



E.C.E DEPARTMENT
JNGEC, SUNDERNAGAR

The details of equipments in the Electronics and Communication Department and are given below:-

(1)

Lab. Details: Wireless Communication Lab.

Sr. No.	Name of Article	Qty
1.	Classroom kit for wireless sensor network “Cross Bow” 10 lab. station	01 no.

(2)

Name of lab- Digital electronics lab
Detail- Lab items

Room No: C-402

Sr. No.	Name of Article	Qty
1.	Verify truth tables of AND,OR,NOT,NAND,XOR gates	3
2.	Implement Half adder and full adder gates.	3
3.	Verify truth tables of SR,JK FF.	3
4.	Full adder using NAND gate.	3
5.	Full subtractor using 8:1 mux	3
6.	MOD 10 counter	3

7.	4 bit DAC using binary weighted resistance R-2R Laddar ntw	3
8.	8 bit ADC using IC	3
9.	Clipping and Clamping ckt kit	3
10.	Use of 4 bit Register for shift left & right register as a ring counter	3
11.	Digital logic gate kit	1
12.	Flip flop counter kit.	1
13.	Half adder and full adder trainer kit.	1
14.	ADC & DAC ckt trainer.	1
15.	Digital IC kit	1
16.	TTL CMOS kit	1
17.	Linear IC kit	1
18.	Mux and Demux	1
19.	Analog Digital trainer	1
20.	CRO	4
21.	Digital multimeter.	3

(3)

Name of lab- EMMI lab
Lab items

Room No: C-404

Detail-

Sr. No.	Name of Article	Qty
1.	Trainer board for LVDT.	6
2.	Trainer board for temp Transducer	4
3.	Trainer for strain guage Transducer with base	1
4.	Trainer for optical sensor transducer with base	2
5.	Trainer for inductive pick up	4
6.	Trainer for measurement of pressure	2
7.	LCQR meter	2
8.	Trainer for measurement of speed using magnetic pick up	5
9.	Trainer for measurement of speed using photoelectric pick up	5
10.	Trainer for measurement of distance using capacitive pickup	5
11.	Trainer for strain gauge	3

12.	Trainer for measurement of pressure using piezoelectric pick up	3
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(4)

Name of lab- OFC lab
Detail- Lab items

Room No: C-402

Sr. No.	Name of Article	Qty
1.	Advance fiber optics trainer	4
2.	Optical power meter	2
3.	Fiber optic communication & networking module	2

(5)

Name of lab- Microprocessor lab

Room No: C-404
Detail- Lab items

Sr. No.	Name of Article	Qty
1.	Microprocessor trainer kit(8086)	5
2.	ADC interface card	1
3.	Elevator simulation card	1
4.	IC tester card	1
5.	Display interface card	1
6.	Stepper motor control card	1
7.	Keyboard interface card	1
8.	LCD interface card	1
9.	Traffic light controller	1
10.	Temperature measurement kit	1
11.	DC Motor controlled card	1
12.	Relay 80 complex card	1
13.	LED display interface card	1
14.	Microprocessor Trainer kit(8085)	5

15.	Microprocessor Trainer kit(8051)	1
16.	Microcontroller development board with programmer	2

(6)

Name of lab- Basic electronics and analog lab

Room No: C-403

Detail- Lab items

Sr. No.	Name of Article	Qty
1.	Function Generator	04
2.	CRO	03
3.	DC Regulated supply	05
4.	Op Amp Trainer	05
5.	Anadigi Trainer	10
6.	<i>Digital Multimeter</i>	05
7.	Transister trainer	15
8.	Analog multimeter	1
9.	Trainer rectifier	2
10.	Trainer Class A,B,C Amplifier	2
11.	UJT Trainer	2
12.	DSO	1
13.	Distortion meter	02
14.	Desoldering station	03
15.	Soldering station	1
16.	LCRQ Meter	01
17.	Function generator	2
18.	Distortion meter	1
19.	Universal IC tester	2
20.	DC Regulated supply	02
21.	Side cutting plier	04
22.	Flate plier	04
23.	Nose plier	04
24.	Hammer	04
25.	Screw driver set	01
26.	Plier small	04
27.	Drill Machine	01
28.	Crimpping tool	01
29.	Varic	01
30.	PCB machine	01

(7)

Name of lab- Control lab

Room No: B-408
Detail- Lab items

Sr.no	Name of items	Quantity
1.	DC Position Control(open loop closed loop)	2nos
2.	Closed loop speed control system	2nos
3.	Lead Lag Compensation Network	2nos
4.	Study of Stepper Motor	2nos
5.	Plot torque speed characteristics of ac servomotor	2nos
6.	Plot torque speed characteristics of dc servomotor	2nos
7.	To study magnetic amplifier	2nos
8.	To study synchro-transmitter	2nos
9.	To study second order system and damping factor	2nos
10	Lab Table	12nos
11	Lab bench	13nos
12	Workshop table	1nos
13	Steel rack	2nos

14	Computer Lenova	1nos
15	Almirah	3nos
16	Check chair	2nos
17	Conference chair	1nos
18	Office table	1nos
19	White board	1nos

(8)

Name of lab- Basic Electrical lab

Room No: B-408
Detail- Lab items

Sr.no	Name of items	Quantity
1	Kirchhoff's current and voltage law trainer	2nos
2	R L C resonance trainer (series ¶llel)	2nos
3	Single phase auto transformer (Variac)	2 nos
4	Ac to dc converter or rectifier	1no
5	wattmeter	6nos
6	Ammeter	4 nos
7	Voltmeter	6nos
8	Slip ring induction motor lab	1no
9	Dc shunt motor with dc generator)	1no
10	Dol starter with induction motor (and panel board)	1no
11	Dso (50mhz)	1no
12	Clamp meter	5nos
13	CRO (30mhz)	2nos
14	Bench top digital multimeter	4 nos
15	Digital multimeter	4nos
16	Thevenin,s theorem kits	5nos
17	Reciprocity theorem kits	5nos
18	Super position theorem kits	5nos
19	Maximum power transfer kits	5nos
20	Norton theorem kits	5nos
21	Millions theorem kits	5nos
22	Single Phase Transformer Lab Kit Transformer Rating 1KVA or 2KVAPrimary Voltage :0-115-200- 230 V Secondary Voltage :	1 Nos
23	Transformer kit	1no
24	digital	2nos

25	wattmeter 0-300v	5nos
27	standard wire gauge	2nos
28	electrical drill machine 6 mm	1no
29	verner caliber	1no
30	micro meter	1no
31	hand drill machine	1no
32	megeer	1no
33	earth tester	1no
34	steel almira	3nos
35	Screw driver 10 cm	2nos
36	Screw driver 15 cm	2nos
37	Screw driver 20 cm	2nos
38	Screw driver 30 cm	2nos
39	Insulation combination pliers 15 cm	2nos
40	Insulation combination pliers 20 cm	2nos
42	Insulation combination pliers 8 inch	4nos
43	Side cutting pliers 15cm	6nos
44	Nose pliers	4nos
45	Flat nose pliers	4nos
46	Test pen	20nos
47	Tweezers	4nos
48	Measuring tape	2nos
49	Ball peen hammer with handle	8nos
50	cross peen hammer with handle	8 nos
51	Soldering iron 25w 65 w, 100w, 250w	Each two nos
52	Electrical drill machine 10mm	1no
53	Electrical drill machine 12mm	1no

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Name of lab- Communication lab

Room No:C-404

Detail- Lab items

Sr.no	Name of items	Quantity
1	PAM. PPM PWM, Modulation & Demodulation Trainer (kit)	1
2	Sampling & Reconstruction technique Trainer/ kit	1
3	Adaptive Delta & Delta Sigma Modulation & Demodulation Trainer / kit	1
4	Amplitude modulation Trainer / Kit	1
5	Amplitude Demodulation Trainer / Kit	1
6	Pulse code modulation Trainer / Kit	1
7	Trainer to study the T.D.M. with (PAM)Modulation & Demodulation Trainer (kit)	1
8	Trainer to study the T.D.M. with (P.C.M.) Transmitter & Receiver (kit	1
9	Trainer to study the Amplitude Shift Keying (ASK) kit	1
10	Trainer to study the Phase Shift Keying (FSK) kit	1
11	Screw Driver set	1
12	Neon Tester	4
13	Tweezer	4
14	Crimping tool	1
15	Flat Long Nose Plier	4
16	Long plier	4
17	Combination Plier	4
18	Cutter (Side)	4
19	Steel Tape	2
20	Drilling M/C-0-to 6mm	1
21	Drilling M/C-0-to 12mm	1
22	Hammer (Ball & Peen)	2Each
23	Digital multimeter	2
24	Soldering Station	2
25	Oscilloscope	4
26	Analog sampling & Reconstruction Kit	1
27	Function generator	2
28	Distortion Meter	2
29	Ana,Digi Trainer	5
30	Linear I.C trainer Kit	1
31	Amplitude modulation Trainer	3
32	Amplitude demodulation/Receiver Kit	3
33	Frequency demodulation /Receiver Kit	2

34	PAM/time Div. Multiplexer Mod. & demod. Kit	2
35	PAM,PWM,PPM, Mod. & demod. Kit	2
36	FDM Trans / receiver Kit	2
37	Delta Sigma Demodulation Kit	1
38	TDM / Pulse code Modulation kit	1
39	TDM / Pulse code de Modulation kit	1
40	Data conditioning Carrier kit	1
41	Data Re conditioning Carrier kit	1
42	Universal I.C. Kit	2
43	Digital Storage (oscilloscope) (DSO)	3
44	Function Generator & Frequency counter	2
45	Spectrum Analyzer	2
46	Allen Key	1 Set
47	Socket Set	1 Set
48	Compression Tool	1
49	Modular Table	4
50	Steel Rack	2
51	Green board	1
51	Godrej table	1
52	Godrej Chair	1
53	Conference chair	2

(10)

Name of lab- Power lab

Room No: B-408

Detail- Lab items

Sr. No.	Name of Article	Qty
1.	Power semiconductor trainer	03(nos.)
2.	Trainer board to vary the frequency of an inverter circuit	02(nos.)
3.	Colour TV demonstration	01(nos.)

(11)

Equipments and Furniture details in MATLAB lab of ECE Department Room No. C-401

Sr.No	Name of Article	Quantity
1.	Lenovo Computers	24
2.	Projector Make Globus	01
3.	Projector Screen	01
4.	Computer Table	23
5.	Revolving Computer Chair Black back	23
6.	White Board	01
7.	Laboratory Office Table	1
8.	Revolving chair	1
10.	Integrated Design and Test Platform : Labview (24 Users In Matlab & One User In Analog Lab) with NI Speedy 33 for DSP application	01
11.	Matlab (15 Users)	01
12.	Design and Simulation Software (TINA) (Microcontroller Trainer (Interface Module) (Xilinx FPGA and CPLD Board)	01

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