



**GOKARAJU RANGARAJU**  
**INSTITUTE OF ENGINEERING AND TECHNOLOGY**

**ELECTRICAL TECHNOLOGY LAB**

Course Code: GR15A2032  
II Year II Semester

L:0 T:0 P:2 C:2

**Course Objectives**

- To prepare the students to have a basic knowledge of Theorems
- To prepare the students to have a basic knowledge of transformers.
- To prepare the students to have a basic knowledge of induction motors.
- To prepare the students to have a basic knowledge of alternators.

**Course Outcomes**

- Ability to understand the concept of theorems.
- Able to conduct open circuit/ short circuit test on transformer
- Ability to conduct experiments on Ac Machines to find the characteristics.
- Ability to perform test on DC Machines

**Contents**

1. Verification of KCL and KVL.
2. Verification of Superposition and Reciprocity Theorem.
3. Verification of Maximum Power Transfer Theorem.
4. Verification of Thevenin's Theorem.
5. Magnetization characteristics of D.C. Shunt generator.
6. Speed control of DC motor.
7. Swinburne's Test on DC shunt machine.
8. Brake test on DC shunt motor.
9. OC and SC tests on Single-phase transformer.
10. Brake test on 3-phase Induction motor.
11. Regulation by an alternator by synchronous impedance method.