Sree Chitra Thirunal College of Engineering

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Consolidated Course Outcomes Report

Batch	Slno	Subject	CO	Topic	Bloom's taxonomy level
MA 2K20	1	ENGINEERING PHYSICS	CO1	Describe the characteristics of different types of oscillations and waves in engineering systems.	Understanding(U)
			CO2	Identify the phenomena of interference and diffraction in different natural optical process and apply cosine law to compute quantitative aspects of wedge shaped thin film interference.	Understanding(U)
			CO3	Explain the behavior of matter in atomic level through the principle of quantum mechanics and to understand the process in eleronic devices and explain basic concept of nanoscience and technology.	Understanding(U)
			CO4	Discuss the methods of production,detection,applications of ultrasonics and explain the characterization of acoustic design and provide a safe healthy surrounding.	Understanding(U)
			CO5	Explain the working of different lasers,concept of holography,basic concepts of optical fibres and their applications in various engineering systems.	Understanding(U)
	2	ENGINEERING GRAPHICS	CO1	Solve projection of lines inclined to one of the reference planes, true length and traces.	Applying(P)
			CO2	Construct Orthographic Projections of Solids with axis inlcined to both the reference planes and orthographic view of combination of solids	Applying(P)
			CO3	Develop sections of solids with inclined plane and development of solids	Applying(P)
			CO4	Construct isometric views of solids and perspective projection of solids	Applying(P)
			CO5	Construct orthographic view of objects from given 3D view	Applying(P)
			CO6	Model 2D and 3D objects using CAD software	Applying(P)
	3	LINEAR ALGEBRA & CALCULUS	CO1	solve systems of linear equations, diagonalize matrices and characterise quadratic forms	Applying(P)
			CO2	Apply partial derivatives in extreme value problem and local linear approximations.	Applying(P)
			CO3	Apply multiple integrals in areas and volumes of geometrical shapes, mass and centre of gravity of plane laminas.	Applying(P)
			CO4	Explain the convergence of infinite series	Understanding(U)
			CO5	Determine the power series expansion of a given function.	Applying(P)
	4	BASICS OF ELECTRICAL & ELECTRONICS ENGINEERING	CO4	Summarize the specifications, working and applications of passive and active electronic components	Understanding(U)
			CO5	Explain the working of DC power supply and voltage amplifier	Understanding(U)
			CO6	Outline the principles of electronic instrumentation and communication systems	Understanding(U)
	5	LIFESKILLS	CO1	Outline different life skills required in personal and professional life.	Understanding(U)
			CO2	Develop an awareness of the self and apply well defined techniques to cope with emotions and stress.	Applying(P)
			CO3	Explain the basic mechanics of effective communication and demonstrate these through presentations.	Understanding(U)
			CO4	Take part in group discussions.	Analyzing(A)
			CO5	Make use of appropriate thinking and problem solving techniques to solve new problems.	Applying(P)
			CO6	Demonstrate the basics of team work and leadership.	Understanding(U)
	6	ENGINEERING PHYSICS B	CO1	Apply cosine law in understanding the interference from thin films with Airwedge and Newton's ring setup.	Applying(P)
			CO2	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)
			CO3	Illustrate the phenomenon of diffraction through transmission grating-using spectrometer and find the dispersive power and resolving power of grating	Applying(P)
		ELECTRICAL &	CO4	Identify and test various electronic components	Understanding(U)

	7	**ELECTRONICS WORKSHOP**	**CO5**	Draw circuit schematics with EDA tools	Understanding(U)
			CO6	Assemble and test electronic circuits on boards	Understanding(U)
	8	**BASICS OF ELECTRICAL & ELECTRONICS ENGINEERING**	**CO1**	Apply fundamental concepts and circuit laws to solve simple DC electric circuits	Applying(P)
			CO2	Develop and solve models of magnetic circuits	Applying(P)
			CO3	Apply the fundamental laws of electrical engineering to solve simple ac circuits in steady state	Applying(P)
	9	**ELECTRICAL & ELECTRONICS WORKSHOP**	**CO1**	Demonstrate safety measures against electric shocks.	Understanding(U)
			CO2	Identify the tools used for electrical wiring, electrical accessories, wires, cables, batteries and standard symbols	Understanding(U)
			CO3	Develop the connection diagram, identify the suitable accessories and materials necessary for wiring simple lighting circuits for domestic buildings	Applying(P)