



SREE VIDYANIKETHAN ENGINEERING COLLEGE

(Autonomous)

Sree Sainath Nagar, A.Rangampet-517 102

Department of Electronics and Communication Engineering

A Report on Expert Lecture on, "Electronic Devices and Circuits"

Programme : Three-Day On-site Training under Faculty Development Programme

Date : 12-14 March, 2018

Target Group : I B. Tech. II-Sem ECE Students (Sec-A, B, C, D)

No. of participants : 240

A Three-Day Expert Lecture on, "Electronic Devices and Circuits" was organized by department of ECE, SVEC from 12-14 March, 2018. This programme was conducted in Three sessions over three day. Majorly the lecture was familiarizing the principle operations of various electronic devices such as Diode, transistor and FET. And also focused on amplifiers using BJT and FET.

Details of the Resource person:

Name of the Technical Person : **Dr. P V Ramana**

Designation : **Professor & Head, Dept. of ECE, SVEC.**

Day 1

Session 1:

The main objective of this session is to introduce the concepts of Diode operation and its applications, Transistor type, importance of NPN and PNP transistors and their Operation of transistors in different configurations. What is biasing, Different biasing techniques and their importance. Current equations of transistor and Diode.

Day 2

Session 2:

This session focuses on Field Effect Transistors. Basic structure and principle of operation of JFET. Classification of MOSFET and the Operation of MOSFET under Depletion and Enhancement modes. JFET biasing and small signal model of JFET and applications of JFET.

Day 3

Session 3

This session focus on the transistor and FET amplifiers and the analysis of JFET and BJT amplifiers using small signal model. Two port Network and hybrid parameters. Hybrid model and Approximation of Hybrid model. Few special purpose device and their operation.

