

COURSE CODE	COURSE NAME	L-T-P-C	YEAR OF INTRODUCTION
EC232	ANALOG INTEGRATED CIRCUITS LAB	0-0-3-1	2016
Prerequisite: ..Should have registered for EC204 Analog Integrated Circuits			
Course objectives: <ul style="list-style-type: none"> • To acquire skills in designing and testing analog integrated circuits • To expose the students to a variety of practical circuits using various analog ICs. 			
List of Experiments: (Minimum 12 experiments are to be done) <ol style="list-style-type: none"> 1. Familiarization of Operational amplifiers - Inverting and Non inverting amplifiers, frequency response, Adder, Integrator, comparators. 2. Measurement of Op-Amp parameters. 3. Difference Amplifier and Instrumentation amplifier. 4. Schmitt trigger circuit using Op –Amps. 5. Astable and Monostable multivibrator using Op -Amps. 6. Timer IC NE555 7. Triangular and square wave generators using Op- Amps. 8. Wien bridge oscillator using Op-Amp - without & with amplitude stabilization. 9. RC Phase shift Oscillator. 10. Precision rectifiers using Op-Amp. 11. Active second order filters using Op-Amp (LPF, HPF, BPF and BSF). 12. Notch filters to eliminate the 50Hz power line frequency. 13. IC voltage regulators. 14. A/D converters- counter ramp and flash type. 15. D/A Converters- ladder circuit. 16. Study of PLL IC: free running frequency lock range capture range 			
Expected outcome:			
The student should able to:			
<ol style="list-style-type: none"> 1. Design and demonstrate functioning of various analog circuits 2. Students will be able to analyze and design various applications of analog circuits. 			