

FLUID CONTROL RESEARCH INSTITUTE : PALAKKAD

ITEC Training program (3 weeks duration) Flow Measurement & Control Techniques for Water Distribution Systems

COURSE CONTENT:

General orientation program on India and its culture.

Theory session 55%, Laboratory Sessions/Hands on training 40%,

Evaluation of projects and standards presentations 5%.

Flow Measurement and Performance evaluation /Calibration of flowmeters:

Flow meters of water distribution systems: Electromagnetic Flowmeters, Ultrasonic flowmeters, bulk and domestic water meters, fluidic oscillation flow meter, etc.

Water Meters – Types, Sizing and Testing.

Calibration Techniques: Primary and Secondary Calibration methods including Gravimetric Method, Volumetric Method, Master Meter Method, Tank provers, etc.

On-site Calibration case studies. Performance evaluation of water meters.

Water Transmission & Distribution Systems

Design aspect of water distribution systems, pumping systems, Sumps and intakes, performance evaluation of pumps, etc.

Flow Pipeline Network Design/ System parameter evaluation:

Open source Software in design of water distribution systems, Use of Software for design and optimization of water networks, selection of pumps, hydraulic transient analysis. Non-Revenue Water, Leak detection methods and instruments, pipeline locators.

Quality aspects in flow metering systems:

Assessment of uncertainty and statistical analysis of accuracy in fluid flow measurement, Quality audit and measurement audit, Traceability of measurements, Inter-comparison of International labs.
