision-analysis tools, and engage in workshops to practice concepts

Summary

In today's competitive and asset-intensive industries, maintenance decisions cannot rely on intuition alone. Maintenance Analytics equips professionals with advanced decision-making tools .and analytical techniques to enhance reliability, optimize costs, and mitigate risks

This course blends principles of decision analysis, risk assessment, and operational research with hands-on tools and practical case studies to help maintenance and reliability professionals turn data into actionable insights. Participants will learn to evaluate uncertainties, prioritize resources, .and design robust maintenance strategies that support organizational goals

Course Content & Outline

Section 1: Foundations of Decision Making & Risk Management

- .Importance of structured decision making in maintenance and reliability
- .Common pitfalls in maintenance decision processes
- .Learning from major failures and building resilience
- .Introduction to reliability analysis and Weibull distributions
- .Fundamentals of risk management and its role in maintenance planning
- .Case examples of poor vs. best practices in decision making

Section 2: Multi-Criteria Decision Analysis (MCDA) & AHP

- .Overview of decision analysis concepts and processes
- .Why bad decisions happen and how to avoid them
- .(Introduction to MCDA and Analytic Hierarchy Process (AHP
- .Structuring goals and criteria for maintenance decisions
- .Benefit-cost analysis and resource allocation optimization
- .Workshop: using AHP for real maintenance scenarios

Section 3: Risk Assessment with FMEA & Reliability Modelling

- .(Conducting Failure Mode & Effect Analysis (FMEA
- .Understanding Fault Tree Analysis and the Criticality Matrix
- .Calculating Risk Priority Numbers (RPN) and setting priorities
- .Modelling reliability in series and parallel systems
- .The concept of redundancy and its application in critical systems
- .Group exercise: building and analyzing a reliability model

Section 4: Leveraging MRP & ERP Systems in Maintenance

- .The evolution of ERP systems and their relevance to maintenance
- .Materials Requirements Planning (MRP) and its integration with maintenance
- .Understanding the Bill of Materials (BoM) for maintenance planning
- .(Creating and managing Master Production Schedules (MPS
- .Practical case studies: aligning maintenance plans with ERP data
- .Group discussion: challenges and solutions in ERP implementation for maintenance

Section 5: Optimizing Maintenance Policies through Analytics

- .Maximizing the value of CMMS data: from records to decisions
- .Benefits and capabilities of next-generation maintenance systems
- .Setting optimum maintenance policies based on data-driven insights
- .Decision support tools for preventive, predictive, and condition-based maintenance
- .Strategies for transforming raw maintenance data into actionable decisions
- Workshop: designing an action plan for implementing maintenance analytics in your .organization

Certificate Description

عند إتمام هذه الدورة التدريبية بنجاح، سيحصل المشاركون على شهادة إتمام التدريب من Holistique Training. (e-Certificate) وبالنسبة للذين يحضرون ويكملون الدورة التدريبية عبر الإنترنت، سيتم تزويدهم بشهادة إلكترونية من Holistique Training.

وخدمة اعتماد التطوير المهني (BAC) معتمدة من المجلس البريطاني للتقييم Holistique Training شهادات ISO 29993.و ISO 21001و ISO 9001 كما أنها معتمدة وفق معايير ،(CPD) المستمر

لهذه الدورة من خلال شهاداتنا، وستظهر هذه النقاط على شهادة إتمام (CPD) يتم منح نقاط التطوير المهني المستمر واحدة عن كل ساعة CPD يتم منح نقطة ،CPD ووفقًا لمعايير خدمة اعتماد .Holistique Training التدريب من .لأي دورة واحدة نقدمها حاليًا CPD حضور في الدورة. ويمكن المطالبة بحد أقصى قدره 50 نقطة

Categories

الهندسة, القيادة والإدارة

Related Articles

أنواع الصيانة: الوقائية، التنبؤية، والتصحيحية ـ دليل شامل

تعد الصيانة من الركائز الأساسية للحفاظ على استمرارية الأداء وكفاءة المعدات في أي منشأة أو مؤسسة. تتنوع أنواع الصيانة بحسب طبيعة الأعطال واحتياجات النظام التشغيلية، حيث تساهم كل نوع منها في تحسين الأداء وتقليل التكاليف على المدى الطويل. في هذا المقال، سنستعرض الأنواع الرئيسية للصيانة: الصيانة الوقائية، الصيانة التنبؤية، والصيانة