

Syllabus for Technician / Professional Knowledge – Maintenance Technician - Instrumentation

Topics	Sub-Topics
Process Instrumentation	Pressure Measurement
	Temperature Measurement
	Level Measurement
	Flow Measurement
Introduction to Automatic control	Open loop and Closed loop
	Feedback
	Modelling simple dynamic systems
	Linearization
	Stability
Analog & Digital Electronics	Opamps
	Converters & Comparators
	Data Acquisition Devices
Regulators, Valves & Motors	Pressure Controllers
	Flow Control Valves
	Power Control
	Motors
PLC & DCS	Controller Operation
	Input /Output Modules
	Ladder Diagrams
	Basics of SCADA & DCS
Signal Conditioning & Transmission	Signal Conditioning
	Analog & Digital Transmission
	Wireless Transmission
Piping & Instrumentation	Alarm & Trip Systems
	P&I Symbols