



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

II Year – I SEMESTER		L	T	P	C
		0	0	3	1.5
	ELECTRICAL CIRCUITS LABORATORY				

Learning objectives:

To verify and demonstrate various theorems, 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.

Any 10 of the following experiments are to be conducted:

- 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) Determination of time constants of R-L, R-C networks using CRO.
- 6) Series and parallel resonance
- 7) Determination of self, mutual inductances and coefficient of coupling
- 8) Z and Y Parameters
- 9) Transmission and hybrid parameters
- 10) Parameters of a choke coil.
- 11) Determination of cold and hot resistance of an electric lamp.
- 12) Measurement of 3-phase power by two Wattmeter method for unbalanced loads

Learning outcomes:

The Student should be able to apply various theorems, determination of self and mutual inductances, two port parameters of a given electric circuits. Able to draw locus diagrams, waveforms and phasor diagrams for lagging and leading networks.