

**IMAYAM COLLEGE OF ENGINEERING
KANNANUR, THURAIYUR-621 206**

**DEPARTMENT OF ELECTRONICS & COMMUNICATION
ENGINEERING**

LAB EQUIPMENTS (Main Sophisticated Equipments)

1. EC 2207 Digital Electronics Lab

List of Equipments

1. Digital IC Tester - 2
2. Power Supply (5V DC) - 10
3. Digital Multimeter - 10
4. Computer with HDL software Installed – 2

Consumables (Minimum of 25 Nos. each)

1. IC7400
2. IC7404
3. IC74682
4. IC7402
5. IC7408
6. IC7411
7. IC7432
8. IC7483
9. IC7485
10. IC7486
11. IC74150
12. IC74151
13. IC74147
14. IC7445
15. IC7474
16. IC74180
17. IC555
18. Seven Segment Display
19. LEDs
20. Bread Board

2. EC1205 Electronic Circuits I Laboratory

List of Equipments

1. Variable DC Power Supply (0-30V)
2. CRO 30MHz
3. Digital Multimeter
4. Function Generator 1 MHz

5. DC Ammeter 10
6. DC Voltmeter 10
- 7.

Consumables (Minimum of 25 Nos. each)

8. BC107, BC147, BC 108, BC 148, BC547, BC548, SL100, SK100 or Equivalent transistors.
9. Resistors 1/4 Watt Assorted
10. Capacitors
11. Inductors
12. Diodes, Zener Diodes
13. Bread Boards
14. Transformers

3. EC 2257 Electronics circuits II and simulation lab

List of Equipments

1. Variable DC Power Supply (0-30V)
2. Fixed Power Supply (+/- 12V)
3. CRO 30MHz
4. Digital Multimeter
5. Analog Multimeter
6. Function Generator 1 MHz
7. Digital LCR Meter
8. PC with SPICE Simulation Software

Consumables (Minimum of 25 Nos. each)

9. BC107, BF195, 2N2222, BC147
10. Resistors 1/4 Watt Assorted
11. Capacitors
12. Inductors
13. Diodes, Zener Diodes
14. Bread Boards

4. EC 2258 Linear Integrated Circuit Lab

List of Equipments

1. Dual variable Power Supply (0-30V)
2. CRO 30MHz
3. Digital Multimeter
4. Function Generator 1 MHz
5. Analog IC Tester
6. Bread board
7. Computer (PSPICE installed)

Consumables (Minimum of 25 Nos. each)

1. IC 741
2. IC NE555
3. LED
4. LM317
5. LM723
6. ICSG3524/SG3525
7. Transistor – 2N3391
8. Diodes (IN4001,BY126)
9. Zener diodes
10. Potentiometer
11. Step-down transformer 230V/12-0-12V
12. Capacitor
13. Resistors 1/4 Watt Assorted

5. EC2306 Digital Signal Processing Lab

List of Equipments

1. PCs with Fixed/Floating point DSP Processors (Kit/Add-on Cards)

List of software required

1. MATLAB with Simulink and Signal Processing Tool Box(10 user license)
2. Function Generators (1MHz)
3. CRO (20MHz)

6. EC2307 Communication System Lab

List of Equipments

1. CRO 20 MHz
2. Function Generator (1 MHz)
3. Power Supply (0-30 Volts Variable)
4. Bread Board
5. AM Transceiver Kit
6. FM Transceiver Kit
7. PAM,PPM,PWM Trainer Kits
8. PCM /DM/ ADM Trainer Kit
9. Line Coding & Decoding Kit
10. ASK,PSK,FSK,QPSK Trainer Kits
11. Sampling & TDM trainer kit
12. Matlab(Communication tool box) 5 user license

Consumables(Minimum of 50 Nos. each)

13. IC 565,566,567,741
14. BC 107
15. BFW10
16. OA79
17. Resistors (Various ranges)
18. Capacitors (Various ranges)
19. Decade Inductance box

7. EC2308 Microprocessors and Microcontrollers Lab

List of Equipments

1. 8086 Trainer
2. 8051 Trainer
3. 8255 Interfacing Card
4. 8279 Interfacing Card
5. 8259 Interfacing card
6. 8251 Interfacing Card
7. ADC Interfacing card
8. DAC Interfacing Card
9. Stepper motor Interfacing card
10. DC motor Interfacing card

8. EC2357 VLSI Design Lab

List of Equipments

1. PCs with Xilinx (Alliance) and Cadence/Tanner

9. EC2404 Electronics System Design Lab

Mini projects

10. EC2405 Optical & Microwave Lab

List of Equipments

1. Klystron power supply
2. Klystron mount with tube
3. Isolator
4. Frequency meter – Direct
5. Variable attenuator
6. Slotted section
7. Tunable probe

8. Detector mount
9. Matched termination
10. VSWR meter
11. Stand
12. BNC cable
13. Cooling fan
14. Gunn power supply
15. Gunn oscillator
16. Pin modulator
17. Radiation pattern
18. Standard gain horn
19. Parabolic disc
20. Magic Tee
21. M H D coupler
22. E plane tee
23. H plane tee
24. S S tuner
25. Twist
26. Movable short
27. Circulator
28. Fibre optic trainer kit with BER
29. LED module with 1m plastic fibre
30. Power meter 650/850 nm
31. Photo Diode module\
32. Single mode & multi mode patchcords