CSMSS

Chhatrapati Shahu Maharaj Shikshan Sanstha's

CHH. SHAHU COLLEGE OF ENGINEERING

Kanchanwadi, Paithan Road, Chhatrapati Sambhajinagar 431 011

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Approved by AICTE New Delhi, DTE (Govt. of Maharashtra) and affiliated to Dr. BATU, Lonere (Raigad). **DTE Code: 2533**

DEPARTMENT OF ELECTRONICS ENGINEERING (VLSI DESIGN & TECHNOLOGY)

Code of Subject	Name of Subject	CO No.	Course Outcome
BTEEV301	Engineering Mathematics-III	1	Understand and apply the concepts of Fourier and Laplace transformation.
		2	Apply the concepts of inverse Laplace Transform with its property to solve Linear Differential Equation with given initial conditions.
		3	Solve problems related to Fourier transform, Laplace transform and applications to Communication systems and Signal processing.
		4	Understand the concepts of PDE and applications.
		5	Analyse conformal mappings, transformations and perform contour integration of complex functions in the study of electrostatics and signal processing.
BTEEV302	Electronic Devices & Circuits	1	Explain structure, operation and applications of BJT.
		2	Evaluate the performance of JFET and MOSFET and apply design concept around it.
		3	Understand operational concepts/ classification of Power Amplifier.
		4	Use Transistor as Oscillator and Negative Feedback Amplifier.
		5	Develop an adjustable voltage regulator circuit.
BTEEV303	Digital Electronics & Microprocessor	1	Became familiar with the digital signal, positive and negative logic, Boolean algebra, logic gates, logical variables, the truth table, number systems, codes, and their conversion from others
		2	Learn the working mechanism and design guidelines of combinational Circuits and role in digital system design

		3	Understand the working mechanism and design guidelines of sequential circuits and their role in the digital system design
		4	Assess and solve basic binary math operations using the microprocessor and explain the microprocessor‟s internal architecture and its operation within the area of manufacturing and performance
		5	Describe, list and use memory mapping and address decoding technique. Develop assembly language programs for microprocessor and its peripherals.
BTEEV304	Network Theory & Signals and Systems	1	Analyze electrical circuits using Mesh Analysis, Node analysis and network theorems.
		2	Determine network currents and voltages using Graph Theory approach.
		3	Apply the concept of Two-Port network theory for electrical network analysis
		4	Understand the classification of signals and systems.
		5	Analyze Linear Time Invariant (LTI) systems in Laplace Domain.
BTEEV305	Python Programming	1	Illustrate the importance of python over the other programming languages and Write program using input and print instruction
		2	Demonstrate use of data structure, operators, control flow and sequences using python program
		3	Develop python function for a given problem
		4	Implement classes, objects in python
		5	Develop a python program to demonstrate networking, make database connectivity and use GUI tools.
	Constitution of India	1	Explain the key aspects of the Indian Constitution.

		2	Comprehend the structure and philosophy of the Constitution
		3	Explain the power and functions of various constitutional offices and institutions.
		4	Realize the significance of the constitution and appreciate the role of constitution and citizen oriented measures in a democracy.
24AF1000BS101	Engineering Mathematics –I	1	Apply the matrix technique (Linear algebra) to find solutions of system of linear equations arising in many engineering problems.
		2	Demonstrate the concept partial derivatives and their applications to Maxima/ Minima, series expansion of multi valued functions.
		3	Compute Jacobian of functions of several variables and their applications to engineering problems.
		4	Identify and sketch of curves in various coordinate system.
		5	Evaluate multiple integrals and their applications to area and volume.
24AF2PHYBS202	Engineering Physics	1	Familiar with the principles of acoustic design of a hall and also methods of production of ultrasonic and its applications in various fields and also understand the concept of dielectric and polarization types.
		2	Acquire the basic knowledge of interference, polarization. Students are able to understand the light propagation in fibre and use of Laser in Science and Engineering.
		3	Apply the knowledge of quantum mechanics to set Schrödinger's equations.
		4	Understand key principle and application of nuclear physics. Identify planes in crystal and characteristics measurements of cubic system.
		5	Assimilate wide scope of advanced materials in modern developments and its role in emerging innovating applications.
24AF2EGRES2	Engineering Graphics	1	Understand the basics of engineering graphics and its

04			applications.
		2	Describe the common terms used in design and drawing
		3	Construct the positions of line for given conditions
		4	Visualize the 2D and 3D views of the object
		5	Ability to apply orthographic, sectional, auxiliary and isometric view in engineering drawing
		6	Understand the geometries of development of engineering projects
24AF1000ES206L	Basic Electrical and Electronics Engineering	1	Apply fundamental concepts and circuit laws to solve simple DC and AC circuits.
		2	Interpret the construction and working of different types of electrical machines.
		3	Analyze building blocks of basic dc power supply.
		4	Outline the principle of BJT as an amplifier.
		5	Apply the knowledge of measuring instruments in electronic instrumentation system.
24AF1000CC212A	Integrated Personality Development	1	To provide students with soft skills that complement their hard skills, making them more marketable when entering the workforce.
		2	To enhance awareness of India's glory and global values, and to create considerate citizens who strive for the betterment of their family, college, workforce, and nation.
		3	To inspire students to strive for a higher sense of character by learning from role models who have lived principled, disciplined, and value-based lives.

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