

## ELECTRICAL CIRCUITS LAB

II Year B.Tech. EEE I-Sem.

### Course Outcomes:

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| <b>A13282</b> | <b>ELECTRICAL CIRCUITS LAB</b>  |
| C218.1        | Design circuit and conduct experiments for verification of electrical theorem as Thevenin's, Norton's theorem, Superposition theorem etc.           |
| C218.2        | Find Resonance in series and parallel R, L, C Circuits & locus concepts practically.  |
| C218.3        | Examine Self inductance, Mutual inductance and Coefficient of coupling and Analyze RMS, Average Value, Form Factor and Peak Factor of Complex wave. |
| C218.4        | Explain two port parameters practically.  |
| C218.5        | Understand Active power & Reactive power for star and delta connected balanced loads.   |



## **LIST OF EXPERIMENTS**

### **Any Ten experiments should be conducted**

- 1) Measurement of Voltage, Current and Equivalent Resistance of Various Circuits and verification of Kirchhoff's laws.
- 2) Verification of Thevenin's Theorem & Verification of Norton's Theorem.
- 3) Verification of Maximum Power Transfer Theorem on DC and AC Excitation for different loads (R, RL, RLC)
- 4) Verification of Compensation Theorem & Verification of Superposition theorem.
- 5) Verification of Reciprocity Theorem & Verification Millman's Theorem.
- 6) Resonance in series and parallel R, L, C Circuits.
- 7) Determination of Self inductance, Mutual inductance and Coefficient of coupling
- 8) Current locus Diagrams of RL and RC Series Circuits
- 9) Calculation of RMS, Average Value, Form Factor and Peak Factor of Complex wave
- 10) Determination of Z & Y Parameters
- 11) Determination of Transmission & Hybrid Parameters
- 12) Measurement of Active power for star and delta connected balanced loads
- 13) Measurement of Reactive power for star and delta connected balanced loads