

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Academic Year -2024-25

Course Outcomes

B.TECH.6th SEM

**Digital Communication
(BEC601)**

Course Outcome (CO)	Details of Course Outcomes
(CO1)	To formulate basic statistics involved in communication theory.
(CO2)	To demonstrate the concepts involved in digital communication.
(CO3)	To explain the concepts of digital modulation schemes.
(CO4)	To analyze the performance of digital communication systems.
(CO5)	To apply the concept of information theory in digital systems.

Control System (BEC602)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Describe the basics of control systems along with different types of feedback and its effect. Additionally, they will also be able to explain the techniques such as block diagrams reduction, signal flow graph and modelling of various physical systems along with modelling of DC servomotor.
(CO2)	Explain the concept of state variables for the representation of LTI system.
(CO3)	Interpret the time domain response analysis for various types of inputs along with the time domain specifications.
(CO4)	Distinguish the concepts of absolute and relative stability for continuous data systems along with different methods.
(CO5)	Interpret the concept of frequency domain response analysis and their specifications.

Course Outcome (CO)	Details of Course Outcomes
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(C01)	Identify different coordinate systems and their applications in electromagnetic field theory to establish a relation between any two systems using the vector calculus.
(C02)	Explain the concept of static electric field, current and properties of conductors.
(C03)	Express the basic concepts of ground, space, sky wave propagation mechanism.
(C04)	Demonstrate the knowledge of antenna fundamentals and radiation mechanism of the antenna.
(C05)	Analyze and design different types of basic antennas.

Antenna and Wave Propagation (BEC603)

Digital Communication Lab (BEC651)

Course Outcome (CO)	Details of Course Outcomes
(C01)	To formulate basic concepts of pulse shaping in digital communication.
(C02)	To identify different line coding techniques and demonstrate the concepts.
(C03)	To design equipments related to digital modulation and demodulation schemes.
(C04)	To analyze the performance of various digital communication systems and evaluate the key parameters.
(C05)	To conceptualize error detection & correction using different coding schemes in digital communication.

Control System Lab (BEC652)

Course Outcome (CO)	Details of Course Outcomes
(C01)	Classify different tools in MATLAB along with the basic matrix operations used in MATLAB.
(C02)	Evaluate the poles and zeros on s-plane along with transfer function of a given system.
(C03)	Construct state space model of a linear continuous system.
(C04)	Evaluate the various specifications of time domain response of a given system.
(C05)	Appraise the steady state error of a given transfer function.
(C06)	Examine the relative stability of a given transfer function using various methods such as root locus, Bode plot and Nyquist plot.

Antenna and Wave Propagation Lab (BEC653)

Course Outcome (CO)	Details of Course Outcomes
(C01)	Understand and implement algorithm to solve problems by iterative approach.
(C02)	Understand and implement algorithm to solve problems by divide and conquer approach.
(C03)	Understand and implement algorithm to solve problems by Greedy algorithm approach.
(C04)	Understand and analyze algorithm to solve problems by Dynamic programming, backtracking.
(C05)	Understand and analyze the algorithm to solve problems by branch and bound approach.

Constitution of India (BNC601)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Apply fundamental concepts of computer science and engineering to design and develop practical solutions.	K3
(CO2)	Identify, analyze, and implement efficient solutions to real-world technical challenges.	K4
(CO3)	Gain hands-on experience with programming languages, development tools, and technologies relevant to the project domain.	K3
(CO4)	Plan, execute, and manage a project within a defined timeline while ensuring quality outcomes.	K5
(CO5)	Work effectively in teams, demonstrating leadership, coordination, and communication skills.	K5

Data Communication Networks (BEC-062)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand the fundamental rights, duties, and directive principles of the Indian Constitution.
(CO2)	Analyze the structure, roles, and functions of the legislative, executive, and judiciary branches of the government.
(CO3)	Explain the significance of constitutional amendments and their impact on Indian governance.
(CO4)	Evaluate the role of the Constitution in shaping Indian democracy and policy-making.
(CO5)	Apply constitutional provisions to real-life scenarios and contemporary legal issues.

OBJECT ORIENTED PROGRAMMING (KOE064)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand the Basic concept of Object Orientation, object identity and Encapsulation.
(CO2)	Understand the Basic concept of Basic Structural Modeling.
(CO3)	Know the knowledge of Object oriented design, Object design.
(CO4)	Know the knowledge of C++ Basics.
(CO5)	Understand the Basics of object and class in C++.