

# Course Outcome

## Semester I

### **Core Paper A-1: Basic Electronic Circuits and Systems**

**Course Objectives:** To make the students able to apply concepts of basic electronic components and active

electronic devices in solving engineering problems.

**Learning Outcome:** By the end of this course, students will be able to

→ explain basics of electrical circuits and calculate node voltage and branch current of circuits

with KVL and KCL

→ knowledge about passive and active electronic components.

→ Operation of basic electronic circuits.

→ Application of electronics components in real life situations

## **Semester II**

### **Core Paper A-2: Digital Electronics**

**Course Objectives:** This course will enable the students to learn fundamentals of number system, digital logic circuits and hardware description language for digital system design.

**Learning Outcome:** By the end of this course, students will be able to

- Explain number system and operation of combinational and sequential logic circuits
- Design combinational and sequential logic circuits
- Design basic units of A/D and D/A converters

## **Semester III**

### **Major-1: Network Analysis**

**Course Objectives:** To make the students able to apply concepts of circuit theory and network theorems in solving engineering problems in DC and AC circuits

**Learning Outcome:** By the end of this course, students will be able to

→ explain basics of electrical circuits and calculate node voltage and branch current of circuits with KVL and KCL

→ simplify complex network to simpler equivalents by employing network theorems

→ determine time response of circuits with Classical as well as Laplace transform methods

→ analyze 2 port networks, transfer functions and frequency response of passive filters.