

Department of Electronics and Telecommunication Engineering

B.E. 7th Sem

Course: Very Large Scale Integration Design

Course Code :(7ET1)

At the end of Very Large Scale Integration course the student will be able:

- CO 1:** To understand integrated circuit manufacturing, power consumption, testability and reliability with IP based design.
- CO 2:** To differentiate modeling style for HDL construct for sequential and combination
- CO 3:** To program using structural style for a sequence detector and ALU.
- CO 4:** To analyze the detailed architecture of CPLD and FPGA programmable logic devices.
- CO 5:** To explain and design the concepts of CMOS circuits.
- CO 6:** To understand the CMOS fabrication using p-well, n-well and twin-tub-well process.

Course: Digital Image Processing

Course Code: (7ET2)

At the end of Digital Image Processing course the student will be able:

- CO 1:** To describe the concepts of Digital Image Processing, image model with digitization.
- CO 2:** To understand the various Image Transform used in image processing.
- CO 3:** To apply the image enhancement algorithms to real problem.
- CO 4:** To explain Image restoration techniques and methods to remove blur in an image.
- CO 5:** To analyze Image compression and Segmentation techniques.
- CO 6:** To perform object detection using morphological operation.

Course: Satellite and Optical Fiber Communication

Course Code: (7ET3)

At the end of Satellite and Optical Fiber Communication course the student will be able:

- CO 1:** To understand orbital aspects of satellite communication.
- CO 2:** To know orbital effects in communication system performance.
- CO 3:** To elaborate the satellite link model.
- CO 4:** To describe satellite services; VSAT, GPS.
- CO 5:** To understand functioning of optical sources and detectors
- CO 6:** To describe optical fiber communication system and its performance measures

Course: Industrial Management and Quality Control

Course Code: (7ET4)

At the end of Industrial Management and Quality Control course the student will be able:

- CO 1:** To practice the fundamental principles and functions of business management.
- CO 2:** To recognize and apply knowledge of marketing and materials management
- CO 3:** To interpret and evaluate personnel management and evaluation methods of job rating
- CO 4:** To evaluate balance sheet, costing and budgetary aspects, project report, profit and loss statement and ratio analysis
- CO 5:** To identify factors controlling quality of design and conformance.
- CO 6:** To apply professional ethics, Kaizen, Quality Circles, ISO-9000 series and TQM in organization.

Course: Smart Sensor

Course Code: (7ET5)

At the end of Smart Sensor course the student will be able:

- CO 1:** To acquire fundamental knowledge of Smart Sensors.
- CO 2:** To understand the nature of sensors and their operations.
- CO 3:** To study the interfacing of different sensors with MCU.
- CO 4:** To analyze MCU/DSP to improve the sensor IQ.
- CO 5:** To discriminate various control techniques for Smart Sensors.
- CO 6:** To identify the applications of smart sensors in various fields.

B.E. 8th Sem

Course: UHF & Microwaves

Course Code: (8ET1)

At the end of UHF & Microwaves course the student will be able:

- CO 1:** To explain the working of conventional tubes and microwave tube.
- CO 2:** To understand the working principles of all the solid state devices
- CO 3:** To formulate the wave equation in wave guide for analysis.
- CO 4:** To identify the use of microwave cavity resonator and their applications.
- CO 5:** To identify the use of different microwave components.
- CO 6:** To explain microwave measurement instruments

Course: Wireless Communication

Course Code: (8ET2)

At the end of Wireless Communication course the student will be able:

- CO 1:** To describe frequency reuse, frequency utilization, and hand off techniques, roaming management and to solve the numerical on it.
- CO 2:** To explain the cell shape, channel assignment strategies, coverage and capacity of the cellular system.
- CO 3:** To analyze the propagation of the signals, fading mechanism and its types.
- CO 4:** To explain the GSM architecture, protocols, call processing and handovers in GSM.
- CO 5:** To describe the frequency specifications of IS-95 in CDMA and power control in CDMA.
- CO 6:** To explain the architecture of various wireless network protocols.

Course: Data Communication and Network

Course Code: (8ET3)

At the end of Data Communication and Network course the student will be able:

- CO 1:** To describe network functions, types of topologies and layered architecture.
- CO 2:** To explain Data link Control layer and its protocol along with ARQ.
- CO 3:** To classify Local Area network and control access protocols.
- CO 4:** To understand network devices & analyze the routing algorithms
- CO 5:** To understand the ATM, ISDN and Frame Relay Protocols.

CO 6: To explain TCP/IP Protocols and solve numerical on IP addressing.

Course: Embedded System and RTOS

Course Code: (8ET4)

At the end of Electronic Circuit Design course the student will be able:

- CO 1:** To design voltage regulator circuits, DC amplifier, comparator, window detectors, scaling and summing amplifier.
- CO 2:** To analyze the wave shaping circuits and operational amplifiers using IC 8038, IC 566.
- CO 3:** To design the instrumentation amplifier, thermocouple and thermo sensors AD590, LM35.
- CO 4:** To understand and design MOS devices, CMOS circuits.
- CO 5:** To describe the structure of VHDL programs
- CO 6:** To design of combinational blocks, sequential circuits, asynchronous and synchronous circuits

