

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY HYDERABAD

IIYear B.Tech. ECE II-Sem

L T P C

0 0 3 2

Pulse and Digital Circuits LAB

Course Outcomes:

A14486	Course Outcomes
1	To Understand and implement the wave shaping circuits
2	To Apply and evaluate the different applications of combinational and sequential circuits
3	To Analyze and design the different multivibrators
4	To Recite and relate the relaxation oscillator



List of Experiments (Minimum eight experiments to be performed)

1. Linear Wave Shaping
 - a. RC Low Pass Circuit for different time constants
 - b. RC High Pass Circuit for different time constants
2. Non-linear wave shaping
 - a. Transfer characteristics and response of Clippers:
 - i) Shunt and Series Clippers.
 - ii) Clipping at two independent levels.
 - b. The steady state output waveform of clampers for a square wave input

- i) Positive Clampers.
- ii) Negative Clampers.
- 3. Switching characteristics of transistor
- 4. Design a Bistable Multi vibrator and draw its waveforms
- 5. Design an Astable Multi vibrator and draw its waveforms
- 6. Design a Monostable Multi vibrator and draw its waveforms
- 7. Response of Schmitt Trigger circuit for loop gain less than and greater one
- 8. UJT relaxation oscillator
- 9. The output – voltage waveform of Boot strap sweep circuit
- 10. The output – voltage waveform of Miller sweep circuit

Equipment:

Digital Storage Oscilloscope (0 - 25MHz)	12
Function Generators (10Hz - 10MHz)	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
Bread Boards	12
PN Junction Diode (IN4007)	24
Bipolar Junction Transistors BC-107	24
Unipolar Junction Transistor 2N2646	24
Resistors	24
Capacitors	24