Course code	Course Name	L-T-P-Credits	Year of Introduction
EE335	ELECTRICAL AND ELECTRONICS LAB	0-0-3-1	2016

## Course Objectives: The main objectives of this course are

- To give a practical knowledge on the working of electrical machines including dc machines, induction motors and synchronous motors.
- To impart the basics about design and implementation of small electronic circuits.

## **Syllabus**

## **List of experiments:**

- 1. OCC on a dc shunt generator, determination of critical resistance, critical speed, additional resistance required in the field circuit
- 2. Load characteristics of DC Shunt generator
- 3. Load characteristics of DC Compound generator
- 4. Load test on DC Series motor
- 5. Load test on DC Shunt motor
- 6. Load test on single phase transformer
- 7. Starting of three phase squirrel cage induction motor by star delta switch, load test on three phase squirrel cage induction motor
- 8. Load test on three phase slip ring induction motor
- 9. Load test on single phase induction motor.
- 10. OC and SC test on single phase transformer
- 11. V-I Characteristics of diodes and Zener diodes
- 12. Input and output characteristics of CE configuration of BJT S. Determination of  $\beta$ , input resistance and output resistance.
- 13. Half wave and full wave rectifiers with and without filters- Observe the waveforms on CRO.

## **Expected outcome:**

The students will be able to

- i. Test and validate various types of electrical motors
- ii. Acquire knowledge on working of semiconductor devices.

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