

33065- ELECTRICAL CIRCUITS SIMULATION PRACTICAL

DETAILED SYLLABUS

OBJECTIVES

On completion of this practical subject, the students will be able to

- Know the various aspects of simulation software
- Simulate and test the simple electrical and electronics circuits
- Simulate and test the wave generating circuits
- Simulate and prove the simple theorems
- Simulate and test the performance characteristics of converters
- To design and verify the results of various electric circuits using simulation software.

LIST OF EXPERIMENTS

1. a) Generate sinusoidal waveform for a RMS voltage ____ V and frequency of ____ Hz
b) Generate a complex signal comprising of fundamental, 5th harmonics and 7 th harmonics frequency
2. Step response of RL & RC series circuits.
3. a) Simulation of RLC series response circuits
b) Simulation of RLC parallel response circuits
4. Verification of Superposition theorem.
5. Verification of Thevenin's theorem.
6. Simulation of half wave rectifier.
7. Simulation of full wave rectifier.
8. Simulation of single phase, half wave converter using SCR with R-load.
9. Simulation of single phase, semi converter with RL load.
10. Simulation of single phase full converter with RL load.
11. Simulation of DC steps down chopper.
12. Simulation of single phase inverter.
13. Simulation of three phase voltage source inverter supplying R-load
14. a) Simulation of three phase star connected balanced load
b) Simulation of three phase star connected unbalanced load
15. a) Simulation of three phase delta connected balanced load
b) Simulation of three phase delta connected unbalanced load

Diploma, Anna University-UG, PG., HSC & SSLC

Notes

Syllabus

Question Papers

Results and Many more...

Available @

www.AllAbtEngg.com

16. a) Simulation of three phase non-linear star connected load with three phase 3 wire system.
- b) Simulation of three phase non-linear star connected load with three phase 4 wire system.