Process Instrumentation
Oil and Gas Upstream

General Information

Course Code: PIA-PROGUC1A
Length: 3 Days

Audience

Service personnel and customers using process instruments in the oil and gas upstream process.

Profile

Using hand-on labs and applications in the oil and gas upstream process, this course gives participants an overview of several process technologies in flow, temperature, pressure, level, and positioners. Working with the PI product portfolio, students gain an understanding of theory, installation and setup of flow, pressure, level, and positioner technologies.

Objectives

Upon completion of this course, the student shall be able to:
• Students will learn how to install and setup instruments in flow, temperature, pressure, level, and positioners.
• Students will also gain knowledge on specifications of the instruments and theory of the technologies.

Topics

1. Overview of the Oil and Gas Upstream Process
2. Injection Well Head
   a. Applicable Siemens Products
   b. Brief theory of magflow
   c. Benefits and where to apply
   d. Specifications of MAG3100
   e. Hands-On Lab
3. Christmas Tree
   a. Applicable Siemens Products
   b. Brief theory of temperature
   c. Benefits and where to apply
   d. Specifications of TH 300 / TS500
   e. Hands-On Lab
4. Separators
   a. Applicable Siemens Products
   b. Brief theory of Coriolis flow
   c. Benefits and where to apply
   d. Specifications of FC430
   e. Hands-On Lab
5. Heater Treater
   a. Applicable Siemens Products
   b. Brief theory of point level
   c. Benefits and where to apply
   d. Specifications of CLS200/CLS300
   e. Hands-On Lab
6. Manifolds
   a. Applicable Siemens Products
   b. Brief theory of pressure
   c. Benefits and where to apply
   d. Specifications of DSIIII
   e. Hands-On Lab
7. Vapor Recovery Unit
   a. Applicable Siemens Products
   b. Brief theory of positioners
   c. Benefits and where to apply
   d. Specifications of SiPart PS2
   e. Hands-On Lab
8. Tank Batteries
   a. Applicable Siemens Products
   b. Brief theory of non-contact radar and GWR
   c. Benefits and where to apply
   d. Specifications of LR 250 & LG 250
   e. Hands-On Lab
9. Chemical Injection at Production Well Sites
   a. Applicable Siemens Products
   b. Benefits and where to apply