DRONACHARYA
Group of Institutions

B-27, Knowledge Park – III, Greater Noida, Uttar Pradesh - 201308
Approved by: All India Council for Technical Education (AICTE), New Delhi
Affiliated to: Dr. A. P. J. Abdul Kalam Technical University (AKTU), Lucknow

DEPARTMENT OF ELECTRONICS AND COMPUTER ENGINEERING
ACADEMIC YEAR 2023-24
SEMESTER III

ELECTRONIC DEVICES (BEC301)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand the principles of semiconductor Physics.
(CO2)	Understand the carrier transport in semiconductors.
(CO3)	Analyze and find application of special purpose diodes.
(CO4)	Understand the working principle and design of Bipolar Junction Transistor.
(CO5)	Realize the mathematical models of MOS transistors

DIGITAL SYSTEM DESIGN (BEC-302)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Perform numerous arithmetic and logic simplification using various methods
(CO2)	Design and analyze modular combinational circuits with MUX / DEMUX, Decoder & Encoder
(CO3)	Design & analyze synchronous sequential logic circuits
(CO4)	Analyze various logic families and design circuits using PLDs
(CO5)	Design various ADCs and DACs according to the given specifications.

DISCRETE STRUCTURES & THEORY OF LOGIC (BCS303)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Aquire Knowledge of sets and relations for solving the problems of POSET and lattices.
(CO2)	Apply fundamental concepts of functions and Boolean algebra for solving the problems of logical abilities.
(CO3)	Employ the rules of propositions and predicate logic to solve the complex and logical problems.
(CO4)	Explore the concepts of group theory and their applications for solving the advance technological problems.
(CO5)	Illustrate the principles and concepts of graph theory for solving problems related to computer science.

ELECTRONIC DEVICES LAB (BEC351)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand working of basic electronics lab equipment.
(CO2)	Understand working of PN junction diode and its applications.
(CO3)	Understand characteristics of Zener diode.
(CO4)	Design a voltage regulator using Zener diode.
(CO5)	Understand working of BJT, FET, MOSFET and apply the concept in designing of amplifiers.

DIGITAL SYSTEM DESIGN LAB (BEC352)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Design and analyze combinational logic circuits.
(CO2)	Design & analyze modular combinational circuits with MUX/DEMUX, decoder, encoder.
(CO3)	Design & analyze synchronous sequential logic circuits.
(CO4)	Design & build mini project using digital ICs.

NETWORK ANALYSIS AND SYNTHESIS LAB (BEC353)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand basics of electrical circuits with nodal and mesh analysis.
(CO2)	Appreciate electrical network theorems.
(CO3)	Analyse RLC circuits.
(CO4)	Determine the stability of an electrical circuit.
(CO5)	Design network filters

Universal Human Values and Professional Ethics (BVE301)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand the significance of value inputs in a classroom, distinguish between values and skills, understand the need, basic guidelines, content and process of value education, explore the meaning of happiness and prosperity and do a correct appraisal of the current scenario in the society
(CO2)	Distinguish between the Self and the Body, understand the meaning of Harmony in the Self the Co-existence of Self and Body.
(CO3)	Understand the value of harmonious relationship based on trust, respect and other naturally acceptable feelings in human relationships and explore their role in ensuring a harmonious society.
(CO4)	Understand the harmony in nature and existence, and work out their mutually fulfilling participation in the nature.
(CO5)	Distinguish between ethical and unethical practices, and start working out the strategy to actualize a harmonious Environment wherever they work.

CYBER SECURITY (BCC301)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Understand the basic concepts of cyber security and cybercrimes.
(CO2)	Understand the security policies and cyber laws.
(CO3)	Understand the tools and methods used in cyber crime
(CO4)	Understand the concepts of cyber forensics
(CO5)	Understand the cyber security policies and cyber laws

Mini Project (BCC 351)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Discover potential research areas in the field of IT
(CO2)	Compare and contrast the several existing solutions for research challenge
(CO3)	Demonstrate an ability to work in Teams and manage the conduct of the research study
(CO4)	Formulate and propose a plan for creating a solution for the research plan identified.
(CO5)	To report and present the findings of the study conducted in the preferred domain

BASICS DATA STRUCTURES AND ALGORITHM (BOE306)

Course Outcome (CO)	Details of Course Outcomes
(CO1)	Describe how arrays, linked lists, stacks, queues, trees, and graphs are represented in memory, used by the algorithms and their common applications.
(CO2)	Discuss the computational efficiency of the sorting and searching algorithms
(CO3)	Implementation of Trees and Graphs and perform various operations on these data structure.
(CO4)	Understanding the concept of recursion, application of recursion and its implementation and removal of recursion.
(CO5)	Identify the alternative implementations of data structures with respect to its performance to solve a real world problem.