



Sree Chitra Thirunal College of Engineering

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Consolidated Course Outcomes Report

Batch	Sno	Subject	CO	Topic	Bloom's taxonomy level
AM 2K20	1	DISCRETE MATHEMATICAL STRUCTURES	CO1	Apply the fundamentals of propositional logic and predicate logic to test the validity of the statements.	Applying(P)
			CO2	Apply the fundamentals of enumeration or counting techniques in counting problems.	Applying(P)
			CO3	Examine the binary relation, partial order relation and lattice.	Understanding(U)
			CO4	Solve first and second order linear recurrence relation with constant coefficient and generating functions	Applying(P)
			CO5	Illustrate the abstract algebraic system , semigroups, monoids and groups and their homomorphisms and isomorphisms.	Understanding(U)
	2	DATA STRUCTURES	CO1	Represent and manipulate data using classical data structures	Understanding(U)
			CO2	Solve real world problem using appropriate data structures among arrays, linked list, stack and queue.	Applying(P)
			CO3	Represent and manipulate data using nonlinear data structures like trees, graphs and hash tables	Applying(P)
			CO4	Compare different memory management techniques and their significance,	Understanding(U)
			CO5	Analyse the performance of the algorithm and represent it using asymptotic notations.	Analyzing(A)
			CO6	Select appropriate sorting algorithms to be used in specific circumstances	Understanding(U)
	3	Logic System Design	CO1	Illustrate decimal, binary, octal, hexadecimal and BCD number systems, perform conversions among them and do the operations - complementation, addition, subtraction, multiplication and division on binary numbers	Understanding(U)
			CO2	Simplify a given Boolean Function and design a combinational circuit to implement the simplified function using Digital Logic Gates	Applying(P)
			CO3	Design combinational circuits - Adders, Code Convertors, Decoders, Magnitude Comparators, Parity Generator/Checker and design the Programmable Logic Devices - ROM and PLA	Applying(P)
			CO4	Design sequential circuits - Registers, Counters and Shift Registers	Applying(P)
			CO5	Use algorithms to perform addition and subtraction on binary, BCD and floating point numbers	Understanding(U)
	4	OBJECT ORIENTED PROGRAMMING USING JAVA	CO1	Write Java programs using the object oriented concepts - classes, objects, constructors, data hiding, inheritance and polymorphism	Applying(P)
			CO2	Utilise datatypes, operators, control statements, built in packages & interfaces, Input/ Output Streams and Files in Java to develop programs	Applying(P)
			CO3	Illustrate how robust programs can be written in Java using exception handling mechanism	Understanding(U)
			CO4	Write application programs in Java using multithreading and database connectivity	Applying(P)
			CO5	Write Graphical User Interface based application programs by utilising event handling features and Swing in Java	Applying(P)
	5	PROFESSIONAL ETHICS	CO1	Understand the core values that shape the ethical behaviour of a professional.	Understanding(U)
			CO2	Develop a good character and follow an ethical life.	Applying(P)
			CO3	Explain the role and responsibility in technological development by keeping personal ethics and legal ethics.	Understanding(U)
			CO4	Solve moral and ethical problems through exploration and assessment by established experiments.	Applying(P)
CO5			Apply the knowledge of human values and social values to contemporary ethical values and global issues.	Applying(P)	
6	SUSTAINABLE ENGINEERING	CO1	Understand the concept and relevance of sustainability	Understanding(U)	
		CO2	Explain the different types of environmental problems	Understanding(U)	
		CO3	Discuss the environmental regulation and standards	Understanding(U)	
		CO4	Concepts related to conventional and non conventional energy	Understanding(U)	
		CO5	Broad perspective of sustainable practices	Understanding(U)	

7	DATA STRUCTURES LAB	CO1	Write a time/space efficient program using arrays/linked lists/trees/graphs to provide necessary functionalities meeting a given set of user requirements	Analyzing(A)
		CO2	Write a time/space efficient program to sort a list of records based on a given key in the record	Applying(P)
		CO3	Design and implement an efficient data structure to represent given data	Applying(P)
		CO4	Write a time/space efficient program to convert an arithmetic expression from one notation to another	Applying(P)
		CO5	Write a program using linked lists to simulate Memory Allocation and Garbage Collection	Applying(P)
8	OBJECT ORIENTED PROGRAMMING LAB (IN JAVA)	CO1	Implement the Object Oriented concepts - constructors, inheritance, method CO1 overloading & overriding and polymorphism in Java	Applying(P)
		CO2	Implement programs in Java that use datatypes, operators, control statements, built in packages & interfaces, Input/Output streams and Files	Applying(P)
		CO3	Implement robust application programs in Java using exception handling	Applying(P)
		CO4	Implement application programs in Java using multithreading and database connectivity	Applying(P)
		CO5	Implement Graphical User Interface based application programs by utilizing event handling features and Swing in Java	Applying(P)