

BANGALORE INSTITUTE OF TECHNOLOGY

KR ROAD, VV PURA BANGALORE-04

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

Specifications for the purchase of equipments for the PROCESS CONTROL and VIRTUAL INSTRUMENTATION LAB

Sl.No	System	Parameters
1.	PC and PLC based Bottle Filling System	Mimic panel
2.	PC and PLC based Lift Control System	Mimic panel
3.	PLC- SIE1 with Demo Panel Training Kit	Sequential and combinational circuits operations using ladder diagrams Mimic panel
4.	NI-MyDAQ Card	Interfacing Experiments with PC using LabView. KIT
5.	Air Compressor	0-30 psi, 2-3hp oil free compressor

PC Based SYSTEMS SPECIFICATIONS

1. PC based Flow control system	
Product	Flow control trainer
Type of control	SCADA
Control unit	Digital indicating controller with Ethernet communication
Diff. pressure transmitter	Type Capacitance, two wire, Range 0–200 mm, Output 4–20 mA sq.root,
I/P converter	Input 4-20mA, Output 3-15 psig, Make Control air
Control valve	Type Pneumatic, Size 1/4", Input 3–15 psig
Rotameter	10-100 LPH, Make eureka
Pump	Fractional horse power, type submersible
Flow measurement	Orifice meter
Air filter regulator	Range 0-2.5 kg/cm ²
Pressure gauge	Range 0-2.5 kg/cm ² (1No), Range 0-7 kg/cm ² (1No)

2. PC based Level control system	
Product	Level control trainer
Type of control	SCADA
Control unit	Digital indicating controller with Ethernet communication
Level transmitter	Type Electronic, two wire, Range 0–250 mm, Output 4–20mA
I/P converter	Input 4-20mA, Output 3-15 psig,
Control valve	Type Pneumatic, Size 1/4", Input 3–15 psig, Air to close, Char. Linear,
Rotameter	10-100 LPH
Pump	Fractional horse power, type submersible
Process tank	Transparent, Acrylic, with 0-100% graduated scale
Air filter regulator	Range 0-2.5 kg/cm ²
Pressure gauge	Range 0-2.5 kg/cm ² (1No), Range 0-7 kg/cm ² (1No)

3. PC based Temperature control system	
Product	Temperature control trainer
Type of control	SCADA
Control unit	Digital indicating controller with Ethernet communication Make
Temperature sensor	Type RTD, PT100
Heating control	Proportional power controller , Input 4-20 mA, Capacity 20 A.
Heater	Type Electrical 2 coil, Capacity 3 KW
Rotameter	6-60 LPH
Process tank	Capacity 0.5 lit, insulated

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DIGITAL DESIGN & HDL Lab

Sl. No	Particulars	Quantity
1	Xilinx ISE 9.2i with ModelSim Simulator Software	10
2	Xilinx XC 9572 CPLD Kits with 1. Stepper Motor Interface 2. DAC Interface 3. Keypad interface 4. Elevator interface 5. Relay interface 6. DC motor interface 7. LCD interface	10