



London Elite Centre



## *Oil & Gas Processing Flow Measurement*

*PDF Broshoure of the Event*  
<https://londonelitecentre.com>



## Oil & Gas Processing Flow Measurement

Start date:2023-05-29

End date:2023-06-02

Location:Paris

Price: \$5750

Participants are encouraged to elevate queries both throughout and also any time after going to the workshop. Individuals are additionally motivated to bring with them any kind of problems that they may need to the course.

### Training Course Purposes of Oil and also Gas Processing Flow Measurement

- Understanding the Legal and also Commercial Metering Needs
- Value layout requirements and the importance of precision
- Understand measurement ideas and kinds of mistake
- Understand the basic principles, the concept of procedure, and also devices made use of for Gas metering, liquid metering, confirming, and also tasting
- Understand the basic ideas, the concept of procedure, and equipment utilized for normal flow computers, Prover Control Micro-computers, as well as Supervisory Equipments.
- Comprehend the common operations, control features, and also record-keeping demands
- Examine the results of Turbine Meter Calibration and also determine the legitimacy by utilize of Control Chart

#### Day 1

##### Typical Gas System Overview

- Typical Gas Pipeline System
- Role of Operator
- Overview of Typical Gas Sales
- Contracts

##### Typical Gas Metering System Overview

- Introduction to Fiscal Metering
- Pipework and Valving
- Flow Measurement
- Secondary Instrumentation

##### Primary Flow Measurement Instruction

- The Flowmeter





- Meter Tubes and Other Fittings
- Removals/Replacement Procedure

## Flow Measurement Accuracy

- Flow Measurement Uncertainty,
- Rangeability and Calibration
- Calculating Uncertainty
- Traceability

## Secondary Measurement Instrumentation

- Pressure Measurement
- Temperature Measurement
- Density Measurement

## Day 2

### Gas Quality Measurement

- The Gas Sampling and Conditioning System
- Relative Density Analyser
- Moisture Analyser

### Gas Chromatographs

- Introduction to Gas Chromatography
- Gas Conditioning System
- Gas Chromatograph
- Chromatograph Controller
- Calibration and Maintenance

### Computer System Overview

- Hardware
- Software
- Display Formats
- Alarm Handling and Interpretations
- Response to Input Failures

### Supervisory Computer System

- Hardware and Software
- Operator Interface



- System Security
- Communications

## Metering Panel Auxillary Equipment

- Analogue to Digital Conversion
- Power Supplies

## Day 3

### Introduction to Primary Flow Measurement Devices

- Introduction
- Basic Principles of Pipe Flow
- Mathematical Developments

### PRIMARY FLOW MEASUREMENT DEVICES - Differential Pressure Type

- Simple Theory
- Orifice Meters
- Venturi Meters
- Flow Nozzles
- Low Loss Devices
- Variable Orifice Meters
- Variable Area Meters
- Pitot Tubes and Pitot Static Tubes
- Target Flowmeters

### PRIMARY FLOW MEASUREMENT DEVICES - Displacement Flowmeters

- Basic Principles
- Liquid Meters
- Designs for Gases
- Advantages and Disadvantages
- Applications

## Day 4

### PRIMARY FLOW MEASUREMENT DEVICES - Rotary Inferential Meters

- Turbine Flowmeters
- Miscellaneous Designs
- Advantages and Disadvantages



## PRIMARY FLOW MEASUREMENT DEVICES - Fluid Oscillatory Flowmeters

- Principle of Operation
- Vortex Shedders
- Advantages and Disadvantages

## PRIMARY FLOW MEASUREMENT DEVICES - Electromagnetic Flowmeters

- Principle of Operation
- AC and Pulsed DC Types
- Applications
- Advantages and Disadvantages

Day 5

## PRIMARY FLOW MEASUREMENT DEVICES - Ultrasonic Flowmeters

- Doppler Type
- Time-of -Flight Type
- Clamp-on Type
- Applications
- Advantages and Disadvantages

## PRIMARY FLOW MEASUREMENT DEVICES - Mass Flow Measurement

- Coriolis Flowmeters
- Angular Momentum Devices
- Thermal Meters
- Applications
- Advantages and Disadvantages

## PRIMARY FLOW MEASUREMENT DEVICES - Miscellaneous

- Cross-Correlation
- Tracer Methods
- Weighing Methods
- Lasers