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 OFELECTRONIC AND COMUNICATION ENGINEERING

ACADEMIC YEAR 2023-24

SEMESTER Vth

ELECTROMAGNETIC WAVES (PCC-ECE301G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Understand characteristics and wave propagation on high frequency transmission lines
(CO2)	Carryout impedance transformation on TL
(CO3)	Characterize uniform plane wave
(CO4)	Calculate reflection and transmission of waves at media interface
(CO5)	Analyze wave propagation on metallic waveguides in modal form
(CO6)	Understand principle of radiation and radiation characteristics of an antenna

COMPUTER ORGANIZATION & ARCHITECTURE (PCC-ECE303G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Understand the basics structure of computers, operations and instruction
(CO2)	Design arithmetic and logic unit.
(CO3)	Understand pipelined execution and design control unit.
(CO4)	Understand parallel processing architectures.
(CO5)	Understand the various memory systems and I/O communication.

COMMUNICATION ENGINEERING (PCC-ECE305G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	To Study and Derive equations for entropy mutual information and channel capacity for all types of channels.
(CO2)	To acquire the knowledge about Fourier series and Fourier transform signal analysis tool.
(CO3)	Design a digital communication system by selecting an appropriate error correcting codes for a particular application.
(CO4)	To learn about Probability of Random signal theory and process.
(CO5)	Formulate the basic equations of linear block codes and a cyclic code.
(CO6)	Compare the performance of digital communication system by evaluating the probability of error for different error correcting codes

DIGITAL SIGNAL PROCESSING (PCC-ECE307G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	To get an introduction of basics like Sampling, Interpolation, Aliasing and operations, Convolution and Correlation.
(CO2)	To Study the basics, mathematical analysis and applications of DFT and FFT
(CO3)	To study the design and implementation of Digital Filters.
(CO4)	To impart practical knowledge of signal processing operations in MATLAB.

POWER ELECTRONICS (PEC-ECE309G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Build and test circuits using power devices such as SCR
(CO2)	Analyze and design controlled rectifier, DC to DC converters, DC to AC inverters,
(CO3)	Learn how to analyze these inverters and some basic applications.
(CO4)	Design SMPS.

NANO ELECTRONICS (PEC-ECE311G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Understand various aspects of nano-technology and the processes involved in making nano components and material.
(CO2)	Leverage advantages of the nano-materials and appropriate use in solving practical problems.
(CO3)	Understand various aspects of nano-technology and the processes involved in making nano components and material.

LINEAR IC APPLICATIONS (PEC-ECE313G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Design linear and non-linear applications of op-amps.
(CO2)	Design the applications using Timer and PLL.
(CO3)	Design the applications using Voltage regulator and Function generator ICs

SCIENTIFIC COMPUTING(PEC-ECE315G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Understand the significance of computing methods, their strengths and application areas.
(CO2)	Perform the computations on various data using appropriate computation tools.
(CO3)	Analyse the various system using Linear and Non Linear methods.
(CO4)	Understand application of these methods in various areas.

OBJECT ORIENTED PROGRAMMING WITH C++ (OEC-ECE317G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Students will able to understand and implement real-world entities like inheritance, data hiding, polymorphism, etc in programming.
(CO2)	Students will aware about C++ Programming concepts.
(CO3)	Students will implement the function overloading and operator overloading concepts.
(CO4)	Students will understand the concept of Exception handling.

ADDITIVE MANUFACTURING (OEC-ECE319G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Apply the knowledge of Additive Manufacturing and Rapid Prototyping technologies.
(CO2)	Understand the applications in various fields, reverse engineering techniques.
(CO3)	Understand about mechanical properties and geometric issues relating to specific rapid prototyping applications.

MEASUREMENTS AND INSTRUMENTATION (OEC-ECE321G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Discuss about the principles of various measurement techniques.
(CO2)	Analyze the transducers and its impact.
(CO3)	Explain about the signal conditioning system and signal analyzers.
(CO4)	Illustrate the digital measurement equipments.
(CO5)	Emphasize the need for data acquisition, recording and display systems.