PID Tuning and Base Layer Controlling Improvement on DCS I (FI11)

Objectivity

- 1. Understanding in principle of Control and property of each processes in order to easily control.
- 2. To learn how to select control method which apply for suitable process.
- 3. To be able to tuning PID by experimenting with actual Process in 4 control method there are Flow Control (Open Loop Method), Flow Control(Closed Loop Method), Level Control and Cascade Control By using simulation Model and Test by1 DCS System.
- 4. To be able to do Process identification which apply by Module Block Mathematical in process control.

Training period

2 Days

Time

9.00 - 16.30 pm

Avenue

Yokogawa (Thailand) Ltd. Bangkok Office (Rama 9)

Instructor

Specialist experience instructor

Participant

Technicians and Engineers who concerned about PID Tuning

Requirement

Have knowledge basic about control and DCS

Maximum

10 Participants

Course Outline detail

Day

1st

Morning (09.00 to 12.00)

- Process Characteristic

- Number of I/O signal
- Interactive/Non-Interactive process
- Self Regulation/Non-Self Regulation
- Linear/Non-Linear
- Dead Time/Lag Time
- Control Action
- Introduction to Proportional , Integral and Derivative Action (PID)
- Control Mode Selection
- PID Tuning
- Control Application
 - Flow Control
 - Flow Ratio Control
 - SISO Level Self Regulating Process Control
 - Cascade Control
 - Feed Forward plus Feed back Control

Afternoon (13.00 to 16.30)

- Lab work: PID Tuning By DCS Simulator Software
- Learning for changes value of PV and MV When value increase or decrease of P, I and D
- Lab work: PID Tuning By using DCS and Process Simulation Model
 - Open Loop Method
 - Flow Control

2nd

- Lab work: By using DCS and Process Simulation Model
 - Closed Loop Method
- Flow Control

- Lab work: By using DCS and Process
 Simulation Model
- (Level and Flow Cascade Control)