V.V.GIRI GOVT. KALASALA

DUMPAGADAPA, W.G.Dist., (via) AKIVIDU - 534 235

Accredited by NAAC @ B+

College Code : **AKNU323**

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DEPARTMENT OF COMPUTER SCIENCE

ACADEMIC YEAR 2024-25

PROGRAM OUTCOMES

PO1	**Critical Thinking**: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid ,and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
Po2	**Effective Communication**: Speak ,read, write and listen clearly in person and through electronic median English and in one Indian language ,and make meaning of the World by connecting people, ideas ,books ,media and technology.
PO3	**Social Interaction** :Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO4	**Effective Citizenship**: Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO5	**Ethics**: Recognize different value systems including your own understand the moral dimensions of your decisions ,And accept responsibility for them.
PO6	**Environment And Sustainability**: Understand the issues of environmental contexts and sustainable development.
PO7	**Self-directed and Life-long Learning** :Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes
PO8	**Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PROGRAM SPECIFIC OUTCOMES

PSO1	Prepare them to pursue higher studies and conduct research.
PSO2	To develop teaching skills, subject knowledge in the course of their study which will help them to shine in various fields.

COURSE OUT COMES

SNO		**CO1**	The objective of this course is to provide students with an in-depth understanding of the recent advances and cutting-edge research in mathematical, physical, and chemical sciences
1	**SEMISTER1**	**CO2**	The course aims to broaden students' knowledge beyond the foundational concepts and expose them to the latest developments in these disciplines, fostering critical thinking, research skills, and the ability to contribute to scientific advancements
2	**SEMISTER 2**		**PROBLEM SOLVING USING' C'**
		CO1	1. Understand the working of a digital computer and Fundamental constructs of Programming
		C02	Analyze and develop a solution to a given problem with suitable control structures
		CO3	Apply the derived data types in program solution
		CO4	Use the 'C' language constructs in the right way
		C05	Apply the Dynamic Memory Management for effective memory utilization
			DIGITAL LOGIC DESIGN
		C01	Understand how to Convert numbers from one radix to another radix and performarithmetic operations
		C02	Simplify Boolean functions using Boolean algebra and k- maps
		CO3	Design adders and subtractors circuits
		CO4	Design combinational logic circuits such as decoders, encoders, multiplexers and demultiplexers.
		CO5	Use flip flops to design registers and counters.
3	**SEMISTER3**		**Object Oriented Programming using Java**
		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
		C05	Create GUI screens along with event handlingUse the 'C' language constructs in the right way
			Data Structures using C
		C01	Understand various Data Structures for data storage and processing
		C02	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
			Computer Organization
		C01	Identify different types of instructions
		C02	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.
			Operating Systems
		C01	Demonstrate knowledge and comprehension of operating system functions.
		C02	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
			Database Management Systems
4	**Semester - IV**	**C01**	Differentiate between database systems and file based systems
		C02	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.
		CO5	Write PL/SQL programs to work with databases.
			Object Oriented Software Engineering
		C01	Understand and apply the fundamental principles of Object-Oriented Programming (OOP) concepts and Unified Modeling Language (UML) basics, in the development of software solutions.
		C02	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 practicalimplementation
		CO4	Analyze and Evaluate Software Maintenance and Evolution Strategies
		CO5	Apply Advanced Object-Oriented Software Engineering Concepts
			Data Communication and Computer Networks
		C01	Understand and apply network applications, hardware, software, and reference models for network communication.
		C02	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.
			Web Interface Designing Technologies
5	**SEMISTERS 5**	**C01**	Understand and appreciate the web architecture and services along with its basic building blocks
		C02	Gain knowledge about various components of a website related to aesthetics

		CO3	Demonstrate skills regarding creation of a static website and addition of dynamic behaviorto 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 usein their websites.
			Web Applications Development using PHP & MYSQL
		C01	Write simple programs in PHP.
		C02	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.
			Internet of Things
		C01	Understand various concepts, terminologies and applications of IoT
		C02	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
			Foundations of Data Science
		C01	Identify the need for data science and understand various data collection strategies
		C02	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	Summarize and Compute Descriptive Statistics using Pandas.