

 <i>Beyond Knowledge</i>	KNOWLEDGE INSTITUTE OF TECHNOLOGY, SALEM - 637 504	
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	Kakapalayam(PO), Salem - 637 504	www.kiot.ac.in

List of COs for UG courses under Anna University Regulation 2017

Department of Computer Science and Engineering	
Semester	: I
Course Code & Name	: HS8151 & Communicative English
Year of Study	: 2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome
C101.1	To Speak clearly, confidently, comprehensibly, and communicate with one or many listeners using appropriate communicative strategies.
C101.2	To Write cohesively, coherently and flawlessly avoiding grammatical errors, using a wide vocabulary range, organizing their ideas logically on a topic.
C101.3	To Listen / view and comprehend different spoken discourses/excerpts in different accents.
C101.4	To learn the electronic media and adopt various learning materials used in the classroom.
C101.5	To understand different rhetorical functions of technical English.
Semester	: I
Course Code & Name	: MA8151 & Engineering Mathematics I
Year of Study	: 2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome
C102.1	Apply the mathematical knowledge of rules of differentiation to differentiate one variable function.
C102.2	Apply differentiation to solve maxima and minima problems
C102.3	Evaluate integrals using techniques of integration, such as substitution, partial fractions and integration by parts
C102.4	Interpret integration to compute multiple integrals, area, volume, integrals in polar coordinates, in addition to change of order and change of variables
C102.5	Apply various techniques in solving differential equations

Semester : I	
Course Code & Name : PH8151 & Engineering Physics	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C103.1	Analyse the various behaviour of materials
C103.2	Classify the different types of lasers and optical fibres and its power losses
C103.3	Explain the different thermal properties of materials
C103.4	Illustrate the time dependent and time independent wave equations.
C103.5	Understand the structures and properties of crystals
Semester : I	
Course Code & Name : CY8151 & Engineering Chemistry	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C104.1	To know about the water parameters, Requirements of Boiler feed water and different water treatment techniques.
C104.2	Understanding the basic concept of adsorption, Theories and its mechanism.
C104.3	To gain the knowledge of phase rule and the different eutectic mixture of suitable alloys.
C104.4	Acquiring the knowledge about the manufacture of solid, liquid and gaseous fuel to meet environmental sustainability.
C104.5	To explain the principle and generation of energy in battery, Nuclear reactor , Solar cells, Wind mill and fuel cell for Future
Semester : I	
Course Code & Name : GE8151 & Problem Solving and Python Programming	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C105.1	To explain the logical solutions of the problems through algorithm, flowchart and pseudo code

C105.2	To explain the syntax of basic constructs in python
C105.3	To examine the working of control flow and functions to derive the solution
C105.4	To examine the concepts of sequential data types(lists, Tuples, dictionaries) in python
C105.5	To perform read/write data from/to files using python
Semester : I Course Code & Name : GE8152 & Engineering Graphics Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C106.1	Illustrate various geometrical constructions used to construct and understand the importance of conical curves and orthographical projections in engineering applications.
C106.2	Sketch multiple views from pictorial views of three dimensional objects to draw the basic views related to projections of Points, Lines and Planes.
C106.3	Sketch orthographic projections of points, lines, planes and solids Students will be able to draw the projections of solids.
C106.4	Illustrate the sectional views of the various solids Sectioned and develop the surface of geometrical objects.
C106.5	Illustrate the lateral surfaces of the various sectioned solids Interpret Isometric and Perspective views of object.
Semester : I Course Code & Name : GE8161 & Problem Solving and Python Programming Laboratory Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C107.1	Write , test, and debug simple Python programs
C107.2	Implement Python programs with conditionals and loops
C107.3	Develop Python programs step-wise by defining functions and calling them
C107.4	Use Python lists, tuples, dictionaries for representing compound data
C107.5	Read and write data from/to files in Python

Semester : I	
Course Code & Name : BS8161& Physics and Chemistry Laboratory	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C108.1	To determine the moment of inertia of the disc and rigidity modulus of the material by torsional pendulum
C108.2	Ability to apply laser principles of optics to calculate laser parameters
C108.3	To know the thickness of a thin wire by forming interference fringes using air wedge method
C108.4	To determine amount of DO in the water content and analyse the pollutant level in the water
C108.5	Acquiring the knowledge of qualitative analysis of chloride by argentometric method to control chloride ion pollution
Semester : II	
Course Code & Name : HS8251& Technical English	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C109.1	To Read articles of a general kind in newspapers and magazines
C109.2	To participate effectively in informal conversation and to introduce themselves and their friends and to express opinions in English
C109.3	To comprehend different written and spoken discourses in different accents.
C109.4	Able to write personal letters and send e-mails in English and to speak reasonable English without grammatical mistakes.
C109.5	To understand different rhetorical functions of technical English.
Semester : II	
Course Code & Name : MA8251 & Engineering Mathematics - II	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C110.1	Diagonalizable symmetric matrices and similar matrices using Eigen values and Eigen vectors.
C110.2	Acquaint the student with the concepts of vector calculus needed for problems in all engineering disciplines.

C110.3	Apply the concept of Cauchy - Riemann equations.
C110.4	Extend the concept of contour integrals in evaluating Real integrals.
C110.5	Discuss Laplace Transform methods to solve initial value problems for constant coefficient linear ODEs
Semester : II Course Code & Name : PH8252 & Physics for Information Science Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C111.1	It gives better idea about energy levels and conductivity.
C111.2	It provides basic knowledge about semiconductors.
C111.3	Have basic knowledge about magnetic materials.
C111.4	It gives knowledge about optical material and LED.
C111.5	Have basic and depth knowledge about Nano material.
Semester : II Course Code & Name : BE8255 & Basic Electrical and Electronics and Measurement Engineering Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C112.1	Analyse the electric circuits and discuss the essentials of electric circuit
C112.2	Classify the types of rotating machines, speed control methods, and discuss the operation of transformers
C112.3	Analyse the operation of domestic loads and discuss the Renewable energy sources.
C112.4	Illustrate the operation of analog, digital devices and analyse its applications
C112.5	Interpret the metering for electric circuits, transducers and analyse the importance of measurements

Semester	:	II
Course Code & Name	:	BE8255 & Basic Electrical and Electronics and Measurement Engineering
Year of Study	:	2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome	
C112.1	Analyse the electric circuits and discuss the essentials of electric circuit	
C112.2	Classify the types of rotating machines, speed control methods, and discuss the operation of transformers	
C112.3	Analyse the operation of domestic loads and discuss the Renewable energy sources.	
C112.4	Illustrate the operation of analog, digital devices and analyse its applications	
C112.5	Interpret the metering for electric circuits, transducers and analyse the importance of measurements	
Semester	:	II
Course Code & Name	:	GE8291 & Environmental Science and Engineering
Year of Study	:	2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome	
C113.1	To study the nature, facts about environment and the interrelationship between living organism and environment.	
C113.2	To finding and implementing scientific, technological, economic and political solutions to environmental pollutions	
C113.3	To study the integrated themes of biodiversity, natural resources and waste management.	
C113.4	To study the dynamic processes and understand the features of the earths interior and surface.	
C113.5	To aware about population growth, family welfare, human health and value education	
Semester	:	II
Course Code & Name	:	CS8251 & Programming in C
Year of Study	:	2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome	
C114.1	Develop simple applications in C using basic constructs	

C114.2	Design and implement applications using arrays and strings
C114.3	Develop and implement applications in C using functions and pointers
C114.4	Develop applications in C using structures
C114.5	Design applications using sequential and random access file processing
Semester : II Course Code & Name : GE261 & Engineering Practices Laboratory Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C115.1	Students can fabricate carpentry components and pipe connections including plumbing works
C115.2	Students can use welding equipment's to join the structures
C115.3	Students can Carry out the basic machining operations
C115.4	Ability to Make the models using sheet metal works
C115.5	Illustrate on centrifugal pump, Air conditioner, operations of smithy, foundry and fittings
Semester : II Course Code & Name : CS8261 & C Programming Laboratory Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C116.1	Develop programs in C using basic constructs
C116.2	Develop programs in C using arrays
C116.3	Develop applications in C using strings, pointers, functions
C116.4	Develop applications in C using structures
C116.5	Develop applications in C using file processing

Semester : III	
Course Code & Name : MA8351 & Discrete Mathematics	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C201.1	Understand the concept of set theory, relations, mathematical logics, reasoning and study the validity of the arguments
C201.2	Analyze the relationship between combination and permutation
C201.3	Identify the different kind of graphs with examples
C201.4	Analyze the types of group theory with proofs
C201.5	Specify the concept of Lattices and Boolean algebra
Semester : III	
Course Code & Name : CS8351 & Digital Principals and System Design	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C202.1	Understand the different methods used for simplification of boolean expressions and the concept of logic gates
C202.2	Design and implement combinational logic circuits using logic gates and HDL
C202.3	Design and analyze the sequential circuits using flipflops and HDL
C202.4	Design and analyze an asynchronous sequential circuits and Hazard free circuits
C202.5	Understand the operation of memory devices and implement the combinational logic circuits using programmable logic devices
Semester : III	
Course Code & Name : CS8391 & Data Structures	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C203.1	Explain the fundamental data structures concepts and ADT
C203.2	Summarize the various linear data structure operations and applications

C203.3	Discuss about Tree operations and applications
C203.4	Discuss about Graphs operations and applications
C203.5	Demonstrate the sorting, searching and hashing techniques in data structures
Semester : III Course Code & Name : CS8392 & Object Oriented Programming Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C204.1	Develop java programs using OOP principles
C204.2	To Develop java programs with the concepts inheritance and interfaces
C204.3	Build java applications using exception handling and I/O Streams
C204.4	Use the concept of multithreading and generics classes in Java
C204.5	Apply the AWT and Swing concepts to build GUI application
Semester : III Course Code & Name : EC8395 & Communication Engineering Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C205.1	Understand the concept of modulation and classify various analog modulation techniques
C205.2	Relate the concept of sampling and quantization to various pulse modulation
C205.3	Interpret the concept of digital modulation techniques
C205.4	Apply the concept of source and error coding schemes
C205.5	Discuss the various types of spread spectrum and multiple access technique
Semester : III Course Code & Name : CS8381 & Data Structures Laboratory Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	

COs No.	Course Outcome
C206.1	Apply good programming design methods for program development.
C206.2	Develop recursive programs using trees and graphs.
C206.3	Design and Implement C programs for manipulating stacks, queues, linked lists, trees, and graphs
C206.4	Apply the different data structures to problem solutions.
C206.5	Implement and analyze various searching and sorting algorithms
Semester : III	
Course Code & Name : CS8383 & Object Oriented Programming Laboratory	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C207.1	To understand and apply the concepts of classes, Packages, interface & inheritance
C207.2	To develop java program for practicing exception handling of files
C207.3	To develop application using generic programming and event handling
C207.4	To build software development skills in java
C207.5	To develop a java program for real world application
Semester : III	
Course Code & Name : CS8382 & Digital Systems Laboratory	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C208.1	Implement simplified combinational circuits using basic logic gates
C208.2	Implement combinational circuits using MSI devices
C208.3	Implement sequential circuits like registers and counters
C208.4	Simulate combinational circuits using HDL
C208.5	Simulate sequential circuits using HDL

Semester	:	III
Course Code & Name	:	HS8381 & Interpersonal Skills/Listening & Speaking
Year of Study	:	2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome	
C209.1	To Enhance Understanding of listening to the study of interpersonal and personal relationship.	
C209.2	To participate in Group discussion .	
C209.3	To Analyze the given topic and develop conversation.	
C209.4	To Make effective presentation in a group.	
C209.5	To Apply contextual strategies for presentation and business interactive communication.	
Semester	:	IV
Course Code & Name	:	MA8402 & Probability and Queuing Theory
Year of Study	:	2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome	
C210.1	Discuss the concepts of the fundamental Probability Theory, Baye's theorem	
C210.2	Summarize the concepts of covariance, correlation and regression, central limit theorem	
C210.3	Explain the concept of Markov chain in terms of a transition probability matrix and transition diagram.	
C210.4	Extend birth and death processes which evolve with respect to time in a probabilistic manner	
C210.5	Interpret the Queuing models.	
Semester	:	IV
Course Code & Name	:	CS8491 & Computer Architecture
Year of Study	:	2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome	
C211.1	Understand the basic structure of computers, operations and instructions	

C211.2	Design arithmetic and logic unit
C211.3	Understand pipelined execution and design control unit
C211.4	Understand parallel processing architectures
C211.5	Understand the various memory systems and I/O communication
Semester : IV Course Code & Name : CS8492 & Database Management Systems Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C212.1	Summarize fundamentals of Database design
C212.2	Map ER model to relational model and normalization criteria to perform database design effectively
C212.3	Apply concurrency control and recovery mechanism for practical problems
C212.4	Compare and contrast various indexing strategies in different database system
C212.5	Classify advanced database concepts
Semester : IV Course Code & Name : CS8451 & Design and Analysis of Algorithm Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C213.1	Understand the fundamental concepts of algorithmic problem solving and analyze the time and space complexities of algorithms.
C213.2	Apply the brute force and divide and conquer strategies to design algorithms for computational problems.
C213.3	Apply the dynamic programming and greedy techniques to design algorithms for computational problems.
C213.4	Understand how scientific problems can be solved using iterative method.
C213.5	Apply the approximation algorithms and design of Branch and Bound and Back Tracking techniques for the given real time problems.

Semester : IV	
Course Code & Name : CS8493 & Operating systems	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C214.1	Explain the overall view of the computer system and operating system
C214.2	Identify various scheduling algorithm and deadlock prevention and avoidance algorithm
C214.3	Compare and contrast various memory management schemes and file system functionalities
C214.4	Discuss the performance of the various page replacement algorithms and interpret the file system implementation, sharing and protection mechanisms
C214.5	Demonstrate administrative tasks on Linux servers and to be familiar with the basics of Mobile OS.
Semester : IV	
Course Code & Name : CS8494 & Software Engineering	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C215.1	To compare and classify various SDLC models.
C215.2	To explain the Concepts of requirements engineering and Analysis Modeling.
C215.3	To apply systematic procedure for software design and deployment.
C215.4	To compare and contrast the various testing and maintenance.
C215.5	To evaluate and manage project schedule, project cost and effort required.
Semester : IV	
Course Code & Name : CS8481 & Database Management Systems Laboratory	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C216.1	Use typical data definitions and manipulation commands.

C216.2	Design applications to test Nested and Join Queries
C216.3	Implement simple applications that use Views
C216.4	Implement applications that require a Front-end Tool
C216.5	Analyze the use of Tables, Views, Functions and Procedures
Semester : IV Course Code & Name : CS8461 & Operating systems Laboratory Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C217.1	Illustrate the various CPU scheduling algorithms and Implement deadlock avoidance and detection algorithms.
C217.2	Implement semaphore concepts and Create processes and implement IPC
C217.3	Analyze the performance of the various page replacement algorithms and Implement file organization and file allocation strategies.
C217.4	Exhibit ethical principles in engineering practices and Perform task as an individual and / or team member to manage the task in time
C217.5	Express the Engineering activities with effective presentation report and Interpret the findings with appropriate technological / research citation.
Semester : IV Course Code & Name : HS8461 & Advanced Reading and Writing Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C218.1	Able to write different types of essays
C218.2	To draft job application and resume effectively
C218.3	To read and evaluate the given text critically
C218.4	To Make effective report on various occasion.
C218.5	To Apply contextual strategies for presentation and business communication.

Semester : V	
Course Code & Name : MA8551& Algebra and Number Theory	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C301.1	Able to write different types of essays
C301.2	To draft job application and resume effectively
C301.3	To read and evaluate the given text critically
C301.4	To Make effective report on various occasion.
C301.5	To Apply contextual strategies for presentation and business communication.
Semester : V	
Course Code & Name : CS8591 & Computer Networks	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C302.1	Understand the basic layers and its functions in computer networks.
C302.2	Evaluate the performance of a network.
C302.3	Analyze and design routing algorithms.
C302.4	Design protocols for various functions in the network.
C302.5	Understand the working of various application layer protocols.
Semester : V	
Course Code & Name : EC8691 & Microprocessors and Microcontrollers	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C303.1	Understand and execute programs based on 8086
C303.2	Design memory interfacing circuits

C303.3	Design and interface IO devices
C303.4	Design and implement 8051 based systems
C303.5	Understand the evolution of microprocessor
Semester : V Course Code & Name : CS8501 & Theory of Computation Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C304.1	Students will be able to define the mathematical model behind theoretical computer science
C304.2	Students will be able to differentiate and construct the automata(Finite Automata/PDA/Turing Machine) for the specified problem
C304.3	Students will be able to relate several forms of automata to real word issues
C304.4	Students will be able to select and create appropriate automata for various theoretical computer science requirements.
C304.5	Students will be able to recognise various computational problems and their levels of difficulty.
Semester : V Course Code & Name : CS8592 & Object Oriented Analysis and Design Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C305.1	To express software design with UML diagrams.
C305.2	To design software applications using OO Concepts.
C305.3	To identify various scenarios based on software requirements.
C305.4	To transform UML based software design into pattern based design using design patterns.
C305.5	To understand the various testing methodologies for OO Software.
Semester : V Course Code & Name : OCE552 & Geographic Information System Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	

COs No.	Course Outcome
C306.1	Explain the fundamental concepts about Geographic Information System
C306.2	Summarize the different types of data models
C306.3	Explain about data input and topology
C306.4	Illustrate the different data analysis tools for data quality and standards
C306.5	Demonstrate the different application areas of Geographic Information System with case studies
Semester : V Course Code & Name : EC8681 & Microprocessors and Microcontrollers Laboratory Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C307.1	Develop ALP for fixed and Floating Point and Arithmetic operations using 8086 Microprocessor.
C307.2	Make use of different I/O interfacing with 8086 microprocessor
C307.3	Construct different waveforms using 8086 microprocessor
C307.4	Model serial and parallel interfacing of 8086 microprocessor
C307.5	Develop assembly language programs for various applications using 8051 microcontroller
Semester : V Course Code & Name : CS8582 & Object Oriented Analysis and Design Laboratory Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C308.1	Perform OOAD analysis and design for a given problem specification.
C308.2	Identify and map basic software requirements in UML mapping.
C308.3	Improve the software quality using design patterns and to explain the rationale behind applying specific design patterns.
C308.4	Test the compliance of the software with the SRS.

C308.5	To improve the design by applying appropriate design patterns.
Semester	: V
Course Code & Name	: CS8581 & Networks Laboratory
Year of Study	: 2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome
C309.1	Implement various protocol using TCP and UDP
C309.2	Compare the performance of different transport layer protocols
C309.3	Use simulation tools to analyze the performance of various network protocols
C309.4	Analyze various routing algorithms
C309.5	Implement error correction codes
Semester	: VI
Course Code & Name	: CS8651 & Internet Programming
Year of Study	: 2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome
C310.1	Construct a basic website using HTML and Cascading Style Sheets
C310.2	Design and implement dynamic web page with validation using JavaScript objects
C310.3	Develop Server side programs using Servlets and JSP
C310.4	Design and implement simple web page in PHP, and to present data in XML format
C310.5	Design AJAX and web services to develop interactive web applications
Semester	: VI
Course Code & Name	: CS8691 & Artificial Intelligence
Year of Study	: 2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome
C311.1	Use appropriate search algorithms for any AI problem

C311.2	Represent a problem using first order and predicate logic
C311.3	Provide the apt agent strategy to solve a given problem
C311.4	Design software agents to solve a problem
C311.5	Design applications for NLP that use Artificial Intelligence
Semester : VI Course Code & Name : CS8601 & Mobile Computing Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C312.1	Summarize the basics of mobile telecommunication systems
C312.2	Illustrate the generations of telecommunication systems in wireless networks
C312.3	Apply the functionality of MAC, network layer and Identify a routing protocol for a given Ad hoc network
C312.4	Explain the functionality of Transport and Application layers
C312.5	Develop a mobile application using android/blackberry/ios/Windows SDK
Semester : VI Course Code & Name : CS8602 & Compiler Design Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C313.1	Students will able to explain the different phases of compilation, use regular expression, finite automata to represent tokens and design lexical analyzer
C313.2	Students will able to compare top-down and bottom-up parsers and create an appropriate parser that produces the parse tree of the input
C313.3	Student will able to produce intermediate code for high level statements
C313.4	Students will able to understand the issues in code generation and design a simple code generator
C313.5	Students will able to apply the optimization techniques for the generated code and produce the optimized code for high level statements
Semester : VI Course Code & Name : CS8603 & Distributed Systems	

Year of Study	: 2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome
C314.1	Illuminate the foundations and issues of distributed systems
C314.2	Recognize the various synchronization issues and global state for distributed systems
C314.3	Apprehend the Mutual Exclusion and Deadlock detection algorithms in distributed systems
C314.4	Define the agreement protocols and fault tolerance mechanisms in distributed systems
C314.5	Describe the features of peer-to-peer and distributed shared memory systems
Semester	: VI
Course Code & Name	: IT8076 & Software Testing
Year of Study	: 2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome
C315.1	Demonstrate the test process and identify Testers' role and construct defect repository by classifying the defects
C315.2	Design Test cases for various problems and select testing strategies and methods for solving problems
C315.3	Apply various levels of testing for a software project
C315.4	Develop and validate a test plan and generate test report
C315.5	Identify the skills needed for automation and use of automatic testing tools
Semester	: VI
Course Code & Name	: CS8661 & Internet Programming Laboratory
Year of Study	: 2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome
C316.1	Develop a basic website using HTML and Cascading Style Sheets
C316.2	Build dynamic web pages with validation using Java Script objects and by applying different event handling mechanisms.
C316.3	Explain servlets with database connectivity for server side programming
C316.4	Build a simple web page in PHP with XML data format

C316.5	Construct web applications using AJAX and web services.
Semester	: VI
Course Code & Name	: CS8662 & Mobile Application Development Laboratory
Year of Study	: 2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome
C317.1	Build a native application using GUI components and Mobile application development frame work.
C317.2	Develop an application using basic graphical primitives and databases.
C317.3	Construct an application using multi threading and RSS feed.
C317.4	Make use of location identification using GPS in an application.
C317.5	Analyze and discover own mobile app for simple needs.
Semester	: VI
Course Code & Name	: CS8611 & Mini Project
Year of Study	: 2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome
C318.1	Choose problems with technical importance and societal contribution.
C318.2	Identify and survey the relevant literature for getting exposed to related solutions.
C318.3	Build project plans with feasible requirements.
C318.4	Analyze , design and develop adaptable and reusable solutions.
C318.5	Implement and test solutions to trace against the user requirements.
Semester	: VI
Course Code & Name	: HS8581 & Professional Communication
Year of Study	: 2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome

C319.1	Understand to make effective presentation
C319.2	Apply to draft job application and resume effectively
C319.3	Apply to participate in GD effectively
C319.4	Understand to attend job interview with confidence
C319.5	Remember to develop adequate soft skills required for the work place.

Semester	:	VII
Course Code & Name	:	MG8591 & Principles of Management
Year of Study	:	2018-2019, 2019-2020, 2020-2021, 2021-2022

COs No.	Course Outcome
C401.1	Discuss and communicate the management evolution, the principles, various approaches and how it will affect future managers
C401.2	Explain how organizations adapt to an uncertain environment and recognize various planning tools managers use to strategize and make decisions considering both internal and external environmental factors
C401.3	Identify the process of delegating authority, different types of organization, its structure, charts and explain about the various human resource activities like staffing, recruitment, selection, training and performance management
C401.4	Explain the numerous motivational and leadership theories and describe the role of effective communication in an organization
C401.5	Illustrate the several control techniques used to overcome the productivity problems and the use of computers and IT in management control

Semester	:	VII
Course Code & Name	:	CS8792 & Cryptography and Network Security
Year of Study	:	2018-2019, 2019-2020, 2020-2021, 2021-2022

COs No.	Course Outcome
C402.1	Understand the fundamentals of network security, security architecture, threats and vulnerabilities
C402.2	Apply the different cryptographic operations of symmetric cryptographic algorithms
C402.3	Apply the different cryptographic operations of public key cryptography
C402.4	Apply the various Authentication schemes to stimulate different applications
C402.5	Understand various Security practices and System security standards

Semester : VII	
Course Code & Name : CS8791 & Cloud Computing	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C403.1	Summarize the main concepts, enabling technologies that help in developing cloud, strengths, and limitations of cloud computing.
C403.2	Implement the NIST cloud computing architecture to solve architecture design challenges
C403.3	Relate the core issues of cloud computing like resource management and security.
C403.4	Apply and use knowledge of current cloud technologies for Installation
C403.5	Illustrate and choose the appropriate technologies, algorithms, and approaches for implementation and use of the cloud.
Semester : VII	
Course Code & Name : OCH752 & Energy Technology	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C404.1	Identify the various energy sources and its representable forms
C404.2	Understand the conventional energy sources and its power generation methods
C404.3	Understand the Non-conventional energy sources and its power generation methods
C404.4	Explain biomass sources and develop design parameters for equipment to be used in Chemical process industries
C404.5	Understand energy conservation in process industries
Semester : VII	
Course Code & Name : IT8075 & Software Project Management	
Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C405.1	To determine the importance of evaluation and planning a project.
C405.2	To demonstrate the project life cycle and different techniques for software cost estimation.

C405.3	To determine the various techniques of project scheduling.
C405.4	To estimate the overall duration of the project by analyzing the risk involved in it.
C405.5	To explain the various strategies of managing and controlling the project.
Semester : VII Course Code & Name : CS8079 & Human Computer Interaction Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C406.1	Design effective dialog for HCI
C406.2	Design effective HCI for individuals and persons with disabilities
C406.3	Assess the importance of user feedback
C406.4	Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Web sites
C406.5	Develop meaningful user interface.
Semester : VII Course Code & Name : IT8761 & Security Laboratory Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C407.1	Develop code for Classical Encryption Techniques to solve the problems.
C407.2	Build cryptosystems by applying symmetric and public key encryption algorithms.
C407.3	Construct code for authentication algorithms.
C407.4	Develop a signature scheme using Digital Signature Standard.
C407.5	Demonstrate the network security system using open source tools.
Semester : VII Course Code & Name : CS8711 & Cloud Computing Laboratory Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	

COs No.	Course Outcome
C408.1	Demonstrate various virtualization tools such as Virtual Box, VMware workstation.
C408.2	Implement a web application in a PaaS environment.
C408.3	Develop a new schedulers and learn how to simulate in cloud environment.
C408.4	Install and use a generic cloud environment that can be used as a private cloud.
C408.5	Manipulate large data sets in a parallel environment.
Semester : VIII Course Code & Name : Professional Ethics in Engineering Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C409.1	Understand the core values that shape an engineer's ethical behaviour and raised knowledge of professional ethics and human values.
C409.2	Understand the principles of profession, professional ethics, numerous moral issues, and ethical theories' applications
C409.3	Understand various social issues, industrial standards, code of ethics and role of professional ethics in engineering field
C409.4	Creating awareness of an engineer's responsibilities for safety and risk benefit analysis, professional rights, and responsibilities
C409.5	Acquire knowledge of various engineering roles in different global issues and be able to apply ethical principles to issues arising in their professional lives
Semester : VIII Course Code & Name : Informational Retrieval Techniques Year of Study : 2018-2019, 2019-2020, 2020-2021, 2021-2022	
COs No.	Course Outcome
C410.1	Summarize the concepts of IR system, search interfaces and practical issues of Information Retrieval
C410.2	Interpret an open source search engine framework and explore its capabilities
C410.3	Apply appropriate method of classification or clustering
C410.4	Implement innovative features in a search engine
C410.5	Demonstrate a recommender system for information filtering systems

Semester	: VIII
Course Code & Name	: Project Work
Year of Study	: 2018-2019, 2019-2020, 2020-2021, 2021-2022
COs No.	Course Outcome
C411.1	Identify technically and economically feasible problems of social relevance
C411.2	Plan and build the project team with assigned responsibilities
C411.3	Identify and survey the relevant literature for getting exposed to related solutions
C411.4	Analyse , design and develop adaptable and reusable solutions of minimal complexity by using modern tools
C411.5	Implement and test solutions to trace against the user requirements and Deploy and support the solutions for better manageability of the solutions