



AISSMS

INSTITUTE OF INFORMATION TECHNOLOGY

ADDING VALUE TO ENGINEERING

Affiliated to Savitribai Phule Pune University (ID No. PU/PN/ENGG/124/1998)

Approved by AICTE, New Delhi and Recognised by Govt. of Maharashtra

Accredited by NAAC with 'A' Grade



Department of Instrumentation

Lab Resources



BMI machine infant warmer biomedical model



Shot on Y19
Vivo AI camera

Dialysis Machine



DeltaV DCS panel



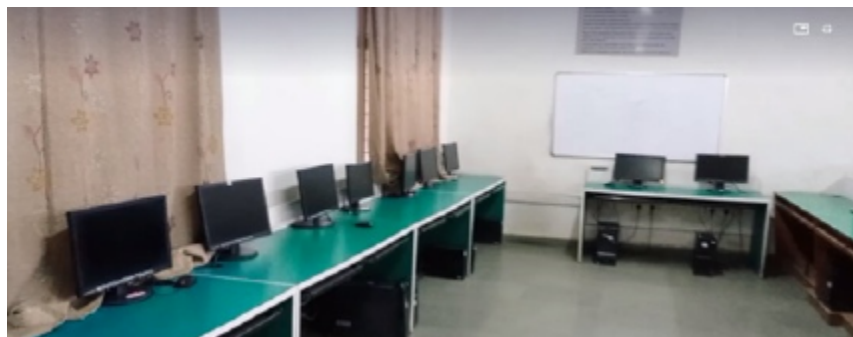
Measurement Flow Level loop



Air Purge Level Measurement



Flow level loop





Computers



Digital Trainer Kit



Electro Pneumatic Trainer



Alarm Annunciator



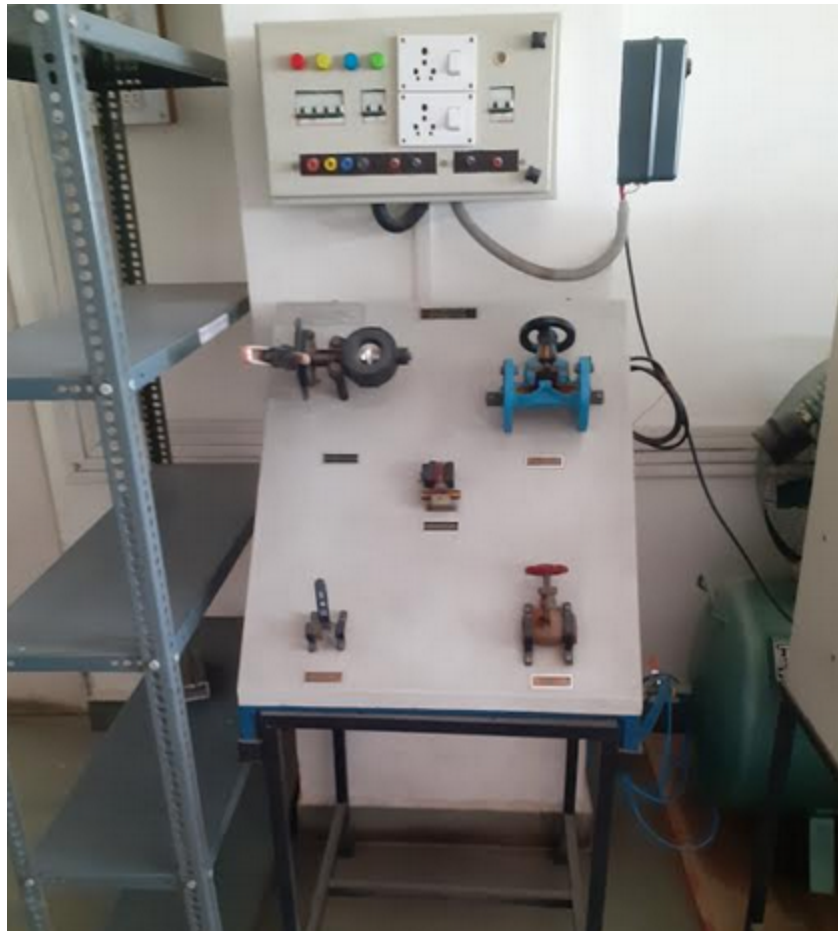
Control Valve Trainer Characteristic Kit



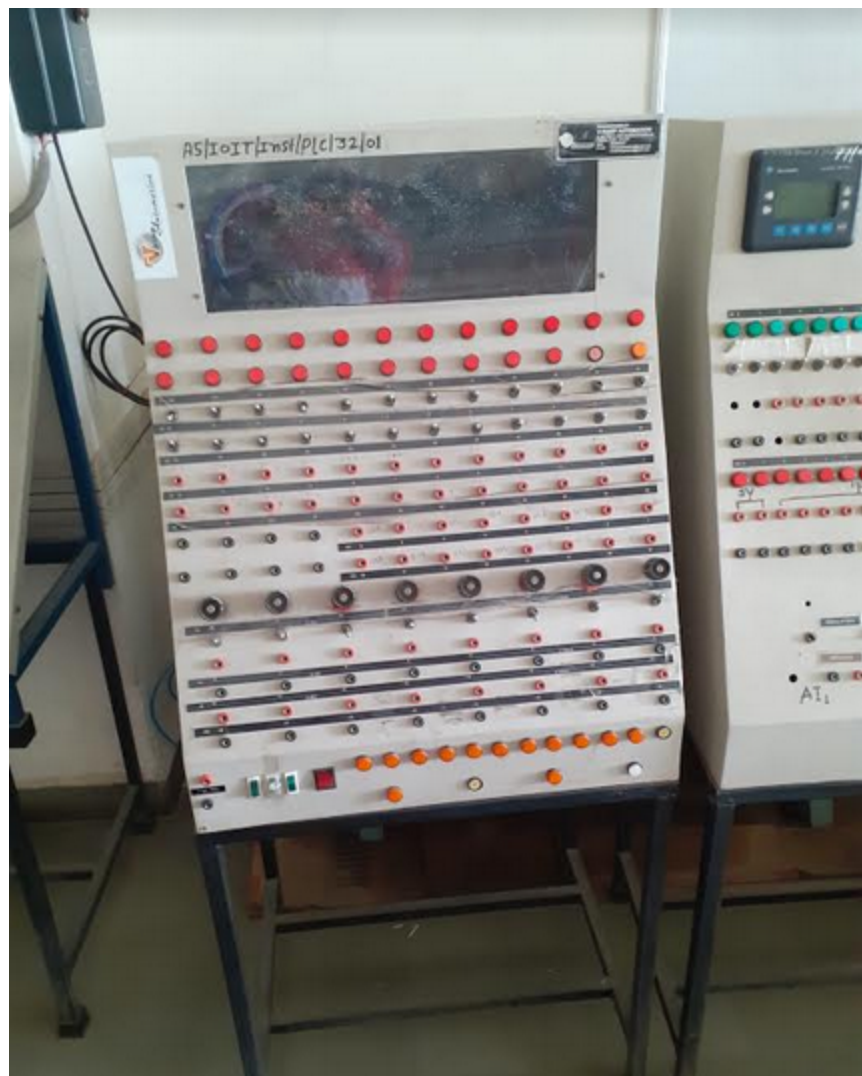
Hydraulic Trainer Kit



Universal Process Controller Trainer Kit



Cut Section of different Valves



Programmable Logic Controller with control panel (Siemens)

Emerson Center of Excellence in DeltaV Distributed Control System (DCS) Lab-705

Sr. No	Name of Equipment	Qty
1	DeltaV Tm process Automation system Hardware Software & associated buyouts. 1) DeltaV Tower Dual/Monitor-T5820 2) DeltaV Snall Form Factor Tower-XE3 3) Monitor 22” LCD/TFT. 4) Sounds	01
2	DeltaV System Control panel (DCS). A)DeltaV system with 1DI,1DO,1AI and 1AO module(8 channels each) b)SMPS 24VDC of 10A. C)Internet switch.	01

Analog and Digital Techniques Lab-611

Sr. No.	Items	Qty
1.	Power Supply	20
	New Power Supply (APLAB)	15
2.	C.R.O.	15
	New C.R.O. (30 MHz) (APLAB)	10
3.	Function Generator (100KHz)	01
	Function Generator (20MHz)	05
	New Function Generator (APLAB) (20MHz)	10
	New Function Generator (Sciencetech) (3MHz)	05
	Function Generator (2MHz) Model FG2MD	01
	Function Generator (2MHz)	03
4.	Digital Multimeter	10
5.	Universal CPLD-FPGA Kit. Universal adapter model ADP84-C108, ADP144-F	01

6.	Analog IC Tester	01
7.	Digital Trainer Kit	12
8.	5 in 1 Test lab	09
9.	Digital Multimeter	10
10.	Universal I C Tester	01
11	Digital Storage Oscilloscope	01
12	True RMS Meter	01
13	Universal Counter	01
14	Megger	01
15	LCR Q Meter	01
16	Distortion Meter	01
17	Pulse Generator	01
18	Labview Software(10 Users)	01
19	DMM(RS232 interface)	01
20	Arbitrary Waveform Generator(Protec 9340)	01
21	LABVIEW Elvis	01
22	Overhead Projector	02
23	RS 232 Communication Interface	01
24	Fibre Optic Kit	01
25	Moving Coil Galvanometer	02
26	Rheostat(100 Ω /2A)	05
27	Rheostat(835 Ω /6A)	04
28	Wheatstone Bridge	01
29	AC Bridge(Schering)	01
30	Decade Resistant Box	04
31	Energy Meter	01

32	Potentiometer	01
33	Ammeters(0-100 μ A) A.C.	02
34	Load Bank(Resistive)	02
35	Dimmerstat	01
36	Strip chart Recorder	01
37	Voltmeter(0-10v)	02
38	Voltmeter(0-30v)	02
39	Wattmeter	02
40	Current Source (Student Project)	01
41	Digital Multimeter (3 $\frac{3}{4}$ digits)	01
42	Millimeters (0-100 mA)	02
43	Millimeters (0-200 mA)	01
44	Millimeters (0-500 mA) A..C	01
45	Millimeters (0-500 mA)	02
46	D.C. Ammeters (0-100 μ A)	03
47	D.C. Ammeters (0-500 μ A)	03
48	DAQ Card(NI USB 6009)	01
49	Digital Clamp Meter	01
50	Digital Energy meter	01
51	Digital Multimeter (MASTECH)	05
52	Function Generator	01

Sensor & Transducer and Forbes Marshall Center of Excellence Flow Level Lab -707

Sr. No	Name of Equipments	Qty
1.	Flow Level Loop Sponsored by Forbes Marshal	01
2.	Thermocouple Sensor	03
3.	RTD Module	01
4.	Thermocouple Module	01
5.	Proximity Switch	01
6.	Strain Gauge	01
7.	Potentiometer	01
8.	Velocity Measurement Trainer Kit	01
9.	Dead Weight Tester	01
10.	Sound Level Meter	01
11.	Thermocouple Sensor	01
12.	Thermocouple Simulator	01
13.	RTD Simulator	01
14.	PH Meter	01
15.	Conductivity Meter	01
16.	D C Tacho generator	01
17.	Rotary Encoder	01
18.	Vacuum Calibration Instrument	01
19.	Vibration Tester	01

20.	Digital Tachometer	01
21.	Viscometer	01
22.	Std. Thermometers	02
23.	Temperature Oven	01
24.	Power Supply	06
25.	High pressure load cell	02
26.	Level trainer Loop	01
27.	Strain gauge	01
28.	Temperature controlled oven	01
29.	Flow trainer loop	01
30.	LVDT	01
31.	Barometer	01
32.	Universal Calibrator	01
33.	Level Measurement Using Air Purge Method	01
34.	RTD Sensor	03

Biomedical Instrumentation Laboratory-706

Sr. No.	Name of Equipments	Qty.
1.	Audiometer	01
2	Med scope	01
3	B.P. Measurement Apparatus (Conventional)	01
4	Defibrillator Demo kit	01
5	Electronic Stethoscope	01
6	ECG Machine	01
7	Blood Pressure calibrator	01
8	Phonocardiography	01
9	PC Based ECG With electrodes and simulators	01
10	Pacemaker	01
11	EEG Systems machine	01
12	Bedside Monitor	01
13	EEG Machine	01
14	ECG Machine	02
15	1) Refurbished Dialysis Machine 2) RO water plant 3)Dialyzer 4)Blood line Tubing 5)Hemodialysis solution part-I&II 6)Variable Transformer	01
16	NI my DAQ University kit (BioBench)	01
17	He-Ne Laser Diode	01
18	Abbe Refractometer	01
19	UV-VIS Spectrophotometer	01
20	Flame Photometer	01
21	Dialysis Machine	01

22	Bio bench	01
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Computer Laboratory-703

Sr. No.	Name of Equipments	Qty.
1.	Hard Disk 40 GB	01
2.	ADC Cards(Khadilkar Associates)	02
3.	ADC Cards(Fabricated in department)	03
4.	8 Bit ADC / DAC interfacing kit	02
5.	Networking Switch (8 Port)	01
6.	Networking Switch (8 Port)	01
7.	DSP processor DSK Starter kit TMS320C6713 DSP along with standard accessories.	01
8.	DSP processor DSK Starter kit TMS320C6713 DSP along with standard	02
9.	MCS-51 Microcontroller Kit	05
10.	Microcontroller Kits (Logsun System)	03
11.	PIC Kits Model (LGS PIC Universal)	01
12.	PIC Kits Model	03
13.	Universal Programmer	01
14.	Universal programmer Univ R&D projects	01
15.	LCD Screen	02
16.	Keyboard Interfacing Kit	02
17.	Stepper Motor interfacing kit	02
18.	AVR Kits (Pantech solution)	02
19.	AVR Kit (Yashaswi Electronics)	01
20.	ARM kit (Mas Enterprises)	01
21.	Dot Matrix Printer (Epson LX 300+)	01

22.	Deskjet Printer(HP 3745)	01
23.	Dot Matrix Printer (Epson LX 300+II)	04
24.	LaserJet (HP P1007)	01
25.	External Hard Disk with USB connector 320GB Seagate Make	01
26.	IBM White (P3 Processor	01
27.	IBM White (P3 Processor	01
28.	IBM Black (NetVista)	03
29.	IBM Black (NetVista)	01
30.	Wipro (P4 processor)	01
31.	Wipro (Core 2 Duo Processor)	07
32.	Lenovo(Core 2 Duo Processor)	04
33.	AcerVeriton M20 G31	10
I)	Lenovo	10
II]	Instek	06
III]	UPS 7.5 KVA	01
IV]	Batteries for UPS 7.5KVA Rack for batteries	01
V]	HP LaserJet printers	16 01
34.	Lenovo (processor core i3 motherboard compatible to core i3 processor, HDD – 500 GB)	02
35.	Quick Heal Total security-2014	10
36.	LCD Projector	30
37.	Lenovo Think Centre	04
38.	Lenovo Think Centre	05
39.	Printer Hp Laser jet	01
40.	Hard Disk Seagate Hdd Back Up Plus Slim Ext-1tb.	01
41.	Scanner Cannon Canoscan Lide-120.	01
42.	Projector Sony VPL-DX-220.	01

43.	Lenovo Desk-Top V520-15IKL	03
44.	8051 Development kit	03
45	Lenovo Desktop Computer core i3.	05

Process Instrumentation Lab- 702

Sr. No	Name of Equipments	Qty.
1.	Simulators P Simulator H Simulator PLC Simulator	2 2 2
2.	Cut section of Different valves (Saunders, Solenoid, Butterfly, Ball, GlobeS.P.Engg)	01 Each
3.	Micrologix 1200 Allen Bradley PLC (High tech. Electronics)	1
4.	P/I Converter (study Adiron)	1
5.	Control Valve Trainer Kit characteristics (Se&C)	1
6.	Hydraulic trainer (Adiron)	1
7.	Electro Pneumatic Trainer (Adiron)	1
8.	Alarm Annunciator (Se&C)	1
9.	SMART Transmitter (VI micro system)	1
10.	Flow Level Loop (SAP)	1
11.	Temp. Pressure Loop (SAP)	1
12.	Programmable Logic controller with control panel (Siemens, Model:CPU 226)	1
13.	Control panel of AB PLC (college sponsored student project)	1
14.	Process Calibrator	1
15.	UPS(Uninterrupted Power Supply)	1
16.	Synchro Transmitter & Receiver System.	1

17.	Universal Process Control Trainer	1
18.	MicrologixPLCAllen Bradley 1766-L32BXB.	1
	1762-IF2OF2;4 ChannelAnalog	1
	USB-DONG2 RockwellSoftware	1
	VWSB015AENE; FactoryTalk	1
	VWSTENE;Factory Talk Enterprise	1
	RSLogix Micro Starter, CD-ROM	1
	Panel Design	1
19.	Single stage Reciprocating Air compressor 5HP	1

TAACT Center of Excellence in Automation Lab - 610

Department of Instrumentation Engineering have signed Memorandum of Understanding (MoU) with Technocrat Academy of Automation and Technologies abbreviated as TAACT, Nashik 01 Under the I-Connect activity. Under this MoU TAACT is recognised as the Center of Excellence in Industrial Automation with the Department of Instrumentation Engineering. Technocrat Academy of Automation and Technology is one of the leading training institutes in India for Automation Technology established in 2003 as the training division of Technocrats Control System which Siemens system house established in 1993.

Center of Excellence in Industrial Automation Laboratory well equipped with Programming Logic Controller (PLC) Allen Bradley Micrologix 1400, Siemens S71200, Siemens HMI KTP 400, Siemens drive V20, Induction Motor, I5 Generation 8GB RAM

PCs, Timers and Counters, Temperature Controller, Encoder, photoelectric sensor, PT100 Sensors, capacitive and Inductive sensors, Relays, Contactors and many more equipments. The softwares in the labs are Rockwell Solutions RSLogix 500 and Totally Integrated Automation (TIL Portal) version 21 with Ladder Logic Programming and Functional Block.

The Center of Excellence in Industrial Automation Laboratory is highly benefited as they provide Free guidance to Faculties and students on automation technology, Free Guest Lectures, Joint Certification of the course can be considered which will add to the branding of college.