



SANTHIRAM ENGINEERING COLLEGE, NANDYAL

Department of Electrical and Electronics Engineering

Name of the Laboratory: Basic Electrical & Electronics Engineering

Regulation: R19

Branch: Mechanical Engineering and Computer Science Engineering

Year & Sem: I- II

Course Objective

- To Verify Kirchhoff's laws
- To verify Superposition theorem.
- To learn performance characteristics of DC Machines.
- To perform open circuit & Short Circuit test on 1- Phase Transformer.
- To Study the I – V Characteristics of Solar PV Cell

Course Outcomes

- Verify Kirchhoff's Laws & Superposition theorem.
- Perform testing on AC and DC Machines.
- Study I – V Characteristics of PV Cell

List of Experiments Part - A

1. Verification of Kirchhoff laws.
2. Verification of Superposition Theorem.
3. Open circuit characteristics of a DC Shunt Generator.
4. Speed control of DC Shunt Motor.
5. OC & SC test of 1 – Phase Transformer.
6. Brake test on 3 - Phase Induction Motor.
7. I – V Characteristics of Solar PV cell
8. Brake test on DC Shunt Motor.

List of Equipments

1. Regulated Power Supply
2. Rheostats, Ammeters (MI & MC), Voltmeters (MI & MC), Wattmeter (UPF & LPF)
3. Dc Shunt Motor & Alternator Set
4. Dc Shunt Motor & Alternator Set
5. Single Phase Transformer With Auto Transformer Equipment



Lab Instructor:

Ms. R. Sujatha,
Asst. Professor,
Dept. of EEE,
SREC.



Lab Assistant:

Mr. S. Shahinsha,
Dept. of EEE,
SREC.