EAST POINT COLLEGE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Course Outcomes-2018 Scheme

Sl. No.	Subject Code	Course Code	Course Outcomes
1	18MAT11 Calculus And Linear Algebra	C101.1	Apply the knowledge of calculus to solve problems related to polar curves and it's application in determining the bentness of a curve.
		C101.2	Learn the motion of partial differentiation to calculate the rate of change of multivariate functions, composite functions and Jacobians.
		C101.3	Apply the concept of change of order of integration and variables to evaluate multiple integrals and their usage in computing the area and volumes.
		C101.4	Solve first order linear/nonlinear differential equation analytically using standard methods.
		C101.5	Make use of Matrix theory for system of linear equations and compute Eigen values and Eigen vectors required for Matrix diagonalization process.

Sl. No.	Subject Code	Course Code	Course Outcomes
2	18PHY12 Engineering Physics	C102.1	Understand various types of oscillations and the implications, the role of Shockwaves in various fields and recognize the elastic properties of materials for engineering applications
		C102.2	Realize the interrelation between time varying electric field and magnetic field, the transverse nature of the EM waves and the acrolein optical fibre communication
		C102.3	Compute Eigen values, Eigen function, momentum of atomic and subatomic particles using Time independent 1-D Schrodinger's wave equations.
		C102.4	Apprehend theoretical background of laser, construction and working of different types of laser and its applications in different fields
		C102.5	Under various electrical and thermal properties like conductors, semiconductors and dielectrics using different theoretical models

Sl. No.	Subject Code	Course Code	Course Outcomes
3		C103.1	Analyse A.C and D.C Circuit
		C103.2	Explain the principle of operation and construction of single phase transformers.

	18ELE13 Basic Electrical Engineering	C103.3	Explain the principle of operation and construction of DC Machines and Synchronous Machines.
		C103.4	Explain the principle of operation and construction of 3 phase Induction Motors.
		C103.5	Discuss the concept of electrical wiring, circuit protecting devices and earthing.

Sl. No.	Subject Code	Course Code	Course Outcomes
4	18CIV14 Elements Of Civil Engineering And Mechanics	C104.1	Mention the applications of various fields of Civil Engineering.
		C104.2	Compute the resultant of given force system subjected to various loads.
		C104.3	Comprehend the action of Forces, Moments and other loads on systems of rigid bodies and compute the reactive forces that develop as a result of the external loads
		C104.4	Locate the Centroid and compute the Moment of Inertia of regular and built-up sections.
		C104.5	Express the relationship between the motion of bodies and analyse the bodies in motion.

Sl. No.	Subject Code	Course Code	Course Outcomes
5	18EGDL15 Engineering graphics	C105.1	Prepare Engineering drawings as per BIS conventions mentioned in the relevant codes
		C105.2	Produce computer generated drawings using CAD software.
		C105.3	Use the knowledge of orthographic projections to represent Engineering information / concepts and present the same in the form of drawings
		C105.4	Convert Pictorial and isometric views of simple objects to orthographic views.

Sl. No.	Subject Code	Course Code	Course Outcomes
6	18PHYL16 Engineering Physics Lab	C106.1	Identify the common electrical components and measuring instruments used for conducting experiments in the electrical laboratory.
		C106.2	Compare Power factor of Lamps.
		C106.3	Determine impedance of electrical circuit and power consumed in 3-phase load.
		C106.4	Determine earth resistance and understand two way and three way of control of lamps

Sl. No.	Subject Code	Course Code	Course Outcomes
7	18ELEL17 Basic Electrical Engineering Lab	C107.1	Identify the common electrical components and measuring instruments used for conducting experiments in the electrical laboratory.
		C107.2	Compare Power factor of Lamps.
		C107.3	Determine impedance of electrical circuit and power consumed in 3-phase load.
		C107.4	Determine earth resistance and understand two way and three way of control of lamps

Sl. No.	Subject Code	Course Code	Course Outcomes
		C107.5	

Sl. No.	Subject Code	Course Code	Course Outcomes
8	18EGH18 Technical English	C108.1	Understand and apply the Fundamentals of Communication Skills in their communication skills.
		C108.2	Identify the nuances of phonetics, intonation and enhance pronunciation skills
		C108.3	To impart basic English grammar and essentials of language skills as per present requirement.
		C108.4	Understand and use all types of English vocabulary and language proficiency.
		C108.5	Adopt the Techniques of Information Transfer through presentation.

Sl. No.	Subject Code	Course Code	Course Outcomes
9	18MAT21 Advanced Calculus And Numerical Methods	C109.1	Solve first order linear/nonlinear differential equations analytically using standard methods.
		C109.2	Explain various physical models through higher order differential equations and solve such linear ordinary differential equations.
		C109.3	Understand a variety of partial differential equations and solution by exact methods/method of separation of variables.
		C109.4	Describe the applications of infinite series and obtain series solution of ordinary differential equations.
		C109.5	Apply the knowledge of numerical methods in the models of various physical and engineering phenomena.

Sl. No.	Subject Code	Course Code	Course Outcomes
10	18CHE22 Engineering Chemistry	C110.1	Use of free energy in equilibria, rationalize bulk properties and processes using thermodynamic consideration, electrochemical energy systems
		C110.2	Causes and effects of corrosion of metals and control of corrosion. Modification of surface properties of metals to develop resistance to corrosion, wear, tear, impact etc by electroplating and electroless plating.
		C110.3	Production and consumption of energy for industrialization of country and living standards of people. Electrochemical and concentration cells. Classical, Modern batteries and fuel cells. Utilization of solar energy for different useful forms of energy.
		C110.4	Environmental pollution, waste management and water chemistry.
		C110.5	Different techniques of instrumental methods of analysis. Fundamentals principles of nanomaterials.

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11	18CPS23 Problem Solving	C111.1	Illustrate simple algorithms from the different domains such as mathematics, physics, etc.

	Through C Programming	C111.2	Construct a programming solution to the given problem using C
		C111.3	Identify and correct the syntax and logical errors in C programs.
		C111.4	Modularize the given problem using functions and structures.
		C111.5	Introduction to printers and structures

Sl. No.	Subject Code	Course Code	Course Outcomes
12	18ELN24 Basic Electronics	C112.1	Describe the operation of diodes, BJT, FET and Operational Amplifiers.
		C112.2	Design and explain the construction of rectifiers, regulators, amplifiers and oscillators.
		C112.3	Describe general operating principles of Scars and it's application.
		C112.4	Explain the working and design of Fixed voltage IC regulator using 7805 and A stable oscillator using Timer IC 555.
		C112.5	Explain the different number system and their conversions and construct simple combinational and sequential logic circuits using Flip-Flops.
		C112.6	Describe the basic principle of operation of communication system and mobile phones

Sl. No.	Subject Code	Course Code	Course Outcomes
13	18EME25 Engineering Graphics	C113.1	Identify different sources of energy and their conversion process.
		C113.2	Explain the working principle of hydraulic turbines, pumps, IC engines and refrigeration.
		C113.3	Recognize various metal joining processes and power transmission elements.
		C113.4	Understand the properties of common engineering materials and their applications in engineering industry.
		C113.5	Discuss the working of conventional machine tools, machining processes, tools and accessories

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14	18CHEL26 Engineering Chemistry Lab	C114.1	Handling different types of instruments for analysis of materials using small quantities of materials involved for quick and accurate results
		C114.2	Carrying out different types of titrations for
		C114.3	Analyse and interpret data of the experiments.

Sl. No.	Subject Code	Course Code	Course Outcomes
15	18CPL27 C Programming Lab	C115.1	Write algorithms, flowcharts and program for simple problems.
		C115.2	Correct syntax and logical errors to execute a program.
		C115.3	Write iterative and wherever possible recursive programs.
		C115.4	Demonstrate use of functions, arrays, strings.
		C115.5	Introduction to printers and structures

Sl. No.	Subject Code	Course Code	Course Outcomes
16	18EGH28-II Technical English	C116.1	Understand and apply the Fundamentals of Communication Skills in their communication skills.
		C116.2	Identify the nuances of phonetics, intonation and enhance pronunciation skills
		C116.3	To impart basic English grammar and essentials of language skills as per present requirement.
		C116.4	Understand and use all types of English vocabulary and language proficiency.
		C116.5	Adopt the Techniques of Information Transfer through presentation.

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17	18MAT31 Engineering Mathematics-III	C201.1	Use Laplace transform and inverse Laplace transform in solving differential/ integral equation arising in network analysis, control systems and other fields of engineering.
		C201.2	Demonstrate Fourier series to study the behaviour of periodic functions and their applications in system communications, digital signal processing and field theory.
		C201.3	Solve first and second order ordinary differential equations arising in engineering problems using single step and multistep numerical methods
		C201.4	Determine the externals of functionals using calculus of variations and solve problems arising in dynamics of rigid bodies and vibrational analysis.

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18	18CS32 Data Structures and Applications	C202.1	Explain different data structures, operations and algorithms
		C202.2	Make use of stack , queue, lists, trees and graphs in problem solving
		C202.3	Develop all data structures in a high level language for problem solving
		C202.4	Apply Searching and sorting operations on file
		C202.5	Apply appropriate hashing technique and hash function for data storage and retrival

Sl. No.	Subject Code	Course Code	Course Outcomes
19	18CS33 Analog and Digital Electronics	C203.1	Understand the operation of JFETs and MOSFETs , Operational Amplifier circuits and their application.
		C203.2	Understand Combinational Logic, Simplification Techniques using Karnaugh Maps, Quine McClusky technique.
		C203.3	Demonstrate Operation of Decoders, Encoders, Multiplexers, Adders and Subtractors.
		C203.4	Illustrate the operation of Latches, Flip-Flops.

Sl. No.	Subject Code	Course Code	Course Outcomes
		C203.5	Design of Counters, Registers and A/D & D/A converters.

Sl. No.	Subject Code	Course Code	Course Outcomes
20	18CS34 Computer Organization	C204.1	Illustrate the basic organization of a computer system.
		C204.2	Demonstrate the functioning of different sub systems of computer such as processor, Input/ Output and memory.
		C204.3	Explain the concepts of memory system
		C204.4	Interpret and build simple arithmetic and logic units
		C204.5	Illustrate hardwired control and micro programmed control, pipelining, embedded and other computing systems.

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21	18CS35 Software Engineering	C205.1	Design a software system, component, or process to meet desired needs within realistic constraints.
		C205.2	Assess professional and ethical responsibility.
		C205.3	Function on multi-disciplinary teams.
		C205.4	Use the techniques, skills, and modern engineering tools necessary for engineering practice.
		C205.5	Analyse, design, implement, verify, validate, implement, apply, and maintain software systems or parts of software systems.

Sl. No.	Subject Code	Course Code	Course Outcomes
22	18CS36 Discrete Mathematical Structures	C206.1	Use propositional and predicate logic in knowledge representation and truth verification.
		C206.2	Demonstrate the application of discrete structures in different fields of computer science.
		C206.3	Solve problems using recurrence relations and generating functions.
		C206.4	Application of different mathematical proofs techniques in proving theorems in the courses.
		C206.5	Compare graphs, trees and their applications.

Sl. No.	Subject Code	Course Code	Course Outcomes
23	18CSL37 Analog and Digital Electronics Laboratory	C207.1	Demonstrate various Electronic Devices like Cathode ray Oscilloscope, Signal generators, Digital Trainer Kit, Multimeters and components like Resistors, Capacitors, Op amp and Integrated Circuit.
		C207.2	Design and demonstrate various combinational logic circuits
		C207.3	Design and demonstrate various types of counters and Registers using Flip-flops.
		C207.4	Illustrate the use simulation package to design circuits.

		C207.5	Demonstrate the working and implementation of ALU.

Sl. No.	Subject Code	Course Code	Course Outcomes
24	18CSL38 Data Structures Laboratory	C208.1	Code, debug and demonstrate the working nature of array operations
		C208.2	Make use stacks, queues in problem solving
		C208.3	Code, debug and demonstrate the working of different types of lists
		C208.4	Apply graph traversal methods in problem solving
		C208.5	Apply appropriate hasing technique to avoid collision

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25	18KVK39 Vyavaharika Kannada	C209.1	Impart and motivate them to learn the State Language with ease and confidence enabling for better communication skills.
		C209.2	Orient and enhance the knowledge of the language basics and grammar the bridge course sessions are conducted by the language department.
		C209.3	Develop and sharpen interpersonal and communication skills
		C209.4	Train the students effectively in the learning process of Kannada language and literature.
		C209.5	Enable the learners with the history, evolution ,literary movements and development of literary forms in Kannada literature to inculcate the ethical values of life .

Sl. No.	Subject Code	Course Code	Course Outcomes
26	18MAT41 Complex Analysis, Probability And Statistical Methods Prof. Gowthami	C210.1	Use the concepts of analytic function and complex potentials to solve the problems arising in electromagnetic field theory.
		C210.2	Utilize conformal transformation and complex integral in aerofoil theory, fluids flow visualization and image processing.
		C210.3	Apply discrete and continuous probability distributions in analysing the probability models arising in engineering field.
		C210.4	Make use of the correlation and regression analysis to fit a suitable mathematical model for the statistical data.
		C210.5	Solve exponential problems using Backtracking and Branch & bound technique.

Sl. No.	Subject Code	Course Code	Course Outcomes
27	18CS42	C211.1	Illustrate the analysis framework of Algorithms and usage of

	Design And Analysis Of Algorithms		asymptotic notations.
		C211.2	Solve and analyze problems like sorting and searching using Divide and Conquer technique.
		C211.3	Devise and analyze algorithms for problems using greedy technique
		C211.4	Devise and analyze algorithms for problems using Dynamic programming.
		C211.5	Solve exponential problems using Backtracking and Branch & bound technique.

Sl. No.	Subject Code	Course Code	Course Outcomes
28	18CS43 Operating Systems	C212.1	Understand the operating system concepts and types of operating system
		C212.2	Apply Suitable techniques for management of different resources
		C212.3	Demonstrate deadlock and memory management techniques
		C212.4	Analyze effectively memory management concepts
		C212.5	Illustrate various protection and security measure

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29	18CS44 Microcontroller And Embedded Systems	C213.1	Describe the architectural features and instructions of ARM microcontroller
		C213.2	Apply the knowledge gained for Programming ARM for different applications.
		C213.3	Interface external devices and I/O with ARM microcontroller and Interpret the basic hardware components and their selection method based on the characteristics
		C213.4	Develop the hardware /software co-design and firmware design approaches.
		C213.5	Demonstrate the need of real time operating system for embedded system applications

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30	18CS45 Objected Oriented Concepts	C214.1	Understand and apply the concept of Object-Oriented Programming, features and its structure to solve real-world problems.
		C214.2	Install Java JDK environment to create, debug and run simple Java programs.
		C214.3	Analyse java programs using classes, inheritance and exception handling and multi-threaded programming.
		C214.4	Design the application programs using applet and event handling mechanisms.
		C214.5	Develop simple GUI interfaces for a computer program to interact with users and to understand the event-based GUI handling principles using swings.

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31	18CS46 Data Comunication	C215.1	Demonstrate the various components of data communication.
		C215.2	Illustrate the fundamentals of digital communication and switching.
		C215.3	Analyze the Switching and various Error Detection and Correction mechanisms.
		C215.4	Explain data link layer protocols.
		C215.5	Summarize IEEE 802.xx standards.

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32	18CSL47 Design And Analysis Of Algorithms Lab	C216.1	Apply object oriented concepts such as polymorphism, inheritance, multithreaded exception handling to solve real time problems using Java language
		C216.2	Implement and measure performance of various sorting problems using Divide and Conquer technique.
		C216.3	Implement and measure performance of knapsack, shortest path problems using greedy technique.
		C216.4	Design and implement algorithms for problems using Dynamic programming.
		C216.5	Design and implement exponential problems using Backtracking and Branch & bound technique.

Sl. o	Subject Code	Course Code	Course Outcomes
33	18CSL48 Microcontroller And Embedded Systems Lab	C217.1	Summarize 80x86 instruction set and comprehend the knowledge of how assembly language works.
		C217.2	Design and develop assembly programs using 8086 assembly language instructions.
		C217.3	Infer functioning of hardware devices and interfacing them to x86 family.
		C217.4	Choose processors for various kinds of applications.
		C217.5	Interface various hardware to ARM microcontroller using Keil software.

Sl. No.	Subject Code	Course Code	Course Outcomes
34	18CPH39 Constitution of India,	C218.1	Have the general knowledge and legal literacy and thereby to take up competative examinations.
		C218.2	Understand state and central policies, fundamental duties.

	Professional Ethics and Human Rights	C218.3	Understand electoral process and special provisions
		C218.4	Understand powers and functions of municipalities, Panchayats and Co-operative Societies and understand engineering ethics and responsibilities of engineers.
		C218.5	Have an awareness about basic human rights in India.

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35	18CS51 Management Entrepreneurship For It Industry	C301.1	Understand the basic concepts of management, planning, Organizing and Staffing
		C301.2	Summarize the appropriate leadership styles, motivation theories, communications, Coordination and controlling, methods
		C301.3	Interpret the meaning of entrepreneur, entrepreneurship and role in economic development on India. Along with Identification of business opportunities and feasibility study
		C301.4	Inferring the new ideas, Prepare project report based on guidelines of planning commission by utilizing the resources available effectively through ERP
		C301.5	Understand the IPRs and institutional support in Micro and Small Enterprises as per the Indian Industrial Policy 2007

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36	18CS52 Computer Network Security	C302.1	Explain the principles of application layer protocols HTTP, FTP, SMTP and DNS.
		C302.2	Recognize the transport layer services and infer UDP and TCP protocols.
		C302.3	Classify the router architecture, Internet Protocol, and routing algorithms in network layer.
		C302.4	Analyze the network security, the various encryption, decryption and key exchange algorithms.
		C302.5	Understand the Multimedia network applications, audio, video streaming and Network management.

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37	18CS53 Database Management Systems	C303.1	Design an ER model for a given example from real world description
		C303.2	Design relational models for a given application using schema definition and Constraints
		C303.3	Develop complex queries using SQL to retrieve the required information from database.
		C303.4	Apply suitable normal forms to normalize the given database

Sl. No.	Subject Code	Course Code	Course Outcomes
		C303.5	Determine the roles of concurrency control in database design.

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38	18CS54 Automata Theory And Computability	C304.1	Explain the fundamental concepts in automata theory and formal languages, Illustrate basics of finite automata and Compiler design.
		C304.2	Demonstrate and apply the concepts of Regular Expressions in the design and development of lexical analyzers.
		C304.3	Construct Grammars for different language classes and demonstrate its applications in the design of Parser.
		C304.4	Build Push down Automata to recognize context free languages and develop bottom-up parsers for any given Context free grammars.
		C304.5	Demonstrate the working principle of Turing machine and its variance, illustrate the compiler phases in generating target code.

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39	18CS55 Application Development Using Python	C305.1	Learn and understand the syntax and semantics of Python and to create functions
		C305.2	Demonstrate the concepts of loops and strings in Python.
		C305.3	Interpret core data structures like lists, dictionaries, tuples and apply in programming using regular expressions.
		C305.4	Apply object-oriented concept in Python programming
		C305.5	Build exemplary applications related to network programming, web services & Database

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40	18CS56 Unix Programming	C306.1	Demonstrate basic Unix commands & to explain the Architecture & file system of UNIX.
		C306.2	Implement shell programs.
		C306.3	Demonstrate Unix system calls & Unix process creation.
		C306.4	Categorize different IPC methods
		C306.5	Understand the concepts of Signal & Daemon processes.

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41	18CSL57 Computer Networks Lab	C307.1	Evaluate the performance of Ethernet LAN and Wireless LAN through simulation.
		C307.2	Evaluate the performance of GSM and CDMA model through simulation.
		C307.3	Develop Java programs for CRC and RSA algorithms.

		C307.4	Develop Java programs for socket programming using TCP and UDP.
		C307.5	Develop Java programs for Bellman-Ford and Leaky Bucket algorithms.

Sl. No.	Subject Code	Course Code	Course Outcomes
42	18CSL58 DBMS Lab	C308.1	Apply the database concepts, technology and create the relations by specifying primary and foreign keys.
		C308.2	Construct a database by using data definition, data manipulation and control languages.
		C308.3	Design a Database application and retrieve the values with the help of queries using SQL.
		C308.4	Implement, analyze and evaluate the Trigger, Cursor and Procedure Concepts
		C308.5	Implement, analyze and evaluate the project developed for an application

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42	18CIV59 Environmental Studies	C309.1	Understand the principles of ecology and environmental issues that apply to air,land, and water issues on a global scale
		C309.2	Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment,
		C309.3	Demonstrate ecology knowledge of a complex relationship between biotic and abiotic components
		C309.4	Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues

Sl. No.	Subject Code	Course Code	Course Outcomes
43	18CS61 System Software and Compilers	C310.1	Apply the knowledge of System Software such as Assemblers, to compare the architectures and generate object code.
		C310.2	Explain the different phases of compilers and develop lexical analysers.
		C310.3	Analyse the given grammar and design parser using different approaches
		C310.4	Implement and Demonstrate lexer and parser using LEX and YACC tools
		C310.5	Apply the knowledge of synthesis phase and analyse the correlation between syntax tree and code generation.

Sl. No.	Subject Code	Course Code	Course Outcomes
44	18CS62 Computer Graphics and Visualization	C311.1	Explain various graphics devices
		C311.2	Implement algorithms for line drawing, circle drawing and polygon filling
		C311.3	Apply geometrical transformation on 2D and 3D objects
		C311.4	Analyze and implement algorithms for clipping
		C311.5	Develop various projection techniques on 3D objects

Sl. No.	Subject Code	Course Code	Course Outcomes
45	18CS63 Web Technology and its applications	C312.1	Define HTML and CSS syntax and semantics to build web pages.
		C312.2	Understanding the concepts of Construct, visually format tables and forms using HTML & CSS.
		C312.3	Develop Client-Side Scripts using JavaScript and Server-Side Scripts using PHP to generate and display the contents dynamically
		C312.4	List the principles of object oriented development using PHP
		C312.5	Illustrate JavaScript frameworks like jQuery and Backbone which facilitates developer to focus on core features.

Sl. No.	Subject Code	Course Code	Course Outcomes
46	18CS643 Cloud Computing and its Applications	C313.1	Understand the basic principles of cloud computing, virtualization and apply in categorizing the services of cloud computing.
		C313.2	Apply the cloud computing setup with vulnerabilities and applications using different architectures.
		C313.3	Analyze the various distributed programming paradigms in cloud computing
		C313.4	Design the various applications in cloud computing.
		C313.5	Study the latest Cloud platforms in Industry and apply in Various Domains

Sl. No.	Subject Code	Course Code	Course Outcomes
47	18ME653 Supply Chain Management	C314.1	Understand the framework and scope of supply chain management.
		C314.2	Analyze competitive supply chain using strategies, models, techniques and information technology.
		C314.3	Plan the demand, inventory and supply and optimize supply chain network.
		C314.4	Explain the emerging trends and impact of IT on Supply chain.
		C314.5	Describe about E-business

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48	18CSL66	C315.1	Implement and demonstrate the scanning process using Lex tool.

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	System Software Laboratory	C315.2	Develop and demonstrate the parsing techniques using YACC tool or C programming.
		C315.3	Implement and demonstrate intermediate code generation using Triples representation.
		C315.4	Evaluate different algorithms required for CPU scheduling and deadlock.
		C315.5	Implement and demonstrate the scanning process using Lex tool.

Sl. No.	Subject Code	Course Code	Course Outcomes
49	18CSL67 Computer Graphics Laboratory with mini project	C316.1	Demonstrate simple algorithms using OpenGL Graphics Primitives and attributes.
		C316.2	Demonstrate line drawing and clipping algorithms using OpenGL functions.
		C316.3	Demonstrate 2D and 3D Geometric transformations using OpenGL functions.
		C316.4	Demonstrate computer graphics applications using OpenGL
		C316.5	Make use of OpenGL functions to animate real world problems

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50	18CSMP68 Mobile Application Development	C317.1	Create, test and debug Android application by setting up Android development environment.
		C317.2	Implement adaptive, responsive user interfaces that work across a wide range of devices.
		C317.3	Infer long running tasks and background work in Android applications.
		C317.4	Demonstrate methods in storing, sharing and retrieving data in Android applications.
		C317.5	Infer the role of permissions and security for Android applications.

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51	18CS71 Artificial Intelligence & Machine Learning	C401.1	To develop skills of using AI technique for solving problems.
		C401.2	To identify learning concepts with real time scenario.
		C401.3	To analyze and design the decision trees using ML algorithm and ANN for real world problems.
		C401.4	To understand & analyse the theory of probability and statistics related to machine learning.
		C401.5	To investigate instance-based learning through Regression techniques.

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52	18CS72 Big Data Analytics	C402.1	Understand and Interpret the basics of big data analytics parallel processing, designing data architecture, storing and analysing the big data along with application and case studies.

		C402.2	Comprehend and implement HDFS and Map Reduce design using Hadoop tools.
		C402.3	Study and Manipulate big data basic architecture patterns of NoSQL, MongoDB and Cassandra.
		C402.4	Manipulate Map Reduce programming model to process the Big Data with query languages.
		C402.5	Apply machine learning algorithms in big data analytics for text mining, web and social network analytics.

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53	18CS734 User Interface Design	C403.1	Understand the Importance of User Interface, Characteristics of Graphical and Web Interfaces.
		C403.2	Learn obstacles in User Interface Design, Human Characteristics, Business Requirements and Standards.
		C403.3	Study System menus, Navigation Schemes and Kinds of Graphical Menus.
		C403.4	Understand Windows Characteristics such as Components of window, Window presentation styles, Types of windows, Organizing window functions and web systems.
		C403.5	Study Screen based controls which include operable control, Text control, selection control, custom control and presentation control.

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54	18CS745 Robotic Process Automation	C404.1	Recognize the basic concept of RPA with its application.
		C404.2	Understand different components and service providers of RPA. Familiarize the usage of Uipath Studio
		C404.3	Demonstrate the concept of sequence, flowcharts, control flow, data manipulation and excel automation with examples.
		C404.4	Describe different control methods and OCR in RPA
		C404.5	To Describe various types and strategies to handle exceptions.

Sl. No.	Subject Code	Course Code	Course Outcomes
55	18CS751 Energy & Environment	C405.1	Understand energy scenario, energy sources and their utilization.
		C405.2	Understand various methods of energy storage, energy management and economic analysis.
		C405.3	Analyse the awareness about environment and ecosystem.
		C405.4	Understand the environment pollution along with social issues and acts.

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56	18CSL76 Artificial	C406.1	Apply the knowledge of Machine learning, AI and other related subjects to develop software solutions.

Sl. No.	Subject Code	Course Code	Course Outcomes
	Intelligence & Machine Learning Lab	C406.2	Able to assess the significance of a complex AI problem and analyse its characteristics
		C406.3	Understand the Neural Networks and its usage in machine learning application..
		C406.4	Able to Compare the approaches applicable to solve a complex problem and identify an effective solution for the societal and environmental constraints..
		C406.5	Able to apply modern tools and algorithms for problem solving and validate the results through scientific approach

Sl. No.	Subject Code	Course Code	Course Outcomes
57	18CSP78 Project Phase-1	C407.1	Comprehend a complex engineering problem while considering technical, ethical, and social issues.
		C407.2	Identify the limitations of existing solutions with the focus on design techniques and environmental factors.
		C407.3	Implement the technical solution by adopting modern tools and techniques, while analyzing the technical feasibility and cost effectiveness.
		C407.4	Ability to work and communicate effectively as an individual and in a team in designing, developing, testing and documenting the solution.
		C407.5	Validate the system in terms of applications in user's environment while improving personal development and enhance the opportunities for life-long learning.

Sl. No.	Subject Code	Course Code	Course Outcomes
58	18CS81 Internet of Things	C408.1	Interpret the impact and challenges posed by IoT networks leading to new architectural models
		C408.2	Compare and contrast the deployment of smart objects and the technologies to connect them to network
		C408.3	Appraise the role of IoT protocols for efficient network communication
		C408.4	Elaborate the need for Data Analytics and Security in IoT
		C408.5	Illustrate different sensor technologies for sensing real world entities and identify the applications of IoT in Industry.

Sl. No.	Subject Code	Course Code	Course Outcomes
59	18CS822 Storage Area Networks	C409.1	Identify key challenges in managing information and analyze different storage networking technologies and virtualization
		C409.2	Explain components and the implementation of NAS
		C409.3	Describe CAS architecture and types of archives and forms of virtualization
		C409.4	Illustrate the storage infrastructure and management activities

Sl. No.	Subject Code	Course Code	Course Outcomes
60	18CSP83 Project Phase-2	C410.1	Comprehend a complex engineering problem while considering technical, ethical, and social issues.
		C410.2	Identify the limitations of existing solutions with the focus on design techniques and environmental factors.
		C410.3	Implement the technical solution by adopting modern tools and techniques, while analyzing the technical feasibility and cost effectiveness.
		C410.4	Ability to work and communicate effectively as an individual and in a team in designing, developing, testing and documenting the solution.
		C410.5	Validate the system in terms of applications in user's environment while improving personal development and enhance the opportunities for life-long learning.

Sl. No.	Subject Code	Course Code	Course Outcomes
61	18CSS84 Technical Seminar	C411.1	Highlight the objectives of the Seminar by considering the ethics and social impact.
		C411.2	Identify the application of seminar which solves the real time issues
		C411.3	Discussing the real time issues improves the oral and communication skills
		C411.4	Explore an appreciation of the self in relation to its larger diverse social and academic contexts.
		C411.5	Compose and present the project report, Apply principles of ethics and respect in interaction with others.

Sl. No.	Subject Code	Course Code	Course Outcomes
62	18CSI85 Internship	C412.1	Make use of Modern tools
		C412.2	Adapt easily to the industry environment
		C412.3	Take part in team work
		C412.4	Decide upon project planning
		C412.5	Motivate for lifelong learning