

B-TECH Electronics & Communication Engineering

COURSE COURSES

SEM 3-1

Digital signal Processing

- CO 1:** Analyze and process signals in the discrete domain
- CO 2:** Design filters to suit specific requirements for specific applications
- CO 3:** Perform statistical analysis and inferences on various types of signals
- CO 4:** Design multi rate signal processing of signals through systems.
- CO 5:** Analyze binary fixed point and floating-point representation of numbers and arithmetic operations

Micro processors and micro controllers

- CO 1:** Understand the internal organization and different modes of operation of popular 8086 microprocessors / 8051 microcontrollers.
- CO 2:** Understand the importance of addressing modes and the instruction set of the processor / controller which is used for programming the processor and controller. Use design tools for microprocessor system design, test and evaluation
- CO 3:** Understand I/O operation with 8086 and software interaction and integration.
- CO 4:** Understand the memory organization and interrupts of processors/ micro-controllers helps in various system designing aspects.

Managerial economics and financial analysis

- CO 1:** Determine the objectives, nature, scope, role & responsibilities of a manager of a business undertaking.
- CO 2:** Predict the demand for a product or product mix of a company & to analyze various factors influencing demand elasticity.
- CO 3:** Forecast & compute the future sales level of a product by using various quantitative & qualitative techniques and with the help of past sales data.

CO 4: Examine optimum production & cost functions with the help of mathematical equations & by developing graphical solutions through linear programming applications.

Very large scale integration

CO 1: Have the ability to synthesize static and dynamic logic cells based on knowledge of MOS device physics, modeling, and circuit topologies .

CO 2: Be capable of designing and implementing combinational and sequential CMOS digital circuits and optimize them with respect to different constraints, such as area, delay, power, or reliability.

CO 3: Be capable of implementing a complete design verification process using computer-automated tools for layout, extraction, simulation, and timing analysis.

CO 4: Design and verify a prototype silicon integrated circuit suitable for fabrication using the μm CMOS process.

Digital communication

CO 1: Able to understand the basic functions of the various parts of a modern communication system.

CO 2: Ability to recognize the concepts of various errors occurred in quantization and explains the concepts of error detection/correction coding

CO 3: Perform the time and frequency domain analysis of the signals in a digital communication system

CO 4: Select the blocks in a design of digital communication system.

Human values and professional ethics

CO 1: It ensures students sustained happiness through identifying the essentials of human values and skills.

CO 2: It facilitates a correct understanding between profession and happiness

CO 3: It helps students understand practically the importance of trust, mutually satisfying human behavior and enriching interaction with nature.

CO 4: Ability to develop appropriate technologies and management patterns to create harmony in professional and personal life.

CO 5: The students strike a balance between profession and personal happiness/ goals

