



MAZHARUL ULOOM COLLEGE, AMBUR

(Recognized by UGC under section 2f and 12B, Affiliated to Thiruvalluvar University, Vellore)

DEPARTMENT OF COMPUTER SCIENCE FOR AY 2020-21 ONWARDS

Programme Objectives:

1. Graduates will be able to comprehend the concepts learnt and apply in real life situations with analytical skills.
2. Graduates with acquired skills and enhanced knowledge will be employable/ become entrepreneurs or will pursue higher Education.
3. Graduates with acquired knowledge of modern tools, communicative skills and will be able to contribute effectively as team members.
4. Graduates are able to read the signs of the time analyze and provide practical solutions.
5. Graduates imbued with ethical values and social concern will be able to understand and appreciate social harmony, cultural diversity ensure sustainable environment

Programme Outcomes:

1. Having clear understanding of subject related concepts and apply the same to identify, formulate and analyze Complex problems.
2. Confident enough to act as a productive contributor for both self and team growth.
3. Able to adapt work environment easily.
4. Clear understanding on Professional and ethical responsibility.
5. Able to work effectively by managing time and provide innovative solutions.
6. Help to understand the market's demand and ability to provide Quality and timely services.
7. Help to Provide Infinite Solutions to same problem.
8. Able to clear any competitive exams for higher education.
9. Able to identify and grab global opportunities.
10. Help to develop Problem solving and to analyze Critical data.

Programme Educational Objectives:

1. To equip the students with World class skills and knowledge about Software and how it rules the IT And ITES industry by providing requisite technical education.
2. To gather business requirement, analyze, and design software which helps to reduce manual errors and ensure to deliver quality Product.
3. To help the individuals/students to identify or create opportunity to grow as Professionals in the competitive environment.
4. To motivate them to fly high for higher education in renowned universities across the globe.
5. To help the Professionals to go above and beyond to satisfy Company/Clients.

Programme Specific Outcomes:

On Completion of B.Sc. Computer Science Programme, graduates will be able to

1. Understand the technical aspects of Hardware and Software of Computer Science domain and the art of programming.
2. Ability to understand the different programming languages and can be able to apply the same for effective results.
3. Ability to use emerging software techniques of computer science to provide innovative and quick solution on time.


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4. Ability to understand, adjust and adapt with the dynamic technical environment for the growth of individual career and IT industry.
5. Ability to utilize social media effectively for learning and use productively.
6. Ability to make the world a better place by developing new software/ languages to support AI.
7. Able to understand the concepts of Niche skills like Python, Big Data, MDM.
8. Able to enter different streams of Computer Science like System engineer, IT Manager, Architect, Game developer, Mobile Application developer, R&D.
9. Able to adapt the ongoing technical developments.
10. Able to enter any industry as each industry is dependent on Computer Science for design and develop their

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DEPARTMENT OF COMPUTER SCIENCE

COURSE OUTCOMES

S.NO	SEMESTER	COURSE NAME	Course Outcomes
1.	I	Programming in C	<p>After studied unit-1, the student will be able to understand the concepts of Constants, Variables, and Data Types, Operators and Expressions</p> <p>2. After studied unit-2, the student will be able to understand the concepts of Managing Input and Output Operations, Decision Making and Branching, Decision Making and Looping.</p> <p>3. After studied unit-3, the student will be able to understand the concepts of Arrays, Character Arrays and Strings, User Defined Functions.</p> <p>4. After studied unit-4, the student will be able to understand the concepts of Structure and Unions, Pointers, File Management in C.</p> <p>5. After studied unit-5, the student will be able to understand the concepts of Fundamental Algorithms, Factoring Methods.</p>
2.	II	C++ & Data Structures	<p>After studied unit-1, the student will be able to understand the concepts of object oriented programming Apply structure and inline functions.</p> <p>2. After studied unit-2, the student will be able to understand the concepts of the types of inheritances and Applying various levels of Inheritance for real time problems Apply the OOPs concepts class and object. Understand Explain the file concept and exception handling in C++</p> <p>3. After studied unit-3, the student will be able to understand the concepts of Stacks and Queue using array and pointers.</p> <p>4. After studied unit-4, the student will be able to understand the concepts of Recursion, Binary Search Tree and graphs.</p> <p>5. After studied unit-5, the student will be able to understand the concepts of Sorting and Searching Algorithms</p>
3.	III	Programming in Java	<p>After studied unit-1, the student will be able to understand the concept of General-</p>


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			<p>purpose and Purely object-oriented programming language including data types and classes</p> <p>2. After Studies Unit-2, the student will be able to understand the concept of loops</p> <p>3. After Studies Unit-3, the student will be able to understand the concept of Arrays</p> <p>4. After Studies Unit-4, the student will be able to understand the concept of Files</p> <p>5. After Studies Unit-5, the student will be able to understand the concept of internet programming using applets and GUI-based</p>
4.	III	Digital Logic Design and Computer Organization	<p>After Studies Unit-1, the student will be able to understand Boolean algebra and basic gates.</p> <p>2. After Studies Unit-2, the student will be able to understand how to simplify expression using K-Map.</p> <p>3. After Studies Unit-3, the student will be able to understand how to build combinational circuits.</p> <p>4. After Studies Unit-4, the student will be able to know about registers and addressing modes</p> <p>5. After Studies Unit-5, the student will be able to understand types of memories.</p>
5.	IV	Relational Database Management Systems	<p>Describe the database architecture and its applications Sketch the ER diagram for real world applications Uses various ER diagram for similar concepts from various sources.</p> <p>2. Discuss about the relational algebra and calculus Construct various queries in SQL and PL/SQL Compiles various queries in SQL, Relational Calculus and Algebra.</p> <p>3. Describe the various normalization forms Apply the normalization concepts for a table of data Practices Table and implement the normalization concepts.</p> <p>4. Explain storage and accessing of data.</p> <p>5. Illustrate the query processing in database management. Define the concurrency control and deadlock concept</p>
6.	IV	Wireless Data Communication	<p>After Studies Unit-1, the student will be able to understand the concept</p>



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			<p>sofbasicOSlayers.</p> <p>2. After Studies Unit-2, the student will be able to understand the concepts of signals and transmission media.</p> <p>3. After Studies Unit-3, the student will be able to understand the basic concepts of error detection and DLC.</p> <p>4. After Studies Unit-4, the student will be able to understand the Characterize of wireless transmission technologies</p> <p>5. After Studies Unit-5, the student will be able to understand the concept of Security.</p>
7.	V	Mobile Application Development	<p>After Studies Unit-1, the student will be able to understand android basics.</p> <p>2. After Studies Unit-2, the student will be able to gain knowledge of GUI for android.</p> <p>3. After Studies Unit-3, the student will be able to understand SQLite data base.</p> <p>4. After Studies Unit-4, the student will be able to understand android services</p> <p>5. After Studies Unit-5, the student will be able to develop simple mobile application using android</p>
8.	V	Operating System	<p>After Studies Unit-1, the student will be able to learn operating systems structure and services.</p> <p>2. After Studies Unit-2, the student will be able to Enrich the process scheduling skills.</p> <p>3. After Studies Unit-3, the student will be able to know about memory allocation.</p> <p>4. After Studies Unit-4, the student will be able to understand disk structure and allocation methods.</p> <p>5. After Studies Unit-5, the student will be able to understand LINUX system.</p>
9.	V	Design and Analysis of Algorithm	<p>After Studies Unit-1, the student will be able to gain experience with space and time complexity</p> <p>2. After Studies Unit-2, the student will be able to understand the concept of divide and conquer</p>



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			<p>3. After studied unit-3, the student will be able to understand the concepts of greedy method</p> <p>4. After Studies Unit-4, the student will be able to understand the concept of multistage graph</p> <p>5. After Studies Unit-5, the student will be able to understand the concept of backtracking</p>
10.	V	Data Mining	<p>After Studies Unit-1, the student will be able to Understand the functionality of various data mining components.</p> <p>2. After Studies Unit-2, the student will be able to Describe the different methodologies used in data</p> <p>3. After studies unit-3, the student will be able to Characterize the kinds of patterns</p> <p>4. After Studies Unit-4, the student will be able to enrich the concept of clustering</p> <p>5. After Studies Unit-5, the student will be able to Discuss and compare various approaches with other techniques in data mining</p>
11.	V	Software Engineering	<p>After studies unit-1, the student will be able to recall the various techniques of software process models</p> <p>2. After Studies Unit-2, the student will be able to understand the requirements for software project</p> <p>3. After Studies Unit-3, the student will be able to create architectural design</p> <p>4. After Studies Unit-4, the student will be able to understand testing strategies</p> <p>5. After Studies Unit-5, the student will be able to understand software project management</p>
12.	VI	Open Source Software	<p>After Studies Unit-1, the student will be able to build static web pages using HTML and CSS.</p> <p>2. After Studies Unit-2, the student will be able to understand Linux File system.</p> <p>3. After Studies Unit-3, the student will be able to build validation coding using Javascript.</p> <p>4. After Studies Unit-4, the student will be able to build dynamic page using PHP</p>

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			5. After Studies Unit-5, the student will be able to understand PERL basics.
13.	VI	Python Programming	After Studies Unit-1, the student will be able to write simple Python programs giving basic knowledge. 2. After Studies Unit-2, the student will be able to understand control structures. 3. After Studies Unit-3, the student will be able to create functions. 4. After Studies Unit-4, the student will be able to arrange elements through sorting. 5. After Studies Unit-5, the student will be able to handle exception.
14.	VI	Big Data Analytics	After Studies Unit-1, the student will be able to understand the key issues in big data management. 2. After Studies Unit-2, the student will be able to outline big data planning, processing. 3. After Studies unit-3, the student will be able to Acquire fundamental enabling techniques and scalable. 4. After Studies Unit-4, the student will be able to examine various big data tools and techniques. 5. After Studies Unit-5, the student will be able to achieve adequate perspectives of Big Data Analytics in various Applications like recommender system, Social Media Applications etc.
15.	VI	Artificial Intelligence	After Studies Unit-1, the student will be able to recall the fundamentals of artificial intelligence 2. After Studies Unit-2, the student will be able to understand the techniques used for AI 3. After Studies Unit-3, the student will be able to know about knowledge representation. 4. After Studies Unit-4, the student will be able to gain knowledge about fuzzy logic. 5. After Studies Unit-



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			5, the student will be able to evaluate the design of new artificial intelligence and machine learning applications
16.	VI	Internet of Things	<p>After studied unit-1, the student will be able to find the characteristics and enabling technologies of IoT</p> <p>2. After Studies Unit-2, the student will be able to know about IoT architecture.</p> <p>3. After Studies Unit-3, the student will be able to compare and analyze IoT models.</p> <p>4. After Studies unit-4, the student will be able to select appropriate transport protocols, addressing and identification techniques suitable for IoT Domain</p> <p>5. After studied unit-5, the student will be able to select appropriate IoT based smart services for real time applications</p>

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