Course Outcomes

MACET
MARTHANDAM COLLEGE OF ENGINEERING AND TECHNOLOGY
ESTD: 2006

S.No	Sem	Course Code	Course Name
2	I	MA8151	Engineering Mathematics
3	I	PH8151	Engineering Physics
4	I	CY8151	Engineering Chemistry
5	I	GE8151	Problem Solving and Python Programming
6	I	GE8152	Engineering Graphics
7	I	GE 8161	Problem Solving and Python Programming Laboratory
8	I	BS8161	Physics and Chemistry Laboratory (Group A)
9	I	BS8161	Physics and Chemistry Laboratory (Group B)
10	II	HS8251	Technical English
11	II	MA8251	Engineering Mathematics -II
12	II	PH8252	Physics for Information Science
13	II	BE8255	Basic Electrical, Electronics and Measurement Engineering
14	II	GE8291	Environmental Science and Engineering
15	II	CS8261	C Programming Laboratory
16	II	GE8261	Engineering Practices Laboratory (Group A)
17	II	GE8261	Engineering Practices Laboratory (Group B)
18	III	MA8351	Discrete Mathematics
19	III	CS8351	Digital Principles and System Design
20	III	CS8391	Data Structures
21	III	CS8392	Object Oriented Programming
22	III	EC8395	Communication Engineering
23	III	CS8381	Data Structures Laboratory

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24	III	CS8382	Digital System Lab
25	III	CS8383	Object Oriented Programming Laboratory
26	III	HS8381	Interpersonal Skills - Listening & Speaking
27	IV	CS8451	Design and Analysis of Algorithms
28	IV	CS8461	Operating Systems Laboratory
29	IV	CS8491	Computer Architecture
30	IV	CS8493	Operating Systems
31	IV	CS8494	Software Engineering
32	IV	CS8481	Database Management System Laboratory
33	IV	CS8492	Database Management System
34	IV	HS8481	Advanced Reading &Writing
35	IV	MA8402	Probability And Queueing Theory
36	V	CS8501	Theory Of Computation
37	V	CS8552	Object Oriented Analysis And Design Laboratory
38	V	CS8581	Networks Laboratory
39	V	CS8591	Computer Networks
40	V	CS8592	Object Oriented Analysis and Design
41	V	EC8691	Microprocessors and Microcontrollers
42	V	MA8551	Algebra And Number Theory
43	V	EC8681	Microprocessors And Microcontrollers
44	V	OCE551	Air Pollution And Control Engineering
45	VI	CS8601	Mobile Computing
46	VI	CS8602	Compiler Design
47	VI	CS8603	Distributed Systems
48	VI	CS8611	Miniproject
49	VI	CS8651	Internet Programming
50	VI	CS8661	Internet Programming Lab
51	VI	CS8662	Mobile Application Development Laboratory
52	VI	CS8691	Artificial intelligence

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53	VI	HS8581	Professional Communication
54	VI	IT8076	Software Testing
55	VII	CS8791	Cloud Computing
56	VII	CS8792	Cryptography And Network Security
57	VII	CS8088	Wireless AdhocAnd Sensor Networks
58	VII	IT8075	Software Project Management
59	VII	IT8761	Security Laboratory
60	VII	CS8711	Cloud Computing Laboratory
61	VII	MG8591	Principles Of Management
62	VII	OBM752	Hospital Management
63	VIII	CS8078	Green Computing
64	VIII	GE8076	Professional Ethics In Engineering
65	VIII	CS8811	Project Work

PROGRAM OUTCOMES (POs)

List of Program Outcomes

PO1	**Engineering Knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals and engineering specialization to the solution for complex engineering problems.
PO2	**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.
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 their limitations.

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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 professional engineering solutions in societal and environmental contexts and to demonstrate the knowledge and need for sustainable development.
PO8	**Ethics**: Apply ethical principles and commit to professional ethics, 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 and to make effective presentations and to 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 in multidisciplinary environments.
PO12	**Life-Long Learning**: Recognize the need for preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSOs)

List of Program Specific Outcomes

PSO1	**Problem-Solving Skills:**The ability to apply standard practices and strategies in software project development using programming environments to deliver a quality product for business success.
PSO2	**Professional Skills:**The ability to apply appropriate techniques and modern engineering hardware and software tools for the design and integration of computer system and related technologies, to engage in lifelong learning for the advancement of technology and its adaptation in multi-disciplinary environments.
PSO3	**Successful Career:**Implementation of professional engineering solutions for the betterment of society keeping the environmental context in mind, be aware of professional ethics and be able to communicate effectively.

I SEMESTER

Course Code & Course Name: HS8151 – Communicative English

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	To develop the basic reading and writing skills of first year engineering and technology students.
CO2	To help learners develop their listening skills, which will, enable them listen to lectures and comprehend them by asking questions
CO3	To help learners develop their speaking skills and speak fluently in real contexts.
CO4	To help learners develop vocabulary of a general kind by developing their reading skills

Course Code & Course Name: MA8151-Engineering Mathematics

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Use both the limit definition and rules of differentiation to differentiate functions.
CO2	Apply differentiation to solve maxima and minima problems.
CO3	Evaluate integrals both by using Riemann sums and by using the Fundamental Theorem of Calculus.
CO4	Apply integration to compute multiple integrals, area, volume, integrals in polar coordinates, in addition to change of order and change of variables.
CO5	Evaluate integrals using techniques of integration, such as substitution, partial fractions and integration by parts.
CO6	Determine convergence/divergence of improper integrals and evaluate convergent improper integrals.
CO7	Apply various techniques in solving differential equations.

Course Code & Course Name: PH8151-Engineering Physics

COURSE OUTCOMES (COs)

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List of Course Outcomes

CO1	The students will gain knowledge on the basics of properties of matter and its applications,
CO2	The Students Will Acquire Knowledge On The Concepts Of Waves And Optical Devices And Their Applications in fibre optics,
CO3	The students will have adequate knowledge on the concepts of thermal properties of materials and their applications in expansion joints and heat exchangers,
CO4	The students will get knowledge on advanced physics concepts of quantum theory and its applications in tunneling microscopes, and
CO5	The students will understand the basics of crystals, their structures and different crystal growth techniques

Course Code & Course Name:CY8151 Engineering Chemistry

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	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.

Course Code & Course Name:GE8151 Problem Solving and Python Programming

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Develop algorithmic solutions to simple computational problems Read, write, execute by hand simple Python programs.
CO2	Structure simple Python programs for solving problems.
CO3	Decompose a Python program into functions.
CO4	Represent compound data using Python lists, tuples, dictionaries.
CO5	Read and write data from/to files in Python Programs.

Course Code & Course Name: **GE8152 Engineering Graphics**

COURSE OUTCOMES (COs)

List of Course Outcomes

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CO1	Construct curves used in engineering practices and free and sketching
CO2	Project orthographic projections of lines and plane surfaces
CO3	Construct orthographic projections of solids
CO4	Projectthesection of solids and development of surfaces.
CO5	Visualize and project isometric and perspective projections of simple solids

Course Code & Course Name: GE 8161&Problem Solving and Python Programming Laboratory

COURSE OUTCOMES (COs)

List of Course Outcomes

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.

Course Code & Course Name:BS8161 Physics and Chemistry Laboratory (Group A)

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	The students will be outfitted with hands-on knowledge in the quantitative chemical analysis of water quality related parameters

Course Code & Course Name: BS8161- Physics and Chemistry Laboratory (Group B)

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Apply principles of elasticity, optics and thermal properties for engineering applications.

II SEMESTER

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Course Code & Course Name: HS8251-Technical English

COURSE OUTCOMES (COs)

List of Course Outcomes

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

Course Code & Course Name:MA8251Engineering Mathematics -II

COURSE OUTCOMES (COs)
List of Course Outcomes

CO1	Eigenvaluesandeigenvectors,diagonalizationofamatrix,Symmetricmatrices,Positivedefinite matricesand similarmatrices.
CO2	Gradient,divergenceand curl ofavector pointfunction andrelatedidentities
CO3	Evaluationofline,surfaceandvolumeintegralsusingGauss,StokesandGreen'stheoremsand theirverification
CO4	Analytic functions,conformalmappingandcomplexintegration
CO5	Laplacetransformandinversetransformofsimplefunctions,properties,variousrelatedtheoremsandapplicationtodiffe equationswithconstantcoefficients.

Course Code & Course Name: PH8252Physics for Information Science

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	The students Gain knowledge on classical and quantum electron theories, and energy band structures.
CO2	The students acquire knowledge on basics of semiconductor physics and its applications in

	various devices.
CO3	The students get knowledge on magnetic properties of materials and their applications in data storage.
CO4	The students understand the functioning of optical materials for optoelectronics.
CO5	The students understand the basics of quantum structures and their applications in carbon electronics

Course Code & Course Name:BE8255& Basic Electrical, Electronics and Measurement Engineering

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Understand the concepts of Electrical circuits
CO2	Understand the concepts of AC circuits.
CO3	Understand electric circuits and working principles of electrical machines.
CO4	Understand the concepts of various electronic devices.
CO5	Choose appropriate instruments for electrical measurement for a specific application.

Course Code & Course Name: GE8291 Environmental Science and Engineering

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Environmental Pollution or problems cannot be solved by mere laws. Public participation is an important aspect which serves the environmental Protection. One will obtain knowledge on the following after completing the course.
CO2	Public awareness of environmental is at infant stage.
CO3	Ignorance and incomplete knowledge has lead to misconceptions .
CO4	Development and improvement in std. of living has lead to serious environmental disasters

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Course Code & Course Name : CS8261- C PROGRAMMING LABORATORY

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Develop C programs for simple applications making use of basic constructs, arrays and strings
CO2	Develop C programs involving functions and recursion
CO3	Develop C programs using number conversion
CO4	Develop C programs involving pointers, and structures
CO5	Design applications using sequential and random access file processing

Course Code & Course Name: GE8261 & Engineering Practices Laboratory (Group A)

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Fabricate carpentry components, pipe connections including plumbing works & use welding equipments to join the structures.
CO2	Carry out the basic machining operations
CO3	Make the models using sheet metal works
CO4	Illustrate on centrifugal pump, Air conditioner, operations of smithy, foundary and fittings
CO5	Carry out basic home electrical works and appliances, measure the electrical quantities and elaborate on the components, gates, soldering practices.

Course Code & Course Name:GE8261 &Engineering Practices Laboratory (Group B)

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Carry out basic home electrical works and appliances
CO2	Measure the electrical quantities
CO3	Elaborate on the components, gates, soldering practices

Course Code & Course Name:MA8351 & Discrete Mathematics

COURSE OUTCOMES (COs)

List of 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 & Course Name : CS8351 -Digital Principles and System Design

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Simplify Boolean functions using KMap

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CO2	Design and Analyze Combinational and Sequential Circuits
CO3	Implement designs using Programmable Logic Devices
CO4	Write HDL code for combinational
CO5	Write HDL code for Sequential Circuits

Course Code & Course Name:CS8391 Data Structures

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Implement abstract data types for linear data structures.
CO2	Apply linear data structures to problem solutions.
CO3	Apply Non Linear data structures(Trees) to problem solutions
CO4	Apply Linear data structures(Graphs) to problem solutions
CO5	Critically analyze the various sorting algorithms.

Course Code & Course Name : CS8392 Object Oriented Programming

COURSE OUTCOMES (COs

List of Course Outcomes

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.

Course Code & Course Name :EC8395 Communication Engineering

COURSE OUTCOMES (COs)

List of 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	Analyze Source and Error control coding.
CO5	Apply spread spectrum and Multiple Access techniques.

Course Code & Course Name :**CS8381** Data Structures Laboratory

COURSE OUTCOMES (COs

List of Course Outcomes

CO1	Write functions to implement linear data structure operations.
CO2	Write functions to implement non-linear data structure operations.
CO3	Suggest appropriate linear / non-linear data structure operations for solving a given problem.
CO4	Appropriately use the linear / non-linear data structure operations for a given problem
CO5	Apply appropriate hash functions that result in a collision free scenario for data storage and retrieval

Course Code & Course Name CS8382 Digital System Lab

COURSE OUTCOMES (COs)

List of Course Outcomes

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
CO5	Implement digital System

Course Code & Course Name : CS8383 Object Oriented Programming Laboratory

COURSE OUTCOMES (COs

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List of Course Outcomes

CO1	Develop and implement Java programs for simple applications that make use of classes and packages.
CO2	Develop and implement Java programs for simple applications that make use of inheritance and interface.
CO3	Develop and implement Java programs with array list and multithreading.
CO4	Develop and implement Java programs for simple applications that make use of exception handling and file processing.
CO5	Design applications using generic programming and event handling.

Course Code & Course Name: HS8381 - Interpersonal Skills - Listening & Speaking

COURSE OUTCOMES (COs)

List of Course Outcomes

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.

IV SEMESTER

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Course Code & Course Name :CS8451&Design and Analysis of Algorithms

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Interpret the fundamental needs of algorithms in problem solving
CO2	Classify the different algorithm design techniques for problem solving
CO3	Develop algorithms for various computing problems.
CO4	Develop the improvement method to find the feasible solution
CO5	Identify the limitations of algorithms in problem solving

Course Code & Course Name:CS8461 Operating Systems Laboratory
COURSE OUTCOMES (COs)
List of Course Outcomes

CO1	Compare the performance of various CPU Scheduling Algorithms
CO2	Implement Deadlock avoidance and Detection Algorithms
CO3	Implement Semaphores and Create processes and implement IPC
CO4	Analyze the performance of the various Page Replacement Algorithms
CO5	Implement File Organization and File Allocation Strategies

Course Code & Course Name : CS8491 Computer Architecture

List of Course Outcomes

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 & Course Name :CS8493 Operating Systems
COURSE OUTCOMES (COs)
List of Course Outcomes

CO1	Understand the basic concepts and functions of operating systems.
CO2	Analyze various scheduling algorithms and 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,compareiOSandAndroid Operating Systems

Course Code & Course Name : CS8494 Software Engineering
COURSE OUTCOMES (COs
List of Course Outcomes

CO1	Design a software system, component, or process to meet desired needs within realistic constraints.
CO2	Assess professional and ethical responsibility.
CO3	Function on multi-disciplinary teams.
CO4	Use the techniques, skills, and modern engineering tools necessary for engineering practice.
CO5	Analyze, design, implement, verify, validate, implement, apply, and maintain software systems or parts of software systems.

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Course Code & Course Name : CS8481 & DATABASE MANAGEMENT SYSTEM LABORATORY

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	CO407.1 Use typical data definitions and manipulation commands.
CO2	CO407.2 Design applications to test Nested and Join Queries
CO3	CO407.3 Implement simple applications that use Views
CO4	CO407.4 Implement applications that require a Front0end Tool
CO5	CO407.5 Criticallyanalyze the use of Tables, Views, Functions and Procedures

Course Code & Course Name : CS8492 Database Management System

COURSE OUTCOMES (COs)

List of 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	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 & Course Name: **HS8481 Advanced Reading &Writing**

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Write different types of essays
CO2	Write job applications
CO3	Read and evaluate texts critically
CO4	Display critical thinking in various professional contexts

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Course Code & Course Name:MA8402&Probability And Queueing Theory

COURSE OUTCOMES (COs)

List of 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

V SEMESTER

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Course Code & Course Name : CS8501 THEORY OF COMPUTATION

COURSE OUTCOMES (COs)

List of Course Outcomes

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 & Course Name :**CS8552   OBJECT ORIENTED ANALYSIS AND DESIGNLABORATORY**

COURSE OUTCOMES (COs)

List of 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
CO4	And to explain the rationale behind applying specific design patterns
CO5	The compliance of the software with the SRS.

Course Code & Course Name :CS8581&Networks Laboratory

COURSE OUTCOMES (COs)

List of Course Outcomes

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

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Course Code & Course Name :CS8591&Computer Networks
COURSE OUTCOMES (COs)
List of Course Outcomes

CO1	Understand the basic layers and its functions in computer networks and evaluate the performance of a network.
CO2	Understand the basics of how data flows from one node to another.
CO3	Analyze and design routing algorithms.
CO4	Design protocols for various functions in the network.
CO5	Understand the working of various application layer protocols.

Course Code & Course Name :CS8592&Object Oriented Analysis and Design Laboratory
COURSE OUTCOMES (COs)
List of Course Outcomes

CO1	Express software design with UML diagrams
CO2	Design software applications 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 OO software

Course Code & Course Name:**EC8691 - Microprocessors and Microcontrollers**
COURSE OUTCOMES (COs)
List of Course Outcomes

CO1	Understand the Architecture of 8086 microprocessor
CO2	Understand and execute programs based on 8086 microprocessor
CO3	Design Memory Interfacing circuits
CO4	Design and interface I/O circuits.
CO5	Design and implement 8051 microcontroller based systems

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Course Code & Course Name: MA8551 &ALGEBRA AND NUMBER THEORY
COURSE OUTCOMES (COs)
List of Course Outcomes

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 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 & Course Name : EC8681 & MICROPROCESSORS ANDMICROCONTROLLERS
Laboratory
COURSE OUTCOMES (COs)
List of Course Outcomes

CO1	Write ALP Programmes for fixed and Floating Point and Arithmetic operation
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 & Course Name: OCE551 - Air Pollution And Control Engineering
COURSE OUTCOMES (COs)
List of Course Outcomes

CO1	an understanding of the nature and characteristics of airpollutants, noise pollution and basic concepts of air quality management
CO2	Ability to ensure quality, control and preventive measures
CO3	ability to design stacks and particulate air pollution control devices to meet applicable
CO4	standards. Ability to select control equipments.
CO5	ability to identify, formulate and solve air and noise pollution problems

VI SEMESTER

Course Code & Course Name :CS8601 Mobile Computing
COURSE OUTCOMES (COs)
List of 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 & Course Name : CS8602 COMPILER DESIGN
COURSE OUTCOMES (COs)
List of Course Outcomes

CO1	Understand the different phases of compiler, Design a lexical analyzer for a sample language..
CO2	Apply different parsing algorithms to develop the parsers for a given grammar.
CO3	Understand syntax-directed translation and run-time environment.
CO4	Learn to implement code optimization techniques and a simple code generator.
CO5	Design and implement a scanner and a parser using LEX and YACC tools.

Course Code & Course Name : CS8603 Distributed Systems
COURSE OUTCOMES (COs)
List of Course Outcomes

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

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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 & Course Name :CS8611&Miniproject
COURSE OUTCOMES (COs
List of Course Outcomes

CO1	Discover potential research areas in the field of IT
CO2	Conduct a survey of several available literature in the preferred field of study
CO3	Compare and contrast the several existing solutions for research challenge
CO4	Demonstrate an ability to work in teams and manage the conduct of the research study
CO5	Formulate and propose a plan for creating a solution for the research plan identified

Course Code & Course Name :**CS8651 Internet Programming**
COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	To be familiar with Web page design using HTML/XML and style sheets
CO2	To be exposed to creation of user interfaces using Java frames and applets.
CO3	To learn to create dynamic web pages using server side scripting.
CO4	To learn to write Client Server applications.
CO5	To be familiar with the PHP programming. To be exposed to creating applications with AJAX

Course Code & Course Name : **CS8661 Internet Programming Lab**
COURSE OUTCOMES (COs)
List of Course Outcomes

CO1	To be familiar with Web page design using HTML/XML and style sheets
CO2	To be exposed to creation of user interfaces using Java frames and applets.

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CO3	To learn to create dynamic web pages using server side scripting.
CO4	To learn to write Client Server applications.
CO5	To be familiar with the PHP programming. To be exposed to creating applications with AJAX

Course Code & Course Name : CS8662 Mobile Application Development Laboratory
COURSE OUTCOMES (COs)
List of 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, Multithreading and GPS.
CO5	Analyze and discover own mobile app for simple needs.

Course Code & Course Name :CS8691&Artificial intelligence
COURSE OUTCOMES (COs)
List of Course Outcomes

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 & Course Name: HS8581 **Professional Communication**
COURSE OUTCOMES (COs)
List of Course Outcomes

CO1	Enhance the Employability and Career Skills of students
CO2	Orient the students towards grooming as a professional

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CO3	Make them Employability Graduates
CO4	Develop their confidence and help them attend interviews successfully.

course Code & Course Name : IT8076 Software Testing

COURSE OUTCOMES (COs

List of Course Outcomes

CO1	Design test cases suitable for a software development for different domains and identify suitable tests to be carried out.
CO2	Prepare test planning based on the document.
CO3	Document test plans and test cases designed.
CO4	Use automatic testing tools.
CO5	Develop and validate a test plan.

VII SEMESTER

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Course Code & Course Name :**CS8791**   **CLOUD COMPUTING**
COURSE OUTCOMES (COs)

List of Course Outcomes

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 & Course Name : CS8792 CRYPTOGRAPHY AND NETWORK SECURITY
COURSE OUTCOMES (COs)
List of Course Outcomes

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 & Course Name :CS8088 WIRELESS ADHOC AND SENSOR NETWORKS

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Identify different issues in wireless ad hoc and to analyze protocols developed for ad hoc networks.
CO2	To analyze the Transport Layer protocols and their QoS for ad hoc networks.
CO3	Identify different issues in wireless sensor and to analyze protocols developed for

	wireless sensor.
CO4	To analyze the Transport Layer protocols and their QoS for wireless sensor networks.
CO5	To identify and understand security issues in ad hoc and sensor networks.

Course Code & Course Name :IT8075 SOFTWARE PROJECT MANAGEMENT

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Understand Project Management principles while developing software and gain extensive knowledge about the basic project management concepts, framework and the process models
CO2	Obtain adequate knowledge about software process models and software effort estimation techniques.
CO3	Estimate the risks involved in various project activities.
CO4	Define the checkpoints, project reporting structure, project progress and tracking mechanisms using project management principles.
CO5	Learn staff selection process and the issues related to people management

Course Code & Course Name :**IT8761** SECURITY LABORATORY

COURSE OUTCOMES (COs)

List of Course Outcomes

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

Course Code & Course Name :**CS8711**   **CLOUD COMPUTING LABORATORY**
COURSE OUTCOMES (COs)

List of Course Outcomes

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

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 & Course Name :MG8591&Principles of Management
COURSE OUTCOMES (COs

List of Course Outcomes

CO1	Describe the basic of management and its types, skills, management roles, types of business organization and current trends in business.
CO2	Explain the nature and purpose of planning, types, objectives of planning and decision process.
CO3	Compare the different organization structures, authorities and responsibilities, human resource management and training and development.
CO4	Estimate the individual and group behaviour, motivation, job satisfaction types and theories of leadership, communication and IT
CO5	Apply the knowledge using the various system and process of controlling, budgetary and non-budgetary control techniques, use of computer and IT in management control, reporting.

Course Code & Course Name : OBM752 – Hospital Management
COURSE OUTCOMES (COs)
List of Course Outcomes

CO1	Explain the principles of Hospital administration.
CO2	Identify the importance of Human resource management.
CO3	List various marketing research techniques.
CO4	Identify Information management systems and its uses.
CO5	Understand safety procedures followed in hospitals.

VIII SEMESTER

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

Course Code & Course Name : CS8078 GREEN COMPUTING

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Acquire knowledge to adopt green computing practices to minimize negative impacts on the environment.
CO2	Enhance the skill in energy saving practices in their use of hardware.
CO3	Evaluate technology tools that can reduce paper waste by the stakeholders.
CO4	Evaluate technology tools that can reduce carbon footprint by the stakeholders.
CO5	Understand the ways to minimize equipment disposal requirements

Course Code & Course Name :GE8076& Professional Ethics in Engineering

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	To understand the core values that shapes the ethical behavior of an engineer and exposed awareness on professional ethics and human values
CO2	To understand the basic perception of profession, professional ethics, various moral issues & uses of ethical theories.
CO3	The students will understand various social issues, industrial standards, code of ethics and role of professional ethics in engineering field.
CO4	The students will be aware of responsibilities of an engineer for safety and risk benefit analysis, professional rights and responsibilities of an engineer.
CO5	The students will acquire knowledge about various roles of engineers in variety of global issues and able to apply ethical principles to resolve situations that arise in their professional lives.

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

Course Code & Course Name :CS8811Project Work

COURSE OUTCOMES (COs)

List of Course Outcomes

CO1	Demonstrate a sound technical knowledge of their selected project topic .
CO2	Undertake problem identification, formulation and solution .
CO3	Design engineering solutions to complex problems utilizing a systems approach
CO4	Conduct an Engineering Project and Communicate with engineers and the community at large in written an oral forms.
CO5	Demonstrate the knowledge, skills and attitudes of a professional engineer.