

COURSE CODE	COURSE NAME	L-T-P-C	YEAR OF INTRODUCTION
EC231	Electronic Devices & Circuits Lab	0-0-3-1	2016
Prerequisite: Should have registered for EC205 Electronic circuits			
Course objectives:			
<ul style="list-style-type: none"> To study the working of analog electronic circuits. To design and implement analog circuits as per the specifications using discrete electronic components. 			
List of Experiments: (12 Mandatory Experiments)			
<ol style="list-style-type: none"> VI Characteristics of rectifier and zener diodes RC integrating and differentiating circuits (Transient analysis with different inputs and frequency response) Clipping and clamping circuits (Transients and transfer characteristics) Fullwave Rectifier -with and without filter- ripple factor and regulation Simple Zener voltage regulator (load and line regulation) Characteristics of BJT in CE configuration and evaluation of parameters Characteristics of MOSFET in CS configuration and evaluation of parameters RC coupled CE amplifier - frequency response characteristics MOSFET amplifier (CS) - frequency response characteristics Cascade amplifier – gain and frequency response Cascode amplifier -frequency response Feedback amplifiers (current series, voltage series) - gain and frequency response Low frequency oscillators –RC phaseshift, Wien bridge, High frequency oscillators –Colpitt’s and Hartley Power amplifiers (transformer less) - Class B and Class AB Transistor series voltage regulator (load and line regulation) Tuned amplifier - frequency response Bootstrap sweep circuit Multivibrators -Astable, Monostable and Bistable Schmitt trigger 			
Expected outcome:			
The student should able to:			
<ol style="list-style-type: none"> Design and demonstrate functioning of various discrete analog circuits. Function effectively as an individual and in a team to accomplish the given task. 			