<< Retour

Practice of Instrumentation
PRI - 35 hours

Objectif

> Attendees will acquire the base theory of operation of measuring instruments, control valves, and positioners.
> They will learn how to install, wire, set, tune, maintain and troubleshoot them.

Public

Operations and Maintenance Technicians and Engineers, who are new to instrumentation, or who whish to be “cross trained”.

Prérequis

Knowledge of basic mathematical concepts and physical laws, although not required, would be helpful.

Methode pédagogique

> The course provides valuable information via lectures on theoretical concepts, backed-up by direct hands-on training in fully equipped classrooms.
> More than 50% of the time is dedicated to actually working on various industrial instruments installed on test benches.

Participants

Mini : 2 - Maxi : 10

Niveau acquis en fin de stage :

Fondamentaux

Prix HT

1850 €

Horaire

monday 9 a.m. to friday 17 p.m.

Votre formateur :

Philippe Trichet

INTRODUCTION (3 h)

> Structure of a basic feedback control loop.
> P&ID’s drawing standards.
> Basic electricity, 4 - 20 mA loop.

INDUSTRIAL MEASUREMENT (10 h)

> Pressure : concept, different pressure types, units, sensors, analog electronic and smart transmitters, installation and calibration, pressure switch.
> Level : indicator, hydrostatic head, capacitive, ultrasonic, nuclear, radar, float, buoyancy, resistive, mechanical type, vibrating blades, rotating paddle).
> Flow : differential pressure, rotameter, electromagnetic, ultrasonic, turbine, vortex, rotary, Coriolis, thermal, flow indicator and switch.
> Temperature : thermocouple, resistance temperature detector (RTD), infrared radiation pyrometer.

CONTROL VALVES (4 h)

> Theory of operation, bodies, trim, actuators, flow characteristics, sizing, cavitation, shutoff pressure, leak tightness, calibration, positioners.
> Different valve types

HANDS - ON TRAINING (18 h)

> Installing, wiring, setting, checking and troubleshooting various industrial measuring instruments, control valves and positioners.
> Designing and building a complete feedback control loop.

NOTE

This training course is part of a two module training package called "PIPC" : Practice of Instrumentation and Process Control,(PPC + PRI) at 3230 euros Fee.

Sessions du stage

Lieux	Jan	Fév	Mar	Avr	Mai	Jui	Jui	Aou	Sep	Oct	Nov	Déc
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