

NETWORK ANALYSIS & SYNTHESIS LAB ESC-ECE207-P

Course Credits: 1 Contact Hours: 2/week per group (L-T-P: 0-0-2) Mode : Lab Work	Course Assessment Methods (Internal: 30; External: 70)
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Pre-requisites: Electrical Technology.

Sr. No.	Course Outcomes At the end of the semester, students will be able:	RBT Level
CO 1	To relate theoretical concepts with practical experiments.	L1
CO 2	To apply theoretical concepts related to two-port network parameters on hardware.	L3
CO 3	To examine theoretical concepts related to transient response on hardware.	H1
CO 4	To evaluate and judge performance of various active filters.	H2

List of Experiments

1. To study the step response of series RC circuit.
2. To study the step response of series RL circuit.
3. To study of phenomenon of resonance in RLC series circuit.
4. To calculate and verify "Z" parameters of a two port network.
5. To calculate and verify "Y" parameters of a two port network.
6. To calculate and verify "ABCD" parameters of a two port network.
7. To calculate and verify "H" parameters of a two port network.
8. To determine equivalent parameter of parallel connections of two port network.
9. To plot the frequency responses of low pass filter (LPF) and determine half-power frequency.
10. To plot the frequency responses of high pass filter (HPF) and determine the half-power frequency.
11. To plot the frequency responses of band-pass filters (BPF) and determine the bandwidth.
12. To synthesize a network of a given network function and verify its response.

Note: At least eight experiments are to be performed in the semester, out of which atleast six experiments should be performed from above list. Remaining experiments may either be performed from the above list or designed & set by the concerned institution as per the scope of the syllabus.