



Government Degree College

NAAC Accredited with 'C' Grade

**PORUMAMILLA – 516 193, Kadapa District
Andhra Pradesh**

College website :: www.gdcporumamilla.ac.in

Dr.S.Naresh, M.Sc., Ph.D.,

Principal

Cell:8985356051

E-Mail: porumamilla.jkc1@gmail.com,



Programme Outcomes, Programme Specific Outcomes & Course Outcomes

Knowledge outcomes: After completing B.Sc. Computer Science Program students will be able to:

PO1: To develop problem solving abilities using a computer.

PO2: To prepare necessary knowledge base for research and development in Computer Science. Skill outcomes: After completing B.Sc. Computer Science Program students will be able to:

PO3: To build the necessary skill set and analytical abilities for developing computer-based solutions for real life problems.

PO4: communicate scientific information in a clear and concise manner both orally and in writing.

PO5: To train students in professional skills related to Software Industry. Generic outcomes: Students will

PO6: Have developed their critical reasoning, logic judgment and communication skills.

PO7: Augment the recent developments in the field of IT and relevant fields of Research and Development.

PO8: Enhance the scientific temper among the students so that to develop a research culture and Implementation the policies to tackle the burning issues at global and local level

PSO1: Students get knowledge and training of technical subjects so that they will be technical professional by learning C programming, Relational Database Management, Data Structure, Software Engineering, Graphics, Java, PHP, Networking, Theoretical Computer Science, System programming, Object Oriented Software Engineering.

PSO2: Students understand the concepts of software application and projects.

PSO3: Students understand the computer subjects with demonstration of all programming and theoretical concepts with the use of ICT.

PSO4: Development of in-house applications in terms of projects

PSO5: Students will build up programming, analytical and logical thinking abilities.

PSO6: Aware them to publish their work in reputed journals

PSO7: To make them employable according to current demand of IT Industry and responsible citizen.

DEPARTMENT OF COMPUTER SCIENCE AND APPLICATIONS

COURSE STRUCTURE

Year	Semester	Course	Title	Hrs./ Week	Credits	
I	I	1	Essentials and applications of Mathematical, Physical and Chemical Sciences	5	4	
		2	Advances in Mathematical, Physical and Chemical Sciences	5	4	
	II	3	Problem Solving using C - (T)	3	3	
			Problem Solving using C- (P)	2	1	
		4	Digital Logic Design- (T)	3	3	
			Digital Logic Design- (P)	2	1	
II	III	5	Object Oriented Programming using Java- (T)	3	3	
			Object Oriented Programming using Java - (P)	2	1	
		6	Data Structures using C - (T)	3	3	
			Data Structures using C - (P)	2	1	
		7	Computer Organization - (T)	3	3	
			Computer Organization- (P)	2	1	
		8	Operating Systems - (T)	3	3	
			Operating Systems - (P)	2	1	
	IV	9	Database Management System - (T)	3	3	
			Database Management System - (P)	2	1	
		10	Object Oriented Software Engineering - (T)	3	3	
			Object Oriented Software Engineering - (P)	2	1	
		11	Data Communications and Computer Networks - (T)	3	3	
			Data Communications and Computer Networks - (P)	2	1	
	III	V	12	Web Interface Designing Technologies - (T)	3	3
				Web Interface Designing Technologies - (P)	2	1
			13	Web Applications Development using PHP & MYSQL - (T)	3	3
				Web Applications Development using PHP & MYSQL - (P)	2	1
14 A			Internet of Things (T)	3	3	
			Internet of Things (P)	2	1	
			OR			
14 B			Foundations of Data Science - (T)	3	3	
				Foundations of Data Science - (P)	2	1
			15 A	IoT Applications Development and Programming - (T)	3	3
	IoT Applications Development and Programming - (P)	2		1		
		OR				
	15 B	Application development using Python - (T)	3	3		
		Application development using Python - (P)	2	1		

	VI		Internship/ Apprenticeship			
IV	VII	16 A	Advanced Data Structures - (T)	3	3	
			Advanced Data Structures - (P)	2	1	
			OR			
		16 B	Artificial Intelligence - (T)	3	3	
			Artificial Intelligence - (P)	2	1	
		17 A	Computer Graphics - (T)	3	3	
			Computer Graphics - (P)	2	1	
			OR			
		17 B	Design and Analysis of Algorithms - (T)	3	3	
			Design and Analysis of Algorithms - (P)	2	1	
		18 A	Principles of Machine Learning - (T)	3	3	
			Principles of Machine Learning - (P)	2	1	
			OR			
		18 B	Software Testing- (T)	3	3	
			Software Testing- (P)	2	1	
		SEC	19 A	Advanced Java Programming - (T)	3	3
				Advanced Java Programming - (P)	2	1
				OR		
	19 B		Mobile Application Development - (T)	3	3	
			Mobile Application Development - (P)	2	1	
	20 A		MEAN Stack Development - (T)	3	3	
			MEAN Stack Development - (P)	2	1	
			OR			
	20 B		R Programming - (T)	3	3	
			R Programming - (P)	2	1	
	VIII		21 A	Big Data Technologies - (T)	3	3
				Big Data Technologies - (P)	2	1
			OR			
		21 B	Compiler Design - (T)	3	3	
			Compiler Design - (P)	2	1	
22 A		Data Mining Concepts & Techniques - (T)	3	3		
		Data Mining Concepts & Techniques - (P)	2	1		
		OR				
22 B	Digital Image Processing - (T)	3	3			
	Digital Image Processing - (P)	2	1			

		23A	Information Security and Cryptography - (T)	3	3	
			Information Security and Cryptography - (P)	2	1	
			OR			
		23 B	Mobile ADHOC and Sensor Networks - (T)	3	3	
			Mobile ADHOC and Sensor Networks - (P)	2	1	
		SEC	24 A	Advanced DBMS - (T)	3	3
	Advanced DBMS - (P)			2	1	
			OR			
	24 B		Cloud Computing - (T)	3	3	
			Cloud Computing - (P)	2	1	
	25 A		Computer Vision - (T)	3	3	
			Computer Vision - (P)	2	1	
			OR			
	25 B		Digital Forensics - (T)	3	3	
			Digital Forensics - (P)	2	1	

I SEMESTER

COURSE 1 : ESSENTIALS AND APPLICATIONS OF MATHEMATICAL, PHYSICAL AND CHEMICAL SCIENCES

Course Outcomes:

CO1: Apply critical thinking skills to solve complex problems involving complex numbers, trigonometric ratios, vectors, and statistical measures.

CO2: To Explain the basic principles and concepts underlying a broad range of fundamental areas of physics and to Connect their knowledge of physics to everyday situations

CO3: To Explain the basic principles and concepts underlying a broad range of fundamental areas of chemistry and to Connect their knowledge of chemistry to daily life.

CO4: Understand the interplay and connections between mathematics, physics, and chemistry in various applications. Recognize how mathematical models and physical and chemical

CO5: principles can be used to explain and predict phenomena in different contexts.

CO6: To explore the history and evolution of the Internet and to gain an understanding of network security concepts, including threats, vulnerabilities, and countermeasures.

I Semester

Course 2: ADVANCES IN MATHEMATICAL, PHYSICAL AND CHEMICAL SCIENCES

Course Outcomes:

CO1: Explore the applications of mathematics in various fields of physics and chemistry, to understand how mathematical concepts are used to model and solve real-world problems.

CO2: To Explain the basic principles and concepts underlying a broad range of fundamental areas of physics and to Connect their knowledge of physics to everyday situations.

CO3: Understand the different sources of renewable energy and their generation processes and advances in nano materials and their properties, with a focus on quantum dots. To study the emerging field of quantum communication and its potential applications. To gain an understanding of the principles of biophysics in studying biological systems. Explore the properties and applications of shape memory materials.

CO4: Understand the principles and techniques used in computer-aided drug design and drug delivery systems, to understand the fabrication techniques and working principles of nano sensors. Explore the effects of chemical pollutants on ecosystems and human health.

CO5: Understand the interplay and connections between mathematics, physics, and chemistry in various advanced applications. Recognize how mathematical models and physical and chemical principles can be used to explain and predict phenomena in different contexts.

CO6: Understand and convert between different number systems, such as binary, octal, decimal, and hexadecimal. Differentiate between analog and digital signals and understand their characteristics. Gain knowledge of different types of transmission media, such as wired (e.g., copper cables, fiber optics) and wireless (e.g., radio waves, microwave, satellite)..

II Semester

Course 3: Problem Solving using C

Course Outcomes:

Upon successful completion of the course, a student will be able to:

CO1: Understand the working of a digital computer and Fundamental constructs of Programming

CO2: Analyze and develop a solution to a given problem with suitable control structures

CO3: Apply the derived data types in program solutions

CO4: Use the 'C' language constructs in the right way

CO5: Apply the Dynamic Memory Management for effective memory utilization

II Semester

Course 4: Digital Logic Design

Course Outcomes:

Upon successful completion of the course, the students will be able to

CO1: Understand how to Convert numbers from one radix to another radix and perform arithmetic operations.

CO2: Simplify Boolean functions using Boolean algebra and k- maps

CO3: Design adders and subtractions circuits

CO4: Design combinational logic circuits such as decoders, encoders, multiplexers and de multiplexers.

CO5: Use flip flops to design registers and counters.

III Semester

Course 5: Object Oriented Programming using Java

Course Outcomes:

Upon successful completion of the course, a student will be able to:

CO1: Understand the basic concepts of Object-Oriented Programming and Java Program Constructs

CO2: Implement classes and objects and analyze Inheritance and Dynamic Method Dispatch

CO3: Demonstrate various classes in different packages and can design own packages

CO4: Manage Exceptions and Apply Threads

CO5: Create GUI screens along with event handling

III Semester

Course 6: Data Structures using C

Course Outcomes:

Upon successful completion of the course, a student will be able to:

CO1: Understand various Data Structures for data storage and processing.

CO2: Realize Linked List Data Structure for various operations

CO3: Analyze step by step and develop algorithms to solve real world problems by implementing Stacks, Queues data structures.

CO4: Understand and implement various searching & sorting techniques.

CO5: Understand the Non-Linear Data Structures such as Binary Trees and Graphs

III Semester

Course 7: Computer Organization

Course Outcomes:

Upon successful completion of the course, the students will be able to:

CO1: Identify different types of instructions

CO2: Differentiate between micro-programmed and hard-wired control units.

CO3: Analyse the performance of hierarchical organization of memory.

CO4: Summarize different data transfer techniques.

CO5: Demonstrate arithmetic operations on fixed- and floating-point numbers and illustrate concepts of parallel processing.

III Semester

Course 8: Operating Systems

Course Outcomes:

Upon successful completion of the course, a student will be able to:

CO1: Demonstrate knowledge and comprehension of operating system functions.

CO2: Analyze different process scheduling algorithms and apply them to manage processes and threads effectively

CO3: Create strategies to prevent, detect, and recover from deadlocks, and design solutions for inter-process communication and synchronization problems.

CO4: Compare and contrast different memory allocation strategies and evaluate their effectiveness

CO5: Evaluate disk scheduling algorithms while implementing OS security measures

IV Semester

Course 9: Database Management Systems

Course Outcomes: On successful completion of the course, students will be able to

CO1: Differentiate between database systems and file based systems

CO2: Design a database using ER model

CO3: Use relational model in database design

CO4: Use SQL commands for creating and manipulating data stored in databases.

IV Semester

Course 10: Object Oriented Software Engineering

Course Outcomes:

Upon successful completion of the course, a student will be able to:

CO1: Understand and apply the fundamental principles of Object-Oriented Programming (OOP) concepts and Unified Modeling Language (UML) basics, in the development of software solutions.

CO2: Analyze and specify software requirements, develop use cases and scenarios, apply object-oriented analysis and design (OOAD) principles

CO3: Familiar with the concept of test-driven development (TDD) and its practical implementation

CO4: Analyze and Evaluate Software Maintenance and Evolution Strategies

CO5: Apply Advanced Object-Oriented Software Engineering Concepts

IV Semester

Course 11: Data Communication and Computer Networks

Course Outcomes:

Upon successful completion of the course, a student will be able to:

CO1: Understand and apply network applications, hardware, software, and reference models for network communication.

CO2: Design and analyze data link layer protocols, multiple access protocols, and wireless LAN technologies.

CO3: Design routing algorithms, congestion control algorithms, and evaluate network layer protocols for internetworking.

CO4: Analyze transport service, transport protocols, and evaluate UDP and TCP in the internet.

CO5: Understand and evaluate application layer protocols, including DNS, email, WWW, and network management protocols.

V Semester

Course 12: Web Interface Designing Technologies

Course Outcomes: On successful completion of the course, students will be able to

CO1: Understand and appreciate the web architecture and services along with its basic building blocks

CO2: Gain knowledge about various components of a website related to aesthetics

CO3: Demonstrate skills regarding creation of a static website and addition of dynamic behavior to a website

CO4: Get experience on making user-interactive web pages.

CO5: Learn how to install word press and gain the knowledge of installing various plugins to use in their websites.

V Semester

Course 13: Web Applications Development using PHP & MYSQL

Course Outcomes: On successful completion of the course, students will be able to

CO1: Write simple programs in PHP.

CO2: Understand how to use regular expressions, handle exceptions, and validate data using PHP.

CO3: Apply In-Built functions and Create User defined functions in PHP programming.

CO4: Write PHP scripts to handle HTML forms.

CO5: Know how to use PHP with a MySQL database and can write database driven web pages

V Semester

Course 14 A: Internet of Things

Course Outcomes: On successful completion of the course, students will be able to

CO1: Understand various concepts, terminologies and applications of IoT

CO2: Learn how to build IoT devices with development boards

CO3: Understand various Wireless protocols for IoT

CO4: Learn how to use various sensors and actuators & develop IoT solutions using Arduino

CO5: Develop and Connect IoT with Cloud Platforms.

V Semester

Course 14 B: Foundations of Data Science

Course Outcomes: On successful completion of the course, students will be able to

CO1: Identify the need for data science and understand various data collection strategies

CO2: Understand about NoSQL and Descriptive Statistics

CO3: Apply Numpy methods to process the data in an array.

CO4: Summarize and Compute Descriptive Statistics using Pandas.

CO5: Apply powerful data manipulations visualization using Pandas

V Semester

Course 15 A: IoT Applications Development and Programming

Course Outcomes: On successful completion of the course, students will be able to

CO1: Understand the Basic Concepts of Internet of Things

CO2: Learn various Sensors and their associative protocols

CO3: Learn the Single Board Computers for development of IoT

CO4: Build the IoT devices with the Node-RED without Complex coding

CO5: Develop various IoT real-time applications

V Semester

Course 15 B : Application Development using Python

Course Outcomes: On successful completion of the course, students will be able to

CO1:Examine Python syntax and semantics and be fluent in the use of Python flow control and functions.

CO2:Demonstrate proficiency in handling Strings and File Systems.

CO3:Create, run and manipulate Python Programs using core data structures like Lists, Dictionaries and use Regular Expressions.

CO4: Interpret the concepts of Web Programming and GUI in Python

CO5: Apply concepts of Python programming in various fields related to IOT, Web Services and Databases in Python.

VII Semester

Course 16 A: Advanced Data Structures

Course Outcomes: Upon completion of the course, students will be able to:

CO1: Apply appropriate hashing techniques for a given problem.

CO2: Simulate the operations of Heap trees.

CO3: Provide solutions using multi-way search trees.

CO4: Choose appropriate algorithm while establishing a network.

CO5: Apply the knowledge of disjoint sets for solving a given problem.

VII Semester

Course 16 B: Artificial Intelligence

Course Outcomes: Students after successful completion of the course will be able to:

CO1: Analyze AI problems and search techniques using underlying assumptions and AI techniques.

CO2: Apply heuristic search techniques for problem-solving and optimization.

CO3: Understand knowledge representation approaches and apply predicate logic for representing facts and relationships.

CO4: Utilize rule-based systems for representing knowledge and apply reasoning techniques for problem-solving.

CO5: Implement symbolic reasoning under uncertainty and augment problem-solving strategies with non-monotonic reasoning.

VII Semester

Course 17 A: Computer Graphics

Course Outcomes: Students after successful completion of the course will be able to:

CO1: Understand computer graphics fundamentals

CO2: Perform 2D and 3D

CO3: Apply window-to-view port transformation and perform line and polygon clipping operations.

CO4: Determine visible surfaces and apply computer graphics algorithms for depth comparison, back-face removal, and rendering.

CO5: Apply animation principles, work with Flash interface, and gain an introduction to virtual reality.

VII Semester

Course 17 B : Design and Analysis of Algorithms

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Understand the fundamental concepts of algorithm analysis and design techniques.

CO2: Apply divide and conquer design techniques for solving problems

CO3: Analyze the performance of given problem using greedy approach.

CO4: Analyze the given problem and provide the feasible solution using dynamic programming.

CO5: Analyze the complexity of a given problem.

VII Semester

Course 18 A: Principles of Machine Learning

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Understand the features of machine learning to apply on real world problems.

CO2: Characterize the machine learning algorithms as supervised learning and unsupervised learning, apply and analyze the various algorithms of supervised and unsupervised learning.

CO3: Analyze the concept of neural networks for learning linear and non-linear activation functions.

CO4: Identify an appropriate clustering technique to solve real world problems.

CO5: Choose a suitable machine learning model, implement and examine the performance of the chosen model for a given real world problems.

VII Semester

Course 18 B: Software Testing

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Understand software testing principles and apply effective test case design strategies.

CO2: Implement and execute different levels of testing

CO3: Utilize Selenium for automation testing, including handling web elements and utilizing advanced features.

CO4: Implement and leverage automation testing frameworks for efficient test automation.

CO5: Apply Test NG framework for advanced test execution, management, and parallel processing.

VII Semester

Skill based Course 19 A: Advanced Java Programming

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Understand the multi-tier architecture of J2EE and its implementation in enterprise applications.

CO2: Develop web applications using Java Servlets and establish database connectivity with JDBC.

CO3: Create dynamic and interactive web pages using Java Server Pages (JSP) and implement JSP with beans and custom tag libraries.

CO4: Build enterprise applications using Enterprise Java Beans (EJB) and understand their deployment and configuration.

CO5: Utilize various Java technologies such as Java Mail, CORBA, and Java RMI for effective communication and distributed computing.

VII Semester

Skill based Course 19 B: MEAN Stack Development

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Gain a comprehensive understanding of web development frameworks, JavaScript fundamentals, and DOM manipulation.

CO2: Develop proficiency in creating Node.js applications, handling data I/O operations, and utilizing events and callbacks.

CO3: Build RESTful services using Node.js and Express framework, mastering HTTP handling and routing.

CO4: Acquire knowledge and skills in working with Mongo DB, performing CRUD operations, and utilizing Mongoose for database integration.

CO5: Learn to build single-page applications (SPAs) using Angular JS, implementing two-way data binding and MVC architecture.

VII Semester

Skill based Course 20 A: Mobile Application Development

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Gain a solid understanding of mobile application development principles

CO2: Develop proficiency in setting up the Android development environment

CO3: Acquire the necessary skills to handle and manage Android resources effectively

CO4: Develop expertise in designing user interfaces by utilizing a wide range of UI widgets

CO5: Learn various storage techniques in Android and Understand how to integrate web applications

VII Semester

Skill based Course 20 B: R Programming

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Gain a solid understanding of R programming language

CO2: Acquire knowledge and skills in manipulating matrices, lists, and data frames, including performing operations and applying functions.

CO3: Develop the ability to create user-defined functions, handle variable scope, and perform exploratory data analysis, including data preprocessing and descriptive statistics.

CO4: Learn various data visualization techniques in R, including basic and advanced visualizations, as well as creating 3D plots.

CO5: Gain proficiency in inferential statistics and regression analysis using R, including simple linear regression and multiple linear regression.

VII Semester

Course 21 A: Big Data Technologies

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Understand the importance and challenges of Big Data, including its classification and applications.

CO2: Familiarize with Apache Hadoop and learn data movement and MapReduce algorithms.

CO3: Explore Hadoop architecture, including HDFS, MapReduce tasks, and cluster setup.

CO4: Develop skills in Hive and HiveQL for querying and analyzing data in Hadoop.

CO5: Gain proficiency in H Base, including schema design, advanced indexing, and working with Zookeeper for cluster monitoring.

VIII Semester

Course 21 B : Compiler Design

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Understand the compiler structure and the process of lexical analysis using finite automata.

CO2: Acquire knowledge of syntax analysis techniques, including recursive descent parsing, predictive parsing, and LR parsing.

CO3: Learn about syntax-directed translation, intermediate code generation, and error detection and recovery methods in compilers.

CO4: Explore storage organization, dynamic storage allocation, error recovery methods, and code generation issues in compilers.

CO5: Develop an understanding of code optimization techniques, machine-dependent optimization, register allocation, and machine-independent optimization in compilers.

VIII Semester

Course 22 A: Data Mining Concepts and Techniques

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Understand data warehousing concepts, including data warehouse architecture, multidimensional data models, and OLAP operations.

CO2: Explore the fundamentals of data mining, including its definition, techniques, and applications in real-world scenarios.

CO3: Develop knowledge and skills in clustering techniques, including partitioning algorithms, hierarchical clustering, and categorical clustering.

CO4: Acquire proficiency in decision tree construction and the use of decision tree algorithms for data analysis and prediction.

CO5: Gain exposure to various advanced data mining techniques, such as neural networks, genetic algorithms, and text mining, including web mining concepts and applications.

VIII Semester

Course 22 B : Digital Image Processing

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Understand digital image processing fundamentals and applications in various domains.

CO2: Develop skills in spatial domain image enhancement techniques

CO3: Acquire proficiency in frequency domain image enhancement

CO4: Master in image segmentation techniques

CO5: Learn image compression principles.

VIII Semester

Course 23 A: Information Security and Cryptography

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Demonstrate the knowledge of cryptography, network security concepts and applications.

CO2: Develop security mechanisms to protect computer systems and networks.

CO3: Apply security principles in system design.

CO4: Apply methods for authentication, access control, intrusion detection and prevention.

CO5: Ability to identify and investigate vulnerabilities and security threats and mechanisms to counter them.

VIII Semester

Course 23 B: Mobile Ad hoc and Sensor Networks

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Understand the concept of ad-hoc and sensor networks, their applications and typical node and network architectures.

CO2: Describe the MAC protocol issues of ad hoc networks.

CO3: Identify and describe routing protocols for ad hoc wireless networks with respect to TCP design issues.

CO4: Explain the concepts of network architecture and MAC layer protocol for WSN.

CO5: Familiar with the OS used in Wireless Sensor Networks and build basic modules.

VIII Semester

Skill based Course 24 A: Advanced Database Management Systems

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Gain understanding of relational database concepts, functional dependencies, and correctness of FDs.

CO2: Analyze and apply normalization techniques (3NF, BCNF, 4NF, 5NF)

CO3: Develop skills in processing joins, grasp materialized vs. pipelined processing

CO4: Learn principles of correct interleaved execution, locking mechanisms (2PL), handle deadlocks.

CO5: Acquire knowledge of T/O-based techniques, multi-version approaches

VIII Semester

Skill based Course 24 B: Cloud Computing

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Understand the essential characteristics and benefits of cloud computing

CO2: Gain knowledge of virtualization technologies

CO3: Explore Microsoft implementation of virtualization and understand different cloud deployment models and their advantages.

CO4: Learn about Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) models,

CO5: Explore Software as a Service (SaaS) and its service providers.

VIII Semester

Skill based Course 25 A: Computer Vision

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Understand the fundamental concepts of computer vision and its applications in various domains.

CO2: Apply color and geometric transforms, edge-detection techniques, filtering, and mathematical operations to analyze images.

CO3: Comprehend the concept of motion estimation and its applications.

CO4 : Apply shape correspondence, shape matching, principal component analysis, and shape priors for object recognition.

CO5 : Explore various applications of computer vision

VIII Semester

Skill based Course 25 B: Digital Forensics

Course Outcomes: Upon successful completion of the course, students will be able to:

CO1: Gain a clear understanding of the fundamentals of digital forensics

CO2: Develop knowledge and skills in analyzing storage media and file systems

CO3: Learn about network forensics and acquire practical skills in network packet sniffing, analysis using tools like Wire shark and TCPDUMP

CO4: Gain expertise in logs and event analysis, data carving

CO5: Develop proficiency in wireless and web attacks.