Sree Chitra Thirunal College of Engineering

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Consolidated Course Outcomes Report

Batch	Slno	Subject	CO	Topic	Bloom's taxonomy level
AM 2K20	1	FORMAL LANGUAGES AND AUTOMATA THEORY	CO1	Classify a given formal language into Regular, Context-Free, Context Sensitive, Recursive or Recursively Enumerable	Applying(P)
			CO2	Design a finite automata for a given regular language by understanding the formal representation of a given regular language as a finite state automaton, regular grammar, regular expression and Myhill-Nerode relation.	Applying(P)
			CO3	Design a Pushdown Automaton and a Context-Free Grammar for a given context-free language.	Applying(P)
			CO4	Design Turing machines as language acceptors or transducers.	Applying(P)
			CO5	Explain the notion of decidability	Understanding(U)
	2	COMPUTER NETWORKS	CO1	Explain the features of computer networks, protocols, and network design models	Understanding(U)
			CO2	Describe the fundamental characteristics of the physical layer and identify the usage in network communication	Applying(P)
			CO3	Explain the design issues of data link layer, link layer protocols, bridges and switches.	Understanding(U)
			CO4	Illustrate wired LAN protocols (IEEE 802.3) and wireless LAN protocols (IEEE 802.11)	Understanding(U)
			CO5	Select appropriate routing algorithms, congestion control techniques, and Quality of Service requirements for a network.	Applying(P)
			CO6	Illustrate the functions and protocols of the network layer, transport layer, and application layer in inter-networking.	Understanding(U)
	3	INTRODUCTION TO MACHINE LEARNING	CO1	Illustrate Machine Learning concepts and basics of supervised learning concepts	Applying(P)
			CO2	Describe dimensionality reduction techniques and supervised learning concepts (regression, linear classification).	Applying(P)
			CO	Solve real life problems using appropriate machine learning models and evaluate the performance measures and Illustrate the concepts of Multilayer neural network	Applying(P)
			CO4	Solve real life problems using appropriate machine learning models and evaluate the performance measures and Illustrate the concepts of Multilayer neural network	Applying(P)
			CO5	Describe unsupervised learning concepts	Applying(P)
	4	MANAGEMENT O F SOFTWARE SYSTEMS	CO1	Demonstrate Traditional and Agile Software Development approaches	Applying(P)
			CO2	Prepare Software Requirement Specification and Software Design for a given problem	Applying(P)
			CO3	Justify the significance of design patterns and licensing terms in software development, prepare testing, maintenance and DevOps strategies for a project	Applying(P)
			CO4	Make use of software project management concepts while planning, estimation, scheduling, tracking and change management of a project, with a traditional/agile framework	Applying(P)
			CO5	Utilize SQA practices, Process Improvement techniques and Technology advancements in cloud based software models and containers & microservices.	Applying(P)
	5	DISASTER MANAGEMENT	CO1	Define and use various terminologies in use in disaster management parlance and organise each of these terms in relation to the disaster management cycle (Cognitive knowledge level	Understanding(U)
			CO2	Distinguish between different hazard types and vulnerability types and do vulnerability assessment (Cognitive knowledge level:	Understanding(U)
			CO3	Identify the components and describe the process of risk assessment, and apply appropriate methodologies to assess risk (Cognitive knowledge level:	Understanding(U)
			CO4	Explain the core elements and phases of Disaster Risk Management and develop possible measures to reduce disaster risks across sector and community (Cognitive knowledge level:	Applying(P)

			CO5	Identify factors that determine the nature of disaster response and discuss the various disaster response actions	Understanding(U)
			CO6	Explain the various legislations and best practices for disaster management and risk reduction at national and international level	Understanding(U)
	6	**INTRODUCTION TO ARTIFICIAL INTELLIGENCE**	**CO1**	Explain the fundamental concepts of intelligent systems and their architecture	Understanding(U)
			CO2	Illustrate uninformed and informed search techniques for problem solving in intelligent systems	Understanding(U)
			CO3	Solve constraint satisfaction problems using search techniques	Applying(P)
			CO4	Represent AI domain knowledge using logic systems and use inference techniques for reasoning in intelligent systems	Applying(P)
			CO5	Illustrate different types of learning techniques used in intelligent systems	Understanding(U)
	7	**PYTHON AND MACHINE LEARNING LAB**	**CO1**	Develop applications in Python programming	Applying(P)
			CO2	Implement machine learning algorithms using packages and libraries in Python for various applications	Applying(P)
			CO3	Implement python programs for supervised learning methods through Neural network, Regression and classification	Applying(P)
			CO4	Implement clustering algorithms	Applying(P)
			CO5	Apply dimensionality reduction as a dataset preprocessing step.	Applying(P)
	8	**AI ALGORITHMS LAB**	**CO1**	State the basics of learning problems with hypothesis and version spaces	Understanding(U)
			CO2	Demonstrate real-world problems as state space problems, optimization problems or constraint satisfaction problems	Applying(P)
			CO3	Simulate given problem scenario and analyze its performance	Applying(P)
			CO4	Develop programming solutions for given problem scenario	Applying(P)
			CO5	Design and develop an expert system by using appropriate tools and techniques.	Applying(P)