1. Course Details:

Course Code : ICPE-003
Course Title : Best Practices in Gas Flow Measurements
Course Duration : 5 Days

2. Course Overview:

- Flow measurement-training course for hydrocarbon liquid and gas as it relates to the instrumentation involved. The course will benefit delegates with little knowledge of flow measurement as well as experienced instrument and metering engineers.

3. Learning Outcomes:

- The legal and commercial requirements for hydrocarbon liquid/gas metering
- Appreciate design criteria and importance of accuracy in quantity and quality measurements
- Basics of measurement uncertainty
- Measurement concepts and types of error
- The concepts, principles of operation and equipment used for typical liquid/gas metering systems, gas chromatographs, meter proving, sampling and analysis
- The concepts, principle of operation and hardware used for typical flow computers, prover control microcomputers and supervisory systems
- Typical operations, control functions and record keeping requirements for hydrocarbon liquid and gas metering systems

4. Course Contents:

- Identification of the key design requirements of liquid and gas fiscal and custody transfer metering systems
- Terminology, definitions and international standards utilized within measurement systems
- Importance of low measurement uncertainty in quantity and quality measurement systems
- Principles and applications of multiple meters/meter runs, flow computers, quality systems, calibration, verification, proving and supporting systems
- Fundamental requirements for traceability, auditability and the determination of system uncertainty.
- Problems with erosion, corrosion, cavitation and obstructions in liquid and gas fiscal and custody transfer metering systems
- Meter technology, Installation requirements and applications, with regards to flow meters utilized for liquid and gas measurement; including differential pressure measurement, turbine meters, Coriolis flow measurement and ultrasonic flow measurement

- Requirements and impact of temperature and pressure measurements
- Requirements of the measurement of density
- Gas meter verification systems
- Relevance, requirements and importance of sampling
- Key functionality and operation of gas chromatographs

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?

- Lab staff
- Supervisors, Technicians
- Mechanical Engineers