

AMRUTVAHINI COLLEGE OF ENGINEERING, SANGAMNER
DEPARTMENT OF ELECTRONICS ENGINEERING
COURSE OUTCOMES (CO)
SE (2019 COURSE)

Electronic Circuits (204181), SE- Sem- III

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C281.1	Describe the physics, characteristics and parameters of MOSFET towards its application as amplifier.	2
C281.2	Design MOSFET amplifiers, with and without feedback & MOSFET oscillators for given specifications and calculate the various performance parameters.	3, 6
C281.3	Examine and assess the performance of linear and switching regulators, with their variants, towards applications in regulated power supplies.	4, 5
C281.4	Explain internal schematic of Op-Amp and define its performance parameters.	1, 2
C281.5	Design, Build and test Op-amp based analog signal processing and conditioning circuits towards various real time applications.	4, 6
C281.6	Illustrate and compare the principles of various data conversion techniques and PLL with their applications.	2, 3, 4

Digital Circuits (204182), SE-Sem-III

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C282.1	Identify and prevent various hazards and timing problems in a digital design.	2
C282.2	Use the basic logic gates and various reduction techniques of digital logic circuit.	1,2
C282.3	Analyze, design and implement combinational logic circuits.	4,6
C282.4	Analyze, design and implement sequential circuits.	4,6
C282.5	Differentiate between Mealy and Moore machines & Design ASM chart for sequential circuits.	2,6
C282.6	Analyze digital system design using PLD.	4,6

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Electrical Circuits (204183), SE-Sem-III

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C283.1	Analyze the simple DC and AC circuit with circuit simplification techniques.	4
C283.2	Formulate and analyze driven and source free RL and RC circuits.	4,6
C283.3	Formulate & determine network parameters for given network and analyze the given network using Laplace Transform to find the network transfer function.	4,5,6
C283.4	Explain construction, working, types of DC Machines, Analyze and Select a suitable motor for different applications.	2,3,4
C283.5	Explain construction, working, types of Single Phase & Three Phase AC Motors, Analyze and Select a suitable motor for different applications.	2,3,4
C283.6	Explain construction, working of special purpose motors, Analyze and Select a suitable motor for different applications & Understand motors used in electrical vehicle	2,3,4

Data Structures (204184), SE- Sem- III

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C284.1	Solve mathematical problems using C programming language.	4
C284.2	Implement sorting and searching algorithms and calculate their complexity.	3
C284.3	Develop applications of stack and queue using array.	6
C284.4	Demonstrate applicability of Linked List.	2
C284.5	Demonstrate applicability of nonlinear data structures - Binary Tree with respect to its time complexity.	2
C284.6	Apply the knowledge of graph for solving the problems of spanning tree and shortest path algorithm.	3

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Signals and Systems (204191), SE-Sem-IV

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C291.1	Identify, classify basic signals and perform operations on signals	1,2,3
C291.2	Identify, Classify the systems based on their properties in terms of input output relation and in terms of impulse response and will be able to determine the convolution between to signals.	1,2,3
C291.3	Analyse and resolve the signals in frequency domain using Fourier series and Fourier Transform.	1,2,3,4
C291.4	Apply and analyse LTI systems and signals in complex frequency domain using Laplace Transform.	1,2,3,4
C291.5	Define and Describe the probability, random variables and random signals. Compute the probability of a given event, model, compute the CDF and PDF.	1, 2,3
C291.6	Compute the mean, mean square, variance and standard deviation for given random variables using PDF.	1,2,3

Control System (204192), SE-Sem-IV

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C292.1	Determine and use models of physical systems in forms suitable for use in the analysis and design of control systems.	1,3,6
C292.2	Determine the (absolute) stability of a closed-loop control system and Perform time domain analysis of control systems required for stability analysis.	1,4
C292.3	Apply root-locus, Frequency Plots technique to analyze control systems.	3,4
C292.4	Perform frequency domain analysis of control systems required for stability analysis.	4
C292.5	Express and solve system equations in state variable form.	2,3
C292.6	Differentiate between various digital controllers and understand the role of the controllers in Industrial automation	1,2

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Principles of Communication Systems(204193), SE- Sem-IV

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C293.1	To compute & compare the bandwidth and transmission power requirements by analyzing time and frequency domain spectra of signal required for modulation schemes under study.	2,3,4
C293.2	Describe and analyze the techniques of generation, transmission and reception of Amplitude Modulation Systems.	1,4
C293.3	Explain generation and detection of FM systems and compare with AM systems.	2,4
C293.4	Exhibit the importance of Sampling Theorem and correlate with Pulse Modulation Technique (PAM, PWM, and PPM).	3,5
C293.5	Characterize the quantization process and elaborate digital representation techniques (PCM, DPCM, DM and ADM).	2
C293.6	Illustrate waveform coding, multiplexing and synchronization techniques and articulate their importance in baseband digital transmission.	1,3

Object Oriented Programming (204194), SE - Sem-IV

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C294.1	Describe the principles of object oriented programming.	2
C294.2	Apply the concepts of data encapsulation, inheritance in C++.	3
C294.3	Understand operator overloading and friend functions in C++.	2
C294.4	Apply the concepts of classes, methods, inheritance and polymorphism to write programs in C++.	3
C294.5	Apply Templates, Namespaces and Exception Handling concepts to write programs in C++.	2
C294.6	Describe and use of file handling in C++.	2

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Employability Skills Development (204199), SE - Sem-IV

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C299.1	Define personal and career goals using introspective skills and SWOC assessment. Identify and estimate short-term and long-term goals.	1, 2, 5
C299.2	Develop effective communication skills (listening, reading, writing, and speaking), self- management attributes, problem solving abilities and team working & building capabilities in order to fetch employment opportunities and further succeed in the workplace.	6
C299.3	Understand a multi-cultural professional environment and work effectively by enhancing inter-personal relationships, conflict management and leadership skills.	2
C299.4	Comprehend the importance of professional ethics, etiquettes & morals and demonstrate sensitivity towards it throughout certified career.	2
C299.5	Develop practically deployable skill set involving critical thinking, effective presentations and leadership qualities to hone the opportunities of employability and excel in the professional environment.	6
C299.6	Have skills and preparedness to solve the arithmetic and mathematical aptitude & logical reasoning.	3,4