

# PROCESS MEASUREMENT & CONTROL APPRECIATION

The course is designed to provide participants with the basic knowledge of automatic process measurement and control.

**Course Code** PMCA

**Duration** 5 days

**Max Class Size** 15

**Prerequisite** None

## Who should attend this course?

For operators, technicians and new engineers who want to learn the principles of process measurement and control.

### Day 1

Basic principles of process measurement and automatic control  
Terminology and symbols  
Pressure measurement : terminology, working principles of various pressure sensing devices  
Level measurement : working principles of different level sensing devices  
Laboratory work : Calibration of pressure transmitter

### Day 2

Temperature measurement : terminology, working principles of temperature detectors  
Flow measurement : terminology and working principles of flow measuring devices  
Laboratory work : Calibration of temperature transmitter

### Day 3

Analytical measurement : principles of pH and conductivity measurement  
Final control element and valve positioner  
Principles of current to pneumatic converter  
Introduction to Wireless Field Devices  
Laboratory work : Calibration of Wireless Pressure Transmitter  
Brief Structure of valves

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## Day 4

Process characteristics  
Modes of control  
Laboratory work : Process characteristics,  
controller action - open loop

## Day 5

Controller tuning  
Laboratory work : PID control response;  
optimum PID setting

