



Sree Chitra Thirunal College of Engineering

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Consolidated Course Outcomes Report

Batch	Slno	Subject	CO	Topic	Bloom's taxonomy level
EC 2K20 A	1	ELECTROMAGNETICS	CO1	To summarize the basic mathematical concepts related to electromagnetic vector fields	Understanding(U)
			CO2	To analyse Maxwell's equation in different forms and apply them to diverse engineering problems	Applying(P)
			CO3	To analyse electromagnetic wave propagation	Applying(P)
			CO4	To analyse wave polarization and characteristics of transmission lines	Applying(P)
			CO5	To solve the transmission line problems using Smith chart and evaluate the propagation of EM waves in Wave guides	Applying(P)
	2	INFORMATION THEORY AND CODING	CO1	Explain measures of information entropy, conditional entropy, mutual information	Understanding(U)
			CO2	Apply Shannon's source coding theorem for data compression.	Applying(P)
			CO3	Apply the concept of channel capacity to characterize limits of error-free transmission.	Applying(P)
			CO4	Apply linear block codes for error detection and correction	Applying(P)
			CO5	Apply algebraic codes with reduced structural complexity for error correction	Applying(P)
			CO6	Understand encoding and decoding of convolutional and LDPC codes	Understanding(U)
	3	VLSI CIRCUIT DESIGN	CO1	Understand various methodologies in ASIC and FPGA design.	Understanding(U)
			CO2	Understand static and dynamic behavior of MOSFET based inverters	Understanding(U)
			CO3	Design / Implement static and dynamic logic circuits with various MOSFET logic families	Applying(P)
			CO4	Design and analyze different types of memory and data path elements	Analyzing(A)
			CO5	Explain logical and physical design processes of integrated circuits.	Understanding(U)
	4	INDUSTRIAL ECONOMICS AND FOREIGN TRADE	CO1	Determine the impact of changes in global economic policies on the business opportunities of a firm	Understanding(U)
			CO2	Take appropriate decisions regarding volume of output and to evaluate the social cost of production	Applying(P)
			CO3	Determine the functional requirement of a firm under various competitive conditions	Applying(P)
			CO4	Examine the overall performance of the economy, and the regulation of economic fluctuations and its impact on various sections in the society	Analyzing(A)
			CO5	Determine the impact of changes in global economic policies on the business opportunities of a firm	Understanding(U)
	5	MINIPROJECT	CO1	Apply the knowledge within the selected area of technology for project development	Applying(P)
			CO2	Discuss and justify the technical aspects and design aspects of the project with a systematic approach.	Create(C)
			CO3	Design and Reproduce engineering projects.	Create(C)
			CO4	Development of working technical projects.	Create(C)
			CO5	Communicate and report effectively project related activities	Evaluate(E)
	6	Introduction to MEMS	CO	Describe the principles of micro sensors and actuators	Remembering(R)
			CO2	Identify commonly used mechanical structures in MEMS	Understanding(U)
			CO3	EXPLAIN THE APPLICATION OF SCALING LAWS IN THE DESIGN OF MICROSYSTEMS	Remembering(R)
			CO4	identify the materials used in fabricating micro and nano systems	Remembering(R)
CO5			Explain the principles of microfabrication	Remembering(R)	
CO6			Design the challenges in design fabrication and packing microsystems	Understanding(U)	
			CO1	Understand the basic idea about the embedded system.	Understanding(U)
			CO2	Understand Embedded system interfacing and peripherals	Understanding(U)
			CO3	Understand ARM Processor fundamentals	Understanding(U)

7	Embedded Systems	CO4	Apply the knowledge of instruction set to write programs for ARM processor	Applying(P)
		CO5	Understand the basics of real time operating systems and their use in embedded systems.	Understanding(U)
8	COMPREHENSIVE COURSE WORK	CO1	Apply the knowledge of circuit theorems and solid state physics to solve the problems in electronic Circuits	Applying(P)
		CO2	Apply the knowledge of Designing a logic circuit to solve the problems	Applying(P)
		CO3	Apply the knowledge of Designing a linear IC circuits for linear and non-linear circuit applications.	Applying(P)
		CO4	Apply the knowledge of basic signal processing operations to Filter designs	Applying(P)
		CO5	Apply the knowledge existent analog and digital communication systems	Applying(P)