PARK'S COLLEGE (AUTONOMOUS), TIRUPUR-5

B.Sc Information Technology

VISION

- Attain global excellence in the field of education and training and produce professionals of world standards to face the competitive tomorrow. Accept and adhere to the latest emerging technologies without crossing the boundaries of our rich culture.

Mission

- Create human assets with high ethics who would considerably contribute for the betterment of the nation.
- Provide a curriculum that better matches the requirements of the individual, industry and the society.
- Keep quality education affordable and reachable to all segments and sections of the society.
- Welcome technological developments in full swing and implement the best of them constantly.

Programme Educational Objectives (PEO)

Under Graduate of B.Sc.(Information Technology) program will be

PEO1: Make use of strong technical aptitude and domain knowledge to build up smart software solutions for the development of society.

PEO2: Utilizing research and entrepreneurial altitude enhanced with a rich set of communication, teamwork and leadership skills to outshine in their profession.

PEO3: Exhibiting permanent improvement in their profession through continuous learning, oblige human values and ethics.

PROGRAMME OUTCOMES (PO) FOR B.Sc. (INFORMATION TECHNOLOGY)

On completion of B.Sc.(Information Technology) programme, the students are expected to

PO1: Apply the knowledge of mathematics, science, and computing to the solution of complex scientific problems.

PO2: Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and applied sciences.

PO3: Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Create, select, and apply appropriate techniques, resources, and modern computing and IT tools including prediction and modeling to complex scientific activities with an understanding of the limitations.

PO6: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional practice.

PO7: Understand the impact of the professional software engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Apply ethical principles and commit to professional ethics and responsibilities and norms of the scientific practice.

PO9: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communicate effectively on complex activities with the scientific community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Demonstrate knowledge understanding of the scientific and management principles and apply these to one’s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Course Outcomes

Course Code and Course Name	Course Outcomes
Language-I	**CO1** : புதுக்கவிதை, மரபுக்கவிதை வாயிலாக இலக்கிய, வாழ்வியல் அறநெறிகளை உரைத்தல். **CO2:** சிறுகதை வழி வெளிப்படும் சமுதாயச் சிந்தனைகளை அறிந்து விழிப்புணர்வைப் பெறுதல். **CO3:** தன்னம்பிக்கையை ஏற்படுத்தல். **CO4:** மாணவர்களுக்கு மொழி அறிவை வளர்த்தல். **CO5:** இலக்கியங்கள் தோன்றி வளர்ந்த பின் புலத்தையறிதல்.
E01 **English-I**	**CO1:** To identify English as an easy language for the purpose of learning **CO2:** To acquire language skills with literary appreciation and critical thinking **CO3:** To construct a sentence competitively in the spoken and written communication **CO4:** To develop a passion for Literature and language **CO5:** To develop the different usage of sentences and modes of letter writing
28AGC1 **Programming in C**	**CO1 :** Understand the basic terminology used in C programming **CO2 :** Write, compile and debug programs in C language. **CO3 :** Design programs involving decision structures, loops and functions. **CO4 :** Understand the dynamics of memory by the use of pointers. **CO5 :** Understand the concept of files in C language
28AGC2 **Digital Fundamentals & Computer Organization**	**CO1 :** Acquire knowledge about Number System and Binary Codes, Complements, BCD, Excess3, Gray Code **CO2 :** Knowledge on Logic Circuits, Half adder, Full adder **CO3 :** Acquire knowledge about Register and Counter **CO4 :** Knowledge on Priority Interrupt Asynchronous data transfer **CO5 :** Acquire knowledge Memory Organization
28AAL1 **Mathematical Structure for Computer Science**	**CO1 :** Understand the basic concept Matrix. **CO2 :** Know the concept of Numerical Algebra **CO3 :** Know about Simultaneous Linear Algebraic Equations **CO4 :** Know about Interpolation and Newton's forward and Backward for equal intervals **CO5:** Understand the Numerical Differentiation
28ACL1 **Programming in C Lab**	**CO1 :** Understand the basic concept of C Programming. **CO2 :** Acquire the knowledge about Operators, Control Statements & Looping. **CO3 :** Understand the role of functions and files involving the

Course Code and Course Name	Course Outcomes
	idea of modularity. **CO4 :** Understand the string operations in detail. **CO5 :** Acquire the knowledge about the pointer concept.
FCA **Environmental Studies**	**CO1 :** Understand and gain a rigorous foundation in various scientific disciplines as they apply to environmental science, such as ecology, evolutionary biology, hydrology, and human behavior. **CO2 :** Understand the primary environmental problems and the science behind those problems and potential solutions. **CO3 :** Acquire the knowledge about the social issues. **CO4 :** Learn about the field work of the environmental issues. **CO5 :** Acquire the knowledge about the pollution and its effects.
Communicative English	**CO1:** Develop and effectively communicate through verbal/oral communication and improve the listening skills. **CO2:** Develop and actively participate in group discussion / meetings / interviews and prepare & deliver presentations. **CO3:** Understand and develop effectively in multi-disciplinary and heterogeneous teams through the knowledge of team work, inter- personal relationships, conflict management and leadership quality. **CO4:** Understand the individual through goal/target setting, self motivation and practicing creative thinking. **CO5:** Enrich the personality.
Language-II	**CO1:** சிற்றிலக்கியம், காப்பியம் வாயிலாக இலக்கிய, வாழ்வியல் அறநெறிகளை உரைத்தல். **CO2:** கட்டுரை வழி வெளிப்படும் சமுதாயச் சிந்தனைகளை அறிந்து விழிப்புணர்வைப் பெறுதல். **CO3:** தன்னம்பிக்கையை வளர்த்தல். **CO4:** இலக்கணங்களைக் கற்று தருதல், படைப்புத் திறனை உக்குவித்தல். **CO5:**மாணவர்களை வேலை வாய்ப்புடன் கூடிய போட்டித் தேர்வுகளுக்குத் தயார்ப்படுத்துதல்.
E02 **English-II**	**CO1:** To read and comprehend English in the context of acquisition of soft (life) skill. **CO2:** To acquire knowledge about three basic genres of literature namely poetry, prose and drama along with their subdivisions emergence in various ages. **CO3:** To understanding of the various aspects of the Essay-its

Course Code and Course Name	Course Outcomes
	elements, kinds, structure and the nuances of language **CO4:** To communicate clearly, effectively and handle their day to day affairs well with their knowledge of language skills. **CO5:** To apply the basic grammatical rules learnt from the prescribed text.
28AGC3 **Object Orientented Programming Using Java**	**CO1 :** To understand the principles and practice of object oriented analysis **CO2 :** Ability to implement basic concepts, compile, test and run Java programs comprising more than one class, to address a particular software problem **CO3 :** Ability to make use of members of classes found in the Java API packages and interfaces **CO4 :** Understand the concept of File handling in java **CO5 :** Demonstrate the ability to employ various types of selection constructs in a Java program.
28AGC4 **Fundamentals Of Data Structures**	**CO1 :** Analyze performance of algorithms and choose the appropriate data structure and algorithm design method for a specified application **CO2 :** Demonstrate understanding of the abstract properties of various data structures such as stacks, queues, lists, trees and graphs and use various data structures effectively in application programs. **CO3:** Understand and apply fundamental algorithmic problems including Tree traversals, Graph traversals, and shortest paths. **CO4:** Demonstrate understanding of various sorting algorithms, including bubble sort, insertion sort, selection sort, heap sort and quick sort. **CO5:** Gain knowledge about Hashing and Collisions and B-Trees
28AAL2 **Probability And Statistics**	**CO1 :** Understand the basic concept of Probability and Conditional probability. **CO2 :** Know the concept of random variables, expectations and moment generating functions. **CO3 :** Know about some standard distributions. **CO4 :** Know about correlation and regression. **CO5 :** Understand the concept of testing of hypothesis
28ACL2 **Object Orientented Programming Using Java Lab**	**CO1 :** To understand the Principles of object oriented Programming **CO2 :** Ability to implement to compile, test and run Java programs.

Course Code and Course Name	Course Outcomes
	CO3 : Ability to make use of applet Programming **CO4 :** Understand the concept of Thread handling in java **CO5 :** Get Basic Knowledge on Menu creation in Applets
FCB **Human Rights , Constitution Of India , Intellectual Property Rights**	**CO1 :** Understand and apply written and oral communication skills to business. **CO2 :** Understand and analyze the global legal environment. **CO3 :** To familiarize the complex problems, find and deploy a variety of legal authorities, and communicate effectively in a variety of settings. **CO4 :** Understand and Develop skills in business situations. **CO5 :** Acquire the knowledge about the constitution of India.
SS1 **Communicative English**	**CO1 :** Develop and effectively communicate through verbal/oral communication and improve the listening skills. **CO2 :** Develop and actively participate in group discussion / meetings / interviews and prepare & deliver presentations. **CO3 :** Understand and develop effectively in multi-disciplinary and heterogeneous teams through the knowledge of team work, Inter-personal relationships, conflict management and leadership quality. **CO4 :** Understand the individual through goal/target setting, self motivation and practicing creative thinking. **CO5 :** Acquire the knowledge about the correct usage and conversation practice.
Language-III	**CO1:** பக்தி இலக்கியம் வாயிலாக இலக்கிய, வாழ்வியல் அறநெறிகளை உரைத்தல். **CO2:** நீதி இலக்கியம் வாயிலாக வாழ்வியல் அறநெறிகளை உரைத்தல். **CO3:** நவீன கருவிகளை அறியச் செய்தல். **CO4:** இலக்கணங்களைக் கற்றுத் தருதல், படைப்புத் திறனை ஊக்குவித்தல். **CO5:** தற்கால கவிஞர்களைப் பற்றியும், சங்க இலக்கியங்களைப் பற்றியும் அறியச் செய்தல்.
E03 **English-III**	**CO1:** To identify the concepts of basic Grammar. **CO2:** To understand the proficiency of the English writer's narrative skill's of their experience. **CO3:** To express their own notions, in prose, poetry and short story. **CO4:** To develop an interest for literature and language **CO5:** To distinguish the development of prose through different periods.

Course Code and Course Name	Course Outcomes
28AGC5 **Relational Database Management System**	**CO1 :** To analyze Data Base Management System design methodology. **CO2 :** Acquire knowledge about data modeling using entity and relation. **CO3 :** Design data base and normalize data and understand how query are being processed and executed. **CO4 :** Draw various data models for Data Base and Write queries mathematically and understanding of normalization theory and apply such knowledge to the normalization of a database **CO5 :** Formulate, using SQL, solutions to a broad range of query and data update problems.
28ADSC1 **Cyber Security**	**CO1 :** Understand the basics of Cyber security **CO2 :** Apply the appropriate security over internet and mobile devices **CO3 :** Understand the legal frame work of Cyber security and different security threats **CO4 :** Analyze and adopt the required firewall and security **CO5 :** Examine the method and procedure for cryptography and apply it
28AAL3 **Business Accounting**	**CO1 :** To understand the principles and concepts of accounting system to maintain the business transactions systematically. **CO2 :** Acquire the conceptual skills to prepare financial statements. **CO3 :** Learn the various techniques and methods of depreciation followed in the business. **CO4 :** Understand the role of cost accounting in the complex business environment. **CO5 :** Understand the costing system and cost management system.
28ACL3 **Relational Database Management System Lab**	**CO1 :** Design and implement a database schema for a given problem-domain **CO2 :** Normalize a database **CO3 :** Populate and query a database using SQL DML/DDL commands. **CO4 :** Declare and enforce integrity constraints on a database using a state- of-the-art RDBMS programming PL/SQL **CO5 :** Knowledge about Table Joining and Recursive Functions
28ASB1 **Html 5 And Css 3**	**CO1 :** Understand the basic concepts of WEB and HTML structure

Course Code and Course Name	Course Outcomes
	CO2 : Formatting the elements in webpages **CO3 :** Create Responsive grids, container with navigation **CO4 :** Apply style to the static web page and implement list and links **CO5 :** Create Static Web page with Images and tables
General Awareness	**CO1:**This course is designed to create social awareness at a preliminary level for students across the board. **CO2:**To help the students to upgrade their knowledge on current challenges and issues of Indian society. **CO3:** Understand and acquire the knowledge about the current information around the world. **CO4:** Understand the multi-cultural diversity of Indian society through its demographic composition. **CO5:** To understand the different levels of government administration.
Mathematical Skills	**CO1:** Problem solving techniques for aptitude problems **CO2:** Prepare themselves for various competitive examinations. **CO3:**Applications of simple formulae **CO4:**Acquaintance to shortcut methods **CO5:**Acquaintance to various elementary concepts
Language-IV	**CO1:** சங்க கால மக்களின் வாழ்வியலை அறியச் செய்தல். அற இலக்கியங்கள் வழி ஒழுக்கங்களைக் கற்றல். **CO2:** நாவல் வழி வெளிப்படும் சமுதாயச் சிந்தனைகளை அறிந்து விழிப்புணர்வைப் பெறுதல். **CO3:** நவீன கருவிகளை அறியச் செய்தல். **CO4:** மொழி அறிவை வளர்த்தல், படைப்புத் திறனை வளர்த்தல். **CO5:** மாணவர்களுக்குத் தன்னம்பிக்கை மற்றும் தலைமைப் பண்பை வளர்த்தல், மாணவர்களை வேலை வாய்ப்புடன் கூடிய போட்டித் தேர்வுகளுக்குத் தயார்ப்படுத்துதல்.
E04 English-IV	**CO1:** To understand the narrative style of the renowned prolific writers' **CO2:** To analyse and demonstrate their writing skills. **CO3:** To cherish the populous works of eminent classical writers. **CO4:** To develop an ability to write in appropriate genres for a variety of purposes and audience **CO5:** To be aware of important grammar and confidence in their own voice as a writer
28ADSC2 Social Networks And Data	**CO1 :** Work on the internals components of the social network

Course Code and Course Name	Course Outcomes
Analytics	**CO2 :** Model and visualize the social networks **CO3 :** Mine the behavior of the users in the social network **CO4 :** Predict the possible next outcome of the social network **CO5 :** Apply social network in real time applications
28AAL4 **Business Accounting Software Lab**	**CO1 :** Enhances the computerized accounting skills. **CO2 :** Ability to interpret the accounting & inventory statements by applying various financial tools. **CO3 :** Acquire knowledge on the preparation of statutory compliance. **CO4 :** Acquaint to prepare bill-wise statement. **CO5 :** Learn to extract financial and inventory reports.
28ASB2 **Web Design With Javascript**	**CO1 :** Understand to develop a static & dynamic webpage by the use of HTML tags. **CO2 :** Implement interactive web page(s) using HTML, CSS and java script. **CO3 :** Understand the basic set of HTML terminology, techniques, and "tags" while practicing skills that will allow them to create and publish original Web pages for a variety of uses;. **CO4 :** Construct Web pages with text and Web editors **CO5 :** Acquire the knowledge about the ASP and its procedures
28ACL4 **JavaScript Lab**	**CO1 :** Understand different data types in JavaScript, including numbers, strings, arrays, and objects. Perform basic operations and manipulations with JavaScript variables and data types **CO2 :** Access and manipulate HTML elements using JavaScript. Use JavaScript to modify element attributes, styles, and content dynamically. **CO3 :** Write event handler functions to respond to user interactions, such as clicks, mouse movements, and Keyboard events. Understand event propagation and utilize event delegation techniques. **CO4 :** Learn techniques for debugging JavaScript code, including using console.log statements and browser developer tools. **CO5 :** Explore popular JavaScript libraries and frameworks, such as J Query or React, and understand their role in web development.
Women's Rights	**CO1:**To gain an understanding about barriers of society and impact of law to mitigate this issues **CO2**:To make students understand the basic concepts in comparative politics.

Course Code and Course Name	Course Outcomes
	CO3: To understand the relationship between patriarchy, power and violence. **CO4:**To recognize key women's human rights defenders who have made important contribution to furthering the rights of women and girls. **CO5:** Demonstrate a working knowledge of feminism and the field of Women and Gender Studies.
SS2 **Mathematical Skills**	**CO1 :** Problem solving techniques for aptitude Problems. **CO2 :** Prepare themselves for various competitive examinations. **CO3 :** Applications of simple formulae **CO4 :** Acquaintance to shortcut methods **CO5 :** Applying the techniques in real life problems
COC1/COC2/COC3 **Extension Activities**	**CO1 :** Identify and apply the elements of social activities **CO2 :** Demonstrate effective use of government schemes and projects **CO3 :** Investigate visual strengths to promote NCC activities **CO4 :** Identify and apply the sustainable use of club activities **CO5 :** Create the awareness to people about the environmental pollution
28AGC6 **Operating System**	**CO1 :** Understand the operating systems objectives and functionality along with system programs and system calls. **CO2 :** Design deadlock, prevention and avoidance algorithms. **CO3 :** Various Scheduling algorithms. **CO4 :** Compare and contrast various memory management schemes. **CO5 :** Design and Implement a prototype file systems.
28ADSC3 **Introduction To Machine Learning**	**CO1 :** Understanding of the fundamental issues and hallenges of machine learning: data, model selection, model complexity, etc. **CO2** : Understanding of the strengths and weaknesses of many popular machine learning approaches. **CO3 :** Explain about the concepts of computational learning theory and dimensionality Reduction **CO4 :** Appreciate the underlying mathematical relationships within and across Machine Learning algorithms and the paradigms of supervised and un-supervised learning.
28AGE1A **Generic Elective - I** **A. Data Mining And**	**CO1 :** Acquire knowledge about Tokens. Control Structures, Decision Making Statements – Loops in C++ **CO2 :** Knowledge on Class and Objects, Friend functions,

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Warehousing	Overloading member functions, and Constructor & Destructors **CO3 :** Acquire knowledge about Operator Overloading, Type conversion , Inheritance, Types of inheritance, Virtual Base classes. **CO4 :** Knowledge on Pointers, Pointer to class and objects, Arrays Characteristics, Memory models and Virtual Function **CO5 :** Acquire knowledge about Files and Steps of File Operations, Exception Handling, Strings
28AGE1B **Generic Elective - I** **B. Client / Server Computing**	**CO1 :** Describe and Synthesis concepts of programming for networking, including, multithreading, delegate and event handling, remote files I/O and database connectivity. **CO2 :** Develop Code for basic network and Internet protocols including sockets, stream and packet protocols such as TCP, UDP,HTTP, FTP and SMTP protocols for creating simple two tier client server applications. **CO3 :** Program multi-tier client server computing systems with remote and web services protocols for creating distributed client server systems. **CO4 :** Design and develop specialized client server systems with better security, scalability, queuing, and optimal performance and bandwidth utilization. **CO5 :** VProgram different network programming tools, network monitoring, tracking and analyzing advanced client server systems.
28AGE1C **Generic Elective - I** **C. Industry 4.0**	**CO1 :** Acquire knowledge about Industry 4.0 and for digital transformation **CO2 :** Familiarize and learn the student with the concept of Artificial Intelligence. **CO3 :** To enable the students to understand the Big data and data analytics **CO4 :** Insight into the various methods of applications and tools of Industry 4.0 **CO5 :** Students can attain confident and necessary skills to attend their jobs 2030
28AGE1D **Generic Elective - I** **D.Software Engineering**	**CO1 :** Plan a software engineering process life cycle , including the specification, design, implementation, and testing of software systems **CO2 :** Evaluate the quality of the requirements, analysis and design work done during the module.

Course Code and Course Name	Course Outcomes
	CO3 : Design and communicate ideas about software system solutions at different levels **CO4 :** Analyze and translate a specification into a design, and then realize that design practically, using an appropriate software engineering methodology. **CO5 :** Know how to develop the code from the design and effectively apply relevant standards and perform testing, and quality management and practice
28ADSE1A **Discipline Specific Elective1** **A.Internet Of Things**	**CO1 :** Explain the definition and usage of the term ―Internet of Things‖ in different contexts **CO2 :** Understand the key components that make up an IoT system **CO3 :** Differentiate between the levels of the IoT stack and be familiar with the key technologies and protocols employed at each layer of the stack **CO4 :** Apply the knowledge and skills acquired during the course to build and test a complete, working IoT system involving prototyping, programming and data analysis **CO5 :** Discover where the IoT concept fits within the broader ICT industry and possible future trends
28ADSE1B **Discipline Specific Elective1** **B.Big Data Analytics**	**CO1 :** Outline the basic big data concept. **CO2 :** Categorize and summarize the processing in Big Data and its importance. **CO3 :** Simulate various Big Data technologies like Hanoop, MapReduce, R and NO- SQL. **CO4 :** Determine tools and techniques to analyze Big Data. **CO5 :** Resolve problems associated with Big Data with features of R programming.
28ADSE1C **Discipline Specific Elective1** **C.Block Chain Technology**	**CO1 :** Block chain Technology Mechanisms & Networks **CO2 :**The Bitcoin Mining Process, Mining Developments **CO3 :** Etherem, Consensus Mechanisms, Metamask Setup,Ethereum **CO4 :**Distributed Ledger Technology & its Challenges **CO5 :**Internet of Things, Medical Record Management System
28ASB3 **Jquery And Angular Js**	**CO1 :** Demonstrate understanding of JavaScript and Jquary scripting fundamentals. **CO2 :** Analyze and evaluate website applications for design, efficiency and usability **CO3 :** Utilize the HTML5 canvas element to draw animate, and add interactivity to elements **CO4 :** Get familiar with client side JavaScript frameworks and Angular framework.

Course Code and Course Name	Course Outcomes
	CO5 : Boost your hire ability through innovative and independent
28ACL5 Angular JS Lab	**CO1 :** Create a simple AngularJS application with modules, controllers, and data binding. **CO2 :** Create custom services to encapsulate reusable code and share data between components. **CO3 :** Apply AngularJS filters to transform and manipulate data displayed in the application. Use AngularJS routing to create single-page applications with multiple views. **CO4 :** Write unit tests for AngularJS components, such as controllers, services, and directives, using testing frameworks like Jasmine. **CO5:** Understand security considerations when deploying AngularJS applications, such as handling authentication and protecting against common vulnerabilities.
28ACIR Internship / Field Project	**CO1 :** To Integrate theory with practical. **CO2 :** To give opportunity to students to work with industrial expert. **CO3 :** To introduce students to work culture. **CO4 :** Acquire skills in communication, management team work. **CO5 :** To understand scope, functions and job responsibilities in various departments of an organization.
Managerial Skills	**CO1:** Develop and effectively communicate through verbal/ oral communication and improve the listening skills. **CO2:** Develop and actively participate in group discussion / meetings / interviews and prepare & deliver presentations. **CO3:** Understand and develop effectively in multi-disciplinary and heterogeneous teams through the knowledge of team work, Inter- personal relationships, conflict management and leadership quality. **CO4:** Understand the individual through goal/target setting, self motivation and practicing creative thinking. **CO5:** Acquire the knowledge about the reasoning ability and mental attitude.
28AGC7 Computer Networks	**CO1 :** Understand the concepts of networks, types and architectures. **CO2 :** Apply addressing entities of network with implementation of TCP and UDP protocols. **CO3 :** Identify the networks technologies for error free transmission of data **CO4 :** Apply various routing protocols in data communication

Course Code and Course Name	Course Outcomes
	to select optimal path. **CO5 :** Develop real time applications of networks
28ADSC4 **Mobile Application Development Programming**	**CO1 :** Know the basic concepts and technique of developing applications for the Android mobile environment. **CO2 :** Able to use the SDK and other development tools. And the basic concepts of Android phone features and capabilities. **CO3 :** Be able to understand Java programming as it related to application development for the Android platform. **CO4 :** Working with Android Operating System and Mobile Application development Tools **CO5 :** Understand about data base connectivity and accessing fields of database
28ADSC5 **Ethical Hacking**	**CO1 :** Explain the importance of security and various types of attacks **CO2 :** Understand the concepts of scanning and system hacking **CO3 :** Explain about penetration testing and its methodology **CO4 :** Identify the various programming languages used by security professional
28ADSE2A **Discipline Specific Elective2: Cloud Computing**	**CO1 :** Understand core concepts of the cloud computing, the characteristics, advantages and challenges brought about by the various models and services in cloud computing. **CO2 :** Apply the fundamental concepts in data centers to understand the tradeoffs in power, efficiency and cost by Load balancing approach. **CO3 :** Illustrate the fundamental concepts of cloud storage and demonstrate their use in storage systems. **CO4 :** Analyze the billing of resources and understand various managements and how to deal with disasters. **CO5 :** Get familiarize with Local Clouds and Migrating between Clouds.
28ADSE2B **Discipline Specific Elective2: Image & Speech Processing**	**CO1 :** Understand the Digital Image and Speech fundamentals. **CO2 :** Apply Image Enhancement techniques. **CO3 :** Use Image Compression techniques in Image applications. **CO4 :** Understand Time domain models for Speech processing. **CO5 :** Work on Speech Recognition and Speaker Verification systems.

Course Code and Course Name	Course Outcomes
28ADSE2C **Discipline Specific Elective2: Deep Learning**	**CO1 :** Understand the basic concepts and techniques of Deep Learning **CO2 :** To understand and apply the Machine learning principles **CO3 :** To study the deep learning architectures **CO4 :** Explore and create deep learning applications with tensor flow
28AIDE **Inter Disciplinary Elective Multimedia Applications**	**CO1 :** Understand the fundamentals of science and have the ability to apply them. **CO2 :** Create a basic website using HTML and CSS Design and implement dynamic web page with validation using java script **CO4 :** To understand about various latest interactive multimedia devices, the basic concepts about images and image formats. **CO5 :** Design, develop web pages and implement systems and processes related to Internet
28ACL6 **Mobile Application Development Lab**	**CO1 :** Know the basic concepts and technique of developing applications for the Android mobile environment. **CO2 :** Able to use the SDK and other development tools. And the basic concepts of Android phone features and capabilities. **CO3 :** Be able to understand Java programming as it related to application development for the Android platform. **CO4 :** Programs Development under Mobile Environment **CO5 :** Difference between Computer and Mobile Programming
28ACPV **Project & Viva-Voce**	**CO1 :** Analyze the problem Domain **CO2 :** Find the best Computer Language and implement **CO3 :** Develop a project model and get approval from the user **CO4 :** Develop final software model **CO5 :** Test and Implement the software in the customer site.
SS3 **Managerial Skills**	**CO1 :** To develop and effectively communicate through verbal/oral communication and improve the listening skills. **CO2 :** To develop and actively participate in group discussion / meetings /interviews and prepare &deliver presentations. **CO3 :** To understand and develop effectively in multi-disciplinary and heterogeneous to through the knowledge of team work, Inter- personal relationships,

Course Code and Course Name	Course Outcomes
	conflict management and leadership quality. **CO4 :** To understand the individual through goal/target setting, self motivation and practicing creative thinking.
Club Activities	**CO1:**Identify and apply the elements of club activities **CO2:**Demonstrate effective use of government schemes and projects **CO3:**Investigate visual strengths to promote club activities **CO4:**Identify and apply the sustainable use of club activities **CO5:**Create the awareness to the student about club activities