

DEPARTMENT OF ELECTRONICS AND COMPUTER ENGINEERING

Academic Year -2024-25

Course Outcomes

B.TECH.5th SEM

Database Management System (BCS501)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Apply knowledge of database for real life applications.
(CO2)	Apply query processing techniques to automate the real time problems of databases.
(CO3)	Identify and solve the redundancy problem in database tables using normalization.
(CO4)	Understand the concepts of transactions, their processing so they will familiar with broad range of database management issues including data integrity, security and recovery.
(CO5)	Design, develop and implement a small database project using database tools.

Control System (BECZ501)

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.

Design and Analysis of Algorithm (BCS503)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Design new algorithms, prove them correct, and analyze their asymptotic and absolute runtime and memory demands.
(CO2)	Find an algorithm to solve the problem (create) and prove that the algorithm solves the problem correctly (validate).
(CO3)	Understand the mathematical criterion for deciding whether an algorithm is efficient, and know many practically important problems that do not admit any efficient algorithms.
(CO4)	Apply classical sorting, searching, optimization and graph algorithms.
(CO5)	Understand basic techniques for designing algorithms, including the techniques of recursion, divide-and-conquer, and greedy.

Database Management System Lab (BCS551)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand and apply oracle 11 g products for creating tables, views, indexes, sequences and other database objects.
(CO2)	Design and implement a database schema for company data base, banking data base, library information system, payroll processing system, student information system.
(CO3)	Write and execute simple and complex queries using DDL, DML, DCL and TCL.
(CO4)	Write and execute PL/SQL blocks, procedure functions, packages and triggers, cursors.
(CO5)	Enforce entity integrity, referential integrity, key constraints, and domain constraints on database.

Control System Lab (BECZ551)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Determine the characteristics of control system components like ac servo motor, synchro, potentiometer, servo voltage stabilizer and use them in error detector mode.
(CO2)	Compare the performance of control systems by applying different controllers / CO3 compensators.
(CO3)	Analyze the behavior of dc motor in open loop and closed loop conditions at various loads & determine the response of 1st& 2nd order systems for various values of constant K.
(CO4)	Apply different stability methods of time & frequency domain in control systems using software & examine their stability.
(CO5)	Convert the transfer function into state space & vice versa & obtain the time domain response of a second order system for step input and their performance parameters using software.

Design and Analysis of Algorithm Lab (BCS553)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand and implement algorithm to solve problems by iterative approach.
(CO2)	Understand and implement algorithm to solve problems by divide and conquer approach.
(CO3)	Understand and implement algorithm to solve problems by Greedy algorithm approach.
(CO4)	Understand and analyze algorithm to solve problems by Dynamic programming, backtracking.
(CO5)	Understand and analyze the algorithm to solve problems by branch and bound approach.

Mini Project (BCS554)

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

Constitution of India (BNC501)

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.

Data Analytics (BCS052)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Describe the life cycle phases of Data Analytics through discovery, planning and building.
(CO2)	Understand and apply Data Analysis Techniques.
(CO3)	Implement various Data streams.
(CO4)	Understand item sets, Clustering, frame works & Visualizations.
(CO5)	Apply R tool for developing and evaluating real time applications.

Integrated Circuit Design (BECZ054)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Explain complete internal analysis of Op-Amp 741-IC.
(CO2)	Examine and design Op-Amp based circuits and basic components of ICs such as various types of filters.
(CO3)	Implement the concept of Op-Amp to design Op-Amp based non-linear applications and wave-shaping circuits.
(CO4)	Analyze and design basic digital IC circuits using CMOS technology
(CO5)	Describe the functioning of application specific ICs such as 555 timer, VCO IC 566 and PLL.