

Electrical Circuits Lab

Objective:

To verify and demonstrate various theos, locus diagrams, resonance and two port networks. To determine self and mutual inductance of a magnetic circuit, parameters of a given coil and measurement of 3- phase power.



Sections Handled: II/I

Major Equipment Details:

S.No	Name of the Equipment	Quantity
1	Single Phase Energy Meter	1
2	Crompton DC Potentiometer with Accessories	1
3	Resistance Strain Gauge Module	1
4	Portable Kelvin Double Bridge with Accessories	1
5	Schering Bridge with Accessories	1
6	Anderson's Bridge with Accessories	1
7	LVDT Module	1
8	Transformer oil Test Kit	1
9	Wheat Stone Bridge	
10	Digital Stop watch	1
11	Different Ranges of 1- ϕ Auto transformers	2
12	Different Ranges of MI Voltmeters	5
13	Different Ranges of MI Ammeters	6
14	Different Types of 1- ϕ Watt Meters	4

Faculty In charge with qualification: **M.Sireesha, M.Tech**

Lab Technical name with qualification: **N. Ramesh Babu, Diplamo**

Experiment list as per curriculum:

- 1) Verification of Thevenin's And Norton's Theorems
- 2) Verification of Superposition Theorem and Maximum Power Transfer Theorem
- 3) Verification of Compensation Theorem
- 4) Verification of Reciprocity, Millmann's Theorems
- 5) Series and Parallel Resonance
- 6) Determination of Self, Mutual Inductances and Coefficient of Coupling
- 7) Z and Y Parameters
- 8) Transmission and Hybrid Parameters
- 9) Parameters of a Choke Coil.
- 10) Measurement of 3-Phase Power by Two Wattmeter Method for Unbalanced Loads

Experiment list beyond the curriculum

1. Measurement of Active Power for Star and Delta Connected Balanced Loads
2. Measurement of Reactive Power for Star and Delta Connected Balanced Loads