# 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
Introduction to Fieldmate as a commissioning tool

## 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
Stripping and assembly 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