**Controller & Control Loops**

**Course Objectives:**

* Identify & compare the feedback control system, open loop system & close loop system.
* Identify the elements of Process Control loop.
* Understand & Use the PID diagrams.
* Understand the Direct- & Reverse-mode of Controller.
* Define & utilize the significance & effect of proportional, integral & derivative control modes on process response & the suitability of their use to various processes.
* Apply the concept of controller tuning for different tuning methods.
* Identify & apply the techniques/concept of advance control strategies like cascade control, feed-forward control & ratio-control.

**Course Outlines:**

* Introduction to process control (open loop system & closed loop system), Elements of process control, Process control signals, Process & instrumentation diagram, Feedback controllers, Direct & reverse action of a controller, Control modes, Stability of feedback control loop, Control tuning, Determination of ultimate gain & period, Closed loop controller tuning, Open loop testing, Open loop controller tuning, Improving controller tuning, & Selection of feedback controller modes.

**Who Should Attend?**

* Engineers & technicians with 2 years of experience.

**Duration:** 5 Days

**For more information:**

Industrial Relations- Special Programs Unit:

Tel.: +966 (013) 340-2011 / (013) 340-2140

Fax: +966 (013) 340-2060

Email: [specialprograms@jic.edu.sa](mailto:specialprograms@jic.edu.sa)