



***THE LEARNING OUTCOME
FRAME OF UG COURSE OF
ELECTRONICS***

PSOs of B.Sc. Electronics

- PSO1 Understanding the fundamental concepts of semiconductor devices which has become the essential component of everyday life.
- PSO2 Acquiring the knowledge of electronic circuits and related techniques to have an understanding of many electronic devices.
- PSO3 Learning the concepts of digital electronics, microprocessors, operational amplifiers, Bio medical devices and related electronic systems.
- PSO4 Understanding basic power electronics, electrical motors for developing skills in the related areas.
- PSO5 Understanding electronic communication systems and their applications.
- PSO6 Performing experiments in the laboratory to have the practical knowledge of different electronic devices and fabricate certain circuits .
- PSO7 Carrying out minor project work as per the syllabus.

COs of the Course 'Basics of Semiconductors and Devices'

- C01 Understanding the passive components and PCB.
- C02 Analyzing network theorems by using electronic circuits and resonance circuits.
- C03 Learning the basic idea of semiconductor physics with concepts of Fermi level, drifting and diffusion of charge carriers.
- C04 Studying the PN junction diodes, solar cell and transistors.
- C05 Learning the practical skills on electronic circuits.

COs of the Course 'Electronic Circuits and Fundamentals of Digital Electronics'

- C01 Studying rectifiers filters and power supplies.
- C02 Understanding the construction, working and applications of FET and MOSFET.
- C03 Learning concepts and applications of amplifiers, feedback circuits, multi-vibrators and oscillators.
- C04 Learning different number systems used to implement digital electronics.
- C05 Learning the practical skills on digital and analog circuits.

COs of the Course 'Digital Electronics and Microprocessor'

- C01 To study the concepts of logic gates, arithmetic circuits and flip flops.
- C02 Learning logic families, counters and registers with their types and uses.
- C03 Understanding D/A & A/D converters with concepts of memories.
- C04 Learning the microprocessor 8085, its instruction sets and basic straight line programming.
- C05 Learning architecture of personal computer and interfacing devices with concept of multipurpose programmable devices.
- C06 Developing practical skills on above topics/concepts.

COs of the Course 'Operational Amplifier and Instrumentation'

- C01 Learning working and applications of differential amplifier and operational amplifier.
- C02 Studying construction and working of CRO and LCD.
- C03 Understanding fundamentals of signal generator with working and applications of IC 555 timer and IC 8038 function generator.
- C04 Learning measuring instruments, the operation of different types of multi-meters, counters and Biomedical instruments like ECG & X Ray.
- C05 Performing laboratory experiments on above topics.

COs of the Course 'Power Electronics, Electrical motors and Advanced Microprocessor'

- CO1 Understanding working of different power devices such as power diodes and transistors, UJT, SCR, DIAC, TRIAC and applications of SCR.
- CO2 Studying types and applications of electrical motors.
- CO3 Learning the architecture and organization of INTEL 8086 microprocessor and programming using macros and call procedures.
- CO4 Performing experiments on power devices and assembly language programming using INTEL 8086 microprocessor.

COs of the Course 'Communication System'

- CO1 Learning the basic theory of noise and radio wave propagation.
- CO2 Understanding amplitude, frequency, phase and pulse modulation in communication system
- CO3 Explaining the role and type of antennas in transmission and the concept of television.
- CO4 Understanding satellite and wireless communication system through cellular telephony, GSM.
- CO5 Performing handful of laboratory experiments.
- CO6 Carrying out project work as per the syllabus.