



# Sree Chitra Thirunal College of Engineering

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## Consolidated Course Outcomes Report

Batch	Sno	Subject	CO	Topic	Bloom's taxonomy level
EC 2K20 A	1	VECTOR CALCULUS, DIFFERENTIAL EQUATIONS AND TRANSFORMS	CO1	Explain the theory of derivatives and integrals of vector valued functions.	Understanding(U)
			CO2	Apply calculus of vector valued function in the evaluation of line integral, surface integral and volume integral.	Applying(P)
			CO3	Solve homogeneous and non-homogeneous linear differential equations with constant coefficients.	Applying(P)
			CO4	Explain the concept of Fourier Transform and Laplace Transform.	Understanding(U)
			CO5	Solve the ordinary differential equation using Laplace Transform.	Applying(P)
	2	ENGINEERING GRAPHICS	CO1	Draw the projection of points and lines located in different quadrants.	Applying(P)
			CO2	Prepare orthographic projections of objects by visualizing them in different positions.	Applying(P)
			CO3	Draw sectional views and develop surfaces of a given object.	Applying(P)
			CO4	Prepare pictorial drawings using the principles of isometric and perspective projections to visualize objects in three dimensions.	Applying(P)
			CO5	Convert 3D views into orthographic views.	Applying(P)
			CO6	Obtain multi view projections and solid models of objects using CAD tools.	Applying(P)
	3	BASICS OF ELECTRICAL & ELECTRONICS ENGINEERING	CO1	Solve resistive electrical networks by Mesh Current and Node Voltage method.	Applying(P)
			CO2	Solve magnetic circuits using Faradays laws and Amperes Circuital law	Applying(P)
			CO3	Solve simple AC circuits in steady state condition.	Applying(P)
	4	PROFESSIONAL COMMUNICATION	CO1	Develop vocabulary and language skills relevant to engineering as a profession	Applying(P)
			CO2	Analyze a variety of textual content	Analyzing(A)
			CO3	Create effective technical presentations	Create(C)
			CO4	Discuss a given technical/non-technical topic in a group setting and arrive at generalizations/consensus	Understanding(U)
			CO5	Identify drawbacks in listening patterns and apply listening techniques for specific needs	Applying(P)
			CO6	Create professional and technical documents that are clear and adhering to all the necessary conventions	Create(C)
	5	PROGRAMMING IN C	CO1	Analyze a computational problem and develop an algorithm/flowchart to find its solution	Analyzing(A)
			CO2	Develop readable C programs with branching and looping statements, which uses Arithmetic, Logical, Relational or Bitwise operators	Applying(P)
			CO3	Write readable C programs with arrays, structure or union for storing the data to be processed	Applying(P)
			CO4	Divide a given computational problem into a number of modules and develop a readable multi-function C program by using recursion if required, to find the solution to the computational problem	Analyzing(A)
CO5			Write readable C programs which use pointers for array processing and parameter passing	Applying(P)	
CO6			Develop readable C programs with files for reading input and storing output	Applying(P)	
6	ENGINEERING PHYSICS A (FOR CIRCUIT BRANCHES)	CO1	Describe the characteristics of different types of oscillations and waves in engineering systems.	Understanding(U)	
		CO2	Apply cosine law of thin film interference to wedge shaped film and diffraction phenomena in gratings.	Applying(P)	
		CO3	Explain the behavior of matter in atomic level through the principle of quantum mechanics and basic concept of nanoscience and technology.	Understanding(U)	

		<b>CO4</b>	Derive Maxwells equation using vector calculus for static magnetic fields .	Applying(P)
		<b>CO5</b>	Describe the phenomenon of superconductivity ,the basics of solidstate lightingdevices and fibre optic communication systems	Understanding(U)
7	<b>ENGINEERING PHYSICS LAB</b>	<b>CO1</b>	Apply cosine law in understanding the interference from thin films with Airwedge and Newton's ring setup	Applying(P)
		<b>CO2</b>	Interpret theV-I relation in solar cell, the strain-voltage relation in strain gauge, (m/l2)relation in melde's arrangement for trans &longi. waves,analysing signal voltage and frequency using CRO.	Applying(P)
		<b>CO3</b>	Illustrate the phenomenon of diffraction through transmission grating- using spectrometer and find the dispersive power and resolving power of grating	Applying(P)
8	<b>BASICS OF ELECTRICAL &amp; ELECTRONICS ENGINEERING</b>	<b>CO4</b>	Describe the working of Bipolar Junction Transistors:	Understanding(U)
		<b>CO5</b>	Describe working of a voltage amplifier	Understanding(U)
		<b>CO6</b>	Explain the principle of radio and cellular communication	Understanding(U)
9	<b>ELECTRICAL &amp; ELECTRONICS WORKSHOP</b>	<b>CO1</b>	Demonstrate safety measures against electric shocks	Understanding(U)
		<b>CO2</b>	Identify the tools used for electrical wiring, electrical accessories, wires cables, batteries and standard symbols	Understanding(U)
		<b>CO3</b>	Develop the connection diagram, identify the suitable accessories and materials necessary for wiring simple lighting circuits for domestic buildings	Applying(P)
10	<b>ELECTRICAL &amp; ELECTRONICS WORKSHOP</b>	<b>CO4</b>	Identify and test various electronic components	Remembering(R)
		<b>CO5</b>	Draw circuit schematics with EDA tools	Understanding(U)
		<b>CO6</b>	Assemble and test electronic circuits on boards	Applying(P)
		<b>CO7</b>	Work in a team with good interpersonal skills	Create(C)