AMRUTVAHINI COLLEGE OF ENGINEERING, SANGAMNER

Department Of Computer Engineering

Course Outcomes

Final Year – 2012 Course			
Course Code	**Course Name**	**Course Outcomes**	
Semester - I			
410441	Design & Analysis of Algorithms	CO1	Understand basics and classification of Problems and study of divide and conquer strategy. Study of Algorithm Analysis.
		CO2	Understand principles ,control abstraction and complexity analysis of greedy strategy and dynamic programming
		CO3	Build 8-queen and knapsack problems and analyze Backtracking and Branch-n-Bound strategy.
		CO4	Understand and Analyze of P,NP, and Randomized problems
		CO5	Differentiate between parallel and sequential algorithm. Analyze Amdahl's law and MST problem
		CO6	Study of Distributed Algorithms .Embedded Algorithm and IoT and comparison between them.
410442	Principles of Modern Compiler Design	CO1	Explain the concepts and different phases of compilation with compile time error handling.
		CO2	Represent language tokens using regular expressions, context free grammar and finite automata and design lexical analyzer for a language.
		CO3	Compare top down with bottom up parsers, and develop appropriate parser to produce parse tree representation of the input.
		CO4	Generate intermediate code for statements in high level language.
		CO5	Design syntax directed translation schemes for a given context free grammar.
		CO6	Apply optimization techniques to intermediate code and generate machine code for high level language program.

410443	Smart System Design and Applications	CO1	Identify different terms in Intelligent system.
		CO2	Apply different techniques to solve problems and build smart system.
		CO3	To write and survey solution for multidisciplinary case-study using mathematical modeling give presen- tations using soft skills methodologies
		CO4	To write and survey embedded systems applications using machine learning
		CO5	Apply machine learning tools to solve problems.
		CO6	To solve problems for multi-core or distributed, concurrent and embedded environments
410444D	Data Mining Techniques and Applications	CO1	Gain conceptual understanding in data mining.
		CO2	Test decisions using different association rules.
		CO3	Apply different classification algorithm for real world applications.
		CO4	Understand different clustering algorithms and apply the same for real life scenario.
		CO5	Learn Text & Web mining approaches
		CO6	Study of Reinforcement learning & advanced techniques for big data mining.
410445	Pervasive Computing	CO1	To discover the characteristics of pervasive computing applications including the major system components and architectures of the systems.
		CO2	To analyze the strengths and limitations of the tools and devices for development of pervasive computing systems
		CO3	To explore the characteristics of different types of mobile networks.
		CO4	To solve problem using pervasive computing abilities.
		CO5	To solve problems for multi-core or distributed, concurrent or Parallel environments
		CO6	To learn security & privacy techniques for pervasive computing devices.
410446	Computer laboratory-I	CO1	To write efficient mathematical design, analysis and testing of algorithmic assignments.
		CO2	To debug and demonstrate the Testing of functioning using Software Engineering for OO-programming.
		CO3	To write programs using advanced FOSS tools and technologies
		CO4	To write test case using multi-core or distributed, concurrent/Parallel environments.

410447	Computer Laboratory-II	CO1	To design mathematical model.
		CO2	To implement algorithms for data mining applications.
		CO3	To solve problems using pervasiveness ability of smart devices.
		CO4	To write programs using machine learning algorithms.
		CO5	To write smart android applications using sensor programming.
		CO6	To write embedded programs for IoT-based applications
410448	Project	CO1	To write problem solutions in projects using mathematical modeling, using FOSS programming tools and devices or commercial tools
		CO2	To write SRS and other software engineering documents in the project report using mathematical models developed and NP-Hard analysis;
		CO3	To write test cases using multi-core, distributed, embedded, concurrent/Parallel environments;
		CO4	To write a conference paper
		CO5	To practice presentation, communication and team-work skills.
Semester - II			
410449	Software Design Methodologies & Testing	CO1	To present a survey on design techniques for software system
		CO2	Understand the concept of client server architecture and service oriented architecture
		CO3	Analyze different types of design patterns.
		CO4	Perform testing of software applications.
		CO5	Apply different strategies of software testing.
		CO6	Apply software testing tools to perform testing of software applications.
410450	High Performance Computing	CO1	Transform algorithms in the computational area to efficient programming code for modern computer architectures.
		CO2	Write, Organize and handle the programs for high performance computing.
		CO3	Use modern tools to build MPI Programming and perform analysis.
		CO4	Study and Analyze thread basics- Pthreads and OpenMP.
		CO5	Analyze parallel sorting code with respect to performance and suggest and implement performance improvements
		CO6	To solve problems for multi-core or distributed, concurrent/Parallel environments

410451	Cloud Computing	CO1	Analyze various cloud programming models and apply them to solve problems on the cloud.
		CO2	Identify resource management fundamentals, i.e. resource abstraction, sharing and sandboxing and outline their role in managing infrastructure in cloud computing.
		CO3	Apply the fundamental concepts in datacenters to understand the tradeoffs in power, efficiency and cost.
		CO4	explain the core issues of cloud computing such as security, privacy, and interoperability.
		CO5	identify the architecture and infrastructure of cloud computing, including SaaS, PaaS, IaaS, public cloud, private cloud, hybrid cloud, etc.
		CO6	Learn main concepts, key technologies, strengths, and limitations of cloud computing and the possible applications for state-of-the-art cloud computing
410452D	Cyber Security	CO1	Solve and relate mathematic concepts behind the cryptographic algorithms.
		CO2	Explain basic operations of cryptographic algorithms like substitution, permutation etc.
		CO3	Describe various private and public key security algorithms security algorithms used for network security along with its encryption and decryption.
		CO4	Evaluate various scenarios and apply the required type of algorithm for ensuring security.
		CO5	Analyze protocols for various security objectives with cryptographic tools.
		CO6	To write problem solutions for multi-core or distributed, concurrent/Parallel environments.
410452A	Business Analytic and Intelligence	CO1	To Understand Business Intelligence system and role of mathematical model for an Organization
		CO2	To Understand Decision support system and role of Business Intelligence in it
		CO3	To Understand data warehouse with dimensional modelling and design
		CO4	To Explore data preprocessing , outlier and apply algorithm for outlier detection and it's analysis
		CO5	To Understand and Analyze Business Intelligence Life cycle
		CO6	To Apply Business Intelligence for solving real world Problem

410453	Computer laboratory-III	CO1	To write problem solutions using mathematical modeling.
		CO2	To write reports of application of software design methods and testing.
		CO3	To write programs using FOSS tools.
		CO4	To write problem solutions using multi-core or distributed, concurrent/Parallel environments
410454	Computer laboratory-IV	CO1	To write programs to develop applications using BIA Technologies using mathematical modeling.
		CO2	To write programs using OR and Mobile Programming Technologies using mathematical modeling.
		CO3	To write programs using FOSS tools and devices.
		CO4	To write problem solutions using multi-core or distributed, concurrent/Parallel environments
410455	Project	CO1	To write review SRS, reliability testing reports, and other software engineering documents in the project report;
		CO2	To write problem solution using multi-core, distributed, embedded, concurrent/Parallel environments;
		CO3	To write the test cases to demonstrate the results of the project;
		CO4	To write conference paper;
		CO5	To write code using FOSS tools and technologies or propitiatory Tools as per requirements;
		CO6	To practice presentation, communication and team-work skills.