FLUID CONTROL RESEARCH INSTITUTE: PALAKKAD

ITEC Training Program (3 weeks duration)
Instrumentation & Control and Data Acquisition
System for fluid flow in process and Petroleum Engineering

COURSE CONTENT:

Theory Session: 55%,
Laboratory Sessions/ Hands-on training: 40%,
Evaluation of Projects and Standards presentations: 5%.

Principles and Practice of Flow measurement

Fluid Flow Measurement: Principles and practices, Types of Linear & Non-linear Flowmeters such as Turbine flowmeters, Positive displacement flowmeters, Vortex flowmeters, Ultrasonic flowmeters, Coriolis Massflowmeters, Thermal Massflowmeters, etc. Inline and Insertion flowmeters for conduits and closed ducts.
Open-channel flow measurement methods.

Secondary Instrumentation and Auxiliary Measurement systems

Secondary Instrumentation for flow measurements: Pressure, Temperature, Density, Level, etc.
Batch controllers and Fuel Dispensers, etc.
Calibration methods and systems for transducers / sensors for pressure, temperature, density, Process transmitters, etc.
Tank Gauging principles and practice.

Principles of Data Acquisition Systems and Interfacing

Data Acquisition System and Interfacing Principles, DCS, PLC/ SCADA.
Understanding Process & Instrumentation Diagram (P&ID)
Trouble-shooting & Loop-checking, trouble-shooting signals from flow meters.

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