II Year II Semester	**L**	**T**	**P**	**C**
Code:20EC4105	**0**	**0**	**3**	**1.5**

ANALOG ELECTRONIC CIRCUITS LAB

Course Objectives:

1. To know the functionality of multistage amplifiers, Power and tuned amplifiers
2. To design and implement various multivibrators,
3. To analyse different Time base generators and Sampling gates

Note: The students are required to design the circuit and perform the simulation using Circuit Lab / Part Sim /Equivalent Industrial Standard Licensed simulation software tool**.** Further they are required to verify the result using necessary hardware equipment.

List of Experiments:

1. Two stage RC coupled Amplifier
2. Darlington pair Amplifier
3. Class A series-fed Power Amplifier
4. Complementary Symmetry Class B push-pull Power amplifier
5. Single Tuned Amplifier
6. Monostable Multivibrator
7. Astable Multivibrator
8. Schmitt Trigger
9. UJT Relaxation Oscillator
10. Bootstrap sweep circuit
11. Sampling gates
12. Differential Amplifier using BJT

Equipment required:

Software:

1. Circuit Lab / Part Sim / Equivalent Industrial Standard Licensed simulation software tool.
2. Computer Systems with required specifications

Hardware:

1. Regulated Power supplies
2. Analog / Digital Storage Oscilloscopes
3. Analog / Digital Function Generators
4. Digital Multi-meters
5. Decade Resistance Boxes/Rheostats
6. Ammeters (Analog or Digital)
7. Voltmeters (Analog or Digital)
8. Active & Passive Electronic Components

Course Outcomes:

A student who successfully fulfils this course requirement will be able to:

S.No	Course Outcome	BTL
1.	Analyse the functionality of Multistage amplifiers	L4
2.	Obtain the efficiency and tuning of Power and tuned amplifiers respectively	L5
3.	Design and analyse the operation of various Multivibrators	L5
4.	Plot the waveforms generated by the time base generators	L3
5.	Evaluate the working principle of sampling gates	L5

Correlation of COs with POs & PSOs:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO 1	1	2	2	-	3	-	-	-	3	-	-	-	2	3
CO 2	1	2	2	-	3	-	-	-	3	-	-	-	3	3
CO 3	2	3	3	1	3	-	-	-	3	-	-	-	3	3
CO 4	1	2	-	-	3	-	-	-	3	-	-	-	2	3
CO 5	1	2	3	2	3	-	-	-	3	-	-	-	3	3