

COURSE TITLE : ELECTRONICS LAB
COURSE CODE : 5038
COURSE CATEGORY : A
PERIODS/WEEK : 6
PERIODS/SEMESTER : 78
CREDITS : 3

Course Objectives:

Sl.	Sub	On completion of this course the student will be able:
1	1	To know rectifier circuits.
	2	To get acquainted with amplifiers and oscillatory circuits.
	3	To get acquainted with digital circuits.
2	1	To comprehend with power electronics circuits.
	2	To comprehend regulator circuits.
	3	To understand speed control.
3	1	To comprehend battery charging .

LIST OF EXPERIMENTS

- Safety Precautions.
1. To draw standard circuit symbols of Electronic devices.
 2. To identify various components (Resistor, Inductor, Capacitors, Diodes, Transistors, Digital ICs Thyristors) and write down their specifications.
 3. To assemble the following rectifiers using diodes and determine ripple factor with and without filter.
 - i. Half wave rectifier.
 - ii. Full wave rectifiers.(Centre tapped and bridge)
 4. To assemble a single stage amplifier and determine its gain.
 5. To assemble following oscillators using transistors and measure output parameters.
 - i. RC phase shift oscillator.

- ii. Astable multi vibrator.
 - iii. Bi-stable multi vibrator.
6. To assemble the following digital circuits using Gates and verify their truth table.
- i. Half adder.
 - ii. Full adder.
 - iii. Subtractor.
7. To assemble a DC regulated power supply using zener diode and Regulator ICs.
8. To assemble a relaxation oscillator using UJT.
9. To assemble a fan regulator using thyristors.
10. To assemble an emergency LED lamp.
11. To assemble a speed controller for DC motor using thyristors.
12. To assemble a battery charger using thyristors.
