AMRUTVAHINI COLLEGE OF ENGINEERING, SANGAMNER

Department Of Computer Engineering

Course Outcomes

Second Year – 2015 Course			
Course Code	**Course Name**	**Course Outcomes**	
Semester – I			
210241	Discrete Mathematics	CO1	Understand fundamental concepts of the Set theory and Logics.
		CO2	Apply the Inclusion and Exclusion Principal to optimize the internal and external validity of the study.
		CO3	Illustrate the concept of relations and Diagraph to analyse the area of greatest impact for improvement.
		CO4	Create the application part of lattices in distributed computing and Data mining.
		CO5	Understand the concept of Functions and combinatorics.
		CO6	Analyse the concept of Algebraic Structures using discrete mathematics.
210242	Digital Electronics and Logic Design	CO1	Able to understand logic expressions and circuits using Boolean laws and K-map
		CO2	Ability to design and analyse combinational circuits and sequential logic circuits as per specifications.
		CO3	Able to understand logic families IC packages as per design specifications
		CO4	Design the minimum system using VHDL
		CO5	Learn minimum embedded system for simple real world application.
		CO6	Able to understand logic expressions and circuits using Boolean laws and K-map

210243	Data Structures and Algorithms	CO1	Design an algorithm for the given **p**roblem solution , discriminate the various data structures and also analyze time and s**p**ace com**p**lexity in order to get efficient solution
		CO2	Apply knowledge of sequential data structure i.e. array for solving computational problems
		CO3	Understand, implement and apply concept of linked list in solving various computational problems
		CO4	Understand, implement and apply concept of stack to solve specific problem
		CO5	Understand concept of Queue, its types and use it in as per requirement
		CO6	Understand and evaluate computational efficiency of different searching and sorting algorithms and use it while solving problems
210244	Computer Organization and Architecture	CO1	Understand the concept of computer organization and architecture with respect to processor architecture, interconnection and computer arithmetic.
		CO2	Analyse the performance of computer memory system.
		CO3	Understand the concept of computer input-output System
		CO4	Understand the instruction set and addressing modes of Intel x86 processor
		CO5	Understand the processor organization with respect to instruction cycle, instruction pipe lining and instruction level parallelism.
		CO6	Understand arithmetic operations with respect to hardware control and micro programmed control.
210245	Object Oriented Programming	CO1	Analyse the strengths of object oriented programming
		CO2	Design and apply OOP principles for effective programming .
		CO3	Use virtual and pure virtual function and complex programming situations.
		CO4	Design object-oriented solutions for For solving systems and program errors.
		CO5	Develop programming application using object oriented programming language
		CO6	Percept the utility and applicability of OOP

210246	Digital Electronics Laboratory	CO1	Learn the basics of gates
		CO2	Construct basic combinational circuits and verify their functionalities
		CO3	To understand the basic digital circuits and to verify their operation
		CO4	Apply the design procedures to design basic sequential circuits
		CO5	Learn about counters
		CO6	Learn about Shift registers
210247	Data Structures Laboratory	CO1	Design and implement data structures and algorithms for solving real world problems
		CO2	Use algorithm on various linear data structures using sequential organization to solve real life problems
		CO3	Analyze problems to use variants of linked list and solve various real life problems
		CO4	Analyze problem and solve it using stack data structure
		CO5	Use queue data structures to solve daily life problems
		CO6	Analyze problem to apply suitable searching and sorting algorithms for solving different kind of problems
210248	Object Oriented Programming Laboratory	CO1	Understand and apply the concepts like operator overloading and function overloading .
		CO2	Understand and use the concepts of dynamic memory allocation for dynamic programming.
		CO3	Inheritance, polymorphism, exception handling and generic structures for implementing reusable programming codes.
		CO4	Analyse the concept of file and apply it while storing and retrieving the data from secondary storages.
		CO5	Analyse the concepts of exception handling in system programming.
		CO6	Apply OOP principals to develop small applications

210249	Soft Skills	CO1	Become more effective individual through goal/target setting, self-motivation and by practicing creative thinking.
		CO2	Effectively communicate through verbal/oral, listening skills, writing skills and presentation skills.
		CO3	Understand importance of professional etiquettes
		CO4	Function effectively in teams by applying skills like team work, inter-personal relationships, and conflict management.
		CO5	Know about role, responsibilities and skills required for leadership.
		CO6	Develop time and stress management skills required in problem solving with confidence building.
Semester - II			
207003	Engineering Mathematics III	CO1	Solve Linear differential equations, essential in modeling and design of computer-based systems.
		CO2	Apply concept of Fourier transform and Z-transform and its applications to continuous and discrete systems and image processing.
		CO3	Apply Statistical methods like correlation and regression analysis and probability theory for data analysis and predictions in machine learning.
		CO4	Solve problems related to probability & probability distributions.
		CO5	Solve Algebraic and Transcendental equations and System of linear equations using numerical techniques.
		CO6	Obtain Interpolating polynomials, numerical differentiation and integration, numerical solutions of ordinary differential equations used in modern scientific computing.

210251	Computer Graphics	CO1	Apply mathematics and logic to develop Computer programs for elementary graphic operations.
		CO2	Develop scientific and strategic approach to solve complex problems in the domain of Computer Graphics.
		CO3	Develop the competency to understand the concepts related to Computer Vision and Virtual reality.
		CO4	Apply the logic to develop animation and gaming programs
		CO5	Explore projections and visible surface detection techniques for display of 3D scene on 2D screen.
		CO6	Render projected objects to naturalize the scene in 2D view and use of illumination models for this.
210252	Advanced Data Structures	CO1	To understand analyse and implement tree and graph using arrays and link list and apply them in various applications.
		CO2	To use appropriate data structure for better efficiency.
		CO3	To use effective and efficient data structures in solving various storage associated problem.
		CO4	To understand analyse and implement various symbol table using static and dynamic programming.
		CO5	To use appropriate modern tools to understand and analyse the functionalities confined to the data structure usage.
		CO6	To understand file organization and apply them in various applications
210253	Microprocessor	CO1	Understand basic programming model of 80386DX and instruction set
		CO2	Classify processor architecture and memory management
		CO3	Understand protection mechanism and multitasking
		CO4	Use Exception and interrupt in application
		CO5	Identify and analyse the techniques of debugging and virtual 8086 mode
		CO6	Understand the use of co-processor 80387

210254	Principles of Programming Languages	CO1	To analyse the strengths and weaknesses of programming languages for effective and efficient program development.
		CO2	To inculcate the principles underlying the programming languages enabling to learn new programming languages.
		CO3	To grasp different programming paradigms
		CO4	To use the programming paradigms effectively in application development.
		CO5	To analyse advanced features of Java programming language.
		CO6	To design a new programming language in principle.
210255	Computer Graphics Laboratory	CO1	Understand the basic concepts of computer graphics.
		CO2	Design scan conversion problems using C++ programming.
		CO3	Design scan conversion problems using C++ program to draw 2-D object and perform basic transformations.
		CO4	Apply clipping and filling techniques for modifying an object.
		CO5	Understand the concepts of different type of geometric transformation of objects in 2D and 3D.
		CO6	Understand the practical implementation of modeling, rendering, viewing of objects in 2D
210256	Advanced Data Structures Laboratory	CO1	To implement tree using arrays and link list and apply them in various applications.
		CO2	To apply graph in various applications using array and link list.
		CO3	To implement symbol table using static and dynamic programming.
		CO4	To use effective and efficient data structures in solving various storage associated problem.
		CO5	To understand file organization and apply them in various applications.
		CO6	Implementation of different data structures using JAVA collection libraries (Standard toolkit library).

210257	Microprocessor Laboratory	CO1	Use instruction set to perform assembly language programs
		CO2	Apply the logic to identify positive and negative nos.
		CO3	Apply the logic to convert nos. from BCD to HEX no
		CO4	Apply logic to get the address from protected mode using GDTR,IDTR,LDTR register
		CO5	Apply logic to implement FAR PROCEDURE
		CO6	Analyse and apply the instructions of 80387 co- processor to calculate Mean, Variance and Standard Deviation