



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

[Sponsored by Lavu Educational Society, Affiliated to JNTUH & Approved by AICTE, New Delhi]
Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301. Phone: 96529 10002/3



COMPUTER SCIENCE & ENGINEERING (DATA SCIENCE)

VR24 – II B.Tech I Semester : Course Outcomes & CO-PO/PSO Mapping

DIGITAL ELECTRONICS

COURSE OUTCOME:

CO.No.	COURSE OUTCOMES	BT Level
EC301ES.1	Know the characteristics of various components. Know about the logic families and realization of logic Gates.	1
EC301ES.2	Understand the utilization of components.	2
EC301ES.3	Design and analyze small signal amplifier circuits.	2
EC301ES.4	Learn Postulates of Boolean algebra and to minimize Combinational functions.	4
EC301ES.5	Design and analyze combinational and sequential circuits.	4

MAPPING:

CO.No	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
EC301ES.1	3	2	2	1	1	-	-	-	-	-	1	1	3	1
EC301ES.2	3	3	3	2	2	1	-	1	1	-	1	2	3	1
EC301ES.3	3	3	3	2	2	1	-	1	1	-	2	2	3	2
EC301ES.4	3	3	3	3	2	2	-	1	1	-	2	2	3	2
EC301ES.5	3	3	3	3	3	2	1	2	2	1	2	3	3	2
Average	3	2.8	2.8	2.2	2	1.5	1	1.25	1.25	1	1.6	2	3	1.6



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DATA STRUCTURES

COURSE OUTCOME:

CO.No.	COURSE OUTCOMES	BT Level
DS302PC.1	Ability to select the data structures that efficiently model the information in a problem.	3
DS302PC.2	Ability to assess efficiency trade-offs among different data structure implementations or combinations.	5
DS302PC.3	Implement and know the application of algorithms for sorting and pattern matching.	3
DS302PC.4	Design programs using a variety of data structures, including hash tables, binary and general tree structures, search trees, heaps, graphs, and AVL-trees.	6
DS302PC.5	Ability to assess about the application of pattern matching and Different types of Tries.	5

MAPPING:

CO.No	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
DS302PC.1	3	2	3	2	2	1	1	2	2	1	2	3	3	1
DS302PC.2	3	3	2	2	2	1	1	2	2	1	2	3	3	1
DS302PC.3	3	3	2	2	2	1	2	1	2	2	3	3	3	1
DS302PC.4	3	3	2	2	3	2	2	2	2	2	3	3	3	1
DS302PC.5	2	3	3	3	2	1	2	2	3	2	3	2	2	3
Average	2.8	2.8	2.4	2.2	2.2	1.2	1.6	1.8	2.2	1.6	2.6	2.8	2.8	1.4



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COMPUTER ORIENTED STATISTICAL METHODS

COURSE OUTCOME:

CO.No.	COURSE OUTCOMES	BT Level
MA303BS.1	Apply the concepts of probability and distributions to case studies.	3
MA303BS.2	Formulate and solve problems involving random variables and apply statistical methods for analyzing experimental data.	4
MA303BS.3	Apply concept of estimation and testing of hypothesis to case studies.	3
MA303BS.4	Correlate the concepts of one unit to the concepts in other units.	4

MAPPING:

CO.No	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
MA303BS.1	3	2	2	2	1	1	-	1	1	-	2	2	2	2
MA303BS.2	3	3	3	2	2	1	-	1	1	-	2	2	2	2
MA303BS.3	3	3	3	3	2	2	1	2	2	1	2	3	2	2
MA303BS.4	3	3	3	3	3	2	1	2	2	1	3	3	2	2
MA303BS.5	3	3	3	3	3	3	2	3	3	2	3	3	3	3
Average	3	2.8	2.8	2.6	2.2	1.8	1.333	1.8	1.8	1.333	2.4	2.6	2.2	2.2



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COMPUTER ORGANIZATION AND ARCHITECTURE

COURSE OUTCOME:

CO.No.	COURSE OUTCOMES	BT Level
DS304PC.1	Understand the basics of instruction sets and their impact on processor design.	2
DS304PC.2	Demonstrate an understanding of the design of the functional units of a digital	2
DS304PC.3	Computer system. Evaluate cost performance and design trade-offs in designing and constructing.	5
DS304PC.4	Computer processor including memory. Design a pipeline for consistent execution of instructions with minimum hazards.	6
DS304PC.5	Recognize and manipulate representations of numbers stored in digital computers	3

MAPPING:

CO.No	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
DS304PC.1	3	2	2	1	1	-	-	-	-	-	1	2	3	1
DS304PC.2	3	3	3	2	2	1	-	1	1	-	2	2	3	1
DS304PC.3	3	3	3	3	2	2	-	1	1	-	2	3	3	2
DS304PC.4	3	3	3	3	3	2	1	2	2	1	2	3	3	2
DS304PC.5	3	3	3	3	3	2	1	2	2	1	2	3	3	2
Average	3	2.8	2.8	2.4	2.2	1.75	1	1.5	1.5	1	1.8	2.6	3	1.6



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OBJECT ORIENTED PROGRAMMING THROUGH JAVA

COURSE OUTCOME:

CO.No.	COURSE OUTCOMES	BT Level
DS305PC.1	To Understand the basic object-oriented programming concepts and apply them in problem solving.	3
DS305PC.2	To Illustrate inheritance concepts for reusing the program.	2
DS305PC.3	To Demonstrate multitasking by using multiple threads and event handling	3
DS305PC.4	To Develop data-centric applications using JDBC.	6
DS305PC.5	To Understand the basics of java console and GUI based programming.	2

MAPPING:

CO.No	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
DS305PC.1	3	2	2	2	1	0	0	1	1	0	1	3	2	1
DS305PC.2	3	3	3	2	2	0	0	1	1	0	1	3	2	1
DS305PC.3	3	2	2	2	1	0	0	1	1	0	1	3	3	1
DS305PC.4	2	2	2	2	2	0	0	1	1	0	1	2	3	1
DS305PC.5	1	1	1	1	1	1	2	2	2	1	2	1	1	3
Average	2.4	2	2	1.8	1.4	0.2	0.4	1.2	1.2	0.2	1.2	2.4	2.2	1.4



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DATA STRUCTURES LAB

COURSE OUTCOME:

CO.No.	COURSE OUTCOMES	BT Level
DS306PC.1	Ability to develop C programs for computing and real-life applications using basic elements like control statements, arrays, functions, pointers and strings, and data structures like stacks, queues and linked lists.	6
DS306PC.2	Ability to develop C programs for calculating and real-time applications using basic elements like Strings, and Data Structures like Stacks, Queues and Linked Lists.	6
DS306PC.3	Ability to Implement searching and sorting algorithms	6
DS306PC.4	Ability to Implement the tree traversal methods (Recursive & Non-Recursive)	3
DS306PC.5	Ability to Implement a Pattern matching algorithms	3

MAPPING:

CO.No	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
DS306PC.1	3	3	2	2	1	1	-	1	1	1	2	3	3	2
DS306PC.2	3	3	3	3	2	2	-	2	2	1	2	3	3	2
DS306PC.3	3	3	3	3	2	2	1	2	2	1	3	3	3	2
DS306PC.4	3	3	3	3	3	2	1	2	2	1	3	3	3	2
DS306PC.5	3	3	3	3	3	3	2	3	3	2	3	3	3	3
Average	3	3	2.8	2.8	2.2	2	1.333	2	2	1.2	2.6	3	3	2.2



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OBJECT ORIENTED PROGRAMMING THROUGH JAVA LAB

COURSE OUTCOME:

CO.No.	COURSE OUTCOMES	BT Level
DS307PC.1	Demonstrate the behavior of programs involving the basic programming constructs like control structures, constructors, string handling and garbage collection.	3
DS307PC.2	Demonstrate the implementation of inheritance (multilevel, hierarchical and multiple) by using extend and implement keywords	3
DS307PC.3	Use multithreading concepts to develop inter process communication.	3
DS307PC.4	Understand the process of graphical user interface design and implementation using AWT or swings.	2
DS307PC.5	Develop applets that interact abundantly with the client environment and deploy on the server.	6

MAPPING:

CO.No	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
DS307PC.1	3	2	2	2	1	0	0	1	1	0	1	3	2	1
DS307PC.2	3	3	3	2	2	0	0	1	1	0	1	3	2	1
DS307PC.3	3	2	2	2	1	0	0	1	1	0	1	3	3	1
DS307PC.4	2	2	2	2	2	0	0	1	1	0	1	2	3	1
DS307PC.5	1	1	1	1	1	1	2	2	2	1	2	1	1	3
Average	2.4	2	2	1.8	1.4	0.2	0.4	1.2	1.2	0.2	1.2	2.4	2.2	1.4



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DATA VISUALIZATION - R PROGRAMMING/ POWER BI

COURSE OUTCOME:

CO.No.	COURSE OUTCOMES	BT Level
DS308PC.1	Understand How to import data into Tableau.	2
DS308PC.2	Understand Tableau concepts of Dimensions and Measures.	2
DS308PC.3	Develop Programs and understand how to map Visual Layouts and Graphical Properties.	3
DS308PC.4	Create a Dashboard that links multiple visualizations.	6
DS308PC.5	Use graphical user interfaces to create Frames for providing solutions to real world problems.	6

MAPPING:

CO.No	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
DS308PC.1	3	2	2	2	1	0	0	1	1	0	1	2	3	1
DS308PC.2	3	3	3	2	2	0	0	1	1	0	1	3	2	1
DS308PC.3	3	2	2	2	1	0	0	1	1	0	1	3	2	1
DS308PC.4	2	2	2	2	2	0	0	1	2	0	1	2	3	1
DS308PC.5	3	1	1	1	1	1	2	2	2	1	2	1	1	3
Average	2.8	2	2	1.8	1.4	0.2	0.4	1.2	1.4	0.2	1.2	2.2	2.2	1.4



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GENDER SENSITIZATION LAB

COURSE OUTCOME:

CO.No.	COURSE OUTCOME	BT Level
MC309.1	Students will have developed a better understanding of important issues related to gender in contemporary India.	2
MC309.2	Students will be sensitized to basic dimensions of the biological, sociological, psychological and legal aspects of gender. This will be achieved through discussion of materials derived from research, facts, everyday life, literature and film.	2
MC309.3	Students will attain a finer grasp of how gender discrimination works in our society and how to counter it.	4
MC309.4	Students will acquire insight into the gendered division of labor and its relation to politics and economics.	4
MC309.5	Men and women students and professionals will be better equipped to work and live together as equals.	3
MC309.6	Students will develop a sense of appreciation of women in all walks of life.	2
MC309.7	Through providing accounts of studies and movements as well as the new laws that provide protection and relief to women, the textbook will empower students to understand and respond to gender violence	4

MAPPING:

CO.No	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
MC309.1	1	2	-	-	-	2	-	2	-	1	-	-	-	-
MC309.2	1	2	-	-	-	2	-	2	-	1	-	-	-	-
MC309.3	-	3	1	1	-	3	-	3	1	2	-	-	-	-
MC309.4	1	3	1	1	-	3	-	2	1	1	-	-	-	-
MC309.5	-	1	1	-	-	2	-	3	3	2	-	-	-	-
MC309.6	-	1	-	-	-	2	-	3	1	1	-	-	-	-
MC309.7	1	3	1	2	-	3	-	3	1	2	-	-	-	-
Average	0.57	2.14	0.57	0.57	0.00	2.43	0.00	2.57	1.00	1.43	0.00	0.00	0.00	0.00



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