Projacs
an egis company
بروجاكس للتدريب والتطوير
Projacs Training and Development

Mechanical Installation Techniques, Testing, Handover, Operation and Maintenance

تقنيات التركيبات الميكانيكية، والاختبار، والتسليم والتشغيل والصيانة

12 – 16 October 2020

Kuala Lumpur / Malaysia

A Member of:
PROJACS ACADEMY

ProjacsAcademy.com

Introduction

This course has been designed to benefit engineers and technicians who are involved in the commissioning, 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.

Objectives

Upon completion of this course, participants will have a thorough understanding of the fundamental concepts of Mechanical installations techniques. Participants will have in-depth knowledge of HVAC, Elevators, Firefighting and fire alarm systems, Pumps, Drainage system, heating system, isolation materials inside the buildings, equipment selection, proper operation, troubleshooting through presentation of actual case studies.

Who Should Attend?

This course is targeted for:

- Maintenance Engineers
- Operation Engineers.
- Maintenance Technicians
- Operation Technicians
- Maintenance Supervisors
- Operation Supervisors

Course Outline

Day 1: Main Mechanical Systems

- HVAC Systems
  - The Major HVAC system Types
  - Cooling Towers
  - Secondary system components
  - Central Systems
  - All-Air systems
- Basic of Plumbing Systems
  - Common Plumbing Processes
  - Cold Water Supply
  - Hot Water Supply
- Fire Protection
  - Water-Based Suppression
  - Fire Suppression without Water
- Auxiliaries
  - Pumps
  - Fans
  - Compressors

Day 2: Testing and Handover

- Defining the equipment which will be tested
- Defining the testing requirement from the standards/regulations/specifications
- Checking the equipment
- Testing the equipment
- Checking the system
- Training the owner technicians/engineers
- Handover

Day 3: Operation

- Defining the equipment which will be operated
- Defining the pre-starting preparations
- Defining the starting preparations
- Defining the shutdown preparations
- Defining the readings to be taken during the running time
- Analyzing the readings and defining the predictive maintenance tasks

Days 4 & 5 Maintenance

- Types of Maintenance
  - Reactive maintenance
  - Time based maintenance
  - Condition based maintenance
  - Proactive maintenance
- The Failure Analysis and Troubleshooting System
  - Causes of Machinery Failures
  - Root Causes of Machinery Failure
  - Methods of fault analysis
- Inspection and Predictive Approach
  - Basics of NDT
  - Applying the predictive approach
  - Surviving the maintenance shutdown
  - Decision Making
  - Planning for Change
- Build a preventive maintenance program
  - Perform maintenance planning and scheduling
  - Manage maintenance spare parts
  - Building PM program

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*

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

المقدمة

صُممت هذه الدورة لتفيد المهندسين والفنيين المعنيين في التكليف والتشغيل والصيانة لأي وحدة صناعية. وتغطي أيضاً جميع أساسيات الصيانة بالإضافة إلى التقنيات المتقدمة في تخطيط الصيانة، والجدولة والمراقبة بالإضافة إلى الخطوات الفنية اللّازمة لتطوير ورفع كفاءة الصيانة لأي مشروع قيد التشغيل.

الاهداف

عند الانتهاء من هذه الدورة، سيكون لدى المشاركون معرفة عميقة للمفاهيم الأساسية لتقنيات المنشآت الميكانيكية. وسوف يتمكن المشاركين من معرفة متعمقة لنظام التكييف الحار والبارد HVAC، والمصاعد، ومكافحة الحرائق وأنظمة الإنذار من الحرائق، والمضخات، ونظام الصرف الصحي، ونظام التدفئة ومواد العزل داخل المباني، واختيار المعدات ونظام التشغيل السليم، وذلك من خلال عرض دراسات الحالة الفعلية.

الحضور

هذه الدورة تستهدف:

- مهندسي الصيانة
- مهندسي التشغيل
- فنيو الصيانة
- فنيو العمليات
- مشرفو الصيانة
- مشرفو العمليات