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	NETWORK THEORY	CO1	Apply Mesh/Node analysis or Network Theorems to obtain steady state response of the linear time invariant networks.	Applying(P)
			CO2	Apply Laplace Transforms to determine the transient behaviour of RLC networks.	Applying(P)
			CO3	Apply Network Functions and Network Parameters to analyze the single port and two port networks.	Applying(P)
	2	SUSTAINABLE ENGINEERING	CO1	Understand the relevance and the concept of sustainability and the global initiatives in this direction	Understanding(U)
			CO2	Explain the different types of environmental pollution problems and their sustainable solutions	Understanding(U)
			CO3	Discuss the environmental regulations and standards	Understanding(U)
			CO4	Outline the concepts related to conventional and non-conventional energy	Understanding(U)
			CO5	Utilise the broad perspective of sustainable practices by utilizing engineering knowledge and principles	Applying(P)
	3	PROFESSIONAL ETHICS	CO1	Understand the core values that shape the ethical behaviour of a professional.	Remembering(R)
			CO2	Adopt a good character and follow an ethical life	Applying(P)
			CO3	Explain the role and responsibility in technological development by keeping personal ethics and legal ethics	Understanding(U)
			CO4	Solve moral and ethical problems through exploration and assessment by established experiments.	Evaluate(E)
			CO5	Apply the knowledge of human values and social values to contemporary ethical values and global issues.	Applying(P)
	4	LOGIC DESIGN LAB	CO1	Design and demonstrate the functioning of various combinational and sequential circuits using ICs	Applying(P)
			CO2	Apply an industry compatible hardware description language to implement digital circuits	Applying(P)
			CO3	Implement digital circuis on FPGA boards and connect external hardware to the boards	Applying(P)
			CO4	Function effectively as an individual and in a team to accomplish the given task	Applying(P)
	5	SCIENTIFIC COMPUTING LABORATORY	CO1	Describe the needs and requirements of scientific computing and to familiarize one programming language for scientific computing and data visualization.	Remembering(R)
			CO2	Approximate an array/matrix with matrix decomposition.	Understanding(U)
			CO3	Implement numerical integration and differentiation.	Understanding(U)
			CO4	Solve ordinary differential equations for engineering applications	Understanding(U)
			CO5	Realize how periodic functions are constituted by sinusoids	Understanding(U)
	6	SOLID STATE DEVICES	CO1	Calculate carrier concentration in semiconductors	Applying(P)
			CO2	Identify the excess carriers in semiconductors and carrier transport in semiconductors	Understanding(U)
			CO3	Calculate terminal currents in PN junctions and bipolar junction transistors	Applying(P)
			CO4	Explain MOSFET characteristics	Understanding(U)
			CO5	Describe MOSFET scaling techniques and identify the short channel effects	Understanding(U)
	7	LOGIC CIRCUIT DESIGN	CO1	Understand binary number systems and codes	Understanding(U)
			CO2	Apply Boolean postulates with fundamentals of Verilog	Applying(P)
			CO3	Understand combinational and arithmetic circuits with Verilog codes	Understanding(U)

			CO4	Understand sequential logic circuits and modelling with Verilog	Understanding(U)
			CO5	Understand logic families and its characteristics	Understanding(U)
	8	**PARTIAL DIFFERENTIAL EQUATION AND COMPLEX ANALYSIS**	**CO1**	Solve partial differential equation by different methods	Applying(P)
			CO2	Solve the one dimensional heat and wave equation	Applying(P)
			CO3	Explain the concept of analytic function and its properties	Understanding(U)
			CO4	Explain the concept of power series and singularities of analytic functions.	Understanding(U)
			CO5	Evaluation of line integrals of complex integration by different methods.	Evaluate(E)