DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAMME: B.E. COMPUTER SCIENCE AND ENGINEERING

VISION

- To cultivate creative and disciplined computing professionals with the spirit of benchmarking educational system.

MISSION

- To provide academic environment for the development of skilled professionals with adequate knowledge in computer science.
- To cultivate research culture that contributes sustainable development of thesociety.
- To enhance academic collaboration for entrepreneurship development.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

- Apply their technical competence in computer science to solve real world problems, with technical and people leadership.
- Conduct cutting edge research and develop solutions on problems of social relevance.
- Work in a business environment, exhibiting team skills, work ethics, adaptability and lifelong learning.

PROGRAM OUTCOMES (POs)

- Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- Problem analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 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.
- Conduct Investigations of Complex Problems: Use research-based knowledge and

and synthesis of the information to provide valid conclusions.

- Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- 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.
- 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.
- Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 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.
- 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.
- 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.

PROGRAM SPECIFIC OUTCOMES (PSOs)

- Exhibit design and programming skills to build and automate business solutions using cutting edge technologies.
- Strong theoretical foundation leading to excellence and excitement towards research, to provide elegant solutions to complex problems.
- Ability to work effectively with various engineering fields as a team to design, build and develop system applications.

COURSE OUTCOMES (COs)

Regulation	2017
Sem	01
Subject Code	HS8151
Subject Name	Communicative English
Course Outcome	• Read articles of a general kind in magazines and newspapers. • Participate effectively in informal conversations; introduce themselves and their friends and express opinions in English. • Comprehend conversations and short talks delivered in English. • Write short essays of a general kind and personal letters and emails in English.

Regulation	2017
Sem	01
Subject Code	MA8151
Subject Name	Engineering Mathematics – I
Course Outcome	• Use both the limit definition and rules of differentiation to differentiate functions. • Apply differentiation to solve maxima and minima problems. • Evaluate integrals both by using Riemann sums and by using the Fundamental Theorem of Calculus. • Apply integration to compute multiple integrals, area, volume, integrals in polar coordinates, in addition to change of order and change of variables. • Evaluate integrals using techniques of integration, such as substitution, partial fractions and integration by parts. • Determine convergence/divergence of improper integrals and evaluate convergent improper integrals. • Apply various techniques in solving differential equations.

Regulation	2017
Sem	01
Subject Code	PH8151
Subject Name	Engineering Physics
Course Outcome	• The students will gain knowledge on the basics of properties of matter and its applications. • The students will acquire knowledge on the concepts of waves and optical devices and their applications in fibre optics. • The students will have adequate knowledge on the concepts of thermal properties of materials and their applications in expansion joints and heat exchangers. • The students will get knowledge on advanced physics concepts of quantum theory and its applications in tunneling microscopes. • The students will understand the basics of crystals, their structures and different crystal growth techniques.

Regulation	2017
Sem	01
Subject Code	CY8151
Subject Name	Engineering Chemistry
Course Outcome	• The knowledge gained on engineering materials, fuels, energy sources and water treatment techniques will facilitate better understanding of engineering processes and applications for further learning.

Sem	01
Subject Code	GE8151
Subject Name	Problem Solving and Python Programming
Course Outcome	• Develop algorithmic solutions to simple computational problems. • Read, write, execute by hand simple Python programs. • Structure simple Python programs for solving problems. • Decompose a Python program into functions. • Represent compound data using Python lists, tuples, and dictionaries. • Read and write data from/to files in Python Programs.

Regulation	2017
Sem	01
Subject Code	GE8152
Subject Name	Engineering Graphics
Course Outcome	• Familiarize with the fundamentals and standards of Engineering graphics. • Perform freehand sketching of basic geometrical constructions and multiple views of objects. • Project orthographic projections of lines and plane surfaces. • Draw projections and solids and development of surfaces. • Visualize and to project isometric and perspective sections of simple solids.

Regulation	2017
Sem	01
Subject Code	GE8161
Subject Name	Problem Solving And Python Programming Laboratory
Course Outcome	• Write, test, and debug simple Python programs

	• Develop Python programs step-wise by defining functions and calling them. • Use Python lists, tuples, dictionaries for representing compound data. • Read and write data from/to files in Python.

Regulation	2017
Sem	01
Subject Code	BS8161
Subject Name	Physics And Chemistry Laboratory
Course Outcome	• Apply principles of elasticity, optics and thermal properties for engineering applications. • The students will be outfitted with hands-on knowledge in the quantitative chemical analysis of water quality related parameters.

Regulation	2017
Sem	02
Subject Code	HS8251
Subject Name	Technical English
Course Outcome	• Read technical texts and write area- specific texts effortlessly. • Listen and comprehend lectures and talks in their area of specialization successfully. • Speak appropriately and effectively in varied formal and informal contexts. • Write reports and winning job applications.

Regulation	2017
Sem	02
Subject Code	MA8251
Subject Name	Engineering Mathematics – II
Course Outcome	• Eigen values and eigenvectors, diagonalization of a matrix, Symmetric matrices, Positive definite matrices and similar matrices. • Gradient, divergence and curl of a vector point function and related identities. • Evaluation of line, surface and volume integrals using Gauss, Stokes and Green's theorems and their verification. • Analytic functions, conformal mapping and complex integration. • Laplace transform and inverse transform of simple functions, properties, various related theorems and application to differential equations with constant coefficients.

Regulation	2017
Sem	02
Subject Code	PH8252
Subject Name	Physics For Information Science
Course Outcome	• Gain knowledge on classical and quantum electron theories, and energy band structuues, • Acquire knowledge on basics of semiconductor physics and its applications in variousdevices, • Get knowledge on magnetic properties of materials and their applications in data storage, • Have the necessary understanding on the functioning of optical materials for optoelectronics, • Understand the basics of quantum structures and their

Regulation	2017
Sem	02
Subject Code	BE8255
Subject Name	Basic Electrical, Electronics And Measurement Engineering
Course Outcome	• Discuss the essentials of electric circuits and analysis. • Discuss the basic operation of electric machines and transformers • Introduction of renewable sources and common domestic loads. • Introduction to measurement and metering for electric circuits.

Regulation	2017
Sem	02
Subject Code	GE8291
Subject Name	Environmental Science and Engineering
Course Outcome	• Environmental Pollution or problems cannot be solved by mere

	environmental Protection. One will obtain knowledge on the following after completing the course. • Public awareness of environmental is at infant stage. • Ignorance and incomplete knowledge has lead to misconceptions. • Development and improvement in std. of living has lead to serious environmental disasters.

Regulation	2017
Sem	02
Subject Code	CS8251
Subject Name	Programming In C
Course Outcome	• Develop simple applications in C using basic constructs • Design and implement applications using arrays and strings • Develop and implement applications in C using functions and pointers. • Develop applications in C using structures. • Design applications using sequential and random access file processing.

Regulation	2017
Sem	02
Subject Code	GE8261
Subject Name	Engineering Practices Laboratory

Course Outcome	• Fabricate carpentry components and pipe connections including plumbing works. • Use welding equipments to join the structures. • Carry out the basic machining operations. • Make the models using sheet metal works. • Illustrate on centrifugal pump, air conditioner, operations of smithy, foundary and fittings. • Carry out basic home electrical works and appliances. • Measure the electrical quantities. • Elaborate on the components, gates, soldering practices.

Regulation	2017
Sem	02
Subject Code	CS8261
Subject Name	C Programming Laboratory
Course Outcome	• Develop C programs for simple applications making use of basic constructs, arrays andstrings. • Develop C programs involving functions, recursion, pointers, and structures. • Design applications using sequential and random access file processing.

Regulation	2017

Sub Code	CS8351
Sub Name	Digital Principles And System Design
Course Outcome	• Simplify Boolean functions using KMap • Design and Analyze Combinational and Sequential Circuits • Implement designs using Programmable Logic Devices • Write HDL code for combinational and Sequential Circuits

Regulation	2017
Sem	03
Sub Code	CS8391
Sub Name	Data Structures
Course Outcome	• Implement abstract data types for linear data structures. • Apply the different linear and non-linear data structures to problem solutions. • Have knowledge of the concepts needed to test the logic of a program. • Critically analyze the various sorting algorithms. • Have an understanding in identifying structures on many levels. • Be aware of a class of functions which transform a finite set into another finite set whichrelates to input and output functions in computer science. • Be aware of the counting principles. • Be exposed to concepts and properties of algebraic structures such as groups, rings andfields.

Regulation 2017
Sem 03
Sub Code CS8391
Sub Name Data Structures
Sub Code MA8351
Course Outcome
Sub Name Discrete Mathematics
Course Outcome

Regulation	2017
Sem	03
Sub Code	CS8392
Sub Name	Object Oriented Programming
Course Outcome	• Develop Java programs using OOP principles • Develop Java programs with the concepts inheritance and interfaces • Build Java applications using exceptions and I/O streams • Develop Java applications with threads and generics classes • Develop interactive Java programs using swings

Regulation	2017
Sem	03
Sub Code	EC8395
Sub Name	Communication Engineering

Course Outcome	• Ability to comprehend and appreciate the significance and role of this course in the presentcontemporary world • Apply analog and digital communication techniques. • Use data and pulse communication techniques. • Analyze Source and Error control coding.

Regulation	2017
Sem	03
Sub Code	CS8381
Sub Name	Data Structures Laboratory
Course Outcome	• Write functions to implement linear and non-linear data structure operations • Suggest appropriate linear / non-linear data structure operations for solving a givenproblem • Appropriately use the linear / non-linear data structure operations for a given problem • Apply appropriate hash functions that result in a collision free scenario for data storage andretrieval

Regulation	2017

Sub Name	Object Oriented Programming Laboratory
Course Outcome	• Develop and implement Java programs for simple applications that make use of classes,packages and interfaces. • Develop and implement Java programs with arraylist, exception handling and multithreading . • Design applications using file processing, generic programming and event handling.

Regulation	2017
Sem	03
Sub Code	CS8382
Sub Name	Digital Systems Laboratory
Course Outcome	• Implement simplified combinational circuits using basic logic gates • Implement combinational circuits using MSI devices • Implement sequential circuits like registers and counters • Simulate combinational and sequential circuits using HDL

Regulation	2017
Sem	03
Sub Code	HS8381
Sub Name	Interpersonal Skills/Listening&Speaking
Course Outcome	• Listen and respond appropriately. • Participate in group discussions • Make effective presentations • Participate confidently and appropriately in conversations both formal and informal

Regulation	2017
Sem	04
Sub Code	MA8402
Sub Name	Probability And Queuing Theory
Course Outcome	• Understand the fundamental knowledge of the concepts of probability and have knowledge of standard distributions which can describe real life phenomenon. Understand the basic concepts of one and two dimensional random variables and apply in engineering applications. • Apply the concept of random processes in engineering disciplines. • Acquire skills in analyzing queueing models. • Understand and characterize phenomenon which evolve with respect to time in a probabilistic manner

Regulation	2017
Sem	04
Sub Code	CS8491
Sub Name	Computer Architecture

Course Outcome	• Understand the basics structure of computers, operations and instructions. • Design arithmetic and logic unit. • Understand pipelined execution and design control unit. • Understand parallel processing architectures. • Understand the various memory systems and I/O communication.

Regulation	2017
Sem	04
Sub Code	CS8492
Sub Name	Database Management Systems
Course Outcome	• Classify the modern and futuristic database applications based on size and complexity Map ER model to Relational model to perform database design effectively • Write queries using normalization criteria and optimize queries • Compare and contrast various indexing strategies in different database systems • Appraise how advanced databases differ from traditional databases.

Regulation	2017
Sem	04
Sub Code	CS8451
Sub Name	Design And Analysis Of Algorithms

Course Outcome	• Design algorithms for various computing problems. Analyze the time and space complexity of algorithms. • Critically analyze the different algorithm design techniques for a given problem • Modify existing algorithms to improve efficiency.

Regulation	2017
Sem	04
Sub Code	CS8493
Sub Name	Operating Systems
Course Outcome	• Apply thermodynamic concepts to different air standardcycles and solve problems. • Solve problems in single stage and multistage air compressors • Explain the functioning and features of IC engines,components and auxiliaries. • Calculate performance parameters of IC Engines. • Explain the flow in Gas turbines and solve problems.

Regulation	2017
Sem	04

Sub Name	Software Engineering
Course Outcome	• Identify the key activities in managing a software project. • Compare different process models. • Concepts of requirements engineering and Analysis Modeling. • Apply systematic procedure for software design and deployment. • Compare and contrast the various testing and maintenance. • Manage project schedule, estimate project cost and effort required.

Regulation	2017
Sem	04
Sub Code	CS8481
Sub Name	Database Management Systems Laboratory
Course Outcome	• Use typical data definitions and manipulation commands. • Design applications to test Nested and Join Queries • Implement simple applications that use Views • Implement applications that require a Front-end Tool • Critically analyze the use of Tables, Views, Functions and Procedures

Regulation	2017
Sem	04
Sub Code	CS8461

Course Outcome	• Compare the performance of various CPU Scheduling Algorithms Implement Deadlock avoidance and Detection Algorithms • Implement Semaphores • Create processes and implement IPC • Analyze the performance of the various Page Replacement Algorithms Implement File Organization and File Allocation Strategies

The Kavery Engineering College
(Approved by AICTE, New Delhi & Affiliated to Anna University)
Mecheri, Mettur Tk. Salem Dt – 636 453.

Regulation	2017
Sem	05
Sub Code	MA8551
Sub Name	Algebra And Number Theory

Course Outcome	• Apply the basic notions of groups, rings, fields which will then be used to solve related problems. Explain the fundamental concepts of advanced algebra and their role in modern • Mathematics and applied contexts. Demonstrate accurate and efficient use of advanced algebraic techniques. • Demonstrate their mastery by solving non - trivial problems related to the concepts, and by proving simple theorems about the, statements proven by the text. • Apply integrated approach to number theory and abstract algebra, and provide a firm basis for further reading and study in the subject.

Regulation	2017
Sem	04
Sub Code	HS8461
Sub Name	Advanced Reading And Writing
Course Outcome	• Write different types of essays. • Write winning job applications. • Read and evaluate texts critically. • Display critical thinking in various professional contexts

The Kavery Engineering College
(Approved by AICTE, New Delhi & Affiliated to Anna University)
Mecheri, Mettur Tk. Salem Dt – 636 453.

Regulation	2017
Sem	05
Sub Code	EC8691
Sub Name	Microprocessors And Microcontrollers

Course Outcome	• Understand and execute programs based on 8086 microprocessor. • Design Memory Interfacing circuits. • Design and interface I/O circuits. • Design and implement 8051 microcontroller based systems.

Regulation	2017
Sem	05
Sub Code	CS8591
Sub Name	Computer Networks
Course Outcome	• Understand the basic layers and its functions in computer networks. • Evaluate the performance of a network. • Understand the basics of how data flows from one node to another. • Analyze and design routing algorithms. • Design protocols for various functions in the network. • Understand the working of various application layer protocols.

Regulation	2017
Sem	05
Sub Code	CS8501
Sub Name	Theory Of Computation
Course Outcome	• Construct automata, regular expression for any pattern. Write Context free grammar for any construct. • Design Turing machines for any language. • Propose computation solutions using Turing machines. • Derive whether a problem is decidable or not.

Regulation	2017
Sem	05
Sub Code	CS8592
Sub Name	Object Oriented Analysis And Design
Course Outcome	• Express software design with UML diagrams Design software applications using OO concepts. • Identify various scenarios based on software requirements • Transform UML based software design into pattern based design using design patterns • Understand the various testing methodologies for OO software

Sem	05	
Sub Code	OCE551	OPEN ELECTIVE-I
Sub Name	Air Pollution And Control Engineering	
Course Outcome	• An understanding of the nature and characteristics of air pollutants, noise pollution and basic concepts of air quality management • Ability to identify, formulate and solve air and noise pollution problems • Ability to design stacks and particulate air pollution control devices to meet applicable standards. • Ability to select control equipments. • Ability to ensure quality, control and preventive measures.	

Regulation	2017
Sem	06
Sub Code	EC8681
Sub Name	Microprocessors And Microcontrollers Laboratory

Course Outcome	• Write ALP Programmes for fixed and Floating Point and Arithmetic operations Interface different I/Os with processor • Generate waveforms using Microprocessors • Execute Programs in 8051 • Explain the difference between simulator and Emulator

Regulation	2017	
Sem	05	
Sub Code	OME553	OPEN ELECTIVE-I
Sub Name	Industrial Safety Engineering	
Course Outcome	• Illustrate and familiarize the basic concepts and scope of engineering safety. • Understand the standards of professional conduct that are published by professional safety organizations and certification bodies. • Illustrate the importance of safety of employees while working with machineries.	

Regulation	2017
Sem	06
Sub Code	CS8582
Sub Name	Object Oriented Analysis And Design Laboratory

Course Outcome	• Perform OO analysis and design for a given problem specification. Identify and map basic software requirements in UML mapping. • Improve the software quality using design patterns and to explain the rationale behind applying specific design patterns • Test the compliance of the software with the SRS.

Regulation	2017
Sem	06
Sub Code	CS8581
Sub Name	Networks Laboratory
Course Outcome	• Implement Various Protocols Using TCP And UDP. • Compare The Performance Of Different Transport Layer Protocols. • Use Simulation Tools To Analyze The Performance Of Various Network Protocols. • Analyze Various Routing Algorithms. • Implement Error Correction Codes.

Regulation	2017
Sem	06
Sub Code	CS8651
Sub Name	Internet Programming
Course Outcome	• Construct a basic website using HTML and Cascading Style Sheets. • Build dynamic web page with validation using Java Script objects and by applying different event handling mechanisms. Develop server side programs using Servlets and JSP. • Construct simple web pages in PHP and to represent data in XML format. Use AJAX and web services to develop interactive web applications

Regulation	2017
Sem	06
Sub Code	CS8691
Sub Name	Artificial Intelligence

Course Outcome	• Use appropriate search algorithms for any AI problem Represent a problem using first order and predicate logic • Provide the apt agent strategy to solve a given problem • Design software agents to solve a problem • Design applications for NLP that use Artificial Intelligence.

Regulation	2017
Sem	06
Sub Code	CS8601
Sub Name	Mobile Computing
Course Outcome	• Explain the basics of mobile telecommunication systems Illustrate the generations of telecommunication systems in wireless networks • Determine the functionality of MAC, network layer and Identify a routing protocol for a given Ad hoc network Explain the functionality of Transport and Application layers • Develop a mobile application using android/blackberry/ios/Windows SDK

Regulation	2017
Sem	06

Sub Code	CS8602
Sub Name	Compiler Design
Course Outcome	• Understand the different phases of compiler. Design a lexical analyzer for a sample language.72 Apply different parsing algorithms to develop the parsers for a given grammar. • Understand syntax-directed translation and run-time environment. • Learn to implement code optimization techniques and a simple code generator. • Design and implement a scanner and a parser using LEX and YACC tools.

Regulation	2017
Sem	06
Sub Code	CS8603
Sub Name	Distributed Systems
Course Outcome	• Elucidate the foundations and issues of distributed systems understand the various synchronization issues and global state for distributed systems. • Understand the Mutual Exclusion and Deadlock detection algorithms in distributed systems • Describe the agreement protocols and fault tolerance mechanisms in distributed systems. • Describe the features of peer-to-peer and distributed shared memory systems

Regulation	2017	
Sem	06	PROFESSIONAL ELECTIVE-I
Sub Code	CS8075	
Sub Name	Data Warehousing And Data Mining	
Course Outcome	• Design a Data warehouse system and perform business analysis with OLAP tools. Apply suitable pre-processing and visualization techniques for data analysis • Apply frequent pattern and association rule mining techniques for data analysis • Apply appropriate classification and clustering techniques for data analysis	

Regulation	2017	
Sem	06	PROFESSIONAL ELECTIVE-I
Sub Code	IT8076	
Sub Name	Software Testing	
Course Outcome	• Design test cases suitable for a software development for different domains. Identify suitable tests to be carried out. • Prepare test planning based on the document. • Document test plans and test cases designed. • Use automatic testing tools. • Develop and validate a test plan.	

Regulation	2017
Sem	06
Sub Code	CS8661
Sub Name	Internet Programming Laboratory
Course Outcome	• Construct Web pages using HTML/XML and style sheets. Build dynamic web pages with validation using Java Script objects and by applying different event handling mechanisms. • Develop dynamic web pages using server side scripting. • Use PHP programming to develop web applications. • Construct web applications using AJAX and web services.

Regulation	2017
Sem	06
Sub Code	CS8662
Sub Name	Mobile Application Development Laboratory
Course Outcome	• Develop mobile applications using GUI and Layouts. Develop mobile applications using Event Listener. • Develop mobile applications using Databases. • Develop mobile applications using RSS Feed, Internal/External Storage, SMS, Multithreading and GPS. • Analyze and discover own mobile app for simple needs

Regulation	2017
Sem	06
Sub Code	HS8581
Sub Name	Professional Communication
Course Outcome	• Make effective presentations • Participate confidently in Group Discussions. • Attend job interviews and be successful in them. • Develop adequate Soft Skills required for the workplace

Regulation	2017
Sem	07
Sub Code	MG8591
Sub Name	Principles Of Management
Course Outcome	• 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

Regulation	2017
Sem	07
Sub Code	OEC754 OPEN ELECTIVE-II
Sub Name	Medical Electronics
Course Outcome	• Know the human body electro- physiological parameters and recording of bio-potentials • Comprehend the non-electrical physiological parameters and their measurement – body temperature, blood pressure, pulse, blood cell count, blood flow meter etc. • Interpret the various assist devices used in the hospitals viz. pacemakers, defibrillators, dialyzers and ventilators • Comprehend physical medicine methods eg. ultrasonic, shortwave, microwave surgical diathermies , and bio-telemetry principles and methods • Know about recent trends in medical instrumentation

Regulation	2017
Sem	07
Sub Code	CS8792
Sub Name	Cryptography And Network Security
Course Outcome	• Understand the fundamentals of networks security, security architecture, threats and vulnerabilities Apply the different cryptographic operations of symmetric cryptographic algorithms • Apply the different cryptographic operations of public key cryptography • Apply the various Authentication schemes to simulate different applications.

Regulation	2017	
Sem	07	
Sub Code	OIE751	OPEN ELECTIVE-II
Sub Name	Robotics	
Course Outcome	• Upon completion of this course, the students can able to apply the basic engineering knowledge for the design of robotics	

Regulation	2017	
Sem	07	
Sub Code	IT8075	PROFESSIONAL ELECTIVE-II
Sub Name	Software Project Management	
Course Outcome	• Understand Project Management principles while developing software. Gain extensive knowledge about the basic project management concepts, framework and the process models. • Obtain adequate knowledge about software process models and software effort estimation techniques. Estimate the risks involved in various project activities • Define the checkpoints, project reporting structure, project progress and tracking mechanisms using project management principles. Learn staff selection process and the issues related to people management	

Regulation	2017	
Sem	07	
Sub Code	IT8074	PROFESSIONAL ELECTIVE-II
Sub Name	Service Oriented Architecture	

Course Outcome	• Understand XML technologies Understand service orientation, benefits of SOA • Understand web services and WS standards • Use web services extensions to develop solutions • Understand and apply service modeling, service oriented analysis and design for application development

Regulation	2017	
Sem	07	
Sub Code	CS8083	PROFESSIONAL ELECTIVE-III
Sub Name	Multi-Core Architectures And Programming	
Course Outcome	• Describe multicore architectures and identify their characteristics and challenges. Identify the issues in programming Parallel Processors. • Write programs using OpenMP and MPI. • Design parallel programming solutions to common problems • Compare and contrast programming for serial processors and programming for parallel processors.	

Regulation	2017
Sem	07
Sub Code	CS8792
Sub Name	Cryptography And Network Security

Course Outcome	• Understand the fundamentals of networks security, security architecture, threats and vulnerabilities Apply the different cryptographic operations of symmetric cryptographic algorithms • Apply the different cryptographic operations of public key cryptography • Apply the various Authentication schemes to simulate different applications. • Understand various Security practices and System security standards

Regulation	2017
Sem	07
Sub Code	CS8791
Sub Name	Cloud Computing
Course Outcome	• Articulate the main concepts, key technologies, strengths and limitations of cloud computing. Learn the key and enabling technologies that help in the development of cloud. • Develop the ability to understand and use the architecture of compute and storage cloud, service and delivery models. Explain the core issues of cloud computing such as resource management and security. • Be able to install and use current cloud technologies. • Evaluate and choose the appropriate technologies, algorithms and approaches for implementation and use of cloud.

Regulation	2017

Sub Code	CS8711
Sub Name	Cloud Computing Laboratory
Course Outcome	• Configure various virtualization tools such as Virtual Box, VMware workstation. Design and deploy a web application in a PaaS environment. • Learn how to simulate a cloud environment to implement new schedulers. • Install and use a generic cloud environment that can be used as a private cloud. • Manipulate large data sets in a parallel environment.

Regulation	2017
Sem	07
Sub Code	IT8761
Sub Name	Security Laboratory
Course Outcome	• Develop code for classical Encryption Techniques to solve the problems. Build cryptosystems by applying symmetric and public key encryption algorithms. • Construct code for authentication algorithms. • Develop a signature scheme using Digital signature standard. • Demonstrate the network security system using open source tools.

Regulation	2017	
Sem	08	PROFESSIONAL ELECTIVE-IV
Sub Code	CS8085	
Sub Name	Social Network Analysis	
Course Outcome	• Develop semantic web related applications. Represent knowledge using ontology. • Predict human behaviour in social web and related communities. • Visualize social networks.	

Regulation	2017	
Sem	08	PROFESSIONAL ELECTIVE-IV
Sub Code	CS8078	
Sub Name	Green Computing	
Course Outcome	• Acquire knowledge to adopt green computing practices to minimize negative impacts on the environment. Enhance the skill in energy saving practices in their use of hardware. • Evaluate technology tools that can reduce paper waste and carbon footprint by the stakeholders. • Understand the ways to minimize equipment disposal requirements	

Regulation	2017
Sem	08
Sub Code	CS8811
Sub Name	Project Work
Course Outcome	• 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.