

| 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. | | | |