DRONACHARYA
Group of Institutions

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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 COMPUTER SCIENCE ENGINEERING (AIML)
ACADEMIC YEAR 2023-24
SEMESTER III

DATA STRUCTURE (BCS301)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Describe how arrays, linked lists, stacks, queues, trees, and graphs are represented in memory, used by The algorithms and their common applications.	**K_1,K_2**
(CO2)	Discuss the computational efficiency of the sorting and Searching algorithms.	**K_2**
(CO3)	Implementation of Trees and Graphs and perform various operations on these data structure	**K_3**
(CO4)	Understanding the concept of recursion, application of recursion and its implementation and removal of Recursion.	**K_4**
(CO5)	Identify the alternative implementations of data structures with respect to its performance to solve a real world problem	**K_5,K_6**

COMPUTER ORGANIZATION AND ARCHITECTURE (BCS302)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Study of the basic structure and operation of a digital Computer system.	**K1,K2**
(CO2)	Analysis of the design of arithmetic & logic unit and understanding of the fixed point and floating-point Arithmetic operations.	**K_2, K_4**
(CO3)	Implementation of control unit techniques and the concept of Pipelining	**K_3**
(CO4)	Understanding the hierarchical memory system, cache memories and virtual memory	**K_2**
(CO5)	Understanding the different ways of communicating with I/O devices and standard I/O interfaces	**K_2, K_4**

DISCRETE STRUCTURES & THEORY OF LOGIC (BCS303)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Acquire Knowledge of sets and relations for solving the problems of POSET and lattices.	**K3,K4**
(CO2)	Apply fundamental concepts of functions and Boolean algebra for solving the problems of logical abilities.	**K1, K2**
(CO3)	Employ the rules of propositions and predicate logic to solve the complex and logical problems	**K_3**
(CO4)	Explore the concepts of group theory and their applications for solving the advance technological problems.	**K_1,K_4**
(CO5)	Illustrate the principles and concepts of graph theory for solving problems related to computer science.	**K_2, K_6**

Data Structure Lab (BCS351)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Implement various operations on Array and Linked List	**K5**
(CO2)	Implement the concept of Stack and Queue using array and Linked List.	**K4**
(CO3)	Implement the concept of Tree Data Structure using Array and Linked List.	**K4**
(CO4)	Implement various application of Graph data Structure	**K4**
(CO5)	Implement various searching and Sorting Techniques.	**K3**

Computer Organization and Architecture Lab (BCS352)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Design the control unit of a computer using either hardwiring or Microprogramming based on its register transfer language description.	**K2**
(CO2)	Design 8bits I/O, ALU and Adder & Subtractor.	**K5**
(CO3)	Analyze the concept of control unit And Multiplexer/ Decoder	**K4**
(CO4)	Analyze the concept of binary to gray code converter & gray to Binary code converter.	**K3**
(CO5)	Apply algorithm using simulators	**K3**

CYBER SECURITY (BCC301)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Understand the basic concepts of cyber security and cybercrimes.	**K1,K2**
(CO2)	Understand the security policies and cyber laws.	**K_1, K_2**
(CO3)	Understand the tools and methods used in cyber crime	**K_2**
(CO4)	Understand the concepts of cyber forensics	**K_1,K_2**
(CO5)	Understand the cyber security policies and cyber laws	**K_2**

Web Designing Workshop (BCS353)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Understand principle of Web page design and about types of websites	**K3, K4**
(CO2)	Visualize and Recognize the basic concept of HTML and application in web designing.	**K1, K2**
(CO3)	Recognize and apply the elements of Creating Style Sheet (CSS). K2	**K2, K4**
(CO4)	Understand the basic concept of Java Script and its application.	**K2, K3**
(CO5)	Introduce basics concept of Web Hosting and apply the concept of SEO	**K2, K3**

Mini Project (BCC 351)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Discover potential research areas in the field of IT	**K2**
(CO2)	Compare and contrast the several existing solutions for research challenge	**K5**
(CO3)	Demonstrate an ability to work in Teams and manage the conduct of the research study	**K4**
(CO4)	Formulate and propose a plan for creating a solution for the research plan identified.	**K5**
(CO5)	To report and present the findings of the study conducted in the preferred domain	**K5**

Universal Human Values and Professional Ethics (BVE301)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(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	**K1, K2**
(CO2)	Distinguish between the Self and the Body, understand the meaning of Harmony in the Self the Co-existence of Self and Body.	**K1, K2**
(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.	**K2, K4**
(CO4)	Understand the harmony in nature and existence, and work out their mutually fulfilling participation in the nature.	**K2, K4**
(CO5)	Distinguish between ethical and unethical practices, and start working out the strategy to actualize a harmonious Environment wherever they work.	**K2, K3**

Mathematics –IV (PDE, Probability and Statistics) (BAS303)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	The idea of partial differentiation and types of partial differential equations	**K1**
(CO2)	The idea of classification of second partial differential equations, wave , heat equation and transmission lines	**K2**
(CO3)	The basic ideas of statistics including measures of central tendency, correlation, regression and their properties.	**K3**
(CO4)	The idea s of probability and random variables and various discrete and continuous probability distributions and their properties.	**K4**
(CO5)	The statistical methods of studying data samples, hypothesis testing and statistical quality control, control charts and their properties.	**K6**