1. Course Details:

Course Code : ICPE-011
Course Title : Gas Turbine and Troubleshooting
Course Duration : 5 Days

2. Course Overview:

- This training course provides participants with an opportunity to acquire a fundamental understanding of many aspects of stationary gas turbine engine performance appropriate to its operation and control. Course is intended to supply the participants with the principal of gas turbine operation. Also, to train them in monitoring the behavior of the gas turbine that will help them in enhancing its performance.

3. Learning Outcomes:

- Understand the basic operation of a gas turbine
- Describe the operation and function of the individual gas turbine components to perform simple troubleshooting and maintenance
- Introduce proper operating procedures and maintenance strategies
- Employ turbine inspection

4. Course Contents:

Basics of Gas Turbines

- Introduction to Gas Turbine
- Simple Gas Turbine Cycle
- Heavy Duty Gas Turbine
- Industrial Gas Turbine
- Advanced Gas Turbine

Design of a Gas Turbine

- Single, Spool and Split Shaft Gas Turbines
- Can, Annular and Can-annular combustors
- Principle of Operation of an Axial Turbine
- Impulse and Reaction Turbine Blades
- Techniques of Internal Cooling of the Blades

Auxiliaries, Protection and Control Systems

- Lubrication System
- Gas Fuel System
- Oil Fuel System
- Hydraulic System
- Starting System
- Protection System

Performance and Operation of a Gas Turbines

- Operating Parameters
- Factors Affecting the Performance of a Gas Turbine
- Start Up and Shutdown Procedures
- Synchronizing procedure
- Speed Control and Temperature Control
- Trip Oil system

Monitoring System and Troubleshooting

- Vibration Monitoring and Analysis
- Abnormal Conditions of a Gas Turbine
- Combustors Problems
- Axial Turbine Problems

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?

- Operators
- Shift Supervisors to operation and maintenance
- Control Engineers
- Mechanical Engineers