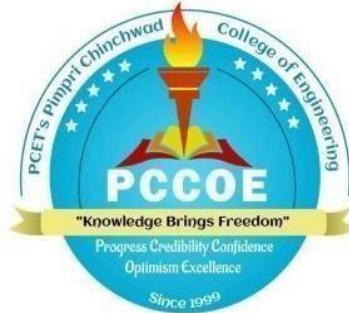


Pimpri Chinchwad Education Trust's

PIMPRI CHINCHWAD COLLEGE OF ENGINEERING

SECTOR NO. 26, PRADHIKARAN, NIGDI, PUNE 411044

(An Autonomous Institute Approved by AICTE and Affiliated to SPPU, Pune)



Curriculum Structure and Syllabus

of

Multi-Disciplinary Minor (MDM) in Computer Programming (Regulations 2023)



Effective from Academic Year 2024-25

Institute Vision

To be one of the top 100 Engineering Institutes of India in coming five years by offering exemplarily Ethical, Sustainable and Value Added Quality Education through a matching ecosystem for building successful careers.

Institute Mission

1. Serving the needs of the society at large through establishment of a state-of-art Engineering Institute.
2. Imparting right Attitude, Skills, Knowledge for self-sustenance through Quality Education.
3. Creating globally competent and Sensible engineers, researchers and entrepreneurs with an ability to think and act independently in demanding situations.

EOMS Policy

“We at PCCOE are committed to offer exemplarily Ethical, Sustainable and Value Added Quality Education to satisfy the applicable requirements, needs and expectations of the Students and Stakeholders.

We shall strive for technical development of students by creating globally competent and sensible engineers, researchers and entrepreneurs through Quality Education.

We are committed for Institute’s social responsibilities and managing Intellectual property.

We shall achieve this by establishing and strengthening state-of-the-art Engineering Institute through continual improvement in effective implementation of Educational Organizations Management Systems (EOMS).”

Course Approval Summary

Board of Studies - Department of Computer Engineering

Sr. No.	Name of the Course	Course Code	Page number	Signature and stamp of BoS chairman
1	Fundamentals of Problem Solving	BCE23MD13	5	
2	Object Oriented Programming	BCE24MD14	8	
3	Data Structures	BCE25MD15	11	
4	Data Structures Laboratory	BCE25MD16	13	
5	Application Development using Java	BCE26MD17	17	
6	Capstone Project	BCE27MD18	20	

Approved by Academic Council:

Chairman, Academic Council
Pimpri Chinchwad College of Engineering

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2	Curriculum Structure	3
3	Course Syllabus of Semester- III Courses	4
4	Course Syllabus of Semester- IV Courses	7
5	Course Syllabus of Semester- V Courses	10
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PREFACE

At the heart of all software lies a code or a program that requires a logical approach and a problem-solving methodology. Knowledge of basic programming has become a necessity for students from all streams. The expertise in some of the core Programming Languages, coupled with knowledge of Data Structures, Frontend, and Backend, will not only ensure the opening of interdisciplinary opportunities but also extend it to their core engineering domain.

The course will start with the Fundamentals of Problem Solving. This course aims to develop logic building and problem solving in a play way method using software designed for the purpose. Logic is the basis of problem solving! Converting a logic to a formal program requires sufficient knowledge of syntax and features of Programming Languages. A set of Computer Programming languages like C++ or Python for Object Oriented Programming, Java for Graphical User Interface Design and Event Driven Programming, some knowledge of Data Structures and Databases have been carefully picked to introduce various aspects of Programming.

Objectives of MDM:

To provide an opportunity to non-Computer Engineering Students to:

1. Develop logical thinking and problem-solving skills.
2. Understand Object Oriented Programming concepts.
3. Acquire knowledge of the linear and non-linear data structures
4. Get acquainted with frontend and backend tools in Java
5. Develop a complete web-based project.

Outcome of MDM:

After completing this MDM, students will be able to:

1. Solve a computing problem using various programming constructs.
2. Illustrate the concept of Object-Oriented Programming.
3. Use the knowledge of Data Structures in problem solving.
4. Apply the concepts of frontend and backend for developing an application.
5. Develop an application that is commercially or community deployable.

MDM is offered by the Computer Engineering department.

Applicable to students of Mechanical Engineering, Civil Engineering and Electronics and Telecommunication Engineering.



Curriculum Structure

MDM in

Computer Programming

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CURRICULUM STRUCTURE
MDM in Computer Programming (Regulations 2023)
(With effect from Academic Year 2024-25)

Course Code	Course Name	Credit Scheme				Teaching Scheme (Hours/Week)			Evaluation Scheme and Marks						
		L	P	T	Total	L	P	T	FA		SA	TW	PR	OR	Total
									FA1	FA2					
Semester III															
BCE23MD13	Fundamentals of Problem Solving	2	-	-	2	2	-	-	10	10	30	-	-	-	50
Semester IV															
BCE24MD14	Object Oriented Programming	2	-	-	2	2	-	-	10	10	30	-	-	-	50
Semester V															
BCE25MD15	Data Structures	3	-	-	3	3	-	-	20	20	60	-	-	-	100
BCE25MD16	Data Structures Laboratory	-	1	-	1	-	2	-	-	-	-	50	-	-	50
Semester VI															
BCE26MD17	Application Development using Java	2	-	-	2	2	-	-	10	10	30	-	-	-	50
Semester VII															
BCE27MD18	Capstone Project	-	4	-	4	-	8	-	-	-	-	100	-	50	150
Total		9	5	-	14	9	10	-	50	50	150	150	-	50	450

L-Lecture, P-Practical, T-Tutorial, FA-Formative Assessment, SA-Summative Assessment, TW-Term Work, OR-Oral, PR-Practical



Course Syllabus Semester – III

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MDM :	BTech: Civil/E&TC/Mech			Semester: III			
Course :	Fundamentals of Problem Solving			Code :	BCE23MD13		
Credits	Teaching Scheme (Hrs./Week)			Evaluation Scheme and Marks			
	Lecture	Practical	Tutorial	FA		SA	Total
				FA1	FA2		
2	2	-	-	10	10	30	50
Prior knowledge of Computer basics is essential.							
Course Objectives: This course aims at enabling students, 1. Get acquainted with algorithms, flowcharts, and pseudocode. 2. Become familiar with problem solving using a sequential approach. 3. Acquire knowledge of looping and decision-making concepts. 4. Solve problems using arrays, searching, and sorting.							
Course Outcomes: After learning the course, the students should be able to: 1. Illustrate the fundamentals of problem solving, algorithms, flowcharts, and pseudocode. 2. Use sequential logic structure for problem solving. 3. Apply looping and decision-making concepts for problem solving. 4. Use arrays for problem solving.							
Detailed Syllabus:							
Unit	Description						Duration [Hrs]
I	Introduction to Problem Solving: Problem-solving aspect, General problem-solving strategies, Planning the solution: Algorithms, Flowcharts and Pseudocode, problem solving with computers, data storage, communicating with the computer, constants and variables, data types, operators, functions. Case Study: Automated Teller Machine (ATM) to process transactions efficiently and securely.						8

II	<p>Sequential Logic Structure: Introduction, solution development, swapping variables with and without temporary variables, greatest of given numbers, calculating area of a: circle, rectangle, triangle and square, temperature conversion, simple interest calculation.</p> <p>Case Study: Reverse a three digits number.</p>	7
III	<p>Decisions and Loops: Decision logic structure, if/then/else, loop logic structure, while/do-while/for, repeat/until, nested loops, recursion, Factorial computation, Sum of digits in a given number, Fibonacci sequence generation, Palindrome checking, smallest divisor of an integer, Finding GCD, finding a prime number.</p> <p>Case Study: Calculate grade of student according to marks</p>	8
IV	<p>Arrays: Arrays as homogenous collection of elements, Types of arrays, Finding maximum, Finding second smallest element, Average of numbers in array at even positions, Removal of duplicates from an ordered array, Searching techniques: Sequential search, Binary search, Sorting techniques: Bubble sort, Selection sort</p>	7
Total		30

Text Books:

1. R.G.Dromey, "How to Solve it by Computer", 1st Edition, Prentice-Hall International, 1982, ISBN-10: 0134340019 ISBN-13: 978-0134340017
2. Maureen Sprankle, "Problem Solving and Programming Concepts", 9th Edition, Prentice Hall, 1989, ISBN 10: 0-273-75221-9 ISBN 13: 978-0-273-75221-9

Reference Books:

1. Ferreira Filho, Wladston. Computer science distilled: learn the art of solving computational problems. Code Energy, 2017.
2. Davidson, Janet E., and Robert J. Sternberg, eds. The psychology of problem solving. Cambridge university press, 2003.

e-sources:

1. <https://www.eolymp.com/en/problems/3>
2. Ranade, Abhiram G. "Introductory programming: Let us cut through the clutter!." In Proceedings of the 2016 ACM Conference on Innovation and Technology in Computer Science Education, pp. 278-283. 2016. - <https://dl.acm.org/doi/abs/10.1145/2899415.2899430>
3. https://onlinecourses.nptel.ac.in/noc23_cs53/preview
4. <https://unacademy.com/course/problem-solving-and-programming-through-c-language/66VE60H9>



Course Syllabus Semester – IV

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MDM :	BTech: Civil/E&TC/Mech			Semester: IV			
Course :	Object Oriented Programming			Code :	BCE24MD14		
Credits	Teaching Scheme (Hrs./Week)			Evaluation Scheme and Marks			
	Lecture	Practical	Tutorial	FA		SA	Total
				FA1	FA2		
2	2	-	-	10	10	30	50
Prior knowledge of Programming concepts are essential.							
Course Objectives: This course aims at enabling students, 1. Acquire the fundamental principles, concepts and constructs of Object Oriented Programming 2. Gain knowledge about the capability to store information together in an object 3. Use the object-oriented paradigm in program design. 4. Build the programming skills using C++ 5. Understand about constructors which are special type of functions							
Course Outcomes: After learning the course, the students should be able to: 1. Explore the strengths of object-oriented programming. 2. Illustrate the object-oriented solution for a problem. 3. Apply the concept of inheritance and polymorphism in C++ 4. Explore the concept of file handling.							
Detailed Syllabus:							
Unit	Description						Duration [Hrs]
I	Fundamentals of Object Oriented Programming: Introduction: procedural programming paradigm and object oriented programming paradigm, Concept of objects, classes, data members, methods, access specifiers, Data Encapsulation, data abstraction and information hiding, inheritance, polymorphism.						7

II	<p>Classes and Objects: Declaration of class and objects, Defining member functions, Inline function, Array of objects, Static data member and Static member function, Constructors, Destructors.</p> <p>Case Study: Write a program in C++ to create a student class with appropriate attributes and methods.</p>	8
III	<p>Polymorphism and Inheritance:</p> <p>Polymorphism: Introduction, Types of polymorphism: Function overloading and operator overloading, Rules of operator overloading.</p> <p>Inheritance: Need of Inheritance, Class hierarchy, Types of inheritance, Ambiguity in multiple inheritance</p>	8
IV	<p>File Handling: Introduction to Files, Types of Files: Text and Binary, Classes for file stream operations, Various operations on a file: Open, Close, Read and Write. Sequential and Random Access of a file.</p> <p>Case Study: Searching for a text or a record in a file, Counting number of words in file and Appending a record in a file, modifying record in a file other applications.</p>	7
Total		30
<p>Text Books:</p> <ol style="list-style-type: none"> Balagurusamy, E. "Object oriented programming with C++." (2021). Lafore, Robert. Object-oriented programming in C++. Pearson Education, 1997 		
<p>Reference Books:</p> <ol style="list-style-type: none"> Wiener, Richard S., and Lewis J. Pinson. An introduction to object-oriented programming and C++. Addison, Wesley Longman Publishing Co., Inc., 1988. Deitel, C++ How to Program, 4 th Edition, Pearson Education, 2002, ISBN:81-297-0276-2. Herbert Schildt, C++ The complete reference, Eighth Edition, McGraw Hill Professional, 2011, ISBN:978-00- 72226805 		
<p>e-sources:</p> <ol style="list-style-type: none"> http://www.cplusplus.com (C++ documents, tutorials, and references). Bjarne Stroustrup's C++11 FAQ @ http://www.stroustrup.com/C++11FAQ.html. https://www.javatpoint.com/cpp-oops-concepts : NPTEL Course 1. https://onlinecourses.nptel.ac.in/noc21_cs02/preview 		



Course Syllabus Semester – V

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MDM :	BTech: Civil/E&TC/Mech			Semester: V			
Course :	Data Structures			Code :	BCE25MD15		
Credits	Teaching Scheme (Hrs./Week)			Evaluation Scheme and Marks			
	Lecture	Practical	Tutorial	FA		SA	Total
				FA1	FA2		
3	3	-	-	20	20	60	100
Prior knowledge of Problem Solving techniques using sequential, conditional and logical approach is essential.							
Course Objectives: This course aims at enabling students, 1. Understand the concepts of Abstract Data Types (ADT). 2. Learn linear data structures – lists, stacks, and queues. 3. Understand non-linear data structures – trees. 4. Understand sorting, searching and hashing algorithms. 5. Apply the knowledge of data structures in problem solving.							
Course Outcomes: After learning the course, the students should be able to: 1. Understand the working of searching & sorting algorithms. 2. Apply the concept of linked list for problem solving. 3. Demonstrate the working of stack ADT. 4. Illustrate the working of a queue ADT. 5. Understand non-linear data structure - Tree							
Detailed Syllabus:							
Unit	Description						Duration [Hrs]
I	Introduction to Data Structure and Algorithms: Introduction to Data Structures, Algorithms: Time & Space complexity of an algorithm, asymptotic notations. Searching algorithms: Linear and Binary Search and their analysis. Sorting algorithms and analysis: Insertion & Merge sort.						8

II	Linked Lists: Concept of Abstract Data Types (ADT), Features of linear data structures, dynamic memory allocation, concept of linked organization of data. Singly linked list and doubly linked list. Operations on linked lists: insert, delete, traverse, search etc. Applications of linked list.	10
III	Stacks: Concept, basic Stack operations, array & linked representation of Stacks, Stack as ADT, Applications of Stack.	9
IV	Queues: Concept, array & linked representation of Queues, Queue operations, Queue as ADT, Circular Queues. Applications of Queue.	9
V	Trees: Basic concepts and terminology, Binary Trees: Concept and traversal. Binary Search Trees (BST): Basic concepts, BST operations and applications.	9
Total		45

Text Books:

1. “Fundamentals of Data Structures in C++”, Ellis Horowitz, S. Sahni, D. Mehta, 2nd Edition, 2008, University Press, ISBN-10: 8173716064
2. Data Structures Using C and C++ (2nd Edition) by Yedidyah Langsam, Moshe J. Augenstein, Aaron M. Tenenbaum, 1996, ISBN: 9788120311770 | 8120311779

Reference Books:

1. “C++: The Complete Reference”, Herbert Schildt, Fourth Edition, 2002, The McGraw-Hill company, ISBN 0-07-222680-3
2. “An introduction to data structures with Applications”, Jean-Paul Tremblay, Paul. G. Soresan, 2nd Edition, 1984, Tata Mc-Graw Hill International Editions, ISBN-0-07-462471-7
3. “Data Structures using C”, Y. Langsam, M. Augenstein and A. Tannenbaum, First Edition, 2002, Pearson Education Asia, ISBN 978-81-317-0229-1
4. Data Structures and Algorithm Analysis in C++, by Mark Allen Weiss (Pearson 2007). ISBN-10 :9788131714744

e-sources:

1. IIT Madras youtube videos on Data Structures <http://nsm.iitm.ac.in/cse/services/pds/>
2. NPTEL course: Data Structures And Algorithms, IIT Delhi, Prof. Naveen Garg <https://nptel.ac.in/courses/106102064>

MDM :	B.Tech: Civil/E&TC/Mech			Semester: V			
Course:	Data Structures Laboratory			Code:	BCE25MD16		
Credits	Teaching Scheme (Hrs. /Week)			Evaluation Scheme and Marks			
	Theory	Practical	Tutorial	TW	OR	PR	Total
1	-	2	-	50	-	-	50

Prior knowledge of

Decision control structures, loop control structures, arrays and file handling.
is essential.

Course Objectives:

This course aims at enabling students,

1. To understand the concepts of ADTs.
2. To Learn linear data structures – lists, stacks, and queues.
3. To understand non-linear data structures – trees.
4. To understand sorting, searching and hashing algorithms.
5. To apply the knowledge of data structures in problem solving

Course Outcomes:

After completion of this course, the students will be able to,

1. Implement the searching & sorting algorithms.
2. Implement linear data structure: Linked List and perform its operations.
3. Develop applications of stack and queue using arrays and linked lists.
4. Understand Non-Linear data structure - Tree
5. Use appropriate linear/non-linear data structure operations for solving a given problem.

Guidelines:

Guidelines for Students:

1. Students should work consistently on Data Structures lab assignments to reinforce their understanding of concepts throughout the semester.
2. All assignments must be performed individually.
3. They should adhere to strict deadlines for timely submission of their work.
4. Utilizing open-source resources is encouraged to enhance project efficiency and transparency.
5. Ethical coding practices must be upheld, including proper documentation and industry standard commenting, wherever required.
6. Students should seek help from faculty when facing challenges or needing clarification on Data Structures concepts and their implementation in C++.

Guidelines for Laboratory/Term Work Assessment:

1. Continuous assessment of laboratory work is to be done based on laboratory performance.
2. Encourage students for appropriate use of Hungarian notations, proper indentation and comments

Guidelines for Laboratory Conduction:

1. The instructor plays a crucial role in the successful completion of assignments and experiments throughout the semester by regularly monitoring and mentoring students according to the provided instructions.
2. It is the responsibility of the instructor to create assignments based on the suggested list of assignments and ensure their completion.
3. Additionally, instructors should lead by example by using Hungarian notation, emphasizing proper code indentation, and encouraging comprehensive comments to enhance code readability and maintainability.
4. They should also promote the use of open-source software to broaden students' exposure to industry-standard tools and foster a collaborative, community-driven approach to software development.
5. Furthermore, instructors should actively engage students in discussions about ethical considerations and responsible coding practices, cultivating a learning environment that prioritizes professionalism and integrity.
6. Students should feel encouraged to seek guidance and support from the instructor whenever they encounter challenges or require clarification on course material.
7. Instructors should continuously evaluate students based on predefined rubrics to provide clear and constructive feedback aligned with course objectives and learning outcomes. They should ensure transparency and fairness in grading

Detailed Syllabus

Expt. No.	Suggested List of Experiments
1	Student roll number, Name and marks are stored in a binary file. a. Write a program having functions to sort the file in Descending order of marks and store the result in a new file. b. Write a program to search the unsorted file by name and display all details.
2	Implement a singly linked list and perform operations like - add a node in the beginning of a list, search, traverse.
3	Implement a doubly linked list and perform operations like - add a node in the end of a list, traverse, remove a node from the list.
4	Write a program to evaluate an infix expression, without converting it to postfix. The input string can have spaces, (,) and precedence of operators should be handled.

5	Implement a Queue using array implementation.
6	Implement Binary search tree with operations Create, Search, and Recursive traversal.

Text Books:

1. "Fundamentals of Data Structures in C++", Ellis Horowitz, S. Sahni, D. Mehta, 2nd Edition, 2008, University Press, ISBN-10: 8173716064
2. Data Structures Using C and C++ (2nd Edition) by Yedidyah Langsam, Moshe J. Augenstein, Aaron M. Tenenbaum.

Reference Books:

1. "C++: The Complete Reference", Herbert Schildt, Fourth Edition, 2002, The McGraw-Hill company, ISBN 0-07-222680-3
2. "An introduction to data structures with Applications", Jean-Paul Tremblay, Paul. G.Soresan, 2nd Edition, 1984, Tata Mc-Graw Hill International Editions, ISBN-0-07-462471-7
3. "Data Structures using C", Y. Langsam, M. Augenstin and A. Tannenbaum, First Edition, 2002, Pearson Education Asia, ISBN 978-81-317-0229-1
4. Data Structures and Algorithm Analysis in C++, by Mark Allen Weiss (Pearson 2007). ISBN-10 :9788131714744

e-sources:

1. IIT Madras youtube videos on Data Structures <http://nsm.iitm.ac.in/cse/services/pds/>
2. NPTEL course: Data Structures And Algorithms, IIT Delhi, Prof. Naveen Garg <https://nptel.ac.in/courses/106102064>

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Course Syllabus Semester – VI

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MDM :	BTech: Civil/E&TC/Mech				Semester: VI		
Course :	Application Development using Java				Code :	BCE26MD17	
Credits	Teaching Scheme (Hrs./Week)			Evaluation Scheme and Marks			
	Lecture	Practical	Tutorial	FA		SA	Total
				FA1	FA2		
2	2	-	-	10	10	30	50
Prior knowledge of object oriented programming are essential.							
Course Objectives: This course aims at enabling students, 1. To apply object-oriented programming concepts in solving problems 2. To design Graphical User Interface using JSP 3. Use database tables effectively using JSP							
Course Outcomes: After learning the course, the students should be able to: 1. Apply the basic object oriented features to solve problems using Java. 2. Apply the concepts of inheritance, polymorphism, and exception handling while solving a problem. 3. Perform various operations on database tables. 4. Design basic GUI using JSP.							
Detailed Syllabus:							
Unit	Description						Duration [Hrs]
I	Java Programming Fundamentals: Features of Java, Classes and Objects, Attributes, Methods, Constructors, Modifiers, Packages.						7

II	<p>Inheritance and Polymorphism: Inheritance, Method overloading and overriding, Abstract Class, Interface, Object class;</p> <p>Exception Handling: Exception handling, exception hierarchy, built in exceptions, usage of try, catch, finally, throw, and throws, creating own exception subclasses.</p>	7
III	<p>Backend Development using Database: Introduction to DBMS: Creating a table; SQL CRUD operations- create, insert, select, update and delete operations on a table; Connecting a database with a java program using JDBC: Statement, PreparedStatement, ResultSet management.</p>	8
IV	<p>Front-end Development using Java: Introduction to JSP, Architecture of JSP, Life Cycle of JSP, Scripting elements - Scriptlets, JSP declarations, JSP expression; JSP objects; JSP directive elements; JSP actions elements.</p>	8
Total		30
<p>Text Books:</p> <ol style="list-style-type: none"> Schildt, Herbert. 2022. Java: The Complete Reference. 12th ed. New York: McGraw Hill, ISBN: 9781260463415 E. Balagurusamy, Programming with Java ,2019; McGraw Hill Education India, 6th Edition, ISBN: 9789353162337. 		
<p>Reference Books:</p> <ol style="list-style-type: none"> Ken Arnold, James Gosling and David Holmes; ;The Java Programming Language, Addison-Wesley, 4th Edition, 2005, ISBN: 9780321349804 		
<p>e-sources:</p> <ol style="list-style-type: none"> https://docs.oracle.com/javase/tutorial/ https://docs.oracle.com/javaee/5/tutorial/doc/bnadp.html https://www.javatpoint.com/java-tutorial 		



Course Syllabus
Semester – VII

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MDM :	BTech: Civil/E&TC/Mech			Semester: VII			
Course:	Capstone Project			Code:	BCE27MD18		
Credits	Teaching Scheme (Hrs. /Week)			Evaluation Scheme and Marks			
	Theory	Practical	Tutorial	TW	OR	PR	Total
4	-	8	-	100	50	-	150

Prior knowledge of
Programming languages
are essential.

Course Objectives:

This course aims to enable students,

1. To develop critical thinking, problem-solving, research, and team work abilities.
2. To develop an application using knowledge of computer programming languages, frontend and backend.
3. Build a product that is Commercially or Community deployable.

Course Outcomes:

After learning the course, the students will be able to:

1. Identify a real life problem and critically analyze it.
2. Identify the requirements of the same selected problem statement.
3. Design a modular solution to the problem.
4. Develop an application to solve the problem using suitable tools.
5. Test and evaluate the application.
6. Prepare good quality technical reports and present it effectively.

Guidelines for Students:

1. Student groups shall typically comprise between three to four students.
2. Interdisciplinary grouping is recommended.
3. Students can develop an application based project like: Railway Management System, Online shopping, Car Rental System etc with suitable GUI and Database.
4. Students are encouraged to select a project from their stream of Engineering.
5. All members of the team must contribute equally to the project.
6. The project must be of the standard that is Commercially or Community deployable.

Self-sponsored project: The expenses incurred towards the completion of the project work will be borne by the students.

Industry / Research institutes sponsored project: The expenses incurred towards the completion of the project work will be supported by the sponsoring industry or research institute. Students shall submit the sponsorship letter or relevant document mentioning all the necessary details like the student's name, guide name, problem definition, work to be carried out, sponsorship details, etc.

Institute-sponsored project: The expenses incurred towards the completion of the project work will be supported by any of the institutes or organizations. Students shall submit the sponsorship letter or relevant document mentioning the sponsorship in monetary support from the institutes or organizations.

Guidelines for Assessment:

1. The project work assessment will be done in the following stages:
 - Review 1: Starting of the semester (within 15 Days) [Presentation & proposal/synopsis]
 - Review 2: After 1 month of review 1 [Presentation]
 - Review 3: After 1 month of review 2 [Presentation and Report]
 - Final Examination: At the end of the semester
2. Expected work to be completed in the review:
 - Review 1: Problem definition identification and feasibility
 - Review 2: Design and Analysis of the work
 - Review 3: Implementation, Testing and Report Writing.
3. It is mandatory for students to remain present for all the reviews and examinations well before the scheduled time.
4. For the final examination, students shall complete the project report in all aspects including formatting.
5. Each Student shall prepare the report duly signed by the project guide, Head of the department, and Director. Students should prepare three copies of the dissertation report.
6. Students shall submit all the data related to project work in soft copy to their guides which shall include project report, A3 size poster, Presentation, etc.

VISION AND MISSION OF COMPUTER DEPARTMENT

Department Vision

To be a premier Computer Engineering program by achieving excellence in Academics and Research for creating globally competent and ethical professionals.

Department Mission

M1: To develop technologically competent and self-sustained professionals through contemporary curriculum.

M2: To nurture innovative thinking and collaborative research, making a positive impact on society.

M3: To provide a state-of-the art computing environment and learning opportunities through the Center of Excellence.

M4: To foster leadership skills and ethics with holistic development.

