SEMESTER	DEPARTMENT	COURSE TITLE
First	General Engineering	Electrical Circuits I Lab.
COURSE CODE	**HOURS:** 3	**COURSE SPECIFICATIONS**
EP108	**UNITS:** 1	Practical Contents

1. To Show the Importance of the Ohm's Law, and Methods to Measure Resistance:

- Explain the rules of safety in the laboratory.
- Familiarization with the laboratory equipments.
- Achieve the ohm's law practically.
- Study the resistive properties.
- Develop the relationship between the total resistance and individual resistance connected in series or parallel.
- Delta to star and star to delta transformation.

2. To Execute Methods Used in Analyzing Electrical Circuits:

- Verification of Kirchhoff's laws
- Implementation of D.C. circuit using superposition, source transformation, mesh and nodal analysis.
- Implementation thevenin's and Norton's equivalents and the maximum power transfer theorem.

3. Power Calculations of Elements in D.C. Circuit:

- Measurement of power generated and consumed in D.C. circuits.

4. Energy Storage Elements:

- Connecting capacitors and inductors in parallel and in series and their equivalent.
- Charge and discharge characteristics of capacitors.
- Measurement of RMS and average values in A.C. voltage source.

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References

1. ***Engineering Circuit Analysis***, William H. Hayt
2. ***Elements of Electrical Networks***; Khanna Publishers Delhi; Dr. P. Narayana Reddy