Department of Electronics and Telecommunication Engineering

B.E. 5th Sem

Course: Microcontroller   **Course Code: (5ETC01)**

At the end of Microcontroller course, students will be able:

CO 1: To attain the knowledge of Microprocessor 8085.

CO 2: To understand the Interfacing of various peripheral devices with Microprocessor 8085.

CO 3: To attain the knowledge of Microcontroller 8051.

CO 4: To understand assembly language & C Programming for Microcontrollers.

CO 5: To understand the Interfacing of various peripheral devices with Microcontroller 8051.

CO 6: To gain knowledge of advance Microcontrollers.

Course: Control System   **Course Code: (5ETC02)**

At the end of Control System course, students will be able:

CO 1: To understand mathematical models of electrical, mechanical and electromechanical systems.

CO 2: To determine transfer functions from block diagrams and signal flow graph.

CO 3: To evaluate transient response and steady state response parameters.

CO 4: To analyze stability of the LTI system using Routh criterion and root locus

CO 5: To analyze stability of the LTI system using bode plot and Nyquist criterion

CO 6: To create the state model and evaluate response of the system using state variable method.

Course: Digital Signal Processing   **Course Code: (5ETC03)**

At the end of Digital Signal Processing course, students will be able:

CO 1: To manipulate the discrete time signals and identify the type system.

CO 2: To compute the Z-transform of a sequence, identify its region of convergence and compute the inverse Z-transform.

CO 3: To evaluate the Fourier transform of a signal.

CO 4: To design FIR and IIR filters.

CO 5: To understand the concepts of Multirate Digital Signal Processing and need of Filter banks.

CO 6: To understand the application of Digital Signal Processing.

Course: Fiber Optics Communication (PE-I)   **Course Code: (5ETC04)**

At the end of Fiber Optics Communication course, students will be able:

CO 1: To understand the principles fiber-optic communication, the components and Losses and dispersion in fiber.

CO 2: To explain the transmission characteristics of optical fiber.

CO 3: To express the properties of the optical components in sources.

CO 4: To explain operation of lasers, LEDs, and detectors in fiber.

CO 5: To describe the aspects of optical fiber coupler and switches.

CO 6: To elaborate WDM and DWDM systems.

Course: Sensors and Transducers (OE-I)   **Course Code: (5ETC05)**

At the end of Sensors and Transducers course, students will be able:

CO 1. To understand the basic aspect of transducers and sensors.

CO 2. To gain knowledge of statistical characteristics and Errors of the system.

CO 3. To realize the fundamental concept about temperature and Velocity measurement.

CO 4. To acquire knowledge of measurement of displacement and Humidity.

CO 5. To familiarize the basic information about measurement of Pressure,flow.

CO 6. To aware about the basics of Strain gauge and smart sensors Level.

B.E. 6th Sem

Course: Communication Network   **Course Code: (6ETC01)**

At the end of Communication Network course, students will be able:

CO 1: To identify different types of network devices and their functions within a network.

CO 2: To understand the basic functions of data logical link control and media access control and protocol used in this layers.

CO 3: To distinguish between the layers of the OSI and TCP/IP model.

CO 4: To analyze, specify and design routing strategies for an IP based networking infrastructure.

CO 5: To understand the concept of reliable and unreliable transfer protocol of data and how TCP and UDP implement these concepts.

CO 6: To understand various Application layer Protocols.

Course: Computer Architecture   **Course Code: (6ETC02)**

At the end of Computer Architecture course, students will be able:

CO 1: To learn how computers work.

CO 2: To analyse the performance of computers.

CO 3: To perform floating point arithmetic operations and design ALU as per the requirement.

CO 4: To know how computers are designed & built.

CO 5: To understand and design different types of memory systems.

CO 6: To understand issues affecting recent processors.

Course: Satellite Communication (PE-II)   **Course Code: (6ETC03)**

At the end of Satellite Communication course, students will be able:

CO 1: To understand the frequency bands used in satellite communication

CO 2: To know the basics of orbital mechanism, the types of satellite orbits and orbital aspects of Satellite communication.

CO 3: To understand the various typical phenomenon in satellite communication.

CO 4: To understand different satellite channel parameters.

CO 5: To understand the working of different satellite subsystems

CO 6: To understand the various services of satellite.

Course: Introduction to Python Programming (OE-II)   Course Code: (6ETC04)

At the end of Introduction to Python Programming course, students will be able:

CO 1: To interpret the fundamental Python syntax and semantics.

CO 2: To learn and use operators.

CO 3: To be fluent in the use of Python control flow statements.

CO 4: To determine the methods to create and manipulate Python programs by utilizing the data structures like lists, tuples and sets.

CO 5: To understand and Implement various functions and arguments.

CO 6: To perform basic CURD operations on Mongo DB using Python.

Course: Engineering Economics   Course Code: (6ETC05)

At the end of Engineering Economics course, students will be able:

CO 1: To learn basics of Engineering Economics.

CO 2: To understand and compute the production cost.

CO 3: To study different cash flow methods.

CO 4: To evaluate Engineering alternatives.

CO 5: To understand depreciation analysis.

CO 6: To understand Indian Banking System.