



II Year-II Semester	L	T	P	C
	0	0	3	2
ELECTRONIC CIRCUIT ANALYSIS LAB (RT22046)				

Prerequisite Course:

Need basic idea of EDC,ECA subjects&EDC LAB

Course Description and Objectives:

The students are required to design the electronic circuit and they have to perform the simulation using Multisim/ Pspice/Equivalent Licensed simulation software tool. Further they are required to verify the result using necessary hardware in the hardware laboratory.

Course Outcomes:

Upon completion of the course, the student will be able to achieve the following outcomes.

COs	Course Outcomes	POs
1	Comprehend the fundamentals of multistage amplifiers, feedback, power amplifiers and oscillator circuits	3
2	Analyze the circuit design process and simulate the common base, common emitter and common collector amplifier circuits	3
3	Know the origin of failure of a circuit when it is in an application	3
4	Acquaint with the design and simulate the RC coupled and Cascade amplifier circuits	3
5	Discriminate the design and simulate various oscillator circuits	3

SYLLABUS

PART A: List of Experiments :(Minimum of Ten Experiments has to be performed)

1. Determination of f_T of a given transistor.
2. Voltage-Series Feedback Amplifier
3. Current-Shunt Feedback Amplifier
4. RC Phase Shift/Wien Bridge Oscillator
5. Hartley/Colpitt's Oscillator
6. Two Stage RC Coupled Amplifier
7. Darlington Pair Amplifier
8. Bootstrapped Emitter Follower
9. Class A Series-fed Power Amplifier
10. Transformer-coupled Class A Power Amplifier
11. Class B Push-Pull Power Amplifier
12. Complementary Symmetry Class B Push-Pull Power Amplifier
13. Single Tuned Voltage Amplifier

PART B: Equipment required for Laboratory Software:

- i. Multisim/ Pspice/Equivalent Licensed simulation software tool

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA

KAKINADA–533003, Andhra Pradesh, India

R-13 Syllabus for ECE, JNTUK

Computer Systems with required specifications

Hardware:

1. Regulated Power supplies
2. Analog/Digital Storage Oscilloscopes
3. Analog/Digital Function Generators
4. Digital Multimeters
5. Decade Résistance Boxes/Rheostats
6. Decade Capacitance Boxes
7. Ammeters (Analog or Digital)
8. Voltmeters (Analog or Digital)