1. Course Details:

Course Code : ICPE-014
Course Title : Mechanical Engineering for Non-Mechanical Engineering
Course Duration : 5 Days

2. Course Overview:

- Engineers, technicians, maintainers and operators who may not have a mechanical background are often given the responsibility for the procurement, installation, operation and maintenance of mechanical equipment. To be effective, such personnel should have a fundamental understanding of the principles that dictate the design, operation and maintenance of this mechanical equipment. The course will emphasize practicality and cost effectiveness.
- Course covers a broad range of mechanical engineering subjects. The subjects are explained with examples of engineering applications, with a range of exercises to enhance understanding and support learning.

3. Learning Outcomes:

- Gain an overall Mechanical knowledge of various fundamental for equipment & vessels
- Familiarize with operating and maintenance rotating equipment
- Familiarize with operating and inspection static equipment
- Gain a general knowledge about code and standard application
- Familiarize with maintenance strategies and planning activities

4. Course Contents:

- Fundamentals of Materials Selection
- Engineering Material Properties and Selection
- Materials Testing
- Types of Metals
- Materials Failure Mechanisms
- Mechanical Design, Standards and Codes
- Static Equipment, Valves & Piping
- Valves Types and Characteristics
- Valve Selection
- Valve Actuators
- Piping Systems and Pipe Supports
- Overview of API 570 - Inspection & repair of Pipelines & Piping
- Fitness for Service, API 579 overview

- Rotating Equipment, Pumps & Compressors
- Pump Types
- Pump curves
- Pump Selection
- Types of Compressors
- Compressor Performance Curves
- Corrosion Fundamentals
- Types of Corrosion
- Corrosion Inspection and Monitoring
- Corrosion Minimization
- Corrosion Protection
- Mechanical Maintenance
- Strategies & Philosophies
- Code and Standards
- Condition Monitoring
- Non-Destructive Inspection techniques
- Computerized Maintenance Management System (CMMS)

5. Our Methodology:

- Make coaching and monitoring innovative and using modern
- Media training also using on the go training by using interactive means and focusing on
- The exercises, practical applications and real situations study.
- Live delivery method, instructor-led training.
- Experienced consultant, trainers, and professional.
- Qualified trainer with high-level experience

6. Attendance Reports:

- Send daily attendance reports to trainingdep
- Send full attendance report to training dep. by the end of thecourse
- Attend 100 % from the course days also providedaily
- Issue attendance certificate for participant who attend minimum 80% from the course duration

7. Pre/Post Reports:

- Pre- assessment before starting training.
- Post assessment after finish training
- Full report for the deferent between Pre-& Post assessment

8. Who Should Attend?

- Operation engineers and supervisors
- Maintenance (Mech., Elect. & Inst.)engineers and supervisors
- Inspection engineers and supervisors