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Department of Artificial Intelligence and Data Science Engineering

Course Outcomes

Pattern-SE (2024 Course)

Year	Course Name & Code	Course Outcome No.	Course Outcome
Sem-I	PCC-201-AID:DataStructures	CO1	To introduce fundamentals of data structures and its applications.
		CO2	To develop problem-solving skills using algorithm
		CO3	To analyze the algorithmic complexit
		CO4	To develop proficiency in implementing linear and non-linear data structures.
	PCC-202- AID: Artificial Intelligence	CO1	Explain the fundamentals of AI and its various applications in real-world scenarios.
		CO2	Build smart system using different informed search / uninformed search or heuristic approaches
		CO3	Design AI systems using adversarial search algorithms and solve problems using constraint satisfaction techniques for structured environments.
		CO4	Apply knowledge and reasoning algorithms for real-world problem-solving
		CO5	Represent complex problems with expressive yet carefully constrained language of rep resentation
		CO1	Use the concepts of virtualization and process management
		CO2	Analyse various scheduling algorithms
		CO3	Discuss various memory management techniques
		CO4	Describe the working of concurrency and locking mechanism in operating systems
		CO5	Elaborate I/O management concepts

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	MDM-221-AID : Digital Electronics and Logic Design	CO1	Simplify Boolean expressions using Karnaugh Maps (K-Maps) for efficient logic design.
		CO2	Develop Strong understanding of the theoretical and Practical aspects of digital logic, codes and combinational circuits
		CO3	Implement sequential circuits by applying knowledge of flip-flops, counters, and state machines
		CO4	Interpret various processor architectures and their use in real-time AI applications.
		CO5	Analyze and compare different AI-focused processors.
	VEC-232-AID: Universal Human Values and Professional Ethics	CO1	Recognize the concept of self-exploration as the process of value education and see they have the potential to explore on their own right.
		CO3	Explore the human being as the coexistence of self and body to see their real needs / basic aspirations clearly.
		CO4	Explain relationship between one self and the other self as the essential part of relationship and harmony in the family
		CO5	Interpret the interconnectedness, harmony and mutual fulfilment inherent in the nature and the entire existence.
		CO6	Draw ethical conclusions in the light of Right understanding facilitating the development of holistic technologies production systems and management models.
SEM-II	PCC-251- AID: Database Management Systems	CO1	Design Database Management Systems using ER models.
		CO2	Execute database queries using SQL and PL/SQL.
		CO3	Normalize database designs using normal forms
		CO4	Apply transaction management concepts to real-time scenarios.
		CO5	Use NoSQL databases for handling unstructured data.
	PCC-252- AID : Data Science	CO1	Discuss core concept of data science and its practical applications.
		CO2	Apply mathematical tools like linear algebra, probability, and statistics to model data driven problem solutions.

		CO3	Analyze core machine learning algorithms and methodologies to address diverse problem sets.
		CO4	Recommend effective data cleaning, transformation, and visualization techniques to extract meaningful insights from data.
		CO5	Use automation tools for AI workflows to enhance the scalability and efficiency of AI driven solutions.
SEM-II	PCC-253- AID: Probability and Statistics	CO1	Utilize key probability theorems to solve practical problems in decision-making and risk analysis.
		CO2	Apply fundamentals of Statistics for Artificial Intelligence and Data Science
		CO3	Apply statistical techniques to examine relationships between variables and make predictions.
		CO4	Use the basic principles of random variables and random processes needed in applications to model and interpret real-worlscenarios
		CO5	Use probability and statistical models to analyze data and support decision-making in fields like finance engineering, healthcare, and machine learning.
	MDM-271-AID - Embedded Systems	CO1	Apply knowledge of embedded systems, its characteristics, classifications, and real-world applications across various domains.
		CO2	Make use of micro controllers and develop programming and interfacing skills using Arduino and Raspberry Pi.

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SEM-II		CO3	Explain the working mechanisms of different sensors and actuators and their relevance in various applications.
		CO4	Identify the fundamental architecture of ARM Processor.
		CO5	Compare the working of real-time scheduling algorithms
	VEC-284- AID - Environmental Studies	CO1	**Illustrate** the interdependence of ecosystems through activity-based exploration
		CO2	Analyze the role of natural resources in sustainable development using real-world data.
		CO3	Investigate biodiversity threats and conservation strategies through surveys and projects
		CO4	Create awareness tools or reports promoting sustainability based on their findings.