NM INSTITUTE OF ENGINEERING & TECHNOLOGY

APPROVED BY AICTE, NEW DELHI, AFFILIATED TO BPUT, ODISHA
SIJUA, PATRAPADA, NEAR AIIMS, BHUBANESWAR ODISHA- 751019
e-Mail: mailtonmiet@nmiet.ac.in, web: nmiet.ac.in

DEPARTMENT OF MCA

DATA STRUCTURE USING C LABORATORY

SUBJECT CODE: MCA01006   **SEMESTER: 1st**

Course Outcomes	
Students will be able to	
CO1:	Explain the basic data structures and their applications and to analyze the time and space complexities of algorithms (knowledge)
CO2:	Choose appropriate data structures to represent data items in real world problems
CO3:	Design data structures using various trees and arrange them in an optimal way using heap
CO4:	Analyze and implement various kinds of searching and hash techniques.
CO5:	Identify the proper path by using BFS ,DFS and different searching techniques

DEPARTMENT OF MCA
OPERATING SYSTEM LAB

SUBJECT CODE: MCA01007   **SEMESTER: 1st**

Course Outcomes	
Students will be able to	
CO1:	Implement various CPU scheduling algorithms.
CO2:	Implement various page replacement algorithms.
CO3:	Explain the process of system calls.
CO4:	Apply the various file operations.
CO5:	Implement various disk scheduling algorithms.
CO6:	Implement various classical problem

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Education for a World Stage

DEPARTMENT OF MCA
DATABASE ENGINEERING LAB

SUBJECT CODE: MCA01008   **SEMESTER: 1st**

Course Outcome:	
Students will be able to	
CO1:	Develop database modeling for a problem
CO2:	Design a database using normalizations.
CO3:	Implement a database query language
CO4:	Develop GUI using front end tool
CO5:	Develop a connection between frontend and database.
CO6:	Implement a Data Manipulation Language

JAVA PROGRAMMING & PYTHON LAB

SUBJECT CODE: MCA02006   **SEMESTER: 2nd**

Course Outcomes	
Students will be able to	
CO1:	Design the programs involving the basics programming constructs.
CO2:	Analyze the concepts of classes, objects, methods constructors, overloading and overriding along with access controls.
CO3:	Use the data abstraction, inheritance, polymorphism, encapsulation principles in structuring python applications.
CO4:	Implement exemplary applications related to Network Programming, Web Services and Databases in Python.
CO5:	Create a project using python.
CO6:	Implement advance Python.

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Education for a World Stage

COMPUTER NETWORK LAB

SUBJECT CODE: MCA02007   **SEMESTER: 2nd**

Course Outcome:	
Students will be able to	
CO1:	Explain OSI Reference Model and in particular have a good knowledge of Layers 1-3
CO2:	Working knowledge of datagram and internet socket programming.
CO3:	Design and test simple programs to implement networking concepts using Java.
CO4:	Design simple data transmission using networking concepts and implement
CO5:	Compare and analyze different existing protocols.
CO6	Analyze the requirements for a given organizational structure and select the most appropriate networking architecture and technologies

ALGORITHMS DESIGN LAB

SUBJECT CODE: MCA02008   **SEMESTER: 2nd**

Course Outcome:	
Students will be able to	
CO1:	Able to discuss different computational models for example divide and conquer, order notation (), various Complexity measures to analyze the performance of different algorithms.
CO2:	Understand the difference between the lower and upper bounds of various problems and their Importance in deciding the optimality of an algorithm
CO3:	Able to analyze various techniques for efficient algorithm design (divide and conquer, greedy, and Dynamic programming algorithms) and able to apply them while designing algorithms.
CO4:	Apply different designing methods development of algorithms using greedy method (application)
CO5:	Apply backtracking and branch and bound techniques to deal with some hard problems
CO6	Able to know the concepts of tractable and intractable problems, classes of P,NP,NP-HARD and NP-Complete problems.

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SOFTWARE ENGINEERING LAB

SUBJECT CODE: MCA03006   **SEMESTER: 3rd**

Course Outcome:	
Students will be able to	
CO1:	Develop SRS document, design documents such as ER Diagrams, DFDs, UML Diagrams etc. for a given software project.
CO2:	Develop efficient codes for a given software project using appropriate coding standards and guidelines and test the developed code using different tools.
CO3:	Implement different software project management techniques such as FP, COCOMO, CPM, PERT etc.
CO4:	Know the use of different computer aided software engineering (CASE) tools in the development, maintenance and reuse of software systems.
CO5:	Estimate the size of a given software using Function Point Metric
CO6	Perform various testing operations using the available testing tools for a given system.