Course code	Course Name	L-T-P - Credits	Year of Introduction
EC235	ANALOG ELECTRONICS LABORATORY	0-0-3:1	2016

Prerequisite: EC209 Analog electronics

Course Objectives

- To develop working knowledge on electronic devices and their performance characteristics

List of Exercises/Experiments : (Ten experiments are mandatory)

1. Study & Use of CRO: Measurement of current voltage, frequency and phase shift.
2. Diode Clipping Circuits
3. Clamping Circuits
4. Rectifiers and filters with and without shunt capacitors- Characteristics full wave rectifier- Ripple factor, Rectification efficiency, and % regulation
5. RC coupled amplifier using BJT in CE configuration- Measurement of gain, input and output impedance and frequency response
6. FET amplifier- Measurement of voltage gain, current gain, input and output impedance
7. Darlington Emitter Follower
8. R.C. Phase Shift Oscillator using BJT or Op- Amp
9. Characteristics of voltage regulators- Design and testing of: a) simple zener voltage regulator b) zener regulator with emitter follower output
10. Series & Parallel Resonance Circuits
11. Voltage Series Feedback Amplifier
12. Class 'B' Push-Pull Amplifier
13. Astable and monostable multivibrators using IC 555
14. Design of PLL for given lock and capture ranges& frequency multiplication
15. Applications using PLL

List of major equipments

CRO, Function generator, Regulated power supply , Dual power supply, Digital multimeter, Ammeter ,Voltmeter.

Expected outcome.

- On completion of the course the student will be able to understand the working of electrical devices ,their performance characteristics and will be able to design circuits for various electronic devices

Text Book:

Allen Mottershead, *Electronic Devices and Circuits: An Introduction,* Prentice Hall of India