VIJAYA INSTITUTE OF TECHNOLOGY FOR WOMEN

An ISO 9001:2015 Certified Institute, Approved by AICTE, Affiliated to JNTU Kakinada, AP

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College Code: NP, Enikepadu, Vijayawada-521108

Department of Electronics and Communication Engineering

List of Course Outcomes

Batch: 2013(R13)

Year & Sem	Subject Code	Course Code	Course Name	At The End of The Course, The Student Will Be Able To
IV-I	RT41041	C411	VLSI Design	CO1:Understand mathematical methods and circuit analysis models in analysis of CMOS digital electronics circuits, including logic components and their interconnects
				CO2: Design various fabrication steps of IC and come across basic electrical properties of MOSFET
				CO3: Apply CMOS technology-specific layout rules in the placement and routing of transistors and interconnect and to verify the functionality, timing, power and parasitic effects.
				CO4: Examine hash function and digital signature.
				CO5: Understanding concepts and techniques of modern integrated circuit design and testing (CMOS VLSI)
				CO6: Design static CMOS combinational and sequential logic at the transistor level, including mask layout.
IV-I	RT41042	C412	Computer Networks	CO1: Analyze a communication system by separating out the different functions provided by the network; and some example networks
				CO2: Understand various network topologies required for communication
				CO3: Understand that there are fundamental limits to any communications system;
				CO4: Understand the general principles behind addressing, routing, reliable transmission and other stateful protocols as well as specific examples of each;
				CO5: Have an informed view of both the internal workings of the Internet and ofa number of common Internet applications and protocols
				CO6:Understand the fundamental concepts of Application layer
IV-I	RT41043	C413	Digital Image Processing	CO1: Perform spatial and frequency domain filtering on image and can implement all smoothing and sharpening operations on images
				CO2: Perform image restoration operations/techniques on images
				CO3: Operate effectively on color images and different color conversions on images and can code images to achieve good compression .

				CO4: Do wavelet based image processing and image compression using wavelets
				CO5: Perform all morphological operations on images and can be able to do image segmentation also.
				CO6: Develop simple algorithms for image processing and use the various techniques involved in Bio Medical applications, etc.
IV-I	RT41044	C414	Computer Architecture and Organisation	CO1: Understand the fundamentals of different instruction set architectures and their relationship to the CPU design
				CO2: Understand the principles and the implementation of computer arithmetic and ALU
				CO3: Understand the memory system, I/O organization
				CO4: Understand the operation of modern CPUs including interfacing, pipelining, memory systems and busses
				CO5: Understand the principles of operation of multiprocessor systems.
				CO6: Demonstrate the relationship between the software and the hardware and focuses on the foundational concepts that are the basis for current computer design
IV-I	RT41045	C415	Electronic Switching Systems	CO1: Evaluate the time and space parameters of a switched signal
				CO2: Establish the digital signal path in time and space, between two terminals
				CO3: Evaluate the inherent facilities within the system to test some of the SLIC, CODEC and digital switch functions
				CO4: Investigate the traffic capacity of the system
				CO5: Evaluate methods of collecting traffic data
				CO6: Evaluate the method of interconnecting two separate digital switches
IV-I	RT41044A	C416	Optical Communications	CO1: Choose necessary components required in modern optical communications systems .
				CO2: Design and build optical fiber experiments in the laboratory.
				CO3:, learn how to calculate electromagnetic modes in waveguides, the amount of light lost going through an optical system, dispersion of optical fibers
				CO4: Use different types of photo detectors and optical test equipment to analyze optical fiber and light wave systems
				CO5: Choose the optical cables for better communication with minimum losses
				CO6: Design, build, and demonstrate optical fiber experiments in the laboratory

IV-II	RT42041	C421	Cellular and Mobile Communication	CO1: Outline the concepts of cellular systems and the effect of co- channel Interference reduction
				CO2: Analyze the effects of interferences, develop antenna system.
				CO3: Outline various frequency management, channel assignment algorithms in cellular systems and illustrate various propagation effects in cellular environment.
				CO4: Illustrate different types of antennas used at cell site and mobile stations.
				CO5: Compare various types of handoff techniques and summarise the concepts of dropped calls
				CO6: Illustrate the architecture of GSM and multiple access techniques.
IV-II	RT42042	C422	Electronic Measurements and Instrumentation	CO1: Able to learn the different types of Characteristics of Electronic Devices
				CO2: Understand and analyze different signal generators and analyzers
				CO3: Understand the design of oscilloscopes for different applications
				CO4: Design different transducers for measurement of different parameters
				CO5:Able to learn the different type of transducers
				Co6: Apply the knowledge to select the instrument to be used based on the requirements
IV-II	RT42043C	C423	Embedded Systems	CO1: Know basics of embedded system, classification, memories, different communication interfaces
				CO2:Understand embedded firmware is and its role in embedded system, different system components
				CO3: Distinguish all communication devices in embedded system, other peripheral device.
				CO4: Distinguish concepts of C versus embedded C and compiler versus cross-compiler
				CO5: Choose an operating system, and learn how to choose an RTOS
				CO6: Learn about the integrated development environment, software utility tool. Also learn about quality assurance and testing of the design, testing on host machine, simulators
IV-II	RT42122	C424	Project	Design Engineering solutions to complex problems in systematic manner.