Course Outcome

Session 2019-20

Department of Computer Science & Engineering

Index

Session: 2019-20 **Semester: 3rd**

Subject Name (Code): Maths IV (KAS-302)

S No.	Course Outcomes	BL
Student will be able to:		
1	Identify the application of partial differential equations and apply for solving Linear and non-linear partial differential equation.	1,3
2	Understand the classification of second order partial differential equations and by using the method of separation of variables to evaluate the general solution of Heat, Wave, Laplace equations and Transmission lines.	1,3
3	Remember the concept of moments, skewness, kurtosis and moment generating function and analyze the linear and nonlinear regression.	1,4
4	To remember the concept of probability, random variable and apply for solving the problem related to discrete and continuous probability distributions.	1,3
5	Understand the statistical method of data samples, hypothesis testing and applying the study of control chart and their properties.	2,3

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Session: 2019-20 **Semester: 3rd**

Subject Name (Code): Technical Communication (KAS-301)

S No.	Course Outcomes	BL
Student will be able to:		
1	Students will be enabled to understand the nature and objective of Technical Communication relevant for the workplace as Engineers.	2
2	Students will utilize the technical writing for the purposes of Technical Communication and its exposure in various dimensions.	3
3	Students would imbibe inputs by presentation skills to enhance confidence in face of diverse audience.	2, 4
4	Technical communication skills will create a vast know-how of the application of the learning to promote their technical competence.	6
5	It would enable them to evaluate their efficacy as fluent & efficient communicators by learning the voice-dynamics.	5

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 3rd**

Subject Name (Code): Data Structures (KCS-301)

S No.	Course Outcomes	BL
Student will be able to:		
1	Describe how arrays, linked lists, stacks, queues, trees, and graphs are represented in memory, used by the algorithms and their common applications.	1, 2
2	Discuss the computational efficiency of the sorting and searching algorithms.	3,4
3	Implementation of Trees and Graphs and perform various operations on these data structure.	3, 4,6
4	Understanding the concept of recursion, application of recursion and its implementation and removal of recursion.	1,2,3
5	Identify the alternative implementations of data structures with respect to its performance to solve a real world problem.	3,4,5,6

----------Next----------

Session: 2019-20 **Semester: 3rd**

Subject Name (Code): Computer Organization and Architecture (KCS-302)

S No.	Course Outcomes	BL
Student will be able to:		
1	The structure, function and characteristics of computer systems	**1, 2**
2	The design of the various functional units and components of computers.	**2,4**
3	The elements of modern instructions set and their impact on processor design.	**3**
4	The function of each element of a memory hierarchy,	**2**
5	Different methods for computer I/O and their comparisons.	**2,4**

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 3rd**

Subject Name (Code): Discrete Structure and Theory of Logic (KCS-303)

S No.	Course Outcomes	BL
Student will be able to:		
1	Knowledge of logical notation to define and reason the fundamental mathematical concepts Such as sets, relations, functions, and integers.	1,2
2	Discuss various structures and properties of modern algebra.	1,2
3	Employ their logical ability such as reasoning able to setup mathematical model of real life problem by applying advanced counting and computing techniques like generating function and recurrence relation.	3,4
4	Demonstrate problems in different areas of computer science using trees and graphs.	5,6
5	Design solution with the help of induction hypotheses, simple induction proofs and recurrences.	2,3

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Session: 2019-20 **Semester: 3rd**

Subject Name (Code): Computer System Security (KNC-301)

S No.	Course Outcomes	BL
Student will be able to:		
1	To discover software bugs that pose cyber security threats and to explain how to fix the bugs to mitigate such threats.	1, 2
2	To discover cyber-attack scenarios to web browsers and web servers and to explain how to mitigate such threats.	2
3	To discover and explain mobile software bugs posing cyber security threats, explain and recreate exploits, and to explain mitigation techniques.	3
4	To articulate the urgent need for cyber security in critical computer systems, networks, and world wide web, and to explain various threat scenarios.	4
5	To articulate the well-known cyber-attack incidents, explain the attack scenarios, and explain mitigation techniques.	5,6

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 3rd**

Subject Name (Code): Data Structures Using C Lab (KCS-351)

S No.	Course Outcomes	BL
Student will be able to:		
1	Demonstrate familiarity with major algorithms and data structures.	**1, 2,3**
2	Calculate and analyze performance of algorithms	**3,4**
3	Choose the appropriate data structure and algorithm design method for a specified application.	**4,6**
4	Identify which algorithm or data structure to use in different scenarios.	**1,2,5**
5	Familiar with writing recursive methods	**1,3,5**

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Session: 2019-20 **Semester: 3rd**

Subject Name (Code): Computer Organization Lab (KCS-352)

S No.	Course Outcomes	BL
Student will be able to:		
1	Illustrate HALF ADDER, FULL ADDER using basic logic gates and to learn various code conversions: Binary -to -Gray, Gray -to -Binary	1, 2
2	Design 3-8-line DECODER and Implementing 4x1 and 8x1 MULTIPLEXERS.	1, 2
3	Demonstrate excitation tables of various FLIP-FLOPS and design of an 8-bit Input/ Output system with four 8-bit Internal Registers.	2, 3
4	Design of an 8-bit ARITHMETIC LOGIC UNIT.	2, 3
5	Designing of I/O using Registers, ALU and Control Unit and demonstrating the usage of Register Transfer Language (RTL)	1, 2

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 3rd**

Subject Name (Code): Discrete Structure & Logic Lab (KCS-353)

S No.	Course Outcomes	BL
Student will be able to:		
1	Knowledge of logical notation to define and reason the fundamental mathematical concepts such as sets relations, functions, and integers.	1,2
2	Discuss various structures and properties of modern algebra.	1,2
3	Employ their logical ability such as reasoning able to setup mathematical model of real life problem by applying advanced counting and computing techniques like generating function and recurrence relation.	3,4
4	Demonstrate problems in different areas of computer science using trees and graphs.	5,6
5	Design solution with the help of induction hypotheses, simple induction proofs and Recurrences.	2,3

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Session: 2019-20 **Semester: 3rd**

Subject Name (Code): Mini Project or Internship Assessment (KCS-354)

S No.	Course Outcomes	BL
Student will be able to:		
1	Discover potential research areas in the field of IT	1, 2
2	Compare and contrast the several existing solutions for research challenge	3,4,5
3	Demonstrate an ability to work in teams and manage the conduct of the research study	3,4,6
4	Formulate and propose a plan for creating a solution for the research plan identified	1,2,5
5	To report and present the findings of the study conducted in the preferred domain	1,3,4,5

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 4th**

Subject Name (Code): Electronics Engineering (KOE-048)

S No.	Course Outcomes	BL
Student will be able to:		
1	Understand the concept of PN junction and special purpose diodes.	1, 2
2	Study the application of conventional diode and semiconductor diode.	1,2,3
3	Analyse the I-V characteristics of BJT and FET.	2,3,1
4	Analyze the of Op-Amp, amplifiers, integrator, and differentiator.	1, 2
5	Understand the concept of digital storage oscilloscope and compare of DSO with analog oscilloscope	1,3

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Session: 2019-20 **Semester: 4th**

Subject Name (Code): Universal Human Value (KVE-401)

S No.	Course Outcomes	BL
Student will be able to:		
1	Understand the significance of value inputs in a classroom, distinguish between values and skills, understand the need, basic guidelines, content and process of value education, explore the meaning of happiness and prosperity and do a correct appraisal of the current scenario in the society	1, 2
2	Distinguish between the Self and the Body, understand the meaning of Harmony in the Self the Co-existence of Self and Body	3
3	Understand the value of harmonious relationship based on trust, respect and other naturally acceptable feelings in human-human relationships and explore their role in ensuring a harmonious society	3, 4
4	Understand the harmony in nature and existence, and work out their mutually fulfilling participation in the nature.	4, 5
5	Distinguish between ethical and unethical practices, and start working out the strategy to actualize a harmonious environment wherever they work.	6

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 4th**

Subject Name (Code): Operating Systems (KCS-401)

S No.	Course Outcomes	BL
Student will be able to:		
1	Gain in depth knowledge about the structures of the operating system, different types of operating system and functions performed by modern operating system.	1, 2
2	Identify and apply knowledge of various software and hardware synchronization tools for solving critical section problem in concurrent processes.	3
3	Learn about Processes, Threads, and gain knowledge of various scheduling algorithm designs	3, 4
4	Understand and apply process management and memory management concepts to solve various hardware and software problems.	4, 5
5	Identify various file management and security mechanisms in order to design efficient software system by using various access control techniques.	6

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Session: 2019-20 **Semester: 4th**

Subject Name (Code): Theory of Automata and Formal Languages (KCS-402)

S No.	Course Outcomes	BL
Student will be able to:		
1	Understand basic properties of formal languages and analyzing and formation of different Finite Automaton	1,2
2	Understand basic properties and analyzing of regular language and application of finite automaton	2,4,6
3	Understand and analyzing the context free grammar and Language also proof of correctness.	1,2,4
4	Understand basic model of PDA. Analyzing and forming Push down automaton.	2,4,6
5	Understand basic model of Turing Machine. Analyzing and forming Turing Machine and its corresponding language also Understand basic properties Undecidability, Post Corresponding Problem and Recursive Function Theory.	1,2,4,6

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 4th**

Subject Name (Code): Microprocessor (KCS-403)

S No.	Course Outcomes	BL
Student will be able to:		
1	Understand how the knowledge of mathematics, computer science & engineering are applied to microprocessor based personal computer system.	1,2
2	Analyze software problems after studying instruction set of 8085 and programming techniques.	4,3
3	Formulate and solve hardware and software problems after studying instruction set of 8086 and programming techniques.	6,3
4	Automate real life problems after generating time delays and learning the advanced subroutine concepts in assembly language programming.	4,5
5	Understand techniques, skills and hardware tools necessary for computer engineering practice after studying 8237 DMA, 8255 PPI,8254 programmable interval timer and 8259A programmable interrupt controller.	1,2

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Session: 2019-20 **Semester: 4th**

Subject Name (Code): Python Programming (KNC-402)

S No.	Course Outcomes	BL
Student will be able to:		
1	To read and write simple Python programs.	1,2
2	To develop Python programs with conditionals and loops.	2,4
3	To define Python functions and to use Python data structure- lists, tuples, dictionaries	3
4	To do input/output with files in Python	2
5	To do searching ,sorting and merging in Python	2,4

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 4th**

Subject Name (Code): Operating Systems Lab (KCS-451)

S No.	Course Outcomes	BL
Student will be able to:		
1	Understand and apply knowledge of basic UNIX/LINUX commands to solve various software problems and to automate real time applications.	1, 2
2	Understand and implement the concept of process synchronization tool like semaphore to solve mutual exclusion problem in order to coordinate concurrent process	3
3	Apply knowledge of process management techniques to design and solve various process synchronization problems like Producer Consumer problem, Reader Writer problem and dining philosopher's problem.	3, 4
4	Compare and contrast among various CPU scheduling algorithms and apply knowledge to identify the best scheduling algorithm as per software requirement.	4, 5
5	Understand and apply the concepts of deadlock in operating systems to design and implement various deadlock avoidance algorithms like Banker's algorithm used in banking system.	6
6	Understand and apply knowledge of basic UNIX/LINUX commands to solve various software problems and to automate real time applications.	1, 2

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Session: 2019-20 **Semester: 4th**

Subject Name (Code): Microprocessor Lab (KCS-452)

S No.	Course Outcomes	BL
Student will be able to:		
1	Design and implement programs on 8085 microprocessor	1,2,4
2	Design and implement programs on 8086 microprocessor	1,2,4
3	Design interfacing circuits with 8085	3,4
4	Design interfacing circuits with 8086	3,4
5	Design and implement 8051 microcontroller based systems	1,2,5

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 4th**

Subject Name (Code): Python Language Programming Lab (KCS-453)

S No.	Course Outcomes	BL
Student will be able to:		
1	Demonstrate familiarity with major algorithms and data structures.	1, 2,3
2	Calculate and analyze performance of algorithms	3,4
3	Choose the appropriate data structure and algorithm design method for a specified application.	4,6
4	Identify which algorithm or data structure to use in different scenarios.	1,2,5
5	Familiar with writing recursive methods	1,3,5

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 5th**

Subject Name (Code): Managerial Economics (RAS-501)

S No.	Course Outcomes	BL
Student will be able to:		
1	Able to explain basics of economics and managerial economics, its application, scope and also able to understand about demand of commodity.	1,2
2	Able to describe the meaning of supply and demand forecasting, also able to forecast the demand for the commodity mathematically.	1, 2, 3
3	Able to understand the concept of cost in market and its relationship with the output.	2,3,4
4	Able to understand the market structure and its types.	2,4
5	Able to describe the nature and characteristics of Indian Economy	2

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Session: 2019-20 **Semester: 5th**

Subject Name (Code): Cyber Security (RUC-501)

S No.	Course Outcomes	BL
Student will be able to:		
1	Describe and analyze the hardware, software, components of a network and the interrelations.	1, 2
2	Explain the concepts of confidentiality, availability and integrity in Information Assurance, including physical, software, devices, policies and people. Analyze these factors in an existing system and design implementations.	3
3	Develop solutions for networking and security problems, balancing business concerns, technical issues and security and apply them to various situations, classifying networks, analyzing performance and implementing new technologies.	2, 3
4	Identify infrastructure components and the roles they serve, and design infrastructure including devices, security policies, systems software, management and security and analyze performance of enterprise network systems	4
5	Use appropriate resources to stay abreast of the latest industry tools, cyber laws and techniques analyzing the impact on existing systems and applying to future situations and effectively communicate technical information verbally, in writing, and in the form of case study	4,5

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 5th**

Subject Name (Code): Database Management Systems (RCS-501)

S No.	Course Outcomes	BL
Student will be able to:		
1	Define database design methodology which give a good formal foundation in relational data model.	**3**
2	Identify and formulate information storage and derive an information model expressed in the form of ER diagram and other optional analysis forms.	**3, 4**
3	Apply query processing techniques to automate the real time problems of databases and will able to create relational algebra expressions for query.	**2, 3**
4	Identify and solve the redundancy problem in database tables using normalization.	**2, 4**
5	Understand the concepts of transactions, their processing and analyze the broad range of database management issues including data integrity, security and recovery.	**3, 6**

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Session: 2019-20 **Semester: 5th**

Subject Name (Code): Design And Analysis Of Algorithm (RCS-502)

S No.	Course Outcomes	BL
Student will be able to:		
1	Analyze running time of algorithms using asymptotic methods, by applying knowledge of mathematics on different sorting algorithms.	2, 3, 4
2	Apply standard algorithms of advanced data structure like B-tree, RB tree, Binomail heaps, and Fibonacci heap.	3
3	Design and Modify greedy and dynamic approach on algorithms and analyse them to find solutions of Optimization problems related to graphs and other fields.	5, 6
4	Recognize the general principals and good algorithm design techniques dynamic programming, backtracking and branch & bound algorithm for developing efficient algorithms.	1, 2, 4
5	Use string matching algorithms as well as relate the concepts of NP Completeness for analyze and understand the complexity of real life problems and developing solution using randomized and approximation algorithms.	2, 3

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 5th**

Subject Name (Code): Principles Of Programming Languages (RCS-503)

S No.	Course Outcomes	BL
Student will be able to:		
1	To introduce the major programming paradigms, and the principles and techniques involved in design and implementation of modern programming languages.	3
2	To introduce notations to describe syntax, semantics of programming languages and language features used in current programming languages.	2, 3
3	To analyze and explain behavior of simple programs in imperative languages using concepts such as binding, scope, control structures, subprograms and parameter passing mechanisms.	3, 4
4	To introduce an understanding of the key concepts in the implementation of common features of programming languages.	4, 5
5	To introduce the concepts of ADT, Object Oriented Programming, Concurrency Control and Exception Handling for large scale software development.	5, 6

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Session: 2019-20 **Semester: 5th**

Subject Name (Code): Web Technologies (RCS-052)

S No.	Course Outcomes	BL
Student will be able to:		
1	Apply the knowledge of the internet and java concepts in understanding and developing various applications.	**1, 2**
2	Analyze and develop static interactive web pages using HTML, CSS and XML.	**3,4**
3	Understand, analyze and develop event-driven programs using Client side programming like JavaScript and AJAX.	**2, 3**
4	Analyze and develop data base connectivity (JDBC) programs and understand bean concept.	**4, 5**
5	Understand, analyze and develop web application using Server side programming like SERVLET and JSP.	**4, 5**

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 5th**

Subject Name (Code): Database Management Systems Lab (RCS-551)

S No.	Course Outcomes	BL
Student will be able to:		
1	Use the techniques of SQL data manipulation language to create and query a sample data	1, 2
2	Modify the database and provide provide different constraints by implementing techniques like PL/SQL, cursors and triggers.	2,3
3	3. Implement VIEWS, transactions in Database which solve the security problem in databases.	4
4	Demonstrate and understand relational algebra in Database which is helpful to design related database software components.	4, 5
5	Effectively participating in team based activities by designing and development of a database application system.	5,6

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Session: 2019-20 **Semester: 5th**

Subject Name (Code): Design and Analysis of Algorithm Lab (RCS-552)

S No.	Course Outcomes	BL
Student will be able to:		
1	Select appropriate data structures as applied to specified problem definition.	5, 6
2	Implement operations like searching, insertion, and deletion, traversing mechanism etc. on various data structures.	3,4, 6
3	Implementation of greedy approach for solution of the optimization problems.	3, 6
4	Implementation of dynamic programming for solution of the optimization problems.	2, 3, 4, 6
5	Implementation of backtracking for solution of the different large state space problems.	2, 3, 4, 6

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 5th**

Subject Name (Code): Principles of Programming Languages Lab (RCS-553)

S No.	Course Outcomes	BL
Student will be able to:		
1	To understand the fundamental concepts of most programming languages and the trade - off between language design and implementation.	2
2	To compare programming languages, assess programming languages critically and scientifically.	3
3	To understanding different programming paradigms: analyze the principles of imperative, object oriented, functional and logic programming.	3, 4
4	To understand the use of formal description for a programming language and the essence of program execution by evaluators: interpreter, compiler.	3, 5
5	To design a new programming language in principle.	5, 6

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Session: 2019-20 **Semester: 5th**

Subject Name (Code): Web Technologies Lab (RCS-554)

S No.	Course Outcomes	BL
Student will be able to:		
1	Identify, formulate and analyze problems as well as identify the computing requirements appropriate to their solutions.	1, 2
2	Understand and analyze a web page and identify its elements and attributes.	2,3
3	Develop web pages using markup languages like HTML, DHTML and style sheets for making it more presentable to the user.	4, 5
4	Develop dynamic web pages using client side programming and server side programming.	5, 6
5	Develop XML documents and XML Schema to formulate the web services.	4, 5

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 6th**

Subject Name (Code): Industrial Management (RAS-601)

S No.	Course Outcomes	BL
Student will be able to:		
1	Concept and Scope of Industrial management and apply the concepts in decision making to solve management problems.	1, 3
2	Productivity concept and how to measure & examine productivity by applying various methods.	1,4
3	Objectives of Work study and Inventory control and evaluation of inventory levels by applying various techniques of inventory to achieve organizational goals.	3, 4, 5
4	Quality control techniques and implement TQM philosophy to utilize the resources efficiently.	2, 3
5	Network analysis, evaluation of existing projects and creation of new projects by applying CPM & PERT.	2, 5, 6

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Session: 2019-20 **Semester: 6th**

Subject Name (Code): Industrial Sociology (RAS-602)

S No.	Course Outcomes	BL
Student will be able to:		
1	Describe the basis of industrial sociology and various theories of organization structure.	1, 2
2	Acquire an insight into development and consequences of industrialization along with productive structure	3
3	Apply basic industrial policies in India and how Science & technology is shaping out the business world	3, 4
4	Analyze and evaluate various contemporary issues in industries like grievance, industrial disputes, collective bargaining etc. with their resolution	4, 5
5	Scrutinize and identify the roles of industry with reference to Cultural issues, consumer society and sociological concerns.	6

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 6th**

Subject Name (Code): Computer Networks (RCS-601)

S No.	Course Outcomes	BL
Student will be able to:		
1	Define, use and implement Computer Networks and the basic components of a Network system.	1,2
2	Know and Apply pieces of hardware and software to make networks more efficient, faster, more secure, easier to use, able to transmit several simultaneous messages, and able to interconnect with other networks.	2,3
3	Differentiate the various types of network configurations and applying them to meet the changing and challenging networking needs of organizations.	2,3
4	Define and analyze the circuits available for voice and data networks, their transmission speeds (bandwidth), and how they are packaged for commercial use.	4,5
5	Define the different protocols, software, and network architectures.	2,3

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Session: 2019-20 **Semester: 6th**

Subject Name (Code): Compiler Design (RCS-602)

S No.	Course Outcomes	BL
Student will be able to:		
1	Acquire knowledge of different phases and passes of the compiler and also able to use the compiler tools like LEX, YACC, etc. Students will also be able to design different types of compiler tools to meet the requirements of the realistic constraints of compilers.	3, 6
2	Understand the parser and its types i.e. Top-Down and Bottom-up parsers and construction of LL, SLR, CLR, and LALR parsing table.	2, 6
3	Implement the compiler using syntax-directed translation method and get knowledge about the synthesized and inherited attributes.	4, 5
4	Acquire knowledge about run time data structure like symbol table organization and different techniques used in that.	2, 3
5	Understand the target machine's run time environment, its instruction set for code generation and techniques used for code optimization.	2, 4

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 6th**

Subject Name (Code): Computer Graphics (RCS-603)

S No.	Course Outcomes	BL
Student will be able to:		
1	To provide comprehensive introduction about computer graphics system, design algorithms and two dimensional transformations.	1
2	To make the students familiar with techniques of clipping, three dimensional graphics and three dimensional transformations.	2, 3
3	The computer graphics course prepares students for activities involving in design, development and testing of modeling, rendering, shading and animation.	3, 4
4	To implement various algorithms to scan, convert the basic geometrical primitives, transformations, Area filling, clipping.	4, 5
5	Students will be able to know that how computer graphics and geometrical transformation can apply in multidisciplinary field of engineering.	6

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Session: 2019-20 **Semester: 6th**

Subject Name (Code): Data warehousing & Data Mining (RIT-062)

S No.	Course Outcomes	BL
Student will be able to:		
1	Explain to build a Datawarehouse, it's scope, necessity and Contribution to the society.	2
2	Describe how to select hardware and O.S. for designing and managing data warehouse	2
3	Use of high-level operational skills for knowledge discovery for real world problems.	3
4	Demonstrate statistical and machine learning algorithms to underpin the knowledge discovery for an enterprise.	3
5	Discuss different types of OLAP function and tools for data visualization and decision support for computing systems.	2

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 6th**

Subject Name (Code): Computer Networks Lab (RCS-651)

S No.	Course Outcomes	BL
Student will be able to:		
1	Develop solutions for networking and security problems, balancing business concerns, technical issues and security.	1, 2
2	Describe and analyze the hardware, software, components of a network and the interrelations.	2,3
3	Understand the basic concepts of application layer protocol design; including client/server models, peer to peer models, and network naming.	4, 5
4	Understand local area wireless network technologies (802.11, Bluetooth, RFID), and their security weaknesses;	3, 4
5	Ability to apply knowledge of mathematics, probability, and statistics to model and analyze some networking protocols.	2,3

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Session: 2019-20 **Semester: 6th**

Subject Name (Code): Compiler Design Lab (RCS-652)

S No.	Course Outcomes	BL
Student will be able to:		
1	Identify patterns, tokens, and regular expressions for lexical analysis	2, 4
2	Design Lexical analyzer for given language using C and LEX/YACC tools	3, 5
3	Design and analyze top-down and bottom-up parser	4, 5
4	Generate the intermediate code	4, 5
5	Generate machine code from intermediate code forms	3, 4
6	Identify patterns, tokens, and regular expressions for lexical analysis	2, 4
7	Design Lexical analyzer for given language using C and LEX/YACC tools	3, 5

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 6th**

Subject Name (Code): Computer Graphics Lab (RCS-653)

S No.	Course Outcomes	BL
Student will be able to:		
1	Demonstrate the understanding of contemporary graphics hardware.	1,2
2	Create and formulate interactive graphics applications in programming language e.g.C, C++.	3,4
3	Implement program functions to implement graphic primitives API like OpenGL, DirectX.	3, 4
4	Implement programs that demonstrate geometrical transformations.	4, 5
5	Understand about modern software that is used in current scenario of computer graphics.	6
6	Demonstrate the understanding of contemporary graphics hardware.	1,2

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Session: 2019-20 **Semester: 6th**

Subject Name (Code): Data Warehousing & Data Mining Lab (RCS-654)

S No.	Course Outcomes	BL
Student will be able to:		
1	Store voluminous data for online processing and Preprocess the data for mining applications	2
2	Apply the association rules for mining the data and design-deploy appropriate classification techniques	3
3	Cluster the high dimensional data for better organization of the data	4
4	Discover the knowledge imbibed in the high dimensional system and evolve Multidimensional Intelligent model from typical system	5
5	Evaluate various mining techniques on complex data objects and test real data sets using popular data mining tools such as WEKA	6

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 7th**

Subject Name (Code): Application of Soft Computing (RCS-071)

S No.	Course Outcomes	BL
Student will be able to:		
1	Describe neural networks to pattern classification and regression problems and compare their solutions by various other soft computing approaches.	1,2
2	Acquire a working knowledge of various software tools to solve real life problems using a Soft Computing approach that will help them in industry oriented learning.	3
3	Apply fuzzy logic and reasoning to handle uncertainty and solve engineering problem.	3,4
4	Analyze and evaluate various soft computing techniques that help in extending the capabilities of the technologies to more effective and efficient problem solving methodology.	4,5
5	Scrutinize and identify the roles of neural network, fuzzy logic and genetic algorithms to build intelligent machines.	6

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Session: 2019-20 **Semester: 7th**

Subject Name (Code): Cloud Computing (RCS-075)

S No.	Course Outcomes	BL
Student will be able to:		
1	Understand and define the Introduction and evolution of Cloud Computing in addition to the underlying principle of parallel and distributed computing	1,2
2	Understand the importance of different Cloud enabling technologies and learn how to apply them in software industries	2,3
3	Understand and analyze multi layered cloud architecture design along with their applications and challenges	2,4
4	Understand and Apply Resource management and analyze security systems in cloud	2,3
5	Analyze the components of open stack , Google Cloud platform, Hadoop, Virtual Box and Amazon web Service	4,5,6

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 7th**

Subject Name (Code): Distributed System (RCS-701)

S No.	Course Outcomes	BL
Student will be able to:		
1	Understand how to apply the knowledge to gain insight of Distributed System in solving real world problems.	1, 2
2	Identify and formulate the broader domain areas where the concept of Distributed System can be used.	3,4
3	Develop various web applications and automate the real time problems.	4
4	Enhance the concept of failure recovery in Distributed System and also develop software to recover from failure.	4, 5
5	Utilize the modern software and technical skills in order to control concurrency in distributed transactions.	5, 6

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Session: 2019-20 **Semester: 7th**

Subject Name (Code): Artificial Intelligence (RCS-702)

S No.	Course Outcomes	BL
Student will be able to:		
1	Understand the concept of artificial intelligence, intelligent agents, Computer vision, Natural Language Possessing, Uniformed and Informed search strategies, Search for games and Design principles of pattern recognition system.	1, 2
2	Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning.	3
3	Explain the concepts of supervised, unsupervised and reinforcement learning.	2, 4
4	Evaluate Probabilistic reasoning for uncertainty, parameter estimation methods and various classification techniques of pattern reorganization.	5
5	Analyze various searching for solutions, machine learning techniques and classification techniques.	6

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 7th**

Subject Name (Code): Understanding the human being Comprehensively Human Aspiration audits fulfillment (ROE-074)

S No.	Course Outcomes	BL
Student will be able to:		
1	Remember, understand human aspirations, goals, activities, and purpose of life.	1,2
2	Remember, understand, apply, and analyze human being & its expansion	1, 2,3,4
3	Remember, understand, apply, and evaluate the activities in the self.	1, 2,3,5
4	Remember, understand, apply and analyze the harmony in nature/existence and participation of human being in the nature /existence.	1,2,3,4
5	Remember, understand, apply and analyze of human tradition and its various components.	1,2,3,4

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Session: 2019-20 **Semester: 7th**

Subject Name (Code): Distributed System Lab (RCS-751)

S No.	Course Outcomes	BL
Student will be able to:		
1	Apply the basic knowledge of Lamport and vector clock to solve real world problem.	1
2	Develop various softwares in order to solve problems using socket programming	2
3	Identify and formulate the concepts of Remote method Invocation in designing Software	3
4	Enhance the mechanism of Remote Procedure Call in establishing connections.	4
5	Implement the concepts of mutual exclusion to avoid the deadlock	5

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 7th**

Subject Name (Code): Artificial Intelligence Lab (RCS-752)

S No.	Course Outcomes	BL
Student will be able to:		
1	Explore the features of PROLOG programming language, including basic syntax, selection and search strategies of PROLOG.	1, 2
2	Understand syntax, semantics and natural deduction proof system of propositional and predicate logic.	2
3	Implement the recursion and sequences using prolog programming.	2, 3
4	Demonstrate the PROLOG programming language skills in implementing various real life problems.	3
5	Demonstrate LISP programming language skills by solving real life problems through AI prospect.	1,2,3

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Session: 2019-20 **Semester: 7th**

Subject Name (Code): Industrial Training (RCS-753)

S No.	Course Outcomes	BL
Student will be able to:		
1	To provide the learning platform to students to enhance their employ ability skills along with real corporate exposure	1
2	To enhance students' knowledge in current technology	2
3	To develop leadership ability and responsibility in student to execute the given task.	3, 4
4	To Increase self-confidence of students and helps in finding their own proficiency.	4
5	To provide students hands on practice within a real job situation.	5, 6

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 7th**

Subject Name (Code): Project (RCS-754)

S No.	Course Outcomes	BL
Student will be able to:		
1	Develop and describe the idea	6
2	Formulate clear work plan and procedures	5
3	Demonstrate skills and knowledge of state-of-the-art and technological tools and techniques	5
4	Design and apply modern tools for designing and drafting	6
5	Compose and defend report using effective written and visual communication and presentation.	5

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 8th**

Subject Name (Code): Machine Learning (ROE-083)

S No.	Course Outcomes	BL
Student will be able to:		
1	Gain knowledge about basic concepts of Learning system, Learning Problems, Learning Task and mathematics behind machine learning.	1, 2
2	Understand the machine learning models and basic concepts of artificial neural network.	1, 2,3
3	Solve the classification problem using Bayesian Learning Model.	3, 4, 5
4	Apply the hypothesis concepts on various Learning Models.	4, 5
5	Understand the concepts of Genetic algorithm and Reinforcement Learning.	5,6

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Session: 2019-20 **Semester: 8th**

Subject Name (Code): Image Processing (RCS-082)

S No.	Course Outcomes	BL
Student will be able to:		
1	Apply the knowledge of conversion of an analog image into digital form using the techniques of sampling & quantization and analyze color image processing.	1, 2
2	Identify the types of filtering techniques that are useful to enhance an image.	2,3
3	Restore the image in the presence of noise by using modern software of restoration.	4
4	Use the techniques of morphological image processing techniques in Binary images, image segmentation and edge detection in images.	4, 5
5	Apply the techniques of Image compression, feature extraction and pattern matching.	5, 6

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 8th**

Subject Name (Code): Data Compression (RCS-087)

S No.	Course Outcomes	BL
Student will be able to:		
1	Understand and explain the basic concept of information theory and modeling.	1,2,3
2	Understand and implement generic compression algorithms.	1,2,3
3	Implement and apply various image compression techniques.	3,4
4	Understand the concept of distortion and quantization.	1,2
5	Understand advanced quantization techniques.	1,2,3

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Session: 2019-20 **Semester: 8th**

Subject Name (Code): Seminar (RCS-851)

S No.	Course Outcomes	BL
Student will be able to:		
1	Identify and analyze the real world problems and explore them.	1, 2
2	Students will demonstrate the ability to discern the assignment's intended audience and objectives and respond appropriately.	2,3
3	Acquire awareness on latest technology and current trends	4
4	Participate in discussions for enhancement of knowledge	4, 5
5	Adapt Professional ethics.	5,6

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create

Session: 2019-20 **Semester: 8th**

Subject Name (Code): Project (RCS-852)

S No.	Course Outcomes	BL
Student will be able to:		
1	Develop and describe the idea	6
2	Formulate clear work plan and procedures	5
3	Demonstrate skills and knowledge of state-of-the-art and technological tools and techniques	5
4	Design and apply modern tools for designing and drafting	6
5	Compose and defend report using effective written and visual communication and presentation.	5

BL-1: Remember
BL-2: Understand
BL-3: Apply
BL-4: Analyze
BL-5: Evaluate
BL-6: Create