Sizing, Selecting, and Applying Process Control Valves Course

Venue Information

Venue: London UK

Place:

Start Date: 2026-10-13

End Date: 2026-10-17

Course Details

Net Fee: £4750.00

Duration: 1 Week

Category ID: EAPET

Course Code: EAPET-60

Syllabus

Course Description

Extensive course materials provided contained useful information about valves/sizing and selection both theoretical and practical. You will gain a practical understanding of control valves, actuators, and positioner designs and their applications. The course also provides methods that can be used to identify specific valve problems and arrive at acceptable solutions within engineering tolerance.

Course Objective

- Compare various types of final control elements
- Understand a typical valve operation in a control loop
- Differentiate between various types of valves and the benefits of each
- Compare rising stem to rotary style valves

- Evaluate and select actuators for specific applications
- Specify appropriate auxiliaries including positioners and I/P transducers
- Design control valve installations that are safe and trouble-free

Course Outlines

Introduction:

- Valve in Loop
- Actuator
- Positioner

Basic Valve Types:

- Globe Valves
- Ball Valves
- Plug Valves
- Butterfly Valves

Actuators:

- Spring/Diaphragm
- Piston
- Vane
- Scotch-Yoke
- R & P

Comparison:

- Rising Stem
- Rotary Stem
- Accessories
- Positioner
- I/P Converters

Valve Performance:

- Gain
- Time
- Trim

- Cause/Effect
- Prevention
- OSHA
- Source and Abatement

Installation:

- Performance, Safety and Others

Valve Sizing:

- Valve sizing calculation Manual
- Valve sizing calculation Computer

Specification and Selection:

- Process Requirements
- Other Considerations

Maintenance and Troubleshooting Considerations:

- Special Requirements
- Diagnostic Tools

Smart Valves:

- Available Designs
- Applications in Industry