Narasu's Sarathy
Institute of Technology
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Salem Bengaluru Highway NH - 7, Poosaripatty, Kadayampatty Taluk, Salem - 636305.
Admin Office: 93449-72274, Admission Cell: 93449-72275,73977-56003,
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COURSE OUTCOMES (COs)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2.6.1 Teachers and students are aware of the stated Programme and course outcomes of the

Programmes offered by the institution.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VISION

- To prosper as a competent professional for serving industry and Nation's socio-economic progress.

MISSION

- To foster computing skills with an emphasis on professional competency, interpersonal development and ethics.
- To enrich the aptitude of the students for facing the recent challenges of industry and society.
- To inculcate the students for pursuing careers in industry, academic and research.

PROGRAM SPECIFIC OUTCOMES (PSOs):

1. To analyze, design and develop computing solutions by applying foundational concepts of Computer Science and Engineering.
2. To apply software engineering principles and practices for developing quality software for scientific and business applications.
3. To adapt to emerging Information and Communication Technologies (ICT) to innovate ideas and solutions to existing/novel problems.

PROGRAMME EDUCATIONAL OBJECTIVES:

1. To enable graduates to pursue higher education and research, or have a successful career in industries associated with Computer Science and Engineering, or as entrepreneurs.

2. To ensure that graduates will have the ability and attitude to adapt to emerging technological changes

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PROGRAMME OUTCOMES:

Engineering Graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **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.
4. **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.
5. **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.
6. **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.
7. **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.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to

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comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. **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.

12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING	
REGULATION & SEMESTER:	**2017 - I**
SUBJECT CODE & NAME:	HS8151 - Communicative English
CO'S	**COURSE OUTCOMES**
CO1	Students will acquire wide knowledge in all the four skills such as listening, speaking, reading and writing
CO2	Students will be able to write effectively for a variety of professional and social settings.
CO3	Students will be able to share ideas and concepts in proper pronunciation, structure, appropriate use and style of the English Language as well as the application areas of English communication
CO4	Students will be able to prepare, organize, and deliver an engaging oral presentation.
CO5	Students will become active readers who can articulate their own interpretations with an awareness and curiosity for other perspectives.
SUBJECT CODE & NAME:	MA8151 -Engineering Mathematics - I
CO'S	**COURSE OUTCOMES**
	Student will be able,
CO1	To apply both the limit definition and rules of differentiation to differentiate functions.
CO2	To apply Differentiation in Maxima and Minima problems
CO3	To Evaluate integrals both by using Riemann's and the fundamental theorem of calculus
CO4	To compute multiple integrals, area, volume, integrals in polar coordinates in addition to change of order and change of

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	variables
CO5	To evaluate the integrals using techniques of integration, such as substitution, partial fractions and integration by parts
SUBJECT CODE & NAME:	PH8151 - Engineering Physics
CO'S	**COURSE OUTCOMES**
	Student will be able,
CO1	Understand the elastic behavior and thermal properties of materials.
CO2	Understand the properties and applications of wave and fiber optics
CO3	Understand thermal properties of the material.
CO4	Understand Quantum mechanical behavior of the material
CO5	Understand the crystal structure and growing methods of crystal
SUBJECT CODE & NAME:	CY8151 - Engineering Chemistry
CO'S	**COURSE OUTCOMES**
	Student will be able,
CO1	To Know and develop innovative methods to produce soft water for boiler feed by various treatment process.
CO2	Explain role of adsorption phenomena and various catalytic types and its key properties
CO3	Students able to know about significance and properties of alloy making and its application on phase diagram.
CO4	To explain about analysis and manufacture of various types of fuel.
CO5	To Know about the importance and application of energy sources and energy storage devices.
SUBJECT CODE & NAME:	GE8151 - Problem Solving and Python Programming
CO'S	**COURSE OUTCOMES**
	Student will be able,
CO1	Develop algorithmic solutions to simple computational problems
CO2	Read, write, execute by hand simple Python programs.
CO3	Structure simple Python programs for solving problems.
CO4	Decompose a Python program into functions.
CO5	Represent compound data using Python lists, tuples, dictionaries
CO6	Read and write data from/to files in Python Programs.
SUBJECT CODE & NAME:	GE8152 - Engineering Graphics
CO'S	**COURSE OUTCOMES**
	Student will be able to,
CO1	Perform Freehand Sketching Of Basic Geometrical Constructions And Multiple Views Of Objects and conic sections.

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CO2	Develop Orthographic Projections Of Lines And Plane Surfaces
CO3	Draw projections of solids
CO4	Draw projections of development of surfaces
CO5	Visualize and to project isometric and perspective sections of simple solids
SUBJECT CODE & NAME:	GE8161- Problem Solving and Python Programming Laboratory
CO'S	**COURSE OUTCOMES**
	Student will be able to,
CO1	Write, test, and debug simple Python programs.
CO2	Implement Python programs with conditionals and loops.
CO3	Develop Python programs step-wise by defining functions and calling them.
CO4	Use Python lists, tuples, dictionaries for representing compound data.
CO5	Read and write data from/to files in Python.
SUBJECT CODE & NAME:	BS8161-Physics and Chemistry Laboratory
CO'S	**COURSE OUTCOMES**
CO1	Student will have knowledge to Analyze the particle size & acceptance ankle using laser.
CO2	Student will be able to Apply the principle of ultrasonic interferometer
CO3	Student will be able to understand the principles of spectrometer grating
CO4	Students can Analyze the thermal conductivity of a bad conductor
CO5	Student will be able to Apply the elastic behavior of material
REGULATION & SEMESTER:	**2017 - II**
SUBJECT CODE & NAME:	HS8251 - Technical English
CO'S	**COURSE OUTCOMES**
	Student will be able to,
CO1	Read technical texts and write area- specific texts effortlessly.
CO2	Listen and comprehend lectures and talks in their area of specialization successfully.
CO3	Speak appropriately and effectively in varied formal and informal contexts.
CO4	Write reports and winning job applications.

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SUBJECT CODE & NAME:	MA8251- Engineering Mathematics - II
CO'S	**COURSE OUTCOMES**
	Student will be able to,
CO1	To understand the concept of Eigen values and Eigen vectors, diagonalization of Matrix, symmetric matrices, positive definite matrices and similar matrices
CO2	To evaluate Gradient, Divergence and Curl of a Vector point functions and related identities.
CO3	To evaluate a Line, Surface and Volume integrals by using Gauss, Stokes and Green's Theorems and their verification.
CO4	To understand the concept of Analytic functions, conformal mapping and Complex integration
CO5	To understand the concept of Laplace Transform and inverse transform of simple functions, properties, various related theorems and application to differential equations with constant coefficients
SUBJECT CODE & NAME:	PH8252 - PHYSICS FOR INFORMATION SCIENCE
CO'S	**COURSE OUTCOMES**
	Student will be able to,
CO1	Understand the phase diagrams.
CO2	Understand the properties, preparation and applications of ferrous alloys
CO3	Understand the mechanical properties materials.
CO4	Understand properties and applications of the magnetic, dielectric and super conducting materials
CO5	Understand the properties, preparation methods and applications of new materials
SUBJECT CODE & NAME:	BE8255 Basic Electrical, Electronics and Measurement Engineering
CO'S	**COURSE OUTCOMES**
	Student will be able to,
CO1	Discuss the essentials of electric circuits and analysis.
CO2	Discuss the basic operation of electric machines and transformers
CO3	Introduction of renewable sources and common domestic loads.
CO4	Introduction to measurement and metering for electric circuits.
SUBJECT CODE & NAME:	GE8291 ENVIRONMENTAL SCIENCE AND ENGINEERING
CO'S	**COURSE OUTCOMES**

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	Student will be able to,
CO1	Public awareness of environmental is at infant stage.
CO2	Ignorance and incomplete knowledge has lead to misconceptions
CO3	Development and improvement in std. of living has lead to serious environmental disasters
SUBJECT CODE & NAME:	CS8251 Programming in C
CO'S	**COURSE OUTCOMES**
	Student will be able to,
CO1	Develop simple applications in C using basic constructs
CO2	Design and implement applications using arrays and strings
CO3	Develop and implement applications in C using functions and pointers.
CO4	Develop applications in C using structures.
CO5	Design applications using sequential and random access file processing.
SUBJECT CODE & NAME:	GE8261 Engineering Practices Laboratory
CO'S	**COURSE OUTCOMES**
	Student will be able to,
CO1	Fabricate carpentry components and pipe connections including plumbing works.
CO2	Use welding equipment's to join the structures. Carry out the basic machining operations
CO3	Make the sheet metal models
CO4	Illustrate on centrifugal pump, Air conditioner, operations of smithy, foundry and fittings
CO5	Carry out basic home electrical works and appliances
CO6	Measure the electrical quantities
CO7	Elaborate on the components, gates, soldering practices.
SUBJECT CODE & NAME:	**CS8261 C Programming Laboratory**
CO'S	**COURSE OUTCOMES**
	Student will be able to,
CO1	Develop C programs for simple applications making use of basic constructs, arrays and strings.
CO2	Develop C programs involving functions, recursion, pointers, and structures.
CO3	Design applications using sequential and random access file processing.

2.6 Student Performance and Learning Outcomes

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REGULATION & SEMESTER:	2017 - III
SUBJECT CODE & NAME:	MA8351 Discrete Mathematics
CO'S	COURSE OUTCOMES
	Student will be able to,
CO1	Apply knowledge of the concepts needed to test the logic of a program.
CO2	Understanding in identifying structures on many levels.
CO3	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	Aware of the counting principles.
CO5	Exposed to concepts and properties of algebraic structures such as groups, rings and fields.
SUBJECT CODE & NAME:	CS8351 Digital Principles and System Design
CO'S	COURSE OUTCOMES
	Student will be able to,
CO1	Simplify Boolean functions using KMap
CO2	Design and Analyze Combinational and Sequential Circuits
CO3	Implement designs using Programmable Logic Devices
CO4	Write HDL code for combinational and Sequential Circuits
SUBJECT CODE & NAME:	CS8391 Data Structures
CO'S	COURSE OUTCOMES
	Student will be able to,
CO1	Implement abstract data types for linear data structures.
CO2	Apply the different linear and non-linear data structures to problem solutions.
CO3	Critically analyze the various sorting algorithms.
SUBJECT CODE & NAME:	CS8392 Object Oriented Programming
CO'S	COURSE OUTCOMES
	Student will be able to,
CO1	Develop Java programs using OOP principles
CO2	Develop Java programs with the concepts inheritance and interfaces
CO3	Build Java applications using exceptions and I/O streams
CO4	Develop Java applications with threads and generics classes
CO5	Develop interactive Java programs using swings
SUBJECT CODE &	EC8395 - COMMUNICATION ENGINEERING

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NAME:	
CO'S	**COURSE OUTCOMES**
CO1	Ability to comprehend and appreciate the significance and role of this course in the present contemporary world
CO2	Apply analog and digital communication techniques.
CO3	Use data and pulse communication techniques.
CO4	Develop Java applications with threads and generics classes Analyse Source and Error control coding.
SUBJECT CODE & NAME:	CS8381 Data Structures Laboratory
CO'S	**COURSE OUTCOMES**
	Student will be able to,
CO1	Write functions to implement linear and non-linear data structure operations
CO2	Suggest appropriate linear / non-linear data structure operations for solving a given problem
CO3	Appropriately use the linear / non-linear data structure operations for a given problem
CO4	Apply appropriate hash functions that result in a collision free scenario for data storage and retrieval
SUBJECT CODE & NAME:	CS8383 Object Oriented Programming Laboratory
CO'S	**COURSE OUTCOMES**
	Student will be able to,
CO1	Develop and implement Java programs for simple applications that make use of classes, packages and interfaces.
CO2	Develop and implement Java programs with array list, exception handling and multithreading.
CO3	Design applications using file processing, generic programming and event handling.
SUBJECT CODE & NAME:	CS8382 Digital Systems Laboratory
CO'S	**COURSE OUTCOMES**
	Student will be able to,
CO1	Implement simplified combinational circuits using basic logic gates
CO2	Implement combinational circuits using MSI devices
CO3	Implement sequential circuits like registers and counters
CO4	Simulate combinational and sequential circuits using HDL
SUBJECT CODE &	HS8381 Interpersonal Skills/Listening & Speaking

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NAME:	
CO'S	**COURSE OUTCOMES**
	Student will be able to,
CO1	Listen and respond appropriately.
CO2	Participate in group discussions
CO3	Make effective presentations
CO4	Participate confidently and appropriately in conversations both formal and informal

REGULATION & SEMESTER:	**2017 - IV**
COURSE CODE & NAME:	MA8402 - PROBABILITY AND QUEUING THEORY
COS	**COURSE OUTCOMES**
	Student will be able to,
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 & NAME:	CS8491 Computer Architecture
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Understand the basics structure of computers, operations and instructions.
CO2	Design arithmetic and logic unit.
CO3	Understand pipelined execution and design control unit.
CO4	Understand parallel processing architectures.
CO5	Understand the various memory systems and I/O communication.
COURSE CODE & NAME:	CS8492 Database Management Systems
COS	**COURSE OUTCOMES**
	Student will be able to,

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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	Write queries using normalization criteria and optimize queries
CO4	Compare and contrast various indexing strategies in different database systems
CO5	Appraise how advanced databases differ from traditional databases.
COURSE CODE & NAME:	CS8451 Design and Analysis of Algorithms
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Design algorithms for various computing problems.
CO2	Analyze the time and space complexity of algorithms.
CO3	Critically analyze the different algorithm design techniques for a given problem.
CO4	Modify existing algorithms to improve efficiency.
COURSE CODE & NAME:	CS8493 Operating Systems
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Analyze various scheduling algorithms.
CO2	Understand deadlock, prevention and avoidance algorithms.
CO3	Compare and contrast various memory management schemes.
CO4	Understand the functionality of file systems.
CO5	Perform administrative tasks on Linux Servers.
CO6	Compare iOS and Android Operating Systems.
COURSE CODE & NAME:	CS8494 - SOFTWARE ENGINEERING
COS	**COURSE OUTCOMES**
	Student will be,
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
CO6	Manage project schedule, estimate project cost and effort required.

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COURSE CODE & NAME:	CS8481 Database Management Systems Laboratory
COS	**COURSE OUTCOMES**
	Student will be able to,
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

COURSE CODE & NAME:	CS8461 Operating Systems Laboratory
COS	**COURSE OUTCOMES**
	Student will be able to,
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
CO6	Implement File Organization and File Allocation Strategies
COURSE CODE & NAME:	HS8461 Advanced Reading and Writing
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Write different types of essays.
CO2	Write winning job applications.
CO3	Read and evaluate texts critically.
CO4	Display critical thinking in various professional contexts.
REGULATION & SEMESTER:	**2017 - V**
COURSE CODE & NAME:	MA8551 Algebra and Number Theory
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Apply the basic notions of groups, rings, fields which will then be used to solve related problems.
CO2	Explain the fundamental concepts of advanced algebra and their role in modern mathematics and applied contexts.
CO3	Demonstrate accurate and efficient use of advanced algebraic techniques.
CO4	Demonstrate their mastery by solving non - trivial problems related to

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	the concepts, and by proving simple theorems about the, statements proven by the text.
CO5	Apply integrated approach to number theory and abstract algebra, and provide a firm basis for further reading and study in the subject.
COURSE CODE & NAME:	CS8591 Computer Networks
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Understand the basic layers and its functions in computer networks.
CO2	Evaluate the performance of a network.
CO3	Understand the basics of how data flows from one node to another.
CO4	Analyze and design routing algorithms.
CO5	Design protocols for various functions in the network.
CO6	Understand the working of various application layer protocols
COURSE CODE & NAME:	EC8691 Microprocessors and Microcontrollers
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Understand and execute programs based on 8086 microprocessor.
CO2	Design Memory Interfacing circuits.
CO3	Design and interface I/O circuits.
CO4	Design and implement 8051 microcontroller based systems.
COURSE CODE & NAME:	CS8501 - THEORY OF COMPUTATION
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Construct automata, regular expression for any pattern.
CO2	Write Context free grammar for any construct.
CO3	Design Turing machines for any language
CO4	Propose computation solutions using Turing machines
CO5	Derive whether a problem is decidable or not.
COURSE CODE & NAME:	CS8592 - OBJECT ORIENTED ANALYSIS AND DESIGN
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Express software design with UML diagrams.
CO2	Design software applications using OO concepts

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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 OO software
COURSE CODE & NAME:	OTL553 – TELECOMMUNICATION NETWORK MANAGEMENT
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Design and analyze of fault management.
CO2	Analyze the common management information protocol specifications.
CO3	Design and analyze of management information model.
CO4	Design the simple network management protocol.
CO5	Design the various types of network management tools.
COURSE CODE & NAME:	EC8681 Microprocessors and Microcontrollers Laboratory
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Write ALP Programmes for fixed and Floating Point and Arithmetic operations
CO2	Interface different I/Os with processor
CO3	Generate waveforms using Microprocessors
CO4	Execute Programs in 8051
CO5	Explain the difference between simulator and Emulator
COURSE CODE & NAME:	CS8581 Networks Laboratory
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Implement various protocols using TCP and UDP.
CO2	Compare the performance of different transport layer protocols.
CO3	Use simulation tools to analyze the performance of various network protocols.
CO4	Analyze various routing algorithms.
CO5	Implement error correction codes.
COURSE CODE & NAME:	CS8582 - OBJECT ORIENTED ANALYSIS AND DESIGN LABORATORY

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	Student will be able to,
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.
REGULATION & SEMESTER:	**2017 - VI**
COURSE CODE & NAME:	CS8651 - INTERNET PROGRAMMING
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Construct a basic website using HTML and Cascading Style Sheets
CO2	Build dynamic web page with validation using Java Script objects and by applying different event handling mechanisms
CO3	Develop server side programs using Servlets and JSP.
CO4	Construct simple web pages in PHP and to represent data in XML format.
CO5	Use AJAX and web services to develop interactive web applications
COURSE CODE & NAME:	CS8691 - ARTIFICIAL INTELLIGENCE
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Use appropriate search algorithms for any AI problem
CO2	Represent a problem using first order and predicate logic
CO3	Provide the apt agent strategy to solve a given problem
CO4	Design software agents to solve a problem
CO5	Design applications for NLP that use Artificial Intelligence.
COURSE CODE & NAME:	CS8601 - MOBILE COMPUTING
COS	**COURSE OUTCOMES**
	Student will be able to,

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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 & NAME:	CS8602 - COMPILER DESIGN
COS	**COURSE OUTCOMES**
	Student will be able to,
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
CO6	Design and implement a scanner and a parser using LEX and YACC tools
COURSE CODE & NAME:	CS8603 - DISTRIBUTED SYSTEMS
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Elucidate the foundations and issues of distributed systems
CO2	Understand the various synchronization issues and global state for distributed systems.
CO3	Understand the Mutual Exclusion and Deadlock detection algorithms in distributed systems
CO4	Describe the agreement protocols and fault tolerance mechanisms in distributed systems.

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CO5	Describe the features of peer-to-peer and distributed shared memory systems
COURSE CODE & NAME:	IT8076 Software Testing
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Design test cases suitable for a software development for different domains.
CO2	Identify suitable tests to be carried out.
CO3	Prepare test planning based on the document.
CO4	Document test plans and test cases designed.
CO5	Use automatic testing tools.
CO6	Develop and validate a test plan.
COURSE CODE & NAME:	CS8662 Mobile Application Development Laboratory
COS	**COURSE OUTCOMES**
	Student will be able to,
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 & NAME:	CS8661 - INTERNET PROGRAMMING LABORATORY
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Construct Web pages using HTML/XML and style sheets.
CO2	Build dynamic web pages with validation using Java Script objects and by applying different event handling mechanisms.
CO3	Develop dynamic web pages using server side scripting
CO4	Use PHP programming to develop web applications
CO5	Construct web applications using AJAX and web services.
COURSE CODE & NAME:	IT8611 Mini Project
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	On Completion of the project work students will be in a position to

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	take up any challenging practical problems and find solution by formulating proper methodology.
COURSE CODE & NAME:	HS8581 - PROFESSIONAL COMMUNICATION
COS	**COURSE OUTCOMES**
CO1	Make effective presentations
CO2	Participate confidently in Group Discussions
CO3	Attend job interviews and be successful in them
CO4	Develop adequate Soft Skills required for the workplace
REGULATION & SEMESTER:	**2017 - VII**
COURSE CODE & NAME:	MG8591 Principles of Management
COS	
	Student will be able to,
CO1	Upon completion of the course, students will be able to have clear understanding of managerial functions like planning, organizing, staffing, leading & controlling and have same basic knowledge on international aspect of management
COURSE CODE & NAME:	CS8792 Cryptography and Network Security
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Understand the fundamentals of networks security, security architecture, threats and vulnerabilities
CO2	Apply the different cryptographic operations of symmetric cryptographic algorithms
CO3	Apply the different cryptographic operations of public key cryptography
CO4	Apply the various Authentication schemes to simulate different applications.
CO5	Understand various Security practices and System security standards

COURSE CODE & NAME:	CS8791 Cloud Computing
COS	**COURSE OUTCOMES**
	Student will be able to,

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CO1	Articulate the main concepts, key technologies, strengths and limitations of cloud computing.
CO2	Learn the key and enabling technologies that help in the development of cloud.
CO3	Develop the ability to understand and use the architecture of compute and storage cloud, service and delivery models.
CO4	Explain the core issues of cloud computing such as resource management and security.
CO5	Be able to install and use current cloud technologies.
CO6	Evaluate and choose the appropriate technologies, algorithms and approaches for implementation and use of cloud.
COURSE CODE & NAME:	OME753 – SYSTEMS ENGINEERING
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	The Student must be able to apply systems engineering principles to make decision for optimization.
CO2	Hence an understanding of the systems engineering discipline and be able to use the core principles and processes for designing effective system.

COURSE CODE & NAME:	IT8075 – SOFTWARE PROJECT MANAGEMENT
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Understand Project Management principles while developing software.
CO2	Gain extensive knowledge about the basic project management concepts, framework and the process models.
CO3	Obtain adequate knowledge about software process models and software effort estimation techniques.
CO4	Estimate the risks involved in various project activities
CO5	Define the checkpoints, project reporting structure, project progress and tracking mechanisms using project management principles.
CO6	Learn staff selection process and the issues related to people management

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COURSE CODE & NAME:	CS8073 – C # AND .NET PROGRAMMING
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Write various applications using C# Language in the .NET Framework.
CO2	Develop distributed applications using .NET Framework.
CO3	Create mobile applications using .NET compact Framework.

COURSE CODE & NAME:	IT8711 FOSS and Cloud Computing Laboratory
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Configure various virtualization tools such as Virtual Box, VMware workstation.
CO2	Design and deploy a web application in a PaaS environment.
CO3	Learn how to simulate a cloud environment to implement new schedulers.
CO4	Install and use a generic cloud environment that can be used as a private cloud.
CO5	Manipulate large data sets in a parallel environment.
COURSE CODE & NAME:	IT8761Security Laboratory
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	Develop code for classical Encryption Techniques to solve the problems.
CO2	Build cryptosystems by applying symmetric and public key encryption algorithms.
CO3	Construct code for authentication algorithms.
CO4	Develop a signature scheme using Digital signature standard.
CO5	Demonstrate the network security system using open source tools
REGULATION & SEMESTER:	**2017-VIII**
COURSE CODE & NAME:	CS8085 – SOCIAL NETWORK ANALYSIS
COS	**COURSE OUTCOMES**
CO1	Develop semantic web related applications.

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CO2	Represent knowledge using ontology.
CO3	Predict human behaviour in social web and related communities.
CO4	Visualize social networks.
COURSE CODE & NAME:	CS8080 – INFORMATION RETRIEVAL TECHNIQUES
COS	**COURSE OUTCOMES**
CO1	Use an open source search engine framework and explore its capabilities
CO2	Apply appropriate method of classification or clustering.
CO3	Design and implement innovative features in a search engine.
CO4	Design and implement a recommender system.
COURSE CODE & NAME:	CS8811 - PROJECT WORK
COS	**COURSE OUTCOMES**
	Student will be able to,
CO1	On Completion of the project work students will be in a position to take up any challenging practical problems and find solution by formulating proper methodology.