

ANNA UNIVERSITY CHENNAI
KATHIR COLLEGE OF ENGINEERING, COIMBATORE
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
R2013 REGULATION

PROGRAMME OUTCOMES (POs)

Students graduating from Computer Science & Engineering should be able to:

PO1.Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2.Problem analysis: Identity, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3.Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4.Conduct investigations of complex problems: Use research – based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5.Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in self, and lifelong learning in the broadest context of technological change

PROGRAMME SPECIFIC OUTCOME (PSOs)

PSO1: Able to apply the knowledge gained during the course of the program to formulate and solve real life, complex software engineering problems faced in IT industries.

PSO2: To learn more techniques and update new skill sets as per the latest trend in software technology

PSO3: Able to apply the knowledge of ethical and management principles required to work in a team as well as to lead a team

PSO4: The Able to comprehend and write effective project reports in multidisciplinary environment in the context of changing technologies

COURSE OUTCOMES

I - SEMESTER	
Course code	C101
Subject code	HS6151
Subject name	Technical English - I
COURSE OUTCOMES	
CO1	Organize the ideas clearly using appropriate communicative strategies.
CO2	Employ Listening skills to develop a wide vocabulary range.
CO3	Distinguish between language applications to avoid grammatical errors.
CO4	Interpret graphical representation by comparing and contrasting the information given.
CO5	Develop listening skills for academic and professional purpose

Course code	C102
Subject code	MA6151
Subject name	Engineering Mathematics - I
COURSE OUTCOMES	
CO1	Translate quadratic form into its canonical form through linear and orthogonal transformation.
CO2	Classify the various convergence test of the series.
CO3	Explain the radius, centre and circle of curvature of curves.
CO4	Interpret evolutes and envelopes of any given curves.
CO5	Solve the differential calculus for multivariable functions and interpret area and volume using integrals.

Course code	C103
Subject code	PH6151
Subject name	Engineering Physics
COURSE OUTCOMES	
CO1	Classify the nature of SCC, BCC, FCC and HCP crystals.
CO2	Describe the properties of matter and modes of heat transfer.
CO3	Discuss about matter waves, wave equation and the uses of electron microscopes.
CO4	Explain the acoustic factors and its remedies.
CO5	Explain the production, application of ultrasound in industry and medicine.

Course code	C104
Subject code	CY6151
Subject name	Engineering Chemistry
COURSE OUTCOMES	
CO1	Outline the synthesis and properties of different polymers employed in the field of engineering.
CO2	Interpret the laws of thermodynamics and interrelationship between the thermodynamic functions
CO3	Explain the concepts of photo physical, chemical process and spectral analytical techniques
CO4	Compare phase diagram of one and two components systems
CO5	Summarize the characteristics and suitability of alloys under working conditions

Course code	C105
Subject code	GE6151
Subject name	Computer Programming
COURSE OUTCOMES	
CO1	Outline the organization of digital computers, number system and formulation of logical analysis
CO2	Explain the fundamentals of C programming
CO3	Describe the concepts of various control structures
CO4	Apply arrays and strings concept in sorting and searching techniques and illustrate the working of functions and pointers
CO5	Apply the concepts of structures, union in C programs

Course code	C106
Subject code	GE6162
Subject name	ENGINEERING GRAPHICS
COURSE OUTCOMES	
CO1	Draw the geometrical constructions of conics, cycloids and Involutives
CO2	Draw the orthographic projection and isometric views of objects.
CO3	Draw the projections of points, lines, and plane surfaces.
CO4	Draw the projections of simple regular polyhedral, truncated solids and section of solids.
CO5	Draw the development of lateral surfaces and perspective projection of simple solids.

Course code	C107
Subject code	GE6151
Subject name	Computer Practice Laboratory
COURSE OUTCOMES	
CO1	Perform various features of office packages.
CO2	Develop simple C programs with Statements and expressions
CO3	Apply array and strings using control structures in C Programming.
CO4	Implement Various functions in C Programming.
CO5	Develop C programs with structure and union.

Course code	C108
Subject code	GE6162
Subject name	Engineering Practice Laboratory
COURSE OUTCOMES	
CO1	Make simple plumbing works, carpentry joints, welding and sheet metal
CO2	Perform basic machining operations.
CO3	Show the components for smithy, foundry, fitting, centrifugal pump and air conditioner.
CO4	Demonstrate residential, staircase and fluorescent lamp wiring.
CO5	Perform power measurement, earth resistance measurement and energy meter calibration.

Course code	C109
Subject code	GE6163
Subject name	Physics and Chemistry Laboratory-I
COURSE OUTCOMES	
CO1	Make use of the laser source and spectrometer to calculate the wavelength of various colours.
CO2	Experiment with ultrasonic interferometer to determine the velocity of sound.
CO3	Identify the value of Young's modulus of given bar and thermal conductivity of bad conductor.
CO4	Relate water quality related parameters by chemical analysis.
CO5	Classify the acid - base reactions using conductometric titrations.

II - SEMESTER

Course code	C110
Subject code	HS6251
Subject name	Technical English- II
COURSE OUTCOMES	
CO1	Develop listening skills for retrieving information.
CO2	Organize the contexts with effective writing.
CO3	Infer different types of writing in different contexts effectively and persuasively.
CO4	Explain business situations and formal letters and reports.
CO5	Relate their knowledge with effective listening, speaking, reading and writing skills.

Course code	C111
Subject code	MA6251
Subject name	Mathematics - II
COURSE OUTCOMES	
CO1	Interpret the line, surface and volume integral by Green's, Stoke's and Gauss Divergence theorem.
CO2	Explain the solution of higher order linear ordinary differential equations with constant and variable coefficients.
CO3	Outline the laplace transform of continuous functions with its basic properties.
CO4	Apply the concept of laplace transform to the solution of linear ordinary differential equations with constant coefficients
CO5	Make use of conformal mapping for different kinds of domains and milne Thomson method to find analytic functions

Course code	C112
Subject code	PH6251
Subject name	Engineering Physics - II
COURSE OUTCOMES	
CO1	Summarize the concepts of conducting materials by classical and quantum theories.
CO2	Classify the semiconducting materials and their applications.
CO3	Outline the magnetic materials.
CO4	Explain the properties and applications of superconductors
CO5	Illustrate the polarization mechanisms in dielectric materials.

Course code	C113
Subject code	CY6251
Subject name	Engineering Chemistry - II
COURSE OUTCOMES	
CO1	Outline the disadvantages of using hard water in boilers and various softening methods.
CO2	Relate electrochemical nature of metals to the corrosion propensity.
CO3	Illustrate the corrosion control methods.
CO4	Summarize the principle, working and applications of various energy conversion devices.
CO5	Explain the manufacture and properties of engineering materials.

Course code	C114
Subject code	CS6201
Subject name	Digital Principals and System Design
COURSE OUTCOMES	
CO1	Exercise the implementation of Boolean Function using logic gates
CO2	Interpret the design procedure for various fundamental combinational circuits
CO3	Construct synchronous circuits by using flip-flops
CO4	Describe asynchronous circuits by using state reduction techniques
CO5	Infer knowledge of semiconductor memories to design programmable logic devices

Course code	C115
Subject code	CS6202
Subject name	Programming and Data Structures - I
COURSE OUTCOMES	
CO1	Use various control structures in arrays and functions
CO2	Outline the concepts of structures, union and file handling mechanism.
CO3	Explain abstract data types for linked list and its applications
CO4	Interpret the concepts of stack, queue and its applications
CO5	Use various sorting and searching techniques in data structures.

Course code	C116
Subject code	GE6262
Subject name	Physics and Chemistry Laboratory - II
COURSE OUTCOMES	
CO1	Apply the modulus of elasticity to calculate the young's modulus and rigidity modulus for a given material
CO2	Make use of Poiseuille's method and air wedge method to calculate the viscosity of the liquid and thickness of thin wire
CO3	Identify the types of semiconducting material by finding its band gap value.
CO4	Identify water quality related parameters by chemical analysis.
CO5	Interpret the chemical solution using conductometric measurements.

Course code	C117
Subject code	GE6211
Subject name	Digital Laboratory
COURSE OUTCOMES	
CO1	Visualize the Boolean theorems using logic gates.
CO2	Practice the construction of combinational circuits for performing addition, subtraction and code conversion using basic gates.
CO3	Exercise the implementation of combinational circuits for performing basic operation using MSI devices.
CO4	Construct sequential circuits like shift registers, synchronous and asynchronous counters.
CO5	Practice HDL coding for the design of combinational and semantics circuits.

Course code	C118
Subject code	CS6212
Subject name	Programming and Data Structures Laboratory - I
COURSE OUTCOMES	
CO1	Develop C program for control structures.
CO2	Implement C program using functions, Arrays and pointers.
CO3	Implement Stack and Queue using array and Linked List ADT.
CO4	Execute file access methods using C Programming
CO5	Implement the applications of stack and queue using C programming.

III - SEMESTER	
Course code	C201
Subject code	MA6351
Subject name	TRANSFORMS AND PARTIAL DIFFERENTIAL EQUATIONS
COURSE OUTCOMES	
CO1	Explain first & higher order partial differential equations.
CO2	Interpret periodic functions as a Fourier series trigonometrically and numerically.
CO3	Solve the problems related with displacement of string and heat transformation of rod and plate
CO4	Translate the function from one domain to another domain using Fourier Transform and Z- Transform.
CO5	Apply Z-Transform for solving the difference equation

Course code	C202
Subject code	CS6301
Subject name	Programming and Data Structures - II
COURSE OUTCOMES	
CO1	Use the control structures of C appropriately for problems.
CO2	Employ File handling concepts for simple programs.
CO3	Explain the concept of list and its application.
CO4	Apply the linear data structure stack for undo\redo operation in word processors, Expression evaluation and syntax parsing and queue for process scheduling
CO5	Critically analyze the various sorting and searching algorithms, hashing techniques

Course code	C203
Subject code	CS6302
Subject name	Database Management Systems
COURSE OUTCOMES	
CO1	Classify the modern and futuristic database applications based on size and complexity
CO2	Map ER model to Relational model to perform database design effectively
CO3	Explain & use design principles for logical design of databases and normalization approach.
CO4	Compare and contrast various indexing strategies in different database systems

CO5	Appraise how advanced databases differ from traditional databases.
Course code	C204
Subject code	CS6303
Subject name	Computer Architecture
COURSE OUTCOMES	
CO1	Classify various instructions and addressing modes of the computer architecture
CO2	Illustrate the fixed-point and floating-point operations of arithmetic and logic unit
CO3	Explain the concept of MIPS implementation, pipelining and handling hazards
CO4	Outline the Instruction Level Parallelism and Flynn's Classification
CO5	Describe the principles and performance of physical and virtual memory

Course code	C205
Subject code	CS6304
Subject name	Analog and Digital Communication
COURSE OUTCOMES	
CO1	Define sampling, quantization and encoding techniques.
CO2	Define DPCM, DM, ADPCM and ADM techniques
CO3	Analyze the line coding and techniques for eliminating ISI in digital communication system.
CO4	Design and implement base band transmission and reception schemes and implement band pass signaling schemes
CO5	Apply error control coding techniques in digital communication system.

Course code	C206
Subject code	GE6351
Subject name	Environmental Science and Engineering
COURSE OUTCOMES	
CO1	Public awareness of environmental is at infant stage.
CO2	Environmental Pollution or problems cannot be solved by mere laws. Public participation is an important aspect which serves the environmental Protection.
CO3	Ignorance and incomplete knowledge have led to misconceptions
CO4	Understand what are professional ethics and how do ethics affect the outcomes of environmental laws and regulations
CO5	Understand what is life time learning and how does it contribute to the advancement of career.

Course code	C207
Subject code	CS6311
Subject name	Programming and Data Structures Laboratory - II
COURSE OUTCOMES	
CO1	Be able to design and analyze the time and space efficiency of the data structure
CO2	Be capable to identify the appropriate data structure for given problem
CO3	Ability to analyze algorithms and a algorithm correctness.
CO4	Ability to summarize searching and sorting techniques
CO5	Ability to describe stack, queue and linked list operation.

Course code	C208
Subject code	6312
Subject name	Database Management Systems Laboratory
COURSE OUTCOMES	
CO1	Use typical data definitions and manipulation commands.
CO2	Design applications to test Nested and Join Queries
CO3	Implement simple applications that use Views
CO4	Implement applications that require a Front-end Tool
CO5	Critically analyze the use of Tables, Views, Functions and Procedures

IV - SEMESTER

Course code	C209
Subject code	MA6453
Subject name	Probability and Queuing Theory
COURSE OUTCOMES	
CO1	Understand the fundamental knowledge of the concepts of probability and have knowledge of standard distributions which can describe real life phenomenon.
CO2	Understand the basic concepts of one- and two-dimensional random variables and apply in engineering applications
CO3	Apply the concept of random processes in engineering disciplines.
CO4	Acquire skills in analyzing queueing models.
CO5	Understand and characterize phenomenon which evolve with respect to time in a probabilistic manner

Course code	C210
Subject code	CS6551
Subject name	Computer Networks
COURSE OUTCOMES	
CO1	Independently understand basic computer network technology
CO2	Understand and explain Data Communications System and its components.
CO3	Identify the different types of network topologies and protocols
CO4	Enumerate the layers of the OSI model and TCP/IP. Explain the function(s) of each layer.
CO5	Identify the different types of network devices and their functions within a network

Course code	C211
Subject code	CS6401
Subject name	Operating Systems
COURSE OUTCOMES	
CO1	Analyze the structure of OS and basic architectural components involved in OS design
CO2	Analyze various scheduling algorithms
CO3	Understand deadlock prevention and avoidance algorithms
CO4	Identify, use and evaluate the storage management policies with respect to different storage management techniques
CO5	Understand the functionality of file systems.

Course code	C212
Subject code	CS6402
Subject name	Design and Analysis of Algorithm
COURSE OUTCOMES	
CO1	Analyze the time and space complexity of algorithms.
CO2	Modify existing algorithms to improve efficiency.
CO3	Illustrate the problems using dynamic programming
CO4	Explain and analyze problems related to iterative improvement.
CO5	Critically analyze the different algorithm design techniques for a given problem

Course code	C213
Subject code	CS6403
Subject name	Software Engineering
COURSE OUTCOMES	
CO1	Identify the key activities in managing a software project.
CO2	Compare different process models.
CO3	Concepts of requirements engineering and Analysis Modeling.
CO4	Apply systematic procedure for software design and deployment
CO5	Compare and contrast the various testing and maintenance.

Course code	C214
Subject code	CS6411
Subject name	Networks Laboratory
COURSE OUTCOMES	
CO1	Understand fundamental underlying principles of computer networking
CO2	Understand details and functionality of layered network architecture.
CO3	Apply mathematical foundations to solve computational problems in computer networking
CO4	Analyze performance of various communication protocols.
CO5	Compare routing algorithms

Course code	C215
Subject code	CS6412
Subject name	Micro Processor and Micro Controller Laboratory
COURSE OUTCOMES	
CO1	Implement the ALP Programs for fixed point arithmetic circuits.
CO2	design and implement programs on 8086 microprocessors by understanding its architecture, instruction set and interrupt process.
CO3	Compile the ALP for generating waveforms such as square wave and triangular wave using microprocessors.
CO4	Design a communication interface by understanding the system bus structure of 8086 microprocessor
CO5	Implement the programs in 8051 microcontrollers for ADC, DAC, stepper motor

Course code	C216
Subject code	CS6413
Subject name	Operating Systems Laboratory
COURSE OUTCOMES	
CO1	Compare the performance of various CPU Scheduling Algorithms
CO2	Implement Deadlock avoidance and Detection Algorithms
CO3	Implement Semaphores
CO4	Create processes and implement IPC
CO5	Analyze the performance of the various Page Replacement Algorithms.

V - SEMESTER

Course code	C301
Subject code	MA6566
Subject name	Discrete Mathematics
COURSE OUTCOMES	
CO1	Have knowledge of the concepts needed to test the logic of a program.
CO2	Have an understanding in identifying structures on many levels
CO3	Be aware of a class of functions which transform a finite set into another finite set which relates to input and output functions in computer science.
CO4	Be aware of the counting principles.
CO5	Be exposed to concepts and properties of algebraic structures such as groups, rings and fields.

Course code	C302
Subject code	CS6501
Subject name	Internet Programming
COURSE OUTCOMES	
CO1	Implement Java programs.
CO2	Create a basic website using HTML and Cascading Style Sheets
CO3	Design and implement dynamic web page with validation using JavaScript objects and by applying different event handling mechanisms.
CO4	Design and implement server side programs using Servlets and JSP
CO5	Design and implement simple web page in PHP, and to present data in XML format.

Course code	C303
Subject code	CS6502
Subject name	Object Oriented Analysis and Design
COURSE OUTCOMES	
CO1	Analyze and Design UML diagrams
CO2	Design and implement projects using OO concepts
CO3	Identify various scenarios based on software requirements
CO4	Transform UML based software design into pattern-based design using design patterns
CO5	Understand the various testing methodologies for Object Oriented software

Course code	C304
Subject code	CS6503
Subject name	Theory of Computation
COURSE OUTCOMES	
CO1	Explain automata theory as the basis of all computer science languages design.
CO2	Build grammars for a given language and vice versa.
CO3	Develop Finite Automata, Push Down Automata and Turing machines.
CO4	Propose computation solutions using Turing machines.
CO5	Determine the decidability and intractability of computational problems

Course code	C305
Subject code	CS6504
Subject name	Computer Graphics
COURSE OUTCOMES	
CO1	Implement the illumination and color model techniques
CO2	Prepare a two dimensional graphics and transformation concepts
CO3	Prepare a three dimensional graphics and transformation concepts
CO4	Design multimedia file format for graphics
CO5	Evaluate the 3D scenes using blender

Course code	C306
Subject code	CS6511
Subject name	Case Tools Laboratory
COURSE OUTCOMES	
CO1	Perform OO analysis and design for a given problem specification
CO2	Identify and map basic software requirements in UML mapping.
CO3	Improve the software quality using design patterns and to explain the rationale behind applying specific design patterns
CO4	Test the compliance of the software with the SRS.
CO5	To design with static UML diagrams

Course code	C307
Subject code	CS6512
Subject name	Internet Programming Laboratory
COURSE OUTCOMES	
CO1	Develop Web pages using HTML, XML and style sheets
CO2	Build user interfaces, sockets using Java frames and applets
CO3	Implement dynamic web pages using JSP and Servlets
CO4	Apply JSP Struts, Hibernate, spring frameworks to optimize web applications
CO5	Develop the web applications with AJAX

Course code	C308
Subject code	CS6513
Subject name	Computer Graphics Laboratory
COURSE OUTCOMES	
CO1	Implement the illumination and color model techniques
CO2	Prepare a two dimensional graphics and transformation concepts
CO3	Prepare a three dimensional graphics and transformation concepts
CO4	Design multimedia file format for graphics
CO5	Evaluate the 3D scenes using blender

VI - SEMESTER

Course code	C309
Subject code	CS6601
Subject name	Distributed Systems
COURSE OUTCOMES	
CO1	Elucidate the foundations and issues of distributed systems
CO2	Identify the various synchronization issues and global state for distributed systems.
CO3	Recognize the Mutual Exclusion and Deadlock detection algorithms in distributed systems
CO4	Describe the agreement protocols and fault tolerance mechanisms in distributed systems.
CO5	Describe the features of peer-to-peer and distributed shared memory systems

Course code	C310
Subject code	IT6601
Subject name	Mobile Computing
COURSE OUTCOMES	
CO1	Explain the basics of mobile telecommunication systems
CO2	Illustrate the generations of telecommunication systems in wireless networks
CO3	Determine the functionality of MAC, network layer and Identify a routing protocol for a given Ad hoc network
CO4	Explain the functionality of Transport and Application layers
CO5	Develop a mobile application using android/blackberry/ios/Windows SDK

Course code	C311
Subject code	CS6660
Subject name	Compiler Design
COURSE OUTCOMES	
CO1	Understand the different phases of compiler.
CO2	Design a lexical analyzer for a sample language.
CO3	Apply different parsing algorithms to develop the parsers for a given grammar.
CO4	Understand syntax-directed translation and run-time environment.
CO5	Learn to implement code optimization techniques and a simple code generator.

Course code	C312
Subject code	IT6502
Subject name	Digital Signal Processing
COURSE OUTCOMES	
CO1	Explain the Discrete Time Signals, System & Sampling theorem
CO2	Apply the Z-Transform, Convolution and Correlation for discrete time LTI System
CO3	Apply DFT,FFT & DCT algorithm for discrete time analysis
CO4	Acquire knowledge on various methods of designing IIR filter both in analog and digital domain for the given specification
CO5	Acquire knowledge on various techniques of designing FIR filter for the given specification
Course code	C313
Subject code	CS6659
Subject name	Artificial Intelligence
COURSE OUTCOMES	
CO1	Identify problems that are amenable to solution by AI methods.
CO2	Identify appropriate AI methods to solve a given problem
CO3	Formalise a given problem in the language/framework of different AI methods
CO4	Implement basic AI algorithms.
CO5	Design and carry out an empirical evaluation of different algorithms on a problem formalisation, and state the conclusions that the evaluation supports.

Course code	C314
Subject code	IT6004
Subject name	Software Testing
COURSE OUTCOMES	
CO1	Understand the different phases of compiler.
CO2	Design a lexical analyzer for a sample language.
CO3	Apply different parsing algorithms to develop the parsers for a given grammar.
CO4	Understand syntax-directed translation and run-time environment.
CO5	Learn to implement code optimization techniques and a simple code generator.

Course code	C315
Subject code	CS6611
Subject name	Mobile Application Development Laboratory
COURSE OUTCOMES	
CO1	Develop mobile applications using GUI and Layouts.
CO2	Develop mobile applications using Event Listener.
CO3	Develop mobile applications using Databases.
CO4	Develop mobile applications using RSS Feed, Internal/External Storage, SMS, Multi-threading and GPS.
CO5	Analyze and discover own mobile app for simple needs.

Course code	C316
Subject code	CS6612
Subject name	Compiler Laboratory
COURSE OUTCOMES	
CO1	Implement the different Phases of compiler using tools
CO2	Design a lexical analyzer for a sample language.
CO3	Analyze the control flow and data flow of a typical program
CO4	Optimize a given program
CO5	Generate an assembly language program equivalent to a source language program

Course code	C317
Subject code	GE6674
Subject name	Communication and Soft Skills Laboratory
COURSE OUTCOMES	
CO1	Demonstrate effective listening and speaking skills in formal and informal situations.
CO2	Interpret information by relating different genres of texts.
CO3	Develop skills in taking up international examinations like IELTS and TOEFL.
CO4	Infer ideas and suggestion into writing in both formal and informal contexts.
CO5	Apply critical thinking and self-awareness for life planning.

VII - SEMESTER

Course code	C401
Subject code	CS6701
Subject name	Cryptography and Network Security
COURSE OUTCOMES	
CO1	Compare various Cryptographic Techniques
CO2	Design Secure applications
CO3	Inject secure coding in the developed applications
CO4	Identify appropriate mechanism for providing system security
CO5	Construct Cryptographic algorithm from hard problems in mathematics

Course code	C402
Subject code	CS6702
Subject name	Graph Theory and Its Applications
COURSE OUTCOMES	
CO1	Apply principles and concepts of graph theory in practical situations
CO2	Identify the mathematical definitions and construct examples
CO3	Illustrate fundamental of circuits, cutsets, network flows and graph
CO4	Apply theoretical knowledge of combination and independent mathematical thinking in creative
CO5	Validate and critically assess a mathematical proof

Course code	C403
Subject code	CS6703
Subject name	Grid and Cloud Computing
COURSE OUTCOMES	
CO1	Use the grid and cloud tool kits.
CO2	Design and implement applications on the Grid.
CO3	Design and implement applications on the Grid Platform of OGSA.
CO4	Design and implement applications on the Grid Platform of OGSI.
CO5	Design and Implement applications on the Cloud.

Course code	C404
Subject code	CS6704
Subject name	Resource Management Techniques
COURSE OUTCOMES	
CO1	Explain the fundamental concept and approach to linear programming problems and its dual
CO2	Solve transportation and assignment problems
CO3	Extend the solution of linear programming problem using Integer programming algorithm
CO4	Solve the Dynamic Programming model
CO5	Construct a project network and apply program evaluation review technique and critical path management

Course code	C405
Subject code	IT6801
Subject name	Service Oriented Architecture
COURSE OUTCOMES	
CO1	Explain the fundamentals of XML.
CO2	Develop the application based on XML.
CO3	Identify the characteristics and architectural principles of SOA
CO4	Develop web services using technology elements.
CO5	Develop SOA-based applications for intra-enterprise and inter-enterprise applications.

Course code	C406
Subject code	CS6007
Subject name	Information Retrieval
COURSE OUTCOMES	
CO1	To identify database management system and data warehouses
CO2	Design web search engine
CO3	Evaluate the clustering and searching technologies for different sub systems
CO4	Ability to explain different types of search algorithm like hardware text search system
CO5	Ability to use knowledge of datastructures and indexing methods in IR system

Course code	C407
Subject code	CS6711
Subject name	Security Laboratory
COURSE OUTCOMES	
CO1	Design a classic encryption techniques to solve the problems
CO2	Implement public key encryption algorithm.
CO3	Implement authentication algorithm techniques
CO4	Develop a signature scheme using digital signature standards
CO5	Implement the network security systems.

Course code	C408
Subject code	CS6712
Subject name	Grid and Cloud Computing Laboratory
COURSE OUTCOMES	
CO1	Use the grid and cloud tool kits.
CO2	Design and implement applications on the Grid.
CO3	Design and implement applications on the Grid Platform of OGSA.
CO4	Design and implement applications on the Grid Platform of OGSF.
CO5	Design and Implement applications on the Cloud.

VIII - SEMESTER

Course code	C409
Subject code	CS6801
Subject name	Multi-Core Architecture and Programming
COURSE OUTCOMES	
CO1	Design basic and intermediate RISC pipelines, including the instruction set, data paths, and ways of dealing with pipeline hazards.
CO2	Consider various techniques of instruction-level parallelism, including superscalar execution, branch prediction, and speculation, in design of high-performance processors
CO3	State and understand memory hierarchy design, memory access time formula, performance improvement techniques, and trade-offs.
CO4	State and compare properties of shared memory and distributed multiprocessor systems and cache coherency protocols
CO5	Learn from additional topics in computer architecture, such as multi-core processors, thread-level parallelism, and warehouse computing.

Course code	C410
Subject code	CS6010
Subject name	Social Network Analysis
COURSE OUTCOMES	
CO1	Explain the concept of semantic web and related applications
CO2	Outline the Modelling, Aggregating for social network analysis
CO3	Outline the knowledge representation using ontology.
CO4	Illustrate the Extraction And Mining Communities in Web Social Networks
CO5	Use Graph Theory and Hybrid Representation for visualizing the Social Networks.

Course code	C411
Subject code	MG6088
Subject name	Software Project Management
COURSE OUTCOMES	
CO1	Outline the software project planning and management.
CO2	Use life cycle model & effort estimation for project development.
CO3	Use activity planning model and risk management techniques for project development.
CO4	Find cost model to manage the contracts of a software project.
CO5	Describe the quality of personnel in the development of software project.