

SUBMITTED

Following equipments are urgently required for the smooth functioning of Process Control & Instrumentation Lab and Industrial Instrumentation labs . Necessary actions may be initiated to procure the items at the earliest. Approximate cost and specifications are given below

EQUIPMENTS PURCHASE LIST FOR PROCESS CONTROL and INDUSTRIAL INSTRUMENTATION LAB			
SL NO	ITEM NAME	SPECIFICATIONS	QTY
1	DATA ACQUISITION SYSTEM (MATLAB AND LABVIEW COMPATIBLE USB BASED) compatible to Process control station	Microcontroller based CPU card ,True plug and play,62 kBytes of nonvolatile Flash/EE program memory, Integrates a high performance self calibrating multichannel ADC, a dual DAC compatible for Process control stations	3
2	PROGRAMMABLE LOGIC CONTROLLER TRAINER WITH DEMONSTRATOR	This trainer consists PLC, Demonstration panel, programming software should be provided to study the concepts of PLC. This Demonstration panel consists of all necessary connectors switches and LEDs provided to interconnect by patch chords and study the PLC. A special point to point interface cable provided for communication.	2
3	IC TEMPERATURE SENSOR (AD 590) KIT	Kit with AD 590 sensor as a temperature sensor. Thermometer provided to monitor the actual temperature. Regulated power supply provided. Digit digital indicator to display the temperature. Signal conditioner for AD 590 sensor. Fitted in a strong cabinet and provided water bath as heat source.	3
4	LDR/ PHOTODIODE/ PHOTO TRANSISTOR TRAINER	This trainer consists of high quality photodiode, LDR and Phototransistor. These are mounted in a cabinet to do the characteristics. DC Lamp fitted in a tubular frame. A scale to indicate the distance between the light source and the sensors. Necessary Connectors provided to interface the digital meters.	4

SL NO	ITEM NAME	SPECIFICATIONS	QTY
5	CALIBRATION SET UP OF PRESSURE GAUGE USING DEAD WEIGHT TESTER	It consists of Dead Weight Tester, Pressure gauges, Dead weights, Tools box etc., provided to calibrate the pressure gauges. Screw Pump, Priming Pump and Free piston Assembly. All should be mounted on a base plate.	2
6	U-TUBE MANOMETER STUDY TRAINER	This Trainer is used to study the Transient response of second order system by using U Tube Manometer. It Consist of, U tube manometer, Pressure sensor and Pressure regulator on a vertical frame. A foot pump with pressure tank fixed on a separate frame with pressure gauge provided, to generate a variable air pressure in conjunction with pressure regulator to the manometer. A USB based Data Acquisition system provided to study the second order system characteristics graphically on a PC	1
7	Light Meter (Luxmeter)	Wide measurement range, high accuracy . Accuracy: +5 percent of reading. Receiving Light sensor : Silicon of photo electricity diode type. LC display (number of 7 digits); maximum effective display:999;	2
8	HALL EFFECT TRANSDUCER TRAINER	This trainer consists Hall Effect Voltage Sensor of Range (0-5) Amps ,Signal Conditioner for above sensor to study the concepts and characteristics of Hall effect sensor. Separate provisions(porst) should be provided to connect meters (volt meter, Ammeter etc). Source for varying input voltage and current. All are mounted in closed metal cabinet.	2
Total			

Rupees Two Lakh Eighty and nine thousand only

Westhill
28.04.2017


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28/04/2017
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Recommended & forwarded

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