MATURI VENKATA SUBBA RAO (M.V.S.R) ENGINEERING COLLEGE
(Nadergul, Hyderabad-501510)
DEPARTMENT OF INFORMATION TECHNOLOGY

COURSE OBJECTIVES AND OUTCOMES

COURSE: B.E-II/IV   SEMESTER: III   Acad. Year: 2025-26

Course name: Data Structures Using C

Course code: U21PC301IT

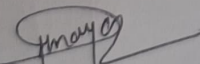Faculty: Maya B Dhone

Course Prerequisites:
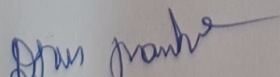- Knowledge of C Programming
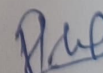- Knowledge of writing algorithms

Course objectives
- Develop proficiency in the specification, representation, and implementation of abstract data types and data structures.
- Discuss the linear and non-linear data structures and their applications.
- Introduce the creation, insertion, and deletion operations on binary search trees and balanced binary search trees.
- Introduce the graphs, types and representation of graphs, traversal of graphs.
- Introduce various sorting & searching techniques and their time complexities.

Course outcomes

Course code U21PC301IT	Statement Student will be able to
CO1	Analyze time complexity of iterative and recursive functions and implement array data structures.
CO2	Define ADT necessary for solving problems based on Stacks and Queues & there applications.
CO3	Interpret the basic data structures, linked lists and its applications.
CO4	Develop solutions using binary trees, binary search trees, and graphs.
CO5	Analyze various kinds of sorting and searching techniques, Hashing and apply appropriate techniques for solving a given problem.

Course Coordinator   PAC Coordinator   Head ITD