

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY HYDERABAD

III Year B.Tech. ECE I-Sem

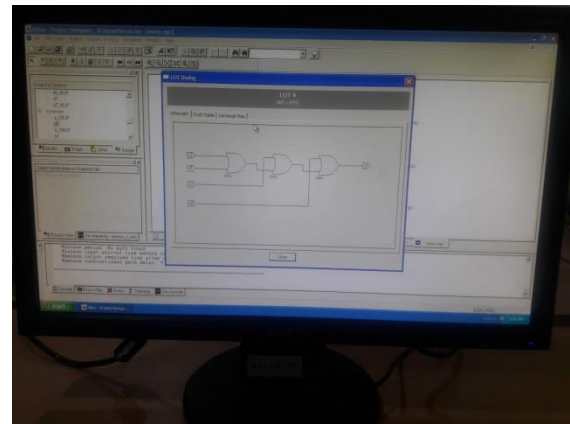
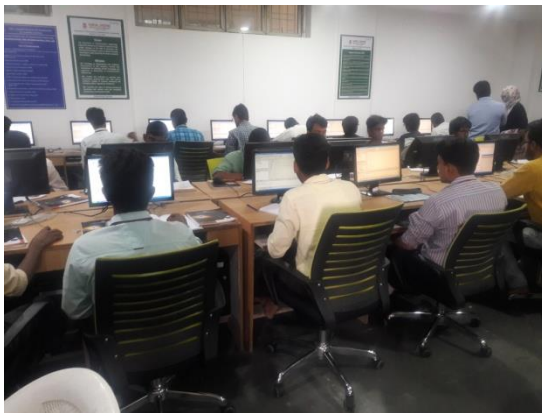
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Linear and Digital IC Applications LAB

Course Outcomes:

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1	To implement and verify the application of IC 741
2	To analyze and interpret the application of IC 555
3	To illustrate and show the special function IC's
4	To prepare and summarize the characteristics of Regulator IC's



List of Experiments (Minimum 12 Experiments have to be conducted (six from each part))

Part – A: Linear IC Applications

1. OP AMP Applications-Adder, Subtractor, Comparator Circuits.
2. Integrator and Differentiator Circuits using IC741
3. Active Filter Applications- LPF, HPF [First Order]
4. IC741 Waveform Generators-Sine, Square wave and Triangular waves.
5. IC 555 Timer-Monostable and Astable Multivibrator Circuits
6. Schmitt Trigger Circuits - Using IC 741
7. Calculation of Capture Range & Lock Range Using IC 565 PLL
8. Voltage Regulator using IC 723.

Part – B: Digital IC Applications

1. Verification of all the logic gates
2. Verification of all Flip-Flops(SR,JK,D&T)
3. Verification of Full adder & Full Subtractor
4. Verification of 4X1 Multiplexer & Demultiplexer
5. Verification of 4-bit Magnitude comparator
6. Verification of 2X4 Decoder
7. Verification of 4-bit Decade counter
8. Verification of Universal Shift Register

Equipment:

Digital Storage Oscilloscope	12
Function Generators (10Hz - 1MHz)	12
Regulated power supply (0-30V)	12
Decade Resistor Box	12
Decade Capacitance Box	12
Ammeters (0 - 200mA)	12
Voltmeters (0 - 20V)	12
Multimeters	12
Operational amplifier IC 741	20
Voltage Regulator IC 723	20
PLL IC565	20

IC 555 Timer	20
PN junction Diodes IN4007	12
Logic Gates Kit	4
Flipflop Kit	2
Full Adders & Full Subtractor Kit	2
4X1 Multiplexer & Demultiplexer Kit	2
2X4 Decoder Kit	2
4-bit Decade counter Kit	2
Magnitude Comparator Kit	2
Universal Shift Register Kit	2
Bread Boards	12