Department of CSE [Artificial Intelligence & Machine Learning]

I YEAR COURSE OUTCOMES- R20 (2020-2024)

Semester No:	1		
Course Title:	Algebra and Calculus	**Course Code:**	C101
Course Outcome No.	**Course Outcome Statement**		
C101.1	Describe the matrix representation of linear equations.		
C101.2	Evaluate Eigen values and Eigen vectors.		
C101.3	Analyze the nature of convergence of sequence and series.		
C101.4	Interpret Mean value theorems to applications.		
C1015	Determine the extreme values of functions of two variables with/ without constraints.		

Semester No:	1		
Course Title:	Engineering Chemistry	**Course Code:**	C102
Course Outcome No.	**Course Outcome Statement**		
C102.1	Describe the atomic, molecular and complex compound structures.		
C102.2	Analyze different water treatment methodologies.		
C102.3	Demonstrate the principles and concepts of electro chemistry and corrosion .		
C102.4	Illustrate stereo chemistry and reaction mechanisms.		
C102.5	Summarize the Spectroscopic techniques and its applications.		

Semester No:	1		
Course Title:	Programming for Problem Solving	**Course Code:**	C103
Course Outcome No.	**Course Outcome Statement**		
C103.1	Illustrate algorithms and flowcharts for solving problems.		
C103.2	Demonstrate arrays, pointers, strings and structures.		
C103.3	Explore file handling techniques.		
C103.4	Analyze various functions and dynamic memory allocation.		
C103.5	Summarize various sorting and searching algorithms.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	1		
Course Title:	English	**Course Code:**	C104
Course Outcome No.	**Course Outcome Statement**		
C104.1	Generate ideas and create effective sentence structures in spoken and written forms.		
C104.2	Comprehend passages and texts critically and respond appropriately.		
C104.3	Select specific approaches to study and retain information.		
C104.4	Interpret technical content using theoretical and practical components of English language.		
C104.5	Communicate effectively in formal and informal contexts.		

Semester No:	1		
Course Title:	Engineering Workshop	**Course Code:**	C105
Course Outcome No.	**Course Outcome Statement**		
C105.1	Create the different patterns with desired shape and size by using wood.		
C105.2	Assemble different components to create a product by fitting operations.		
C105.3	Synthesize the material into product using smithy methods.		
C105.4	Demonstrate casting process using molten metal.		
C105.5	Explore the welding and plumbing process.		

Semester No:	1		
Course Title:	Engineering Chemistry Lab	**Course Code:**	C106
Course Outcome No.	**Course Outcome Statement**		
C106.1	Determine hardness and chloride content in water.		
C106.2	Estimate reactions from concentration and time relationships.		
C106.3	Calculate Rf values of organic molecules using TLC techniques.		
C106.4	Illustration of conductometry, potentiometry and colorimetry		
C106.5	Analyze surface tension and viscosity of solvents.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	1		
Course Title:	English Language and Communication Skills Lab	**Course Code:**	C107
Course Outcome No.	**Course Outcome Statement**		
C107.1	Demonstrate accents through audio- visual experience and practice.		
C107.2	Apply Pronounce English sounds according to standard pronunciation (RP of England).		
C107.3	Express fluently and clearly in English.		
C107.4	Revise their speech by Neutralizing the accent.		
C107.5	Practice presentations and discussions effectively and confidently.		

Semester No:	1		
Course Title:	Programming For Problem Solving Lab	**Course Code:**	C108
Course Outcome No.	**Course Outcome Statement**		
C108.1	Solve the problems through programming.		
C108.2	Demonstrate arrays, pointers and functions for different types of problems.		
C108.3	Illustrate the file operations.		
C108.4	Explore various String manipulation techniques.		
C108.5	Implement various sorting and searching techniques.		

Semester No:	2		
Course Title:	Ordinary Differential Equations and Vector Calculus	**Course Code:**	C109
Course Outcome No.	**Course Outcome Statement**		
C109.1	Demonstrate First Order Differential Equations and its applications.		
C109.2	Solve higher order differential equations for real world problems.		
C109.3	Evaluate the multiple integrals for different applications.		
C109.4	Illustrate vector differentiation.		
C109.5	Apply Vector Integration and their conversion.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	2		
Course Title:	Applied Physics	**Course Code:**	C110
Course Outcome No.	**Course Outcome Statement**		
C110.1	Describe Quantum mechanics and principles.		
C110.2	Analyze the Semiconductor devices and its characteristics.		
C110.3	Demonstrate optics phenomenon and applications.		
C110.4	Explore different Laser techniques and principles of fibre optics.		
C110.5	Identify Dielectric and Magnetic Properties of Materials.		

Semester No:	2		
Course Title:	Basic Electrical & Electronics Engineering	**Course Code:**	C111
Course Outcome No.	**Course Outcome Statement**		
C111.1	Analyze the basic Electrical circuits using different network reduction techniques.		
C111.2	Describe the components of low Voltage Electrical Installations.		
C111.3	Explore working principles of Electrical Machines.		
C111.4	Illustrate characteristics of diodes and its applications.		
C111.5	Summarize characteristics of transistors and their applications.		

Semester No:	2		
Course Title:	Engineering Graphics	**Course Code:**	C112
Course Outcome No.	**Course Outcome Statement**		
C112.1	Describe basics of engineering drawing.		
C112.2	Implement different types of projections.		
C112.3	Analyze Auxiliary views.		
C112.4	Develop section views and true shape section of various types of solids.		
C112.5	Explore the different Isometric Projections.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	2		
Course Title:	Applied Physics Lab	**Course Code:**	C113
Course Outcome No.	**Course Outcome Statement**		
C113.1	Analyze the characteristics of Light.		
C113.2	Explore the characteristics of the material using pendulum method.		
C113.3	Determine the characteristics of different electric circuits.		
C113.4	Demonstrate V-I characteristics of LASER and semi-conductor devices.		
C113.5	Illustrate the different characteristics of optical fibre.		

Semester No:	2		
Course Title:	Basic Electrical & Electronics Engineering Lab	**Course Code:**	C114
Course Outcome No.	**Course Outcome Statement**		
C114.1	Analyze various electrical networks using circuit laws.		
C114.2	Demonstrate the performance of DC Motors and single-phase transformer.		
C114.3	Explore the performance of three phase induction motors and alternators.		
C114.4	Illustrate the characteristics of semi-conductor devices.		
C114.5	Describe the half wave and full wave rectifiers.		

Semester No:	2		
Course Title:	Basic Elements of Engineering Technology	**Course Code:**	C115
Course Outcome No.	**Course Outcome Statement**		
C115.1	Describe the computing hardware and network protocols.		
C115.2	Explore the principles of IOT and its architecture.		
C115.3	Outline the components and working principles of robot.		
C115.4	Illustrate 3D printing and its applications.		
C115.5	Develop the solution for various Engineering applications.		

Department of CSE [Artificial Intelligence & Machine Learning]

II YEAR COURSE OUTCOMES- R20 (2020-2024)

Semester No:	3		
Course Title:	Design &Analysis Algorithms	**Course Code:**	C201
Course Outcome No.	**Course Outcome Statement**		
C201.1	Analyze the algorithms with respect to space and time.		
C201.2	Design algorithms using divide and conquer, greedy approach.		
C201.3	Apply dynamic programming strategy.		
C201.4	Implement backtracking and branch and bound techniques.		
C201.5	Explore NP- Hard and NP- complete problems using non-deterministic algorithms.		

Semester No:	3		
Course Title:	Data Structures using C	**Course Code:**	C202
Course Outcome No.	**Course Outcome Statement**		
C202.1	Describe basic data structures.		
C202.2	Analyze the hash table Representations.		
C202.3	Implement Searching for trees.		
C202.4	Apply sorting on the information.		
C202.5	Design pattern Matching on a problem.		

Semester No:	3		
Course Title:	OOPS Through Java	**Course Code:**	C203
Course Outcome No.	**Course Outcome Statement**		
C203.1	Solve real world problems using OOP techniques.		
C203.2	Apply the packages and interfaces, streams in I/O.		
C203.3	Implement exception handling and multithreaded Applications with synchronization.		
C203.4	Develop the application using collection framework.		
C203.5	Design GUI based Applications using applets and swings.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	3		
Course Title:	Theory of Computation	**Course Code:**	C204
Course Outcome No.	**Course Outcome Statement**		
C204.1	Describe abstract missions and their languages.		
C204.2	Design the finite state mechanics using regular expressions.		
C204.3	Implement context-free grammar for formal languages.		
C204.4	Apply normalization to the context-free grammar.		
C204.5	Distinguish between decidability and un-decidability problems		

Semester No:	3		
Course Title:	Programming with Python	**Course Code:**	C205
Course Outcome No.	**Course Outcome Statement**		
C205.1	Examine Python syntax and semantics, flow control.		
C205.2	Demonstrate proficiency in handling Strings and arrays		
C205.3	Apply Python Programs using core data structures like Lists, Dictionaries and use Regular Expressions.		
C205.4	Conduct experiments on file handling, exception handling, and modules.		
C205.5	Interpret the concepts of Object-Oriented Programming as Used in Python.		

Semester No:	3		
Course Title:	Data Structure using C Lab	**Course Code:**	C206
Course Outcome No.	**Course Outcome Statement**		
C206.1	Demonstrate the linked list operations.		
C206.2	Implement stack operations and Queue operations.		
C206.3	Apply sorting and searching techniques		
C206.4	Illustrate Tree traversal techniques.		
C206.5	Visualize Graph traversals.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	3		
Course Title:	Python Lab	**Course Code:**	C207
Course Outcome No.	**Course Outcome Statement**		
C207.1	Practice the basic concepts of python programming.		
C207.2	Analyze various data structures.		
C207.3	Design modular programming concepts.		
C207.4	Explore file and error handling techniques.		
C207.5	Implement object-oriented concepts.		

Semester No:	3		
Course Title:	OOPS Through Java Lab	**Course Code:**	C208
Course Outcome No.	**Course Outcome Statement**		
C208.1	Solve real- world problems using java collection framework.		
C208.2	Apply the sorting and file handling techniques.		
C208.3	Implement trouble shooting and GUI programs using Swings.		
C208.4	Illustrate exception handling and multithreaded applications.		
C208.5	Design applications using Java Applets.		

Semester No:	4		
Course Title:	Database Management Systems	**Course Code:**	C209
Course Outcome No.	**Course Outcome Statement**		
C209.1	Analyze the logical design concepts of the database.		
C209.2	Design the physical model of a database and its operations.		
C209.3	Apply the SQL queries for efficient database management.		
C209.4	Implement transaction processing and concurrency control.		
C209.5	Examine different indexing mechanisms and database storage access.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	4		
Course Title:	Analog and Digital Electronics	**Course Code:**	C210
Course Outcome No.	**Course Outcome Statement**		
C210.1	Describe the utilization of components and its characteristics.		
C210.2	Analyze the construction and functionalities of Field Effect Transistor.		
C210.3	Apply postulates of Boolean algebra to the digital circuit functions.		
C210.4	Design and analyze combinational circuits.		
C210.5	Implement the sequential logic circuits.		

Semester No:	4		
Course Title:	Computer Oriented Statistical Methods	**Course Code:**	C211
Course Outcome No.	**Course Outcome Statement**		
C211.1	Describe the theory of probability.		
C211.2	Testing the hypothesis and make inferences using sampling theory.		
C211.3	Apply the probability and its distributions to the data.		
C211.4	Solve algebraic equations using Numerical methods.		
C211.5	Hypothesize the differential equations using Numerical methods.		

Semester No:	4		
Course Title:	Operating Systems	**Course Code:**	C212
Course Outcome No.	**Course Outcome Statement**		
C212.1	Describe the operating system concepts.		
C212.2	Analyze the CPU scheduling algorithms.		
C212.3	Demonstrate Deadlocks and Processes Synchronization.		
C212.4	Apply memory management strategies such as paging, segmentation and virtual memory.		
C212.5	Apply files system interphase and operations.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	4		
Course Title:	Computer Organization	**Course Code:**	C213
Course Outcome No.	**Course Outcome Statement**		
C213.1	Describe basic computer organization and architecture.		
C213.2	Analyze the basics of instruction sets and their functionality.		
C213.3	Evaluate arithmetical operations through central processing unit.		
C213.4	Demonstrate the functional units of the computer.		
C213.5	Explore the parallel processing mechanisms.		

Semester No:	4		
Course Title:	OS Lab	**Course Code:**	C214
Course Outcome No.	**Course Outcome Statement**		
C214.1	Demonstrate CPU scheduling algorithms.		
C214.2	Explore I/O system calls.		
C214.3	Simulate Banker's Algorithm for deadlock.		
C214.4	Implement the Producer- Consumer Problem.		
C214.5	Illustrate IPC mechanisms and memory management techniques.		

Semester No:	4		
Course Title:	DBMS Lab	**Course Code:**	C215
Course Outcome No.	**Course Outcome Statement**		
C215.1	Demonstrate the database design using E-R diagrams.		
C215.2	Design the relational model using normalization.		
C215.3	Apply SQL queries for data manipulation.		
C215.4	Implement Procedural language.		
C215.5	Illustrate various Triggers and Cursors for database.		

Semester No:	4		
Course Title:	Analog and Digital Electronics Lab	**Course Code:**	C216
Course Outcome No.	**Course Outcome Statement**		
C216.1	Describe the characteristics of UJT.		
C216.2	Analyze the characteristics of Diode, FET and JFET.		
C216.3	Implement the Boolean expressions using Gates.		
C216.4	Design Adder and Subtractor.		
C216.5	Illustrate the sequential circuits for counters.		

Department of CSE [Artificial Intelligence & Machine Learning]

III YEAR COURSE OUTCOMES- R20 (2020-2024)

Semester No:	5		
Course Title:	Data Mining	**Course Code:**	C301
Course Outcome No.	**Course Outcome Statement**		
C301.1	Differentiate types of data mining and primitives of data mining.		
C301.2	Extract interesting patterns from large amounts of data.		
C301.3	Discover the classification of data mining in various fields.		
C301.4	Implement clustering applications.		
C301.5	Analyze and extract insights from continuous data streams, enabling real time decision making.		

Semester No:	5		
Course Title:	Computer Networks	**Course Code:**	C302
Course Outcome No.	**Course Outcome Statement**		
C302.1	Describe the basic concepts of reference models.		
C302.2	Apply sliding window and multiple access protocols.		
C302.3	Design routing algorithms and congestion control techniques		
C302.4	Analyze the transport layer services and protocols.		
C302.5	Illustrate application layer protocols.		

Semester No:	5		
Course Title:	Web Technologies	**Course Code:**	C303
Course Outcome No.	**Course Outcome Statement**		
C303.1	Apply server-side scripting with PHP language.		
C303.2	Demonstrate parsing XML Data with Java.		
C303.3	Develop Server-side programs with Java Servlets.		
C303.4	Implement JSP pages using Cookies and Session tracking.		
C303.5	Design client-side scripting, validation of forms and AJAX programming.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	5		
Course Title:	Data Analytics	**Course Code:**	C304
Course Outcome No.	**Course Outcome Statement**		
C304.1	Understand various Data Sources and Pre-processing mechanisms.		
C304.2	Depict data analysis/statistical analysis.		
C304.3	Design Data Architecture.		
C304.4	Understand the impact of data analytics for business decisions and strategy.		
C304.5	Design standard data visualization and formal inference procedures.		

Semester No:	5		
Course Title:	Distributed Databases	**Course Code:**	C305
Course Outcome No.	**Course Outcome Statement**		
C305.1	Explore distributed database systems.		
C305.2	Interpret query processing and optimization in distributed databases.		
C305.3	Summarize the transaction management process.		
C305.4	Describe parallel databases and reliability.		
C305.5	Analyze distributed object database and object-oriented data model.		

Semester No:	5		
Course Title:	Data Mining Lab	**Course Code:**	C306
Course Outcome No.	**Course Outcome Statement**		
C306.1	Experiment on data mining tools.		
C306.2	Apply data mining algorithms.		
C306.3	Analyze and pre-process data.		
C306.4	Implement Decision Trees for cross-validation.		
C306.5	Develop data mining models.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	5		
Course Title:	Computer Networks and Web Technologies Lab	**Course Code:**	C307
Course Outcome No.	**Course Outcome Statement**		
C307.1	Implement data link layer protocols.		
C307.2	Illustrate routing and congestion control techniques in a network.		
C307.3	Design and develop web applications.		
C307.4	Develop server-side scripting.		
C307.5	Apply web development frameworks and tools.		

Semester No:	5		
Course Title:	R Programming Lab	**Course Code:**	C308
Course Outcome No.	**Course Outcome Statement**		
C308.1	Implement basic concepts of R programming.		
C308.2	Implement the concepts of R fundamentals.		
C308.3	Apply descriptive statistics on different data sets.		
C308.4	Make Use of R Graphics and R Script.		
C308.5	Create Data types, Transformations and Relational Database Using SQL.		

Semester No:	6		
Course Title:	Artificial Intelligence	**Course Code:**	C309
Course Outcome No.	**Course Outcome Statement**		
C309.1	Formulate an efficient problem space for a problem expressed in natural language.		
C309.2	Select a search algorithm for a problem and estimate its time and space complexities.		
C309.3	Representing knowledge using the appropriate technique for a given problem.		
C309.4	Apply AI techniques to solve problems of game playing and machine learning.		
C309.5	Act on uncertain problem solving.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	6		
Course Title:	Compiler Design	**Course Code:**	C310
Course Outcome No.	**Course Outcome Statement**		
C310.1	Compute tokens and regular expressions for lexical analysis.		
C310.2	Implement top-down and bottom-up parsers.		
C310.3	Construct Intermediate code for Procedures.		
C310.4	Optimize the code generation.		
C310.5	Analyze the data flow.		

Semester No:	6		
Course Title:	Software Engineering	**Course Code:**	C311
Course Outcome No.	**Course Outcome Statement**		
C311.1	Compose end-user requirements into the system.		
C311.2	Identify and apply the process model based on software requirements.		
C311.3	Build the design of a systematic models.		
C311.4	Construct testing strategies and generate a report.		
C311.5	Quantify the metrics for process and products.		

Semester No:	6		
Course Title:	Software Testing Methodologies	**Course Code:**	C312
Course Outcome No.	**Course Outcome Statement**		
C312.1	Compare and contrast the various testing strategies.		
C312.2	Demonstrate data flow and domain testing strategies.		
C312.3	Describe anomalies and build decision table, kv charts.		
C312.4	Analyze the graph-based testing metrics with its applications.		
C312.5	Implement test cases using WinRunner tool.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	6		
Course Title:	Fundamentals of Internet of Things	**Course Code:**	C313
Course Outcome No.	**Course Outcome Statement**		
C313.1	Describe basic protocols in sensor networks.		
C313.2	Integrate Arduino boards for various applications.		
C313.3	Interpret Python programming for Raspberry Pi.		
C313.4	Design IoT applications in different domains.		
C313.5	Analyze the various applications of IoT.		

Semester No:	6		
Course Title:	Artificial Intelligence Lab	**Course Code:**	C314
Course Outcome No.	**Course Outcome Statement**		
C314.1	Implement fundamental AI search algorithms using LISP/PROLOG.		
C314.2	Apply adversarial search techniques and game playing methods using LISP/PROLOG.		
C314.3	Solve constraint-based problem such as monkey-banana and 8-puzzle problem LISP/PROLOG.		
C314.4	Design and Develop an Expert System with forward chaining using JESS/PROLOG.		
C314.5	Build an Expert System with backward chaining using JESS/PROLOG.		

Semester No:	6		
Course Title:	Advanced Communication Skills Lab	**Course Code:**	C315
Course Outcome No.	**Course Outcome Statement**		
C315.1	Interpret the vocabulary to improve the fluency in English.		
C315.2	Illustrate the ideas to use of communication skills.		
C315.3	Develop proficiency in academic reading and writing.		
C315.4	Apply innovative presentation styles.		
C315.5	Use advanced communication technologies.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	6		
Course Title:	Software Testing Methodologies Lab	**Course Code:**	C316
Course Outcome No.	**Course Outcome Statement**		
C316.1	Identify recording in context sensitive mode and analog mode.		
C316.2	Demonstrate the GUI, Bitmap and Database checkpoints.		
C316.3	Analyze Data driven test through flat files and excel test.		
C316.4	Recognize Batch testing without and with parameter passing.		
C316.5	Develop the test case for calculator application.		

IV YEAR-COURSE OUTCOMES- R20 (2020-2024)

Semester No:	7		
Course Title:	Business Economics And Financial Analysis	**Course Code:**	C401
Course Outcome No.	**Course Outcome Statement**		
C401.1	Describe the various forms of Business and its impact on economy.		
C401.2	Comprehend the demand and supply.		
C401.3	Explore the usage of marketing and pricing of a product.		
C401.4	Analyze financial statements and reports.		
C401.5	Use financial ratios and metrics to evaluate business performance.		

Semester No:	7		
Course Title:	Machine Learning	**Course Code:**	C402
Course Outcome No.	**Course Outcome Statement**		
C402.1	Describe the concept of computational intelligence.		
C402.2	Demonstrate artificial neural networks and their usage.		
C402.3	Implement machine learning algorithms.		
C402.4	Analyze instant based learning algorithms by set rules.		
C402.5	Evaluate Analytical and Inductive learning algorithms.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	7		
Course Title:	Cloud Computing	**Course Code:**	C403
Course Outcome No.	**Course Outcome Statement**		
C403.1	Describe the cloud computing paradigms.		
C403.2	Explore various service delivery models of a cloud computing architecture.		
C403.3	Demonstrate the cloud infrastructure management and migration tools.		
C403.4	Apply the cloud services.		
C403.5	Analyze different cloud service providers.		

Semester No:	7		
Course Title:	Deep Learning	**Course Code:**	C404
Course Outcome No.	**Course Outcome Statement**		
C404.1	Understand the concepts of Neural Networks.		
C404.2	Select the Learning Networks in modeling real-world systems.		
C404.3	Apply optimization strategies for large scale applications.		
C404.4	Use an efficient algorithm for Deep Models.		
C404.5	Implement Deep learning models in various domains.		

Semester No:	7		
Course Title:	Information Retrieval Systems	**Course Code:**	C405
Course Outcome No.	**Course Outcome Statement**		
C405.1	Describe Information Retrieval systems principles for large collections of data.		
C405.2	Develop data models using statistical approaches.		
C405.3	Implement different automatic document clustering algorithms.		
C405.4	Design the Information Retrieval System for web and text searching.		
C405.5	Apply visualization tools for multimedia information retrieval.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	7		
Course Title:	Machine Learning Lab	**Course Code:**	C406
Course Outcome No.	**Course Outcome Statement**		
C406.1	Describe the mathematical and statistical prospectives of Machine learning algorithms through python programming.		
C406.2	Implement Machine learning algorithms.		
C406.3	Use machine learning libraries and frameworks.		
C406.4	Apply classification techniques for real world problems.		
C406.5	Analyze and interpret machine learning models.		

Semester No:	7		
Course Title:	Industry Oriented Mini Project	**Course Code:**	C407
Course Outcome No.	**Course Outcome Statement**		
C407.1	Identify and explain the problem clearly, generate creative ideas to solve it, and analyze the problem critically to develop effective solutions.		
C407.2	Apply appropriate methods, tools, and technologies to design and implement practical and functional solutions.		
C407.3	Analyze project results, interpret findings, and evaluate outcomes to suggest evidence-based improvements.		
C407.4	Evaluate contributions to achieve project goals through project management principles.		
C407.5	Demonstrate professional communication and ethical behavior through proper project documentation and presentation.		

Semester No:	7		
Course Title:	Seminar	**Course Code:**	C408
Course Outcome No.	**Course Outcome Statement**		
C408.1	Understand and explain the technical topic by identifying key concepts, objectives,and relevance to engineering problems.		
C408.2	Apply appropriate research methodology and technical tools to analyze the seminar topic effectively.		
C408.3	Explain clear and structured presentations, supported by effective visuals and proper documentation.		
C408.4	Demonstrate innovation and critical thinking while presenting advanced ideas And engaging in lifelong learning.		
C408.5	Defend the seminar content confidently during viva-voce and submit a well-organized technical report.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	7		
Course Title:	Project Stage – I	**Course Code:**	C409
Course Outcome No.	**Course Outcome Statement**		
C409.1	Develop a clear and concise problem statement and define achievable project objectives that are well-aligned with the identified problem.		
C409.2	Review and analyze relevant literature to identify research gaps, and develop an effective project design rounded in engineering principles.		
C409.3	Demonstrate effectively research findings through a structured presentation and a well-organized project report.		

Semester No:	8		
Course Title:	Organizational Behaviour	**Course Code:**	C410
Course Outcome No.	**Course Outcome Statement**		
C410.1	Describe the environmental and organizational behaviour.		
C410.2	Develop the personality and process attributes.		
C410.3	Apply decision making at individual and team levels.		
C410.4	Explore power and politics.		
C410.5	Analyze the performance and work practices.		

Semester No:	8		
Course Title:	Cyber Forensics	**Course Code:**	C411
Course Outcome No.	**Course Outcome Statement**		
C411.1	Describe the crime types and incident response procedures.		
C411.2	Understand the usage of computers in forensic laboratories.		
C411.3	Explore the data analysis and visualization techniques.		
C411.4	Use various forensic tools for a wide variety of investigations.		
C411.5	Design principles of data management methods.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	8		
Course Title:	Scripting Languages	**Course Code:**	C412
Course Outcome No.	**Course Outcome Statement**		
C412.1	Comprehend the SOAP architecture and web services.		
C412.2	Understand the Ruby scripting language.		
C412.3	Apply the basic Perl programming language.		
C412.4	Implement the advanced programming in PERL.		
C412.5	Apply TCL programming.		

Semester No:	8		
Course Title:	Project Stage-II	**Course Code:**	C413
Course Outcome No.	**Course Outcome Statement**		
C413.1	Demonstrate progress in implementing the project by effectively selecting and applying appropriate engineering tools, techniques, and practices in line with project requirements.		
C413.2	Apply systematic testing strategies and validation methods to identify issues and improve the functionality and performance of the project.		
C413.3	Develop original ideas or innovative approaches in the design or implementation of the project.		
C413.4	Describe the proposed system ,interpret output/results and connect to defined objectives.		
C413.5	Compose a well- structured project report that communicates technical content, results, and conclusions effectively.		
C413.6	Analyze the social and environmental impacts through professional communication, collaboration, and ethical conduct.		

Department of CSE [Artificial Intelligence & Machine Learning]

I YEAR COURSE OUTCOMES - R20 (2021-2025)

Semester No:	1		
Course Title:	Algebra and Calculus	**Course Code:**	C101
Course Outcome No.	**Course Outcome Statement**		
C101.1	Describe the matrix representation of linear equations.		
C101.2	Evaluate Eigen values and Eigen vectors.		
C101.3	Analyze the nature of convergence of sequence and series.		
C101.4	Interpret Mean value theorems to applications.		
C1015	Determine the extreme values of functions of two variables with/ without constraints.		

Semester No:	1		
Course Title:	Engineering Chemistry	**Course Code:**	C102
Course Outcome No.	**Course Outcome Statement**		
C102.1	Describe the atomic, molecular and complex compound structures.		
C102.2	Analyze different water treatment methodologies.		
C102.3	Demonstrate the principles and concepts of electro chemistry and corrosion .		
C102.4	Illustrate stereo chemistry and reaction mechanisms.		
C102.5	Summarize the Spectroscopic techniques and its applications.		

Semester No:	1		
Course Title:	Programming for Problem Solving	**Course Code:**	C103
Course Outcome No.	**Course Outcome Statement**		
C103.1	Illustrate algorithms and flowcharts for solving problems.		
C103.2	Demonstrate arrays, pointers, strings and structures.		
C103.3	Explore file handling techniques.		
C103.4	Analyze various functions and dynamic memory allocation.		
C103.5	Summarize various sorting and searching algorithms.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	1		
Course Title:	English	**Course Code:**	C104
Course Outcome No.	**Course Outcome Statement**		
C104.1	Generate ideas and create effective sentence structures in spoken and written forms.		
C104.2	Comprehend passages and texts critically and respond appropriately.		
C104.3	Select specific approaches to study and retain information.		
C104.4	Interpret technical content using theoretical and practical components of English language.		
C104.5	Communicate effectively in formal and informal contexts.		

Semester No:	1		
Course Title:	Engineering Workshop	**Course Code:**	C105
Course Outcome No.	**Course Outcome Statement**		
C105.1	Create the different patterns with desired shape and size by using wood.		
C105.2	Assemble different components to create a product by fitting operations.		
C105.3	Synthesize the material into product using smithy methods.		
C105.4	Demonstrate casting process using molten metal.		
C105.5	Explore the welding and plumbing process.		

Semester No:	1		
Course Title:	Engineering Chemistry Lab	**Course Code:**	C106
Course Outcome No.	**Course Outcome Statement**		
C106.1	Determine hardness and chloride content in water.		
C106.2	Estimate reactions from concentration and time relationships.		
C106.3	Calculate Rf values of organic molecules using TLC techniques.		
C106.4	Illustration of conductometry, potentiometry and colorimetry		
C106.5	Analyze surface tension and viscosity of solvents.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	1		
Course Title:	English Language and Communication Skills Lab	**Course Code:**	C107
Course Outcome No.	**Course Outcome Statement**		
C107.1	Demonstrate accents through audio- visual experience and practice.		
C107.2	Apply Pronounce English sounds according to standard pronunciation (RP of England).		
C107.3	Express fluently and clearly in English.		
C107.4	Revise their speech by Neutralizing the accent.		
C107.5	Practice presentations and discussions effectively and confidently.		

Semester No:	1		
Course Title:	Programming For Problem Solving Lab	**Course Code:**	C108
Course Outcome No.	**Course Outcome Statement**		
C108.1	Solve the problems through programming.		
C108.2	Demonstrate arrays, pointers and functions for different types of problems.		
C108.3	Illustrate the file operations.		
C108.4	Explore various String manipulation techniques.		
C108.5	Implement various sorting and searching techniques.		

Semester No:	2		
Course Title:	Ordinary Differential Equations and Vector Calculus	**Course Code:**	C109
Course Outcome No.	**Course Outcome Statement**		
C109.1	Demonstrate First Order Differential Equations and its applications.		
C109.2	Solve higher order differential equations for real world problems.		
C109.3	Evaluate the multiple integrals for different applications.		
C109.4	Illustrate vector differentiation.		
C109.5	Apply Vector Integration and their conversion.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	2		
Course Title:	Applied Physics	**Course Code:**	C110
Course Outcome No.	**Course Outcome Statement**		
C110.1	Describe Quantum mechanics and principles.		
C110.2	Analyze the Semiconductor devices and its characteristics.		
C110.3	Demonstrate optics phenomenon and applications.		
C110.4	Explore different Laser techniques and principles of fibre optics.		
C110.5	Identify Dielectric and Magnetic Properties of Materials.		

Semester No:	2		
Course Title:	Basic Electrical & Electronics Engineering	**Course Code:**	C111
Course Outcome No.	**Course Outcome Statement**		
C111.1	Analyze the basic Electrical circuits using different network reduction techniques.		
C111.2	Describe the components of low Voltage Electrical Installations.		
C111.3	Explore working principles of Electrical Machines.		
C111.4	Illustrate characteristics of diodes and its applications.		
C111.5	Summarize characteristics of transistors and their applications.		

Semester No:	2		
Course Title:	Engineering Graphics	**Course Code:**	C112
Course Outcome No.	**Course Outcome Statement**		
C112.1	Describe basics of engineering drawing.		
C112.2	Implement different types of projections.		
C112.3	Analyze Auxiliary views.		
C112.4	Develop section views and true shape section of various types of solids.		
C112.5	Explore the different Isometric Projections.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	2		
Course Title:	Applied Physics Lab	**Course Code:**	C113
Course Outcome No.	**Course Outcome Statement**		
C113.1	Analyze the characteristics of Light.		
C113.2	Explore the characteristics of the material using pendulum method.		
C113.3	Determine the characteristics of different electric circuits.		
C113.4	Demonstrate V-I characteristics of LASER and semi-conductor devices.		
C113.5	Illustrate the different characteristics of optical fibre.		

Semester No:	2		
Course Title:	Basic Electrical & Electronics Engineering Lab	**Course Code:**	C114
Course Outcome No.	**Course Outcome Statement**		
C114.1	Analyze various electrical networks using circuit laws.		
C114.2	Demonstrate the performance of DC Motors and single-phase transformer.		
C114.3	Explore the performance of three phase induction motors and alternators.		
C114.4	Illustrate the characteristics of semi-conductor devices.		
C114.5	Describe the half wave and full wave rectifiers.		

Semester No:	2		
Course Title:	Basic Elements of Engineering Technology	**Course Code:**	C115
Course Outcome No.	**Course Outcome Statement**		
C115.1	Describe the computing hardware and network protocols.		
C115.2	Explore the principles of IOT and its architecture.		
C115.3	Outline the components and working principles of robot.		
C115.4	Illustrate 3D printing and its applications.		
C115.5	Develop the solution for various Engineering applications.		

Department of CSE [Artificial Intelligence & Machine Learning]

II YEAR COURSE OUTCOMES - R20 (2021-2025)

Semester No:	3		
Course Title:	Design &Analysis Algorithms	**Course Code:**	C201
Course Outcome No.	**Course Outcome Statement**		
C201.1	Analyze the algorithms with respect to space and time.		
C201.2	Design algorithms using divide and conquer, greedy approach.		
C201.3	Apply dynamic programming strategy.		
C201.4	Implement backtracking and branch and bound techniques.		
C201.5	Explore NP- Hard and NP- complete problems using non-deterministic algorithms.		

Semester No:	3		
Course Title:	Data Structures using C	**Course Code:**	C202
Course Outcome No.	**Course Outcome Statement**		
C202.1	Describe basic data structures.		
C202.2	Analyze the hash table Representations.		
C202.3	Implement Searching for trees.		
C202.4	Apply sorting on the information.		
C202.5	Design pattern Matching on a problem.		

Semester No:	3		
Course Title:	OOPS Through Java	**Course Code:**	C203
Course Outcome No.	**Course Outcome Statement**		
C203.1	Solve real world problems using OOP techniques.		
C203.2	Apply the packages and interfaces, streams in I/O.		
C203.3	Implement exception handling and multithreaded Applications with synchronization.		
C203.4	Develop the application using collection framework.		
C203.5	Design GUI based Applications using applets and swings.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	3		
Course Title:	Theory of Computation	**Course Code:**	C204
Course Outcome No.	**Course Outcome Statement**		
C204.1	Describe abstract missions and their languages.		
C204.2	Design the finite state mechanics using regular expressions.		
C204.3	Implement context-free grammar for formal languages.		
C204.4	Apply normalization to the context-free grammar.		
C204.5	Distinguish between decidability and un-decidability problems		

Semester No:	3		
Course Title:	Programming with Python	**Course Code:**	C205
Course Outcome No.	**Course Outcome Statement**		
C205.1	Examine Python syntax and semantics, flow control.		
C205.2	Demonstrate proficiency in handling Strings and arrays		
C205.3	Apply Python Programs using core data structures like Lists, Dictionaries and use Regular Expressions.		
C205.4	Conduct experiments on file handling, exception handling, and modules.		
C205.5	Interpret the concepts of Object-Oriented Programming as Used in Python.		

Semester No:	3		
Course Title:	Data Structure using C Lab	**Course Code:**	C206
Course Outcome No.	**Course Outcome Statement**		
C206.1	Demonstrate the linked list operations.		
C206.2	Implement stack operations and Queue operations.		
C206.3	Apply sorting and searching techniques		
C206.4	Illustrate Tree traversal techniques.		
C206.5	Visualize Graph traversals.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	3		
Course Title:	Python Lab	**Course Code:**	C207
Course Outcome No.	**Course Outcome Statement**		
C207.1	Practice the basic concepts of python programming.		
C207.2	Analyze various data structures.		
C207.3	Design modular programming concepts.		
C207.4	Explore file and error handling techniques.		
C207.5	Implement object-oriented concepts.		

Semester No:	3		
Course Title:	OOPS Through Java Lab	**Course Code:**	C208
Course Outcome No.	**Course Outcome Statement**		
C208.1	Solve real- world problems using java collection framework.		
C208.2	Apply the sorting and file handling techniques.		
C208.3	Implement trouble shooting and GUI programs using Swings.		
C208.4	Illustrate exception handling and multithreaded applications.		
C208.5	Design applications using Java Applets.		

Semester No:	4		
Course Title:	Database Management Systems	**Course Code:**	C209
Course Outcome No.	**Course Outcome Statement**		
C209.1	Analyze the logical design concepts of the database.		
C209.2	Design the physical model of a database and its operations.		
C209.3	Apply the SQL queries for efficient database management.		
C209.4	Implement transaction processing and concurrency control.		
C209.5	Examine different indexing mechanisms and database storage access.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	4		
Course Title:	Analog and Digital Electronics	**Course Code:**	C210
Course Outcome No.	**Course Outcome Statement**		
C210.1	Describe the utilization of components and its characteristics.		
C210.2	Analyze the construction and functionalities of Field Effect Transistor.		
C210.3	Apply postulates of Boolean algebra to the digital circuit functions.		
C210.4	Design and analyze combinational circuits.		
C210.5	Implement the sequential logic circuits.		

Semester No:	4		
Course Title:	Computer Oriented Statistical Methods	**Course Code:**	C211
Course Outcome No.	**Course Outcome Statement**		
C211.1	Describe the theory of probability.		
C211.2	Testing the hypothesis and make inferences using sampling theory.		
C211.3	Apply the probability and its distributions to the data.		
C211.4	Solve algebraic equations using Numerical methods.		
C211.5	Hypothesize the differential equations using Numerical methods.		

Semester No:	4		
Course Title:	Operating Systems	**Course Code:**	C212
Course Outcome No.	**Course Outcome Statement**		
C212.1	Describe the operating system concepts.		
C212.2	Analyze the CPU scheduling algorithms.		
C212.3	Demonstrate Deadlocks and Processes Synchronization.		
C212.4	Apply memory management strategies such as paging, segmentation and virtual memory.		
C212.5	Apply files system interphase and operations.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	4		
Course Title:	Computer Organization	**Course Code:**	C213
Course Outcome No.	**Course Outcome Statement**		
C213.1	Describe basic computer organization and architecture.		
C213.2	Analyze the basics of instruction sets and their functionality.		
C213.3	Evaluate arithmetical operations through central processing unit.		
C213.4	Demonstrate the functional units of the computer.		
C213.5	Explore the parallel processing mechanisms.		

Semester No:	4		
Course Title:	OS Lab	**Course Code:**	C214
Course Outcome No.	**Course Outcome Statement**		
C214.1	Demonstrate CPU scheduling algorithms.		
C214.2	Explore I/O system calls.		
C214.3	Simulate Banker's Algorithm for deadlock.		
C214.4	Implement the Producer- Consumer Problem.		
C214.5	Illustrate IPC mechanisms and memory management techniques.		

Semester No:	4		
Course Title:	DBMS Lab	**Course Code:**	C215
Course Outcome No.	**Course Outcome Statement**		
C215.1	Demonstrate the database design using E-R diagrams.		
C215.2	Design the relational model using normalization.		
C215.3	Apply SQL queries for data manipulation.		
C215.4	Implement Procedural language.		
C215.5	Illustrate various Triggers and Cursors for database.		

Semester No:	4		
Course Title:	Analog and Digital Electronics Lab	**Course Code:**	C216
Course Outcome No.	**Course Outcome Statement**		
C216.1	Describe the characteristics of UJT.		
C216.2	Analyze the characteristics of Diode, FET and JFET.		
C216.3	Implement the Boolean expressions using Gates.		
C216.4	Design Adder and Subtractor.		
C216.5	Illustrate the sequential circuits for counters.		

Department of CSE [Artificial Intelligence & Machine Learning]

III YEAR COURSE OUTCOMES - R20 (2021-2025)

Semester No:	5		
Course Title:	Data Mining	**Course Code:**	C301
Course Outcome No.	**Course Outcome Statement**		
C301.1	Differentiate types of data mining and primitives of data mining.		
C301.2	Extract interesting patterns from large amounts of data.		
C301.3	Discover the classification of data mining in various fields.		
C301.4	Implement clustering applications.		
C301.5	Analyze and extract insights from continuous data streams, enabling real time decision making.		

Semester No:	5		
Course Title:	Computer Networks	**Course Code:**	C302
Course Outcome No.	**Course Outcome Statement**		
C302.1	Describe the basic concepts of reference models.		
C302.2	Apply sliding window and multiple access protocols.		
C302.3	Design routing algorithms and congestion control techniques		
C302.4	Analyze the transport layer services and protocols.		
C302.5	Illustrate application layer protocols.		

Semester No:	5		
Course Title:	Web Technologies	**Course Code:**	C303
Course Outcome No.	**Course Outcome Statement**		
C303.1	Apply server-side scripting with PHP language.		
C303.2	Demonstrate parsing XML Data with Java.		
C303.3	Develop Server-side programs with Java Servlets.		
C303.4	Implement JSP pages using Cookies and Session tracking.		
C303.5	Design client-side scripting, validation of forms and AJAX programming.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	5		
Course Title:	Object Oriented Analysis and Design	**Course Code:**	C304
Course Outcome No.	**Course Outcome Statement**		
C304.1	Apply UML concepts to model software systems.		
C304.2	Analyze requirements to construct structural diagrams.		
C304.3	Examine system behavior using behavioral diagrams.		
C304.4	Evaluate and design advanced behavioral and architectural models.		
C304.5	Create complete UML representations for real-world applications.		

Semester No:	5		
Course Title:	Natural Language Processing	**Course Code:**	C305
Course Outcome No.	**Course Outcome Statement**		
C305.1	Summarize the NLP structure documents		
C305.2	Use of proper experimental methodology for evaluating NLP systems		
C305.3	Construct statistical models over strings and trees, and estimate parameters using supervised and unsupervised training methods.		
C305.4	Implement NLP algorithms		
C305.5	Design different language modelling Techniques.		

Semester No:	5		
Course Title:	Data Mining Lab	**Course Code:**	C306
Course Outcome No.	**Course Outcome Statement**		
C306.1	Experiment on data mining tools.		
C306.2	Apply data mining algorithms.		
C306.3	Analyze and pre-process data.		
C306.4	Implement Decision Trees for cross-validation.		
C306.5	Develop data mining models.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	5		
Course Title:	Computer Networks and Web Technologies Lab	**Course Code:**	C307
Course Outcome No.	**Course Outcome Statement**		
C307.1	Implement data link layer protocols.		
C307.2	Illustrate routing and congestion control techniques in a network.		
C307.3	Design and develop web applications.		
C307.4	Develop server-side scripting.		
C307.5	Apply web development frameworks and tools.		

Semester No:	5		
Course Title:	R Programming Lab	**Course Code:**	C308
Course Outcome No.	**Course Outcome Statement**		
C308.1	Implement basic concepts of R programming.		
C308.2	Implement the concepts of R fundamentals.		
C308.3	Apply descriptive statistics on different data sets.		
C308.4	Make Use of R Graphics and R Script.		
C308.5	Create Data types, Transformations and Relational Database Using SQL.		

Semester No:	6		
Course Title:	Artificial Intelligence	**Course Code:**	C309
Course Outcome No.	**Course Outcome Statement**		
C309.1	Formulate an efficient problem space for a problem expressed in natural language.		
C309.2	Select a search algorithm for a problem and estimate its time and space complexities.		
C309.3	Representing knowledge using the appropriate technique for a given problem.		
C309.4	Apply AI techniques to solve problems of game playing and machine learning.		
C309.5	Act on uncertain problem solving.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	6		
Course Title:	Compiler Design	**Course Code:**	C310
Course Outcome No.	**Course Outcome Statement**		
C310.1	Compute tokens and regular expressions for lexical analysis.		
C310.2	Implement top-down and bottom-up parsers.		
C310.3	Construct Intermediate code for Procedures.		
C310.4	Optimize the code generation.		
C310.5	Analyze the data flow.		

Semester No:	6		
Course Title:	Software Engineering	**Course Code:**	C311
Course Outcome No.	**Course Outcome Statement**		
C311.1	Compose end-user requirements into the system.		
C311.2	Identify and apply the process model based on software requirements.		
C311.3	Build the design of a systematic models.		
C311.4	Construct testing strategies and generate a report.		
C311.5	Quantify the metrics for process and products.		

Semester No:	6		
Course Title:	Software Testing Methodologies	**Course Code:**	C312
Course Outcome No.	**Course Outcome Statement**		
C312.1	Compare and contrast the various testing strategies.		
C312.2	Demonstrate data flow and domain testing strategies.		
C312.3	Describe anomalies and build decision table, kv charts.		
C312.4	Analyze the graph-based testing metrics with its applications.		
C312.5	Implement test cases using WinRunner tool.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	6		
Course Title:	Introduction to Data Science	**Course Code:**	C313
Course Outcome No.	**Course Outcome Statement**		
C313.1	Apply data science principles to perform exploratory data analysis.		
C313.2	Manipulate and process arrays and datasets using NumPy and pandas.		
C313.3	Load, store, and manage structured and unstructured data files.		
C313.4	Combine, reshape, and transform datasets for meaningful insights.		
C313.5	Visualize data effectively using matplotlib and pandas plotting tools.		

Semester No:	6		
Course Title:	Artificial Intelligence Lab	**Course Code:**	C314
Course Outcome No.	**Course Outcome Statement**		
C314.1	Implement fundamental AI search algorithms using LISP/PROLOG.		
C314.2	Apply adversarial search techniques and game playing methods using LISP/PROLOG.		
C314.3	Solve constraint-based problem such as monkey-banana and 8-puzzle problem LISP/PROLOG.		
C314.4	Design and Develop an Expert System with forward chaining using JESS/PROLOG.		
C314.5	Build an Expert System with backward chaining using JESS/PROLOG.		

Semester No:	6		
Course Title:	Advanced Communication Skills Lab	**Course Code:**	C315
Course Outcome No.	**Course Outcome Statement**		
C315.1	Interpret the vocabulary to improve the fluency in English.		
C315.2	Illustrate the ideas to use of communication skills.		
C315.3	Develop proficiency in academic reading and writing.		
C315.4	Apply innovative presentation styles.		
C315.5	Use advanced communication technologies.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	6		
Course Title:	Software Testing Methodologies Lab	**Course Code:**	C316
Course Outcome No.	**Course Outcome Statement**		
C316.1	Identify recording in context sensitive mode and analog mode.		
C316.2	Demonstrate the GUI, Bitmap and Database checkpoints.		
C316.3	Analyze Data driven test through flat files and excel test.		
C316.4	Recognize Batch testing without and with parameter passing.		
C316.5	Develop the test case for calculator application.		

IV YEAR COURSE OUTCOMES - R20 (2021-2025)

Semester No:	7		
Course Title:	Business Economics And Financial Analysis	**Course Code:**	C401
Course Outcome No.	**Course Outcome Statement**		
C401.1	Describe the various forms of Business and its impact on economy.		
C401.2	Comprehend the demand and supply.		
C401.3	Explore the usage of marketing and pricing of a product.		
C401.4	Analyze financial statements and reports.		
C401.5	Use financial ratios and metrics to evaluate business performance.		

Semester No:	7		
Course Title:	Machine Learning	**Course Code:**	C402
Course Outcome No.	**Course Outcome Statement**		
C402.1	Describe the concept of computational intelligence.		
C402.2	Demonstrate artificial neural networks and their usage.		
C402.3	Implement machine learning algorithms.		
C402.4	Analyze instant based learning algorithms by set rules.		
C402.5	Evaluate Analytical and Inductive learning algorithms.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	7		
Course Title:	Cloud Computing	**Course Code:**	C403
Course Outcome No.	**Course Outcome Statement**		
C403.1	Describe the cloud computing paradigms.		
C403.2	Explore various service delivery models of a cloud computing architecture.		
C403.3	Demonstrate the cloud infrastructure management and migration tools.		
C403.4	Apply the cloud services.		
C403.5	Analyze different cloud service providers.		

Semester No:	7		
Course Title:	Deep Learning	**Course Code:**	C404
Course Outcome No.	**Course Outcome Statement**		
C404.1	Understand the concepts of Neural Networks.		
C404.2	Select the Learning Networks in modeling real-world systems.		
C404.3	Apply optimization strategies for large scale applications.		
C404.4	Use an efficient algorithm for Deep Models.		
C404.5	Implement Deep learning models in various domains.		

Semester No:	7		
Course Title:	Information Retrieval Systems	**Course Code:**	C405
Course Outcome No.	**Course Outcome Statement**		
C405.1	Describe Information Retrieval systems principles for large collections of data.		
C405.2	Develop data models using statistical approaches.		
C405.3	Implement different automatic document clustering algorithms.		
C405.4	Design the Information Retrieval System for web and text searching.		
C405.5	Apply visualization tools for multimedia information retrieval.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	7		
Course Title:	Machine Learning Lab	**Course Code:**	C406
Course Outcome No.	**Course Outcome Statement**		
C406.1	Describe the mathematical and statistical prospectives of Machine learning algorithms through python programming.		
C406.2	Implement Machine learning algorithms.		
C406.3	Use machine learning libraries and frameworks.		
C406.4	Apply classification techniques for real world problems.		
C406.5	Analyze and interpret machine learning models.		

Semester No:	7		
Course Title:	Industry Oriented Mini Project	**Course Code:**	C407
Course Outcome No.	**Course Outcome Statement**		
C407.1	Identify and explain the problem clearly, generate creative ideas to solve it, and analyze the problem critically to develop effective solutions.		
C407.2	Apply appropriate methods, tools, and technologies to design and implement practical and functional solutions.		
C407.3	Analyze project results, interpret findings, and evaluate outcomes to suggest evidence-based improvements.		
C407.4	Evaluate contributions to achieve project goals through project management principles.		
C407.5	Demonstrate professional communication and ethical behavior through proper project documentation and presentation.		

Semester No:	7		
Course Title:	Seminar	**Course Code:**	C408
Course Outcome No.	**Course Outcome Statement**		
C408.1	Understand and explain the technical topic by identifying key concepts, objectives,and relevance to engineering problems.		
C408.2	Apply appropriate research methodology and technical tools to analyze the seminar topic effectively.		
C408.3	Explain clear and structured presentations, supported by effective visuals and proper documentation.		
C408.4	Demonstrate innovation and critical thinking while presenting advanced ideas And engaging in lifelong learning.		
C408.5	Defend the seminar content confidently during viva-voce and submit a well-organized technical report.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	7		
Course Title:	Project Stage – I	**Course Code:**	C409
Course Outcome No.	**Course Outcome Statement**		
C409.1	Develop a clear and concise problem statement and define achievable project objectives that are well-aligned with the identified problem.		
C409.2	Review and analyze relevant literature to identify research gaps, and develop an effective project design rounded in engineering principles.		
C409.3	Demonstrate effectively research findings through a structured presentation and a well-organized project report.		

Semester No:	8		
Course Title:	Organizational Behaviour	**Course Code:**	C410
Course Outcome No.	**Course Outcome Statement**		
C410.1	Describe the environmental and organizational behaviour.		
C410.2	Develop the personality and process attributes.		
C410.3	Apply decision making at individual and team levels.		
C410.4	Explore power and politics.		
C410.5	Analyze the performance and work practices.		

Semester No:	8		
Course Title:	Cyber Forensics	**Course Code:**	C411
Course Outcome No.	**Course Outcome Statement**		
C411.1	Describe the crime types and incident response procedures.		
C411.2	Understand the usage of computers in forensic laboratories.		
C411.3	Explore the data analysis and visualization techniques.		
C411.4	Use various forensic tools for a wide variety of investigations.		
C411.5	Design principles of data management methods.		

Department of CSE [Artificial Intelligence & Machine Learning]

Semester No:	8		
Course Title:	Scripting Languages	**Course Code:**	C412
Course Outcome No.	**Course Outcome Statement**		
C412.1	Comprehend the SOAP architecture and web services.		
C412.2	Understand the Ruby scripting language.		
C412.3	Apply the basic Perl programming language.		
C412.4	Implement the advanced programming in PERL.		
C412.5	Apply TCL programming.		

Semester No:	8		
Course Title:	Project Stage-II	**Course Code:**	C413
Course Outcome No.	**Course Outcome Statement**		
C413.1	Demonstrate progress in implementing the project by effectively selecting and applying appropriate engineering tools, techniques, and practices in line with project requirements.		
C413.2	Apply systematic testing strategies and validation methods to identify issues and improve the functionality and performance of the project.		
C413.3	Develop original ideas or innovative approaches in the design or implementation of the project.		
C413.4	Describe the proposed system ,interpret output/results and connect to defined objectives.		
C413.5	Compose a well- structured project report that communicates technical content, results, and conclusions effectively.		
C413.6	Analyze the social and environmental impacts through professional communication, collaboration, and ethical conduct.		