

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 VII

Mobile Communication and Networks (PEC-ECE-410-G)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand basics of cellular systems and developments of Wireless Standards
(CO2)	Examine various fading effects and visualize the large scale signal propagation models
(CO3)	Analyze the various modulation and multiple access schemes used in Cellular systems
(CO4)	Designing and visualizing the architecture of various mobile systems
(CO5)	Finding the mobility management in each cellular system

Fiber Optical Communication (PCC-ECE-401-G)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Describe the basic elements of optical fiber link, fiber modes configurations and structures
(CO2)	Analyze the different kinds of losses including distortion.
(CO3)	Analyze the optical source materials.
(CO4)	Estimate the noise performance in optical receivers
(CO5)	Explain fiber splicing techniques, operational WDM and solitons.

Antennas and Propagation (PCC-ECE-402-G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Understand the working principles of the Antenna.
(CO2)	Analyze the properties of different types of antennas and their design
(CO3)	Design and mathematical analysis of various practical antennas and their feeding methods.
(CO4)	Analyze performance of various antenna arrays and their comparison.
(CO5)	Understand basic Concepts of Smart Antennas.

Data Communication Networking & Security (PEC-ECE-411-G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Define the fundamental concepts of analog and digital transmission of data communication networks.
(CO2)	Understand various network configurations and topologies of data communication networks.
(CO3)	Interpret various detection and correction techniques used in data communication networks
(CO4)	Analyze various communication architectures and their protocols in data communication networks
(CO5)	Describe the technical aspects of data communications on the Internet

Error Correcting Codes (PEC-ECE-412-G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Understand the information theory and coding in the communication system.
(CO2)	Understand the requirements error correcting codes in the communication system
(CO3)	Analyze the various properties of different coding techniques used in digital communication systems.
(CO4)	Illustrate the various coding techniques like, block codes, cyclic codes, convolution codes, etc
(CO5)	Understand the various limitations of error correction and detection in coding technique

Wireless Sensor Networks (PEC-ECE-413-G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Define the fundamental concepts of working of Sensors
(CO2)	Understand various challenges involved in fielding of sensor network
(CO3)	Elaborate various protocols that lead to communication between sensors
(CO4)	Analyze various security protocols for securing the sensor network
(CO5)	Describe the technical architecture of sensor networks

Radar & Sonar Engineering (PEC-ECE-414-G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Define the fundamental concepts of Radar functioning
(CO2)	Understand various Types of Radar and their applications
(CO3)	Interpret various issues that occurs in Radar Receiver
(CO4)	Analyze various methods of SONAR propagation
(CO5)	Describe the technical aspects of SONAR working

Internet of things (PEC-ECE-431-G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Understand the concepts of Internet of Things
(CO2)	Analyze basic protocols of network and communication aspects
(CO3)	Understand where the IoT concept fits within the broader ICT industry and possible future trends
(CO4)	Understand the concepts of Developing Internet of Things
(CO5)	Use the knowledge and skills acquired during the course to build and test a complete, working IoT system involving prototyping, programming and data analysis

Constitution of India (MC-417-G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Express the basic structure, nature and preamble of the constitution of India.
(CO2)	Classify the distribution of legislative, administrative and financial powers between the Union and the States
(CO3)	Understand the qualifications and powers of President, Governor and Judiciary
(CO4)	Comprehend the concepts of fundamental rights and fundamental duties.

Data Communication Networking Lab (LC-ECE-405-G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Define fundamental concepts of different types of transmission media
(CO2)	Understand various digital modulation techniques
(CO3)	Demonstrate LAN using different topologies like bus, ring, star & tree.
(CO4)	Analyze the operation for configuration of modem and hub
(CO5)	Capable to learn how to configure a router with the static routing.

Project Stage-I (PROJ-ECE-407-G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Analyze and identify the engineering problems to formulate the literature survey
(CO2)	Undertake problem identification, formulation and solution
(CO3)	Apply knowledge for carrying out the project in team and perform documentation effectively
(CO4)	Demonstrate the knowledge, skills and attitudes of a professional engineer

