Annai College of Arts & Science
Quality Education for Today & Tomorrow
Kovilacheri, Kumbakonam. 612 503. Ph: 0435 2453007
Accredited by NAAC with "B" Grade & Recognized by UGC under Section 2(f) & 12(B)
Affiliated to Bharathidasan University, Tiruchirappalli. E-Mail:acasdmn@gmail.com

DEPARTMENT OF COMPUTER SCIENCE

Programme outcome, Programme Specific outcome and Course outcome

HOD **IQAC** **PRINCIPAL**

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Programme Outcome:

PO1: Able to understand, analyze, understand to implement academic into practical contexts.

PO2: Identify and relate connection between theory and applications.

PO3: Have an appropriate set of practical skills to ensure a positive career.

PO4: Work effectively in a multi-disciplinary environment and scope for endless learning.

PO5: Exhibit positive attitudes and values toward the discipline, so that they can contribute to society.

PO6: Develop effective communication skills for betterment in employability.

PO7: Communication effectively with whom they are communicating and the society to make effective presentations, and deliver clear instructions.

PO8: Function effectively as an individual, and can able to be a member or leader even diverse in teams.

Programme Specific Outcome:

PSO1: Think in a critical manner.

PSO2: Understand the information, and can able to identify, locate, evaluate, and effectively for the issue or problem which arise.

PSO3: Developing algorithm and practical approach in a logical manner.

PSO4: Acquire depth knowledge and can have clear understanding in advanced area of computer learning skills for the chosen course.

PSO5: Understand, formulate and use live projects like computerization of projects arising in various stages of life.

PSO6: Be able to achieve the tasks using a depth knowledge in software.

PSO7: Encourage his/her creativity for developing new techniques to serve the society.

PSO8: Develop an understanding of the precise knowledge of computer application, and able to integrate commercial with their logical skills.

PSO9: Be a life- long learner who can able to develop his/her life skills.

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Course Outcomes:

Name of the Course With Subject Code	Course Outcomes
PROGRAMMING IN C - 16SCCCS1	**CO1:** Finding fundamentals like constants, variables and structure of program. **CO2:** Managing input and output operations for the given variables. **CO3:** Explain conditional, control, and looping structures and knowledge of using them. Find angel of intersection of two curves. **CO4:** Find solution for group of variables shared by the common name ie. Arrays. **CO5:** Finding applications using character strings usages and string arrays with predefined and user defined functions. **CO6:** Define structures and their implications in terms of C. **CO7:** Explain unions and make comparative analysis with structures. **CO8:** Finding solution using pointers and their usage in IT field. **CO9:** Developing the knowledge in handling different types of files and their usages. **CO10:** To inculcate the knowledge to peers by the way of linked list, dynamic memory allocation. **CO11:** TO develop knowledge of pre-processor directives and software for societal usage.
PROGRAMMING IN C++ - 16SCCCS2	**CO1:** Explain properties of object oriented programming with base knowledge of C. **CO2:** To gain knowledge of token, conditional statement and control structure with usage of expressions. **CO3:** Define functions with their type with examples to cultivate the knowledge to peers. **CO4:** Explain about classes and objects and their impact on object oriented programming. **CO5:** To gain knowledge about constructors and destructors and with an implication of new operator. **CO6:** Explain about operator overloading and getting knowledge of type casting of different types of data. **CO7:** Solve the problems with oops concepts like poly morphism, virtual functions with the extending of classes with inheritance. **CO8:** Develop software with gained knowledge and also with standard template library with knowledge of file and string handling.

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PROGRAMMING IN JAVA - 16SCCCS3	**CO1:** To compare the object oriented programming languages with structure oriented Programming structure with key OOPs Concepts like inheritance, polymorphism and interface and their impact on JAVA to develop creative thinking , innovation , evaluation and implementing the programming knowledge with practical implementation using basic concepts of the software. **CO2:** To gain knowledge in basic concepts, wrapper classes, conditional statements, arrays and strings to include effective development of programming knowledge through practical, oral and visual communication. **CO3:** Implementing the software with the knowledge of abstract classes, inheritance, and interface with manipulation of different types of data using numerical and character type data resulting coincide with commercial conclusion. **CO4:** Identify errors while developing programming phase itself and handling the errors with exception handling and also to handling different types of exception. **CO5:** Determine particular logical expression with threads which are multi programs run at same time to find solution with given boundary conditions or initial conditions. **CO6:** Analyze real-world problems and knowledge in implementing them in the form of automation using different types of file streams. **CO7:** Knowledge of developing applet class and event class and have the knowledge of utilizing them in creation of commercial application
DATABASE SYSTEMS – 16 SCCCS4	**CO1:** To improve our knowledge for storing data in structured or unstructured pattern in the form of database. **CO2:** Describe the various form database languages and relational languages and database architecture. **CO3:** To find out the structure of the relational databases to formulate the relational algebra operations and modifying databases. **CO4:** Develop the knowledge of creating and implementing queries for different conditions. **CO5:** Developing knowledge of constraints in creating the database and developing embedded SQL for using in daily operations. **CO6:** To design the data in the form of ER model and develop the Knowledge of implementing in creation of banking database. **CO7:** To develop implementing skills of the database. **CO8:** Database system applications for studies to be improved.

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DATA STRUCTURES AND ALGORITHMS -16SCCCS5	**CO1:** To develop knowledge of data in some presentation like ordered list, stacks and queues. **CO2:** Explain polynomial addition in the form of data structures. **CO3:** TO develop different types of trees like binary, threaded binary and representing the data graphically in the form of graphs and to give more examples for representation, spanning trees and transitive closure for visual communication. **CO4:** Discuss the behavior of heap, merge, quick sort. **CO5:** Prove theorems of different types of sorting like quick sort and merge sort. **CO6:** Searching is done with quick search and binary search. **CO7:** Discuss the algorithm of finding the maximum and minimum of data in the given set of data. **CO8:** TO develop properties of optimal merge pattern. **CO9:** Verify the given sequence of data by using 8 queen problem and graph coloring.
COMPUTER NETWORKS-16SCCCS6	**CO1:** To gain knowledge in physical layer and network types and protocols for bandwidth utilization. To gain knowledge of different type transmission media and bandwidth utilization like multiplexing, spread spectrum. **CO2:** Develop the knowledge error correction cyclic codes and forward error correction which will help peers to constructs cellular phones and Bluetooth technology and satellite network. **CO3:** To find the effective best services and packet switching and network layer performance. **CO4:** Develop the knowledge in transport layers and user datagram protocol. **CO5:** Expertise the network with presentation and interactive session with peers.
DIGITIAL ELECTRONICS AND MICROPROCESSOR-16SCCCS7	**CO1:**Gain knowledge between different types of number system, and their conversion. **CO2:** Design various logics gates and simplify Boolean equations. **CO3:** Design various flip-flops, shift registers and determining outputs. **CO4:** Design different types of counters. **CO5:** Differentiate various types of computers and processors. **CO6:** Knowledge regarding the inner blocks of processor and their specific functions **CO7:** Knowledge in types of instructions and their usage. **CO8:** Write different programs using instructions of 8085 μp **CO9:** Differentiate various interrupts with their priorities

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SOFTWARE ENGINEERING-16SMBECS1:1	**CO1:** Understand the basic concepts of software engineering **CO2:** Apply the software engineering models in developing software applications **CO3:** Implement the object oriented design in various projects **CO4:** Knowledge on how to do a software project with in-depth analysis. **CO5:** To inculcate knowledge on Software engineering concepts in turn gives a roadmap to design a new software project.
OPERATING SYSTEMS - 16SCCCS8	**CO1:** To develop the knowledge in developing different types of operating systems. **CO2:** Ability to handle different types of partition systems and their architectural design. **CO3**:To develop the knowledge in handling different types of scheduling algorithms and policies which is responsible in wide ranges of disciplines such as parallel processing and multiprocessing. **CO4:** Ability to handle different types of storage devices like direct access storage devices. **CO5**: Ability to apply intuitions gained from linear algebra to other seemingly unrelated areas of mathematics. **CO6**: To develop knowledge for types of file system and their access storage time.
PROGRAMMING IN PHP - 16SCCCS9	**CO1:** Understand the essentials of PHP and find the importance in web page creation. **CO2:** Understand the meaning of derivative of a function. **CO3:** Gain knowledge of acquiring data in Web Pages, and PHP Browser and Handling. **CO4:** Understand the Object Oriented Programming concepts. **CO5:** Gain Knowledge of advanced Object Oriented Programming. **CO6:** Knowledge in different file handling. **CO7:** Understand the concepts of Working with database. **CO8:** Understand the concept of cookies. **CO9:** Acquire the idea about File Transfer Protocol. **CO10:** Understand various theorem using ajax.

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COMPUTER GRAPHICS - 16SMBECS2:1	**CO1:** Discuss about computer graphics systems like video display devices, raster and random scan systems, graphics monitors. **CO2:** Discuss about line drawing algorithm the linear transformations, rank nullity. **CO3:** To gain the knowledge for loading line, circle generation and area filling attributes drawing functions**.** **CO4:** To learn the basic transformation and matrix transformation and different types of transformation like composite transformations, window to view port co-ordinate transformations. **CO5:** To learn the different types of clipping like point line, Cohen Sutherland Liang Barks' line clipping, polygon, curve and text clipping. **CO6:** To develop the employment skills using competitive exam.
CORAL DRAW – 16RSBE4:2	**CO1:** Can able to acquire the concept of user interface, geometric figures. **CO2:** Coral draw is a vector based applications**.** **CO3:** Can understand the layers concept well. **CO4:** Will have a knowledge of working with bitmap and vector.
DREAM WEAVER-16RSBE4:3	**CO1:** Can able to use adobe dream weaver to create personal and professional website. **CO2:** Can able to develop a design and create the basic multipage website. **CO3:** Will develop standalone FTP program to upload files to web servers. **CO4:** Able to become a better professional in website development and design.
PROGRAMMING IN C(P) -16SCCCS1P	**CO1:** Finding fundamentals like constants, variables and structure of program. **CO2:** Managing input and output operations for the given variables. **CO3:** Explain conditional, control, and looping structures and knowledge of using them. Find angel of intersection of two curves. **CO4:** Find solution for group of variables shared by the common name i.e. Arrays. **CO5:** Finding applications using character strings usages and string arrays with predefined and user defined functions. **CO6:** Define structures and their implications in terms of C. **CO7:** Explain unions and make comparative analysis with structures. **CO8:** Finding solution using pointers and their usage in IT field. **CO9:** Developing the knowledge in handling different types of files and their usages. **CO10:** To inculcate the knowledge to peers by the way of linked list, dynamic memory allocation. **CO11:** TO develop knowledge of pre-processor directives and software for societal usage.

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PROGRAMMING IN C++(P) - 16SCCCS2P	**CO1:** To impart the basic concepts of Java Programming and to develop understanding about Basic Objected Oriented Design. **CO2:** Explain about classes and objects and their impact on object oriented programming. **CO3:** key structured programming constructs: declarations, sequence, selection, repetition, evaluating expressions. **CO4:** Be familiar with using C++ functions and the concepts related to good modular design. **CO5:** C++ using one-dimensional and two-dimensional arrays **CO6:** Be familiar with using C++ structures, pointers and reference parameters, and text file input/output.
PROGRAMMING IN JAVA(P) -16SCCCS3P	**CO1:** TO impart the basic concepts of Java Programming and to develop understanding about Basic Object Oriented Design using UML and Applet. **CO2:** Understands fundamental constructs of OOP. **CO3:** Get the knowledge of UML with skills to draw UML diagrams. **CO4:** Gets the knowledge of different forms of OOP implementation **CO5:** Apply object oriented programming concepts in problem solving through JAVA. **CO6:** Design and implement Applet and event handling mechanisms in programs.
DATABASE SYSTEMS(P) - 16SCCCS4P	**CO1:** Students learn how to design and create a good database and use various SQL operations. **CO2:** Able to master the basic concepts and understand the application of database system. **CO3:** Able to construct an Entity-Relationship (E-R) model from specifications and to transform to relational model. **CO4:** Able to construct unary /binary /set /aggregate queries in Relational Algebra. **CO5:** Understand and apply database normalization principles. **CO6:** Able to construct SQL queries to perform CRUD operations on database.(Create, Retrieve ,Update ,Delete) **CO7:** Understand principles of database transaction management, database recovery, security.

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DIGITAL ELACTRONICS AND MICROPROCESSOR(P) - 16SCCCS5P	**CO1:** To gain knowledge between different types of number system, and their conversion. **CO2:** Design various logics gates, flip-flops, shift registers, counters and determining outputs. **CO3:** Differentiate various types of computers, processors and interrupts with their priorities **CO6:** Knowledge regarding the inner blocks of processor and their specific functions **CO7:** Write programs using instructions of 8085 μp **CO8:** using 8085 μp to gain knowledge in types of instructions and their usage.
PROGRAMMING IN PHP (P)-16SCCCS6P	**CO1:** Can able to develop simple web application using server side PHP programming and Database Connectivity using MYSQL. **CO2:** Build well-formed XML Document and implement Web Service using Java script. **CO3:** Have a knowledge of AJAX and the scripting language to develop the attractive web site. **CO4:** Can able to design graphics using the PHP scripts. **CO5:** Will have the knowledge using the PHP scripts. **CO6:** Will have the knowledge to develop the application development environment.