DRONACHARYA
College of Engineering

Khentawas, Farrukh Nagar, Gurugram, Haryana
Approved by: All India Council for Technical Education (AICTE), New Delhi
Affiliated to: Gurugram University, Gurugram

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2023-24

SEMESTER III

ANALOG & DIGITAL COMMUNICATION SYSTEMS

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Illustrate the principles of amplitude and angle modulation techniques
(CO2)	Understand probability and random process.
(CO3)	Analyze the performance of waveform coding techniques.
(CO4)	Compare bandpass digital modulation techniques for bit error rate, bandwidth and power requirements
(CO5)	Understand the concept of information rate and channel capacity
(CO6)	Understand the concepts of information measure.

Electromagnetic Field Theory

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Appreciate the importance of transmission lines and analyse transmission line problems.
(CO2)	Solve Maxwell's equations to understand propagation of electromagnetic waves.
(CO3)	Analyse plane wave at dielectric interface.
(CO4)	Understand waveguides.
(CO5)	Analyse electromagnetic wave propagation in rectangular metallic waveguides and resonators.
(CO6)	Understand antenna characteristics, and design linear antennas and their arrays.

DIGITAL ELECTRONICS

Course Outcome (CO)	Details of Course Outcomes
(CO1)	To present a problem oriented introductory knowledge of Digital circuits and its applications.
(CO2)	Learn Number system and codes.
(CO3)	Study Boolean algebra and theorems
(CO4)	To focus on the study of electronic circuits
(CO5)	Design and analyze combinational circuits.
(CO6)	Design and analyze synchronous sequential logic circuits.

NETWORK ANALYSIS AND SYNTHESIS

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand basics electrical circuits with nodal and mesh analysis.
(CO2)	Appreciate electrical network theorems.
(CO3)	Understand Trigonometric and exponential Fourier series.
(CO4)	Apply Laplace transform for steady state and transient analysis.
(CO5)	Determine different network functions.
(CO6)	Appreciate the frequency domain techniques.

SIGNALS AND SYSTEMS

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Identify the sources of signals, and systems in real life.
(CO2)	Characterize different types of signals and systems.
(CO3)	Represent continuous-time and discrete-time systems in different mathematical forms.
(CO4)	Analyse system behaviour using time and frequency domain techniques.
(CO5)	Analyze Discrete-Time Fourier Transform (DTFT) and the Discrete Fourier Transform (DFT).
(CO6)	Characterize Laplace transform

MATHEMATICAL & COMPUTAT ION AL TECHNIQUE S

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand different numerical integration techniques, and numerically solve differential equations.
(CO2)	Understand interpolation by polynomials.
(CO3)	Perform various matrix computations and solve simultaneous linear equations.
(CO4)	Find solution of nonlinear equation.
(CO5)	Find roots of a transcendental equation using different methods.
(CO6)	Implement different interpolation schemes.

DIGITAL ELECTRONICS LABORATORY

Lab Outcome (CO)	Details of Lab Outcomes
(CO1)	To present a problem oriented introductory knowledge of Digital circuits and its applications.
(CO2)	Learn Number system and codes.
(CO3)	Study Boolean algebra and theorems
(CO4)	To focus on the study of electronic circuits
(CO5)	Design and analyze combinational circuits.
(CO6)	Design and analyze synchronous sequential logic circuits.

NETWORK ANALYSIS & SYNTHESIS LABORATORY

Lab Outcome (CO)	Details of Lab Outcomes
(CO1)	Understand basics electrical circuits with nodal and mesh analysis.
(CO2)	Appreciate electrical network theorems.
(CO3)	Determine and verify different parameters.
(CO4)	Determine different network functions.

ANALOG & DIGITAL COMMUNICATION SYSTEMS LABORATORY

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Students are able to analyze digital communication signals.
(CO2)	Understand modulation and demodulation concept.
(CO3)	Students understand the basics of PAM, QAM, PSK, FSK, and MSK.
(CO4)	They can analyze noise and disturbance in modulated signals.
(CO5)	Know the methods use for analog and digital communication

CONSTITUTION OF INDIA

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Discuss the growth of the demand for civil rights in India for the bulk of Indians before the arrival ofGandhi in Indian politics.
(CO2)	Discuss the intellectual origins of the framework of argument that informed the conceptualization ofsocial reforms leading to a revolution in India.
(CO3)	Exercise his fundamental rights in proper sense at the same time identifies his responsib ilities in nationalbuilding.
(CO4)	Analyse the Indian political system, the powers and functions of the Union, State and Local Governments indetail.
(CO5)	Discuss the circumstances surrounding the foundation of the Congress Socialist Party [CSP] underthe leadership of Jawaharlal Nehru and the eventual failure of the proposal of direct elections throughadult suffrage in the Indian Constitution.
(CO6)	Discuss the passage of the Hindu Code Bill of 1956.