COURSE CODE: **1151EE302**	COURSE TITLE: **ELECTRONIC DEVICES & CIRCUITS LAB**	L	T	P	C
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COURSE CATEGORY:

Program Core

PREAMBLE :

It is aimed to provide the basics of device operation and the characteristics for various devices along with the basic designing parameters for various circuits.

PREREQUISITE COURSES:

Basic Electrical & Electronics Engineering Lab

RELATED COURSES:

Linear integrated circuits & Power Electronics

COURSE EDUCATIONAL OBJECTIVES :

The objectives of the course are to make the students,

- To understand the characteristics of various devices.
- To understand the characteristics of amplifiers
- To gain understanding about the Frequency response.
- To understand the design aspects of oscillator circuits

COURSE OUTCOMES :

Upon the successful completion of the course, students will be able to:

CO Nos.	Course Outcomes	Knowledge Level (Based on revised Bloom's Taxonomy)
CO1	Analyze circuits in different biasing modes	S2
CO2	Identify the suitable devices based on characteristics and operating conditions	S3
CO3	Design circuits based on specifications	S2
CO4	Distinguish various devices and operate safely within the limit of operation	S3
CO5	Understand the functioning of various electronic circuits.	S3

COURSE CONTENT:

LIST OF EXPERIMENTS:

1. Bipolar Junction transistor - CE, CB, CC characteristics
2. JFET – characteristics and parameter determination
3. UJT & SCR Characteristics & UJT – Controlled SCR
4. Characteristics of BJT Amplifier frequency response
5. Characteristics of FET amplifier frequency response
6. Characteristics of Class A & B amplifier
7. Characteristics of Class C & D amplifier
8. Positive and negative Clipper circuits design and Characteristic
9. Positive and negative clamper circuits design and Characteristic

10. Voltage regulators (load and line regulation).
11. RC phase shift oscillator circuit design and verification
12. Wien Bridge oscillator circuit design and verification

TEXT BOOKS:

1. David A. Bell, “Electronic devices and circuits”, Oxford University, 5Th Edition, 2009.
2. Sedra smith, “Microelectronic circuits “Oxford University Press, 5th Edition 2011.

REFERENCE BOOKS:

1. Floyd, “Electron devices” Pearson Asia 5th Edition, 2011.
2. Donald A Neamen, “Electronic Circuit Analysis and Design” Tata McGraw Hill, 3rd edition 2012