



SRTCT'S
**SUMAN RAMESH TULSIANI TECHNICAL CAMPUS – FACULTY
 OF ENGINEERING, KHAMSHET**
 An ISO 9001:2015 Certified Institute

Suman Ramesh Tulsiani Technical Campus Faculty of Engineering
Department of Computer Engineering
Course Outcome (Batch 2019-23)

Academic Year 2019-20 First Year (Semester I)	
107001	Engineering Mathematics I
C101.1	Mean value theorems and its generalizations leading to Taylors and Maclaurin's series useful in the analysis of engineering problems.
C101.2	the Fourier series representation and harmonic analysis for design and analysis of periodic continuous and discrete systems.
C101.3	to deal with derivative of functions of several variables that are essential in various branches of Engineering.
C101.4	To apply the concept of Jacobian to find partial derivative of implicit function and functional dependence. Use of partial derivatives in estimating error and approximation and finding extreme values of the function.
C101.5	the essential tool of matrices and linear algebra in a comprehensive manner for analysis of system of linear equations, finding linear and orthogonal transformations, Eigen values and Eigen vectors applicable to engineering problems
107002	Engineering Physics
C102.1	Develop understanding of interference, diffraction and polarization; connect it to few engineering applications.
C102.2	Learn basics of lasers and optical fibers and their use in some applications.
C102.3	Understand concepts and principles in quantum mechanics. Relate them to some applications.
C102.4	Understand theory of semiconductors and their applications in some semiconductor devices.
C102.5	Summarize basics of magnetism and superconductivity. Explore few of their technological applications.
C102.6	Comprehend use of concepts of physics for Non Destructive Testing. Learn some properties of nanomaterials and their application.



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102003	Systems in Mechanical Engineering
C103.1	Describe and compare the conversion of energy from renewable and non-renewable energy sources
C103.2	Explain basic laws of thermodynamics, heat transfer and their applications
C103.3	List down the types of road vehicles and their specifications
C103.4	Illustrate various basic parts and transmission system of a road vehicle
C103.5	Discuss several manufacturing processes and identify the suitable process
C103.6	Explain various types of mechanism and its application
103004	Basic Electrical Engineering
C104.1	Differentiate between electrical and magnetic circuits and derive mathematical relation for self and mutual inductance along with coupling effect.
C104.2	Calculate series, parallel and composite capacitor as well as characteristics parameters of alternating quantity and phasor arithmetic
C104.3	Derive expression for impedance, current, power in series and parallel RLC circuit with AC supply along with phasor diagram.
C104.4	Relate phase and line electrical quantities in polyphase networks, demonstrate the operation of single phase transformer and calculate efficiency and regulation at different loading conditions
C104.5	Apply and analyze the resistive circuits using star-delta conversion KVL, KCL and different network theorems under DC supply.
C104.6	Evaluate work, power, energy relations and suggest various batteries for different applications, concept of charging and discharging and depth of charge.
110005	Programming and Problem Solving
C105.1	Inculcate and apply various skills in problem solving.
C105.2	Choose most appropriate programming constructs and features to solve the problems in diversified domains.
C105.3	Got the concept of Field survey and Aerial survey and able to solve Levelling problems.



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C105.4	Demonstrate significant experience with the Python program development environment.
111006	Workshop Practice
C106.1	Familiar with safety norms to prevent any mishap in workshop.
C106.2	Able to handle appropriate hand tool, cutting tool and machine tools to manufacture a job.
C106.3	Able to understand the construction, working and functions of machine tools and their parts.
C106.4	Able to know simple operations (Turning and Facing) on a centre lathe.
101006	Environmental Studies
107.1	Demonstrate an integrative approach to environmental issues with a focus on sustainability.
107.2	Explain and identify the role of the organism in energy transfers in different ecosystems.
107.3	Distinguish between and provide examples of renewable and nonrenewable resources & analyze personal consumption of resources.
107.4	Identify key threats to biodiversity and develop appropriate policy options for conserving biodiversity in different settings.
	First Year (Semester II)
107008	Engineering Mathematics II
C108.1	the effective mathematical tools for solutions of first order differential equations that model physical processes such as Newton's law of cooling, electrical circuit, rectilinear motion, mass spring systems, heat transfer etc.
C108.2	advanced integration techniques such as Reduction formulae, Beta functions, Gamma functions, Differentiation under integral sign and Error functions needed in evaluating multiple integrals and their applications.
C108.3	to trace the curve for a given equation and measure arc length of various curves.



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C108.4	the concepts of solid geometry using equations of sphere, cone and cylinder in a comprehensive manner.
C108.5	evaluation of multiple integrals and its application to find area bounded by curves, volume bounded by surfaces, Centre of gravity and Moment of inertia.
107009	Engineering Chemistry
C109.1	Apply the different methodologies for analysis of water and techniques involved in softening of water as commodity.
C109.2	Select appropriate electro-technique and method of material analysis.
C109.3	Demonstrate the knowledge of advanced engineering materials for various engineering applications.
C109.4	Analyze fuel and suggest use of alternative fuels.
C109.5	Identify chemical compounds based on their structure.
C109.6	Explain causes of corrosion and methods for minimizing corrosion.
104010:	Basic Electronics Engineering
C110.1	Explain the working of P-N junction diode and its circuits.
C110.2	Identify types of diodes and plot their characteristics and also can compare BJT with MOSFET
C110.3	Build and test analog circuits using OPAMP and digital circuits using universal/basic gates and Flip flops
C110.4	Use different electronics measuring instruments to measure various electrical parameters.
C110.5	Select sensors for specific applications.
C110.6	Describe basic principles of communication systems.
101011	Engineering Mechanics
C111.1	Determine resultant of various force systems
C111.2	Determine centroid, moment of inertia and solve problems related to friction
C111.3	Determine reactions of beams, calculate forces in cables using principles of equilibrium



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C111.4	Solve trusses, frames for finding member forces and apply principles of equilibrium to forces in space
C111.5	Calculate position, velocity and acceleration of particle using principles of kinematics
C111.6	Calculate position, velocity and acceleration of particle using principles of kinetics and Work, Power, Energy
102012	Engineering Graphics
C112.1	Draw the fundamental engineering objects using basic rules and able to construct the simple geometries.
C112.2	Construct the various engineering curves using the drawing instruments.
C112.3	Apply the concept of orthographic projection of an object to draw several 2D views and its sectional views for visualizing the physical state of the object.
C112.4	Apply the visualization skill to draw a simple isometric projection from given orthographic views precisely using drawing equipment.
C112.5	Draw the development of lateral surfaces for cut section of geometrical solids.
C112.6	Draw fully-dimensioned 2D, 3D drawings using computer aided drafting tools.
110013	Project Based Learning
C113.1	Project based learning will increase their capacity and learning through shared cognition.
C113.2	Students able to draw on lessons from several disciplines and apply them in practical way.
C113.3	Learning by doing approach in PBL will promote long-term retention of material and replicable skill, as well as improve teachers' and students' attitudes towards learning.
101014	Environmental Studies-II
C114.1	Have an understanding of environmental pollution and the science behind those problems and potential solutions.
C114.2	Have knowledge of various acts and laws and will be able to identify the industries that are violating these rules.



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C114.3	Assess the impact of ever increasing human population on the biosphere: social, economic issues and role of humans in conservation of natural resources
C114.4	Learn skills required to research and analyze environmental issues scientifically and learn how to use those skills in applied situations such as careers that may involve environmental problems and/or issues.
Academic Year 2020-21 Second Year (Semester III)	
210241	: Discrete Mathematics
C 201.1	Design and analyze real world engineering problems by applying set theory, propositional logic and mathematical induction
C 201.2	Develop skill in expressing mathematical properties of relation and function.
C 201.3	Identify number of logical possibilities of events to design professional engineering Solutions
C 201.4	Model and solve computing problem using tree and graph Analyze the properties of binary operations and evaluate the algebraic structure
C 201.5	Apply abstract algebra in combinatorics, coding theory and questions regarding geometric constructions
210243 Object Oriented Programming	
C 202.1	Analyze the strengths of object oriented programming
C 202.2	Design and apply OOP principles for effective programming
C 202.3	: Develop the application using object oriented programming language(C++)
C202.4	Apply object-oriented concepts for advanced programming.
210244	: Computer Graphics
C203.1	: Define basic terminologies of Computer Graphics, interpret the mathematical foundation of the concepts of computer graphics and apply mathematics to develop Computer programs for elementary graphic operations.



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C203.2	Explain the core concepts of computer graphics, including transformation in two and three dimensions, viewing and projection.
C203.3	Explain the concepts of color models, lighting, shading models and hidden surface elimination
C203.4	: Describe the fundamentals of curves, fractals, animation and gaming.
210245	Digital Electronics and Logic Design
C204.1	Simplify Boolean Expressions using K Map.
C204.2	Design and implement combinational circuits.
C204.3	Design and implement sequential circuits.
C204.4	Develop simple real-world application using ASM and PLD
C204.5	Choose appropriate logic families IC packages as per the given design specifications
C204.6	Explain organization and architecture of computer system
210242	Fundamentals of Data Structures
C205.1	To demonstrate a detailed understanding of behaviour of data structures like array, linked list, stack, and queue by developing programs.
C205.2	To use appropriate algorithmic strategy for better efficiency
C205.3	To summarize data searching and sorting techniques.
C205.4	To discriminate the usage of various structures in approaching the problem solution
C205.5	To analyze and use effective and efficient data structures in solving various Computer Engineering domain problems
C205.6	To design the algorithms to solve the programming problems



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210246	: Humanity & Social Science
C206.1	Aware of the various issues concerning humans and society.
C206.2	Aware about their responsibilities towards society.
C206.3	Sensitized about broader issues regarding the social, cultural, economic and human aspects, involved in social changes.
C206.4	Able to understand the nature of the individual and the relationship between self and the community
C206.5	Able to understand major ideas, values, beliefs, and experiences that have shaped human history and cultures.
210251	Audit Course 3
C207.1	Encourage studentst to register for atleast one course through NPTEL and SWAYAM platform
C207.2	Develop the soft skills and personality development among the students
C207.3	To motivate students for undertaking green construction projects, technical aspects of their design, obstacles to getting them done, and future directions of the field.
	Second Year (Semester IV)
207002	Engineering Mathematics - III
C208.1	SOLVE higher order linear differential equations and its applications to model and analyze mass spring systems.
C208.2	APPLY Integral transform techniques such as Laplace transform and Fourier transform to solve differential equations involved in vibration theory, heat transfer and related mechanical engineering applications.
C208.3	APPLY Statistical methods like correlation, regression in analyzing and interpreting experimental data applicable to reliability engineering and probability theory in testing and quality control.
C208.4	PERFORM Vector differentiation & integration, analyze the vector fields and APPLY to fluid flow problems.
C208.5	SOLVE Partial differential equations such as wave equation, one and two dimensional heat flow equations.
C208.6	Solve various partial differential equations such as wave Equation, one and two dimensional heat flow equations.
210252	Data Structures and Algorithms



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C209.1	:Identify and articulate the complexity goals and benefits of a good hashing scheme for real world applications.
C209.2	:Apply non-linear data structures for solving problems of various domain. CO3:Design and specify the operations of a nonlinear-based abstract data type and implement them in a high-level programming language.
C209.3	:Analyze the algorithmic solutions for resource requirements and optimization CO5:Use efficient indexing methods and multiway search techniques to store and maintain data. CO6:Use appropriate modern tools to understand and analyze the functionalities confined to the secondary storage
210253:	Software Engineering
C210.1	: Analyze software requirements and formulate design solution for a software. CO2: Design applicable solutions in one or more application domains using software engineering approaches that integrate ethical, social, legal and economic concerns.
C210.2	Apply new software models, techniques and technologies to bring out innovative and novelistic solutions for the growth of the society in all aspects and evolving into their continuous professional development.
C210.3	: Model and design User interface and component-level.
C210.4	Identify and handle risk management and software configuration management.
C210.5	Utilize knowledge of software testing approaches, approaches to verification and validation
C210.6	Construct software of high quality – software that is reliable, and that is reasonably easy to understand, modify and maintain efficient, reliable, robust and cost-effective software solutions.
210254	Microprocessor
C211.1	: Exhibit skill of assembly language programming for the application
C211.2	: Classify Processor architectures
C211.3	Illustrate advanced features of 80386 Microprocessor.
C211.4	: Compare and contrast different processor modes
C211.5	: Use interrupts mechanism in applications
C211.6	: Differentiate between Microprocessors and Microcontrollers.: Identify and analyze the tools and techniques used to design, implement, and debug microprocessor-based systems
210255	Principles of Programming Languages



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C212.1	Make use of basic principles of programming languages.
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C212.2	Develop a program with Data representation and Computations
C212.3	Develop programs using Object Oriented Programming language : Java
C212.4	: Develop application using inheritance, encapsulation, and polymorphism.
C212.5	Demonstrate Multithreading for robust application development.
C212.6	Develop a simple program using basic concepts of Functional and Logical programming paradigm

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210256	Data Structures and Algorithms Laboratory
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C213.1	Understand the ADT/libraries, hash tables and dictionary to design algorithms for a specific problem.
C213.2	Choose most appropriate data structures and apply algorithms for graphical solutions of the problems.
C213.3	: Apply and analyze non linear data structures to solve real world complex problems.
C213.4	Apply and analyze algorithm design techniques for indexing, sorting, multi-way searching, file organization and compression.
C213.5	: Analyze the efficiency of most appropriate data structure for creating efficient solutions for engineering design situations.

210257	Microprocessor Laboratory
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C 214.1	Understand and apply various addressing modes and instruction set to implement assembly language programs
C 214.2	. Apply logic to implement code conversion
C 214.3	Analyze and apply logic to demonstrate processor mode of operation



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Academic Year 2021-22 Third Year (Semester V)	
310241	Database Management Systems
C301.1	Analyze and design Database Management System using ER model
C301.2	Implement database queries using database languages
C301.3	Normalize the database design using normal forms
C301.4	Apply Transaction Management concepts in real-time situations
C301.5	Use NoSQL databases for processing unstructured data
C301.6	Differentiate between Complex Data Types and analyze the use of appropriate data types
310242	: Theory of Computation
C302.1	Understand formal language, translation logic, essentials of translation, alphabets, language representation and apply it to design Finite Automata and its variants
C302.2	Construct regular expression to present regular language and understand pumping lemma for RE
C302.3	Design Context Free Grammars and learn to simplify the grammar
C302.4	Construct Pushdown Automaton model for the Context Free Language
C302.5	Design Turing Machine for the different requirements outlined by theoretical computer science
C302.6	Understand different classes of problems, classify and analyze them and study concepts of NP completeness
:310243	Systems Programming and Operating System
C303.1	Analyze and synthesize basic System Software and its functionality.



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C303.2	Identify suitable data structures and Design & Implement various System Software
C303.3	Compare different loading schemes and analyze the performance of linker and loader
C303.4	Implement and Analyze the performance of process scheduling algorithms

C303.5	Identify suitable data structures and Design & Implement various System Software
C303.6	Compare different loading schemes and analyze the performance of linker and loader
C303.7	Implement and Analyze the performance of process scheduling algorithms
C303.8	Identify the mechanism to deal with deadlock and concurrency issues
C303.9	Demonstrate memory organization and memory management policies

310244: Computer Networks and Security

C304.1	Summarize fundamental concepts of Computer Networks, architectures, protocols and technologies
C304.2	Illustrate the working and functions of data link layer
C304.3	Analyze the working of different routing protocols and mechanisms
C304.4	Implement client-server applications using sockets
C304.5	Illustrate role of application layer with its protocols, client-server architectures
C304.6	Comprehend the basics of Network Security

310245(D) Elective I-Software Project Management

C305D.1	Comprehend Project Management Concepts
C305D.2	Use various tools of Software Project Management
C305D.3	Schedule various activities in software projects
C305D.4	Track a project and manage changes
C305D.5	Apply Agile Project Management
C305D.6	Analyse staffing process for team building and decision making in Software Projects and Management



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310248	Laboratory Practice I
C305.1	Apply Software Project Management tools
C305.2	Implement software project planning and scheduling
C305.3	Analyse staffing in software project
310249	Seminar and Technical Communication
C306.1	Analyze a latest topic of professional interest
C306.2	Enhance technical writing skills
C306.3	Identify an engineering problem, analyze it and propose a work plan to solve it
C306.4	Communicate with professional technical presentation skills
310250:	Audit Course 5
C307.1	Understand and classify various cybercrimes
C307.2	Understand how criminals plan for the cybercrimes
C307.3	Apply tools and methods used in cybercrime
C307.4	Analyze the examples of few case studies of cybercrimes
Third Year (Semester VI)	
310251	Data Science and Big Data Analytics



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C309.1	Analyze needs and challenges for Data Science Big Data Analytics
C309.2	Apply statistics for Big Data Analytics
C309.3	Apply the lifecycle of Big Data analytics to real world problems
C309.4	Implement Big Data Analytics using Python programming
C309.5	Implement data visualization using visualization tools in Python programming
C309.6	Design and implement Big Databases using the Hadoop ecosystem
310252:	Web Technology
C310.1	Implement and analyze behavior of web pages using HTML and CSS
C310.2	Apply the client side technologies for web development
C310.3	Analyze the concepts of Servlet and JSP
C310.4	Analyze the Web services and frameworks
C310.5	Apply the server side technologies for web development
C310.6	Create the effective web applications for business functionalities using latest web development platforms
310253:	Artificial Intelligence
C311.1	Identify and apply suitable Intelligent agents for various AI applications
C311.2	Build smart system using different informed search / uninformed search or heuristic approaches
C311.3	Identify knowledge associated and represent it by ontological engineering to plan a strategy to solve given problem
C311.4	Apply the suitable algorithms to solve AI problems
C311.5	Implement ideas underlying modern logical inference systems
C311.6	Represent complex problems with expressive yet carefully constrained language of representation



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310254(D) Software Modelling and Architecture	
C312A.1	Analyze the problem statement (SRS) and choose proper design technique for designing web-based/ desktop application
C312A.2	Design and analyze an application using UML modeling as fundamental tool
C312A.3	Evaluate software architectures
C312A.4	Use appropriate architectural styles and software design patterns
C312A.5	Apply appropriate modern tool for designing and modeling
310255-B: Internship	
C312B.1	To demonstrate professional competence through industry internship
C312B.2	To apply knowledge gained through internships to complete academic activities in a professional manner
C312B.3	To choose appropriate technology and tools to solve given problem.
C312B.4	To demonstrate abilities of a responsible professional and use ethical practices in day to day life.
C312B.5	Creating network and social circle, and developing relationships with industry people.
C312B.6	To analyze various career opportunities and decide carrier goals.
310256:: Data Science and Big Data Analytics Laboratory	
C313.1	: Apply principles of Data Science for the analysis of real time problems
C313.2	: Implement data representation using statistical methods
C313.3	: Implement and evaluate data analytics algorithms



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C313.4	Perform text preprocessing
C313.5	Implement data visualization techniques
C313.6	Use cutting edge tools and technologies to analyze Big Data
310257: Web Technology Laboratory	
C314.1	: Understand the importance of website planning and website design issues
C314.2	: Apply the client side and server side technologies for web application development
C314.3	Analyze the web technology languages, frameworks and services
C314.4	Create three tier web based applications
310258: Laboratory Practice II	
C315A.1	: Use tools and techniques in the area Software Modeling and Architectures
C315A.2	: Use the knowledge of Software Modeling and Architectures for problem solving
C315A.3	Apply the concepts Software Modeling and Architectures to design and develop applications



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310259A	Audit Course 6
C315B.1	To understand the importance of digital marketing
C315B.2	To understand the social media and marketing
C315B.3	To understand the effective marketing strategies and ways
	Academic Year 2022-23 Final Year Sem VII
410241:	Design and Analysis of Algorithms
C401.1	Formulate the problem
C401.2	Analyze the asymptotic performance of algorithms.
C401.3	Decide and apply algorithmic strategies to solve given problem
C401.4	Find optimal solution by applying various methods
C401.5	Analyze and Apply Identify the needs and challenges of machine learning for real time applications.Scheduling and Sorting Algorithms.
C401.6	Solve problems for multi-core or distributed or concurrent environments
410242:	: Machine Learning
C402.1	Identify the needs and challenges of machine learning for real time applications.
C402.2	Apply various data pre-processing techniques to simplify and speed up machine learning algorithms.
C402.3	Select and apply appropriately supervised machine learning algorithms for real timeapplications
C402.4	Implement variants of multi-class classifier and measure its performance



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C402.5	Design a neural network for solving engineering problems.
C402.6	Compare and contrast different clustering algorithms.
410243: Blockchain Technology	
C403.1	Interpret the fundamentals and basic concepts in Blockchain
C403.2	: Compare the working of different blockchain platforms
C403.3	Use Crypto wallet for cryptocurrency based transactions
C403.4	: Analyze the importance of blockchain in finding the solution to the real-world problems.
C403.5	: Identify relative application where block chain technology can be effectively used and implemented.
410244(C):: Elective III Cyber Security and Digital Forensics	
C404A.1	Analyze threats in order to protect or defend it in cyberspace from cyber-attacks.
C404A.2	Build appropriate security solutions against cyber-attacks.
C404A.3	Underline the need of digital forensic and role of digital evidences.
C404A.4	Explain rules and types of evidence collection
410244(D): : Object oriented Modeling and Design	
C404B.1	: Describe the concepts of object-oriented and basic class modelling.
C404B.2	Draw class diagrams, sequence diagrams and interaction diagrams to solve problems
C404B.3	: Choose and apply a befitting design pattern for the given problem
C404B.4	To Analyze applications, architectural Styles & software control strategies
C404B.5	: To develop Class design Models & choose Legacy Systems.
C404B.6	To Understand Design Patterns
410245 (D): - Software Testing and Quality Assurance	



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C404C.1	Describe fundamental concepts in software testing such as manual testing, automation testing and software quality assurance.
C404C.2	Design and Develop project test plan, design test cases, test data, and conduct test operations.
C404C.3	Apply recent automation tool for various software testing for testing software
C404C.4	Apply different approaches of quality management, assurance, and quality standard to software system.
C404C.5	: Apply and analyze effectiveness Software Quality Tools
C404C.6	Apply tools necessary for efficient testing framework
410246: Laboratory Practice III	
C404D.1	EVALUATE the productivity and IMPLEMENT various productivity improvement techniques.
C404D.2	APPLY work study techniques and UNDERSTANDS its importance for better productivity.
C404D.3	DEMONSTRATE the ability to SELECT plant location, appropriate layout and material handling equipment.
C404D.4	USE of Production planning and control tools for effective planning, scheduling and managing the shop floor control.
C404D.5	PLAN inventory requirements and EXERCISE effective control on manufacturing requirements.
C404D.6	APPLY Ergonomics and legislations for human comfort at work place and UNDERSTANDS the role of value engineering in improving productivity.
402044E: Internet of Things	
C404E.1	Apply preprocessing techniques on datasets.
C404E.2	: Implement and evaluate linear regression and random forest regression models.
C404E.3	: Implement an algorithm that follows one of the following algorithm design strategies: divide and conquer, greedy, dynamic programming, backtracking, branch and bound.
C404E.4	: Interpret the basic concepts in Blockchain technology and its applications
C404E.5	Analyze performance of an algorithm



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C404E.6	EVALUATE Present and Future Domain specific Applications of IoT Ecosystem
C404E.7	Implement an algorithm that follows one of the following algorithm design strategies: divide and conquer, greedy, dynamic programming, backtracking, branch and bound.
410247:: :Laboratory Practice IV	
C404F.1	Apply android application development for solving real life problems
C404F.2	Design and develop system using various multimedia components
C404F.3	Identify various vulnerabilities and demonstrate using various tools.
C404F.4	Apply information retrieval tools for natural language processing
C404F.5	Develop an application using open source GPU programming languages
C404F.6	Apply software testing tools to perform automated testing
410248: Project Work Stage I	
C405A.1	Solve real life problems by applying knowledge
C405A.2	Analyze alternative approaches, apply and use most appropriate one for feasible solution.
C405A.3	Write precise reports and technical documents in a nutshell
C405A.4	Participate effectively in multi-disciplinary and heterogeneous teams exhibiting team work
C405A.5	Inter-personal relationships, conflict management and leadership quality.
410249 Audit Course 7	
C405B.1	To acquire additional knowledge and skill
C405B.2	To promote interactive user forums to support community interactions among students, professors, and experts



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	Final Year Sem VIII
410250:	High Performance Computing
C408.1	Understand various Parallel Paradigm
C408.2	: Design and Develop an efficient parallel algorithm to solve given problem
C408.3	: Illustrate data communication operations on various parallel architecture
C408.4	Analyze and measure performance of modern parallel computing systems
C408.5	Apply CUDA architecture for parallel programming
C408.6	Analyze the performance of HPC applications
410251:	Deep Learning
C409.1	Understand the basics of Deep Learning and apply the tools to implement deep learning applications
C409.2	Evaluate the performance of deep learning models (e.g., with respect to the bias-variance tradeoff, overfitting and underfitting, estimation of test e
C409.3	To apply the technique of Convolution (CNN) and Recurrent Neural Network (RNN) for implementing Deep Learning models
C409.4	To apply the technique of Convolution (CNN) and Recurrent Neural Network (RNN) for implementing Deep Learning models
C409.5	To implement and apply deep generative models
C409.6	:To Understand Reinforcement Learning Process
410252 :	Elective V 410252 (B): Image Processing
C410A.1	Apply Relevant Mathematics Required for Digital Image Processing.
C410A.2	Apply Special and Frequency Domain Method for Image Enhancement
C410A.3	Apply algorithmic approaches for Image segmentation. CO4: Summarize the Concept of Image Compression and Obj
C410A.4	Explore the Image Restoration Techniques.
C410A.5	Explore the Medical and Satellite Image Processing Applications



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:410252(C): Elective V Software Defined Networks	
C410B.1	Interpret the need of Software Defined networking solutions.
C410B.2	Analyze different methodologies for sustainable Software Defined Networking solutions
C410B.3	: Select best practices for design, deploy and troubleshoot of next generation networks
C410B.4	Develop programmability of network elements.
C410B.5	Demonstrate virtualization and SDN Controllers using Open Flow protocol
C410B.6	Design and develop various applications of SDN
410253(C): Elective VI 410253(C): Business Intelligence	
C410C.1	Use Data Warehouse & Business Architecture to design a BI system
C410C.2	Build graphical reports
C410C.3	Apply different data preprocessing techniques on dataset
C410C.4	implement machine learning algorithms as per business needs
C410C.5	Identify role of BI in marketing, logistics, and finance and telecommunication sector
C410C.6	Differentiate the concepts of Decision Support System & Business Intelligence
410256:: Laboratory Practice VI	
C410D.1	Apply basic principles of elective subjects to problem solving and modeling
C410D.2	Use tools and techniques in the area of software development to build mini projects
C410D.3	Design and develop applications on subjects of their choice.



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C410D.4	: Generate and manage deployment, administration & security
410256: Project Work Stage II	
C410E.1	Show evidence of independent investigation
C410E.2	Critically analyze the results and their interpretation.
C410E.3	Report and present the original results in an orderly way and placing the open questions in the right perspective.
C410E.4	Link techniques and results from literature as well as actual research and future research lines with the research.
C410E.5	Appreciate practical implications and constraints of the specialist subject
410257: Audit Course 8	
C410F.1	Describe the human centered design process and usability engineering process and their roles in system design and development.
C410F.2	Discuss usability design guidelines, their foundations, assumptions, advantages, and weaknesses.
C410F.3	: Design a user interface based on analysis of human needs and prepare a prototype system
C410F.4	Assess user interfaces using different usability engineering techniques.
C410F.5	Present the design decisions
C410F.6	Understand the user interface based on analysis of human needs and prepare a prototype system