AMRUTVAHINI COLLEGE OF ENGINEERING, SANGAMNER
COMPUTER ENGINEERING DEPARTMENT
M.E. Computer Engg. (2017 Pattern)-Course Outcomes

Course Code	Course Name	Course Outcomes-on the completion of this course student will be able to-	
	SEM – I		
510101	Research Methodology	CO1	Select appropriate research process and workflow for research.
		CO2	Identify appropriate topics for research work in computer engineering
		CO3	Select and define appropriate research problem and parameters
		CO4	Design the use of major experimental methods for research
		CO5	Use appropriate tools, techniques, and processes of doing research in Computer science
		CO6	Become aware of the ethics in research, academic integrity and plagiarism
510102	Bio-Inspired Optimization Algorithms	CO1	Describe the natural phenomena that motivate the algorithms
		CO2	Apply nature-inspired algorithms to optimization
		CO3	Select the appropriate strategy or optimal solution based on bio-inspired algorithms
		CO4	Relate Biological motivation, from natural to artificial
		CO5	Analyze Artificial immune systems
		CO6	Demonstrate a Project on flocks, herds and schools, computer viruses, synthesizing emotional behavior
510103	Software Development and Version Control	CO1	Demonstrate design in software development process and propose multiple solutions to the software engineering problems.
		CO2	Analyze various models of software architectures and apply appropriate model of architecture to the given problem domain.
		CO3	Demonstrate software quality architecture using different quality attribute and test software for quality conformance.
		CO4	Explicate the process of software configuration management and analyze how to Improve Quality of Processes by using System Virtualization
		CO5	Describe different types of Software Version Control techniques.
		CO6	Experiment with and evaluate the efficacy of modern open-source version control tools.

510104	Embedded and Real Time Operating Systems	CO1	Recognize and classify different devices used in embedded systems.
		CO2	Describe the use of SOC and communication protocol used in in embedded and real time systems.
		CO3	Explain communication bus protocol used for embedded and real time systems.
		CO4	Classify and exemplify scheduling algorithms in RTOS.
		CO5	Apply software development process to given RTOS application.
		CO6	Design given RTOS based application.
510105 B	Elective –I- Data Mining	CO1	Explain basic concepts of Data Mining.
		CO2	Apply different classification and clustering algorithms for real world applications.
		CO3	Analyze various analytical concepts of Data mining for real time examples.
		CO4	Apply Distance formulae for preprocessing data.
		CO5	Compare different mining techniques for mine complex data.
		CO6	Apply Suitable data mining algorithms for various real-world applications.
510106	Laboratory Proficiency I	CO1	Apply basic concepts of research and its methodologies to develop a new research proposal from a published paper.
		CO2	Analyze any journal paper & evaluate Do you think the paper adequately supports the conclusions reached in addressing the question
		CO3	Use ant colony algorithm for generating good solutions to both symmetric and asymmetric instances of the Traveling Salesman Problem.
		CO4	Demonstrate any open source system/application software like Version Control in Linux Kernel
		CO5	Model a Real-Time Smart traffic control Application.
		CO6	Utilize Weka tool whether prediction problem using.

	SEM – II		
510108	Operations Research	CO1	Identify the Characteristics of Different types of decision-making environments.
		CO2	Use the appropriate decision-making approaches and tools.
		CO3	Build Various dynamic and adaptive models
		CO4	Analysis of critical thinking and objective analysis of decision problems
		CO5	Apply the Operational Research techniques for efficacy
		CO6	Compare various algorithms in operation research.
510109	System Simulation and Modeling	CO1	Apply modeling to understand system behavior
		CO2	Design the simulation scheme for particular system
		CO3	Analyze the modeled and simulated systems
		CO4	Compare the results of simulations confined to real world application
		CO5	Classify the Statistical Analysis for Terminating Simulations
		CO6	Compare Objectives of Simulation in Manufacturing
510110	Machine Learning	CO1	Use basic concepts of machine learning and Compare Learning Types.
		CO2	Apply various machine learning algorithms.
		CO3	Differentiate concept of Learning Theory and hypothesis space.
		CO4	Apply Regression for classification like SVM.
		CO5	Analyze Machine learning tools for Probabilistic Methods.
		CO6	Apply Advanced Machine Learning Techniques for solving various real-world problems.
510111 B	Elective –II- Web Mining	CO1	Explain the Basic Concepts of Information Retrieval
		CO2	Use various means to analyze and synthesize Social Networking information
		CO3	Analyze different Level of schema for domain and instance level matching purpose.
		CO4	Explain opinion mining and apply it for document classification.
		CO5	Use appropriate tools used in analyzing the web information
		CO6	Discover and Analysis of Web Usage Patterns

510113	Laboratory Proficiency II	CO1	Apply transportation problem for to minimize the total cost of transportation.
		CO2	Analyze & Evaluate the investment problem to maximize the total annual return without exceeding the budget for an organization
		CO3	Make Use of any suitable simulation Tool simulate Automobile Manufacturing Model
		CO4	Make use of Machine Leering algorithms to detect credit card fraud.
		CO5	Experiment with Simulation of Inventory Control System.
		CO6	Analyze the web information using appropriate tools.

	SEM – III		
610101	Fault Tolerant Systems	CO1	Identify the hardware redundancy and software redundancy.
		CO2	Analyze the system for the requirement of fault tolerance
		CO3	Analyze the fault tolerance algorithms
		CO4	Implement diagnosis and recovery of the system
		CO5	Analyze and Assess the reliability of the system
		CO6	Apply and analysis of Fault Tolerance in distributed system and mobile network.
610102	Information Retrieval	CO1	Develop model of Spelling Correction
		CO2	Evaluate and Analyze retrieved information
		CO3	Illustrate the vector space model for scoring
		CO4	Construct Language models for information retrieval
		CO5	Generate quality information out of retrieved information.
		CO6	Apply clustering and classification algorithms to analyze the information
610103 A	Elective-III-Cloud Security	CO1	Use various services offered for cloud environment.
		CO2	Illustrate Cloud Information Security Objectives and apply Cloud Security Policy Implementation.
		CO3	Analyze the cloud system for vulnerabilities, threats and attacks.
		CO4	Use of cloud computing security architecture for trusted cloud computing
		CO5	Summarize the security as service concept and apply the different privacy tools to achieve the security.
		CO6	Examine the future of cloud security.