

**Sri Venkateshwara College of Engineering**  
**Department of Information Science and engineering**

**2017 Scheme Course Outcomes**

**Sub. Code: 17MAT31**

**Sub. Name: Engg. Mathematics 3**

**At the end of the course, the student will be able to:**

<b>CO231.1</b>	Find the Fourier series for periodic functions.	K2
<b>CO231.2</b>	Apply transforms: Discrete or Continuous for a variety of simple functions.	K2
<b>CO231.3</b>	Use appropriate numerical methods to solve algebraic and transcendental equations and fitting of curves.	K3
<b>CO231.4</b>	Employ interpolating formulae for equal and unequal intervals and solve definite integrals.	K3
<b>CO231.5</b>	Apply Green's, Stoke's and Gauss divergence theorem's for various applications and solve simple problems on functionals and geodesics.	K3

**Sub. Code: 17CS32**

**Sub. Name: Analog and Digital Electronics**

**At the end of the course, the student will be able to:**

<b>CO232.1</b>	Explain the operation of JFETs and MOSFETs , Operational Amplifier circuits and their applications.	K2
<b>CO232.2</b>	Explain Combinational Logic, Simplification Techniques using Karnaugh Maps, Quine McClusky technique.	K2
<b>CO232.3</b>	Demonstrate Operation of Decoders, Encoders, Multiplexers, Adders and Subtractors.	K3
<b>CO232.4</b>	Demonstrate working of Latches and Flip-Flops.	K3
<b>CO232.5</b>	Design of Counters, Registers and A/D & D/A converters	K3

**Sub. Code: 17CS33**

**Sub. Name: Data Structures and Applications**

**At the end of the course, the student will be able to:**

<b>CO238.1</b>	Explain different types of Data Structures, Operations and Algorithms	K2
<b>CO238.2</b>	Apply Searching and Sorting Operations on Files	K3
<b>CO238.3</b>	Apply Array, Stack, Queue and List Data Structure in Problem Solving	K3
<b>CO238.4</b>	Apply Trees and Graphs in Problem Solving	K3
<b>CO238.5</b>	Implement all Data Structures in a High-level Language for Problem Solving	K3

**Sub. Code: 17CS34**

**Sub. Name: Computer Organization**

**At the end of the course, the student will be able to:**

<b>CO234.1</b>	Understand the basics of computer organization-structure and operation of computers and their peripherals.	K2
<b>CO234.2</b>	Understand the concepts of programs as sequences or machine instructions.	K2
<b>CO234.3</b>	Explore different ways of communicating with I/O devices and standard I/O interfaces.	K2
<b>CO234.4</b>	Describe hierarchical memory systems including cache memories and virtual memory.	K2
<b>CO234.5</b>	Describe the arithmetic and logical operations with integer and floating –point operands.	K2

**Sub. Code: 17CS35**

**Sub. Name: Unix and Shell  
Programming**

**At the end of the course, the student will be able to:**

<b>CO235.1</b>	Analyse the Architecture and basic commands for UNIX Operating System.	K4
<b>CO235.2</b>	Analyse UNIX File System with its attributes and permissions.	K4
<b>CO235.3</b>	Analyse the UNIX Shell Interpretation Cycle with Wild Cards, RE and editors.	K4
<b>CO235.4</b>	Analyse shell script using different control structures.	K4
<b>CO235.5</b>	Analyse the fundamentals of UNIX process and system programming.	K4

**Sub. Code: 17CS36**

**Sub. Name: Discrete Mathematical  
Structures**

**At the end of the course, the student will be able to:**

<b>CO236.1</b>	Verify the correctness of an argument using propositional and predicate logic and truth tables.	K3
<b>CO236.2</b>	Demonstrate the ability to solve problems using counting techniques and combinatorics in the context of discrete probability.	K3
<b>CO236.3</b>	Perform operations on discrete structures such as functions, relations and sequences.	K3
<b>CO236.4</b>	Solve problems involving recurrence relations and mathematical induction.	K3
<b>CO236.5</b>	Demonstrate the knowledge of fundamental concepts in graph theory including properties of trees, prefix codes.	K3

**Sub. Code: 17CSL37**

**Sub. Name: Analog and Digital  
Electronics Lab**

**At the end of the course, the student will be able to:**

<b>CO237.1</b>	Design and demonstrate various combinational logic circuits.	K3
<b>CO237.2</b>	Design and demonstrate various types of counters and Registers using Flip-flops.	K3
<b>CO237.3</b>	Design Analog and Digital Circuits using Simulation package.	K3
<b>CO237.4</b>	Design Multivibrator, Relaxation Oscillator, Window comparator circuits.	K3
<b>CO237.5</b>	Design of Counters, Registers and A/D & D/A converters	K3

**Sub. Code: 17CSL38**

**Sub. Name: Data Structures Lab**

**At the end of the course, the student will be able to:**

<b>CO238.1</b>	Develop a program using linear data structures such as array and circular queue.	K3
<b>CO238.2</b>	Develop a program for basic operations of stack and its applications.	K3
<b>CO238.3</b>	Construct a program using non-linear data structures and their applications such as trees and graphs	K3
<b>CO238.4</b>	Construct a program using linear data structures for linked lists.	K3
<b>CO238.5</b>	Implement Hashing using linear data structures.	K3

**Sub. Code: 17MAT41**

**Sub. Name: Engg. Mathematics 4**

**At the end of the course, the student will be able to:**

<b>CO241.1</b>	Solve first and second order ordinary differential equation arising in flow problems using single step and multistep numerical methods.	K2
<b>CO241.2</b>	Illustrate problems of potential theory, quantum mechanics and heat conduction by employing notions and properties of Bessel's functions and Legendre's polynomials.	K2
<b>CO241.3</b>	Illustrate the concepts of analytic functions, residues, poles of complex potentials and describe conformal and Bilinear transformation arising in field theory and signal processing.	K3
<b>CO241.4</b>	Develop probability distribution of discrete, continuous random variables and joint probability distribution occurring in digital signal processing, information theory and design engineering.	K3
<b>CO241.5</b>	Demonstrate testing of hypothesis of sampling distributions and illustrate examples of Markov chains related to discrete parameter stochastic process.	K3

**Sub. Code: 17CS42**

**Sub. Name: Object Oriented Concepts**

**At the end of the course, the student will be able to:**

<b>CO242.1</b>	Apply the object-oriented concepts of C++ to implement applications.	K3
<b>CO242.2</b>	Develop application programs using basic data types, operators and conditional statements in Java	K3
<b>CO242.3</b>	Develop Object Oriented programs in Java using principles of Data Encapsulation, Code Reusability and Exceptional Handling.	K3
<b>CO242.4</b>	Develop Multithreaded and Event Handling application programs in Java.	K3
<b>CO242.5</b>	Develop interactive Java Applets using features of Swings.	K3

**Sub. Code: 17CS43**

**Sub. Name: Design and Analysis of Algorithms**

**At the end of the course, the student will be able to:**

<b>CO243.1</b>	Describe the computational solution to well-known problems.	K2
<b>CO243.2</b>	Estimate the computational complexity of different algorithms.	K3
<b>CO243.3</b>	Explain various strength and weaknesses of algorithms.	K2
<b>CO243.4</b>	Solve the graphical oriented problems.	K3
<b>CO243.5</b>	Apply the algorithms for solving problems.	K3

**Sub. Code: 17CS44**

**Sub. Name: Microprocessors and Microcontrollers**

**At the end of the course, the student will be able to:**

<b>CO244.1</b>	Explain the architecture, operation and addressing modes of 8086 microprocessor.	K2
<b>CO244.2</b>	Design software and firmware programs using assembly language programming.	K3
<b>CO244.3</b>	Analyze the working of special purpose processors like 8255 and 8259.	K3
<b>CO244.4</b>	Explain the architecture ARM processor.	K2
<b>CO244.5</b>	Design the software programs using instruction set of ARM processor.	K3

**Sub. Code: 17CS45**

**Sub. Name: Software Engineering**

**At the end of the course, the student will be able to:**

<b>CO245.1</b>	Design a software system, component, or process to meet desired needs within realistic constraints.	K2
<b>CO245.2</b>	Assess professional and ethical responsibility.	K2
<b>CO245.3</b>	Explain the function of multi-disciplinary teams.	K2
<b>CO245.4</b>	Make use of techniques, skills, and modern engineering tools necessary for engineering practice.	K2
<b>CO245.5</b>	Comprehend software systems or parts of software systems.	K2

**Sub. Code: 17CS46**

**Sub. Name: Data Communication**

**At the end of the course, the student will be able to:**

<b>CO246.1</b>	Illustrate basic computer network technology.	K3
<b>CO246.2</b>	Illustrate the different types of network topologies and protocols.	K3
<b>CO246.3</b>	Illustrate the layers of the OSI model and TCP/IP model.	K3
<b>CO246.4</b>	Comprehend the different types of network devices and their functions within a network	K3
<b>CO246.5</b>	Demonstrate subnetting and routing mechanisms.	K3

**Sub. Code: 17CSL47**

**Sub. Name: Design and Analysis of Algorithms Lab**

**At the end of the course, the student will be able to:**

<b>CO247.1</b>	Design algorithms using divide and conquer and greedy methods.	K3
<b>CO247.2</b>	Demonstrate the object-oriented concepts such as class, inheritance, Exception and Multithreading.	K3
<b>CO247.3</b>	Analyze the performance of merge sort and quick sort algorithms using divide and conquer technique.	K3
<b>CO247.4</b>	Design algorithms using dynamic programming.	K3
<b>CO247.5</b>	Design algorithms using back tracking methods.	K3

**Sub. Code: 17CSL48**

**Sub. Name: Microprocessor and Microcontrollers Lab**

**At the end of the course, the student will be able to:**

<b>CO248.1</b>	Explain 80x86 instruction set and gain the knowledge how assembly language works.	K2
<b>CO248.2</b>	Explain assembly programs using 80x86 assembly language instructions.	K2
<b>CO248.3</b>	Explain the functioning of hardware devices and interfacing them into x86 family	K2
<b>CO248.4</b>	Explain ARM7 assembly language with instruction sets.	K2
<b>CO248.5</b>	Explain hardware interfacing concepts.	K2



**Sub. Code: 17CS51**

**Sub. Name: Management and  
Entrepreneurship for IT Industry**

**At the end of the course, the student will be able to:**

<b>CO351.1</b>	Explain the structure of organization, characteristics of management and the planning process and staffing.	K2
<b>CO351.2</b>	Define the various roles of Co-ordination, controlling and directing of the staff.	K2
<b>CO351.3</b>	Describe roles and responsibilities of various entrepreneurs and implement systematic approaches in project preparation with financial support.	K2
<b>CO351.4</b>	Explain resources available from Enterprise Resource Planning (ERP).	K2
<b>CO351.5</b>	Explain IPR and institutional support in Entrepreneurship.	K2

**Sub. Code: 17CS52**

**Sub. Name: Computer Networks**

**At the end of the course, the student will be able to:**

<b>CO352.1</b>	Illustrate the principles of application layer protocols	K3
<b>CO352.2</b>	Illustrate the transport layer services and infer UDP and TCP protocols	K3
<b>CO352.3</b>	Illustrate Routing Algorithms in network layer	K3
<b>CO352.4</b>	Illustrate the principles Wireless and Mobile Networks covering IEEE 802.11 Standard	K3
<b>CO352.5</b>	Illustrate the principles of Multimedia Networking and Network Management	K3

**Sub. Code: 17CS53**

**Sub. Name: Database Management System**

**At the end of the course, the student will be able to:**

<b>CO353.1</b>	Describe architecture of Database Management System and design mathematical models for various databases.	K2
<b>CO353.2</b>	Create, Manipulate Database and perform set operations for the database.	K3
<b>CO353.3</b>	Normalize the Database depending upon requirements.	K3
<b>CO353.4</b>	Ensure simple and concurrent transactions on Database.	K3
<b>CO353.5</b>	Develop a simple application using Database.	K3

**Sub. Code: 17CS54**

**Sub. Name: Automata Theory & Computability**

**At the end of the course, the student will be able to:**

<b>CO354.1</b>	Explain the core concepts in Automata and Theory of Computation.	K2
<b>CO354.2</b>	Identify different Formal language classes and their relationships.	K3
<b>CO354.3</b>	Design grammars and recognizers for different formal languages.	K3
<b>CO354.4</b>	Prove or disprove theorems in automata theory using their properties.	K3
<b>CO354.5</b>	Determine the decidability and intractability of computational problems	K3

**Sub. Code: 17CS553**

**Sub. Name: Advanced Java and J2EE**

**At the end of the course, the student will be able to:**

<b>CO355.1</b>	Develop Java Programs using concepts on Enumerations and Annotations.	K3
<b>CO355.2</b>	Develop Java Programs using Collections.	K3
<b>CO355.3</b>	Illustrate String and StringBuffer Class and their methods	K3
<b>CO355.4</b>	Develop Java EE programs using Servlets and Server Pages.	K3
<b>CO355.5</b>	Develop Java applications using JDBC.	K3

**Sub. Code: 17CS561**

**Sub. Name: Artificial Intelligence**

**At the end of the course, the student will be able to:**

<b>CO356.1</b>	Explain the problems where AI is required and the different methods available	K2
<b>CO356.2</b>	Explain the Concepts of Knowledge Representation issues in AI	K2
<b>CO356.3</b>	Explain the various techniques used for Uncertainty Issues in Data Processing	K2
<b>CO356.4</b>	Explain the different AI techniques available.	K2
<b>CO356.5</b>	Explain the concepts of various Natural Learning Processing algorithms	K2

**Sub. Code: 17CSL57**

**Sub. Name: Computer Networks Lab**

**At the end of the course, the student will be able to:**

<b>CO357.1</b>	Demonstrate the various networking protocols.	K3
<b>CO357.2</b>	Demonstrate the working of different concepts of networking.	K3
<b>CO357.3</b>	Implement and analyze networking protocols in NS2 / NS3	K3
<b>CO357.4</b>	Illustrate the principles of application layer and network layer protocols	K3
<b>CO357.5</b>	Implement and analyze protocols using Java programming	K3

**Sub. Code: 17CSL58**

**Sub. Name: Database Applications Lab**

**At the end of the course, the student will be able to:**

<b>CO358.1</b>	Use Structured Query Language (SQL) for database Creation and manipulation.	K3
<b>CO358.2</b>	Demonstrate the working of different concepts of DBMS.	K3
<b>CO358.3</b>	Construct a database by using data definition, data manipulation and control languages.	K3
<b>CO358.4</b>	Implement ODBC and JDBC connectivity.	K3
<b>CO358.5</b>	Implement and test the project developed for an application.	K3

**Sub. Code: 17CS61**

**Sub. Name: Cryptography, Network Security and Cyber Law**

**At the end of the course, the student will be able to:**

<b>CO361.1</b>	Illustrate the various Cyber Attack and Cryptographic techniques	K3
<b>CO361.2</b>	Illustrate cryptography and its need to various applications	K3
<b>CO361.3</b>	Design and develop simple cryptography algorithms	K3
<b>CO361.4</b>	Illustrate the principles of Wireless LAN Security, Firewalls, web service securities	K3
<b>CO361.5</b>	Apply cyber security and cyber Law	K3

**Sub. Code: 17IS62**

**Sub. Name: File Structures**

**At the end of the course, the student will be able to:**

<b>CO362.1</b>	Describe the creation of efficient file Structures and perform different operations on files to organize them properly on secondary storage devices	K2
<b>CO362.2</b>	Explain different methods to organize record structures in files	K2
<b>CO362.3</b>	Apply concept of matching and merging on different models of large files.	K3
<b>CO362.4</b>	Perform operations on files using the concepts of B-trees, B+ trees & apply indexing and multilevel indexing on files	K3
<b>CO362.5</b>	Apply hashing and extendible hashing on files for efficient retrieval of records.	K3

**Sub. Code: 17IS63**

**Sub. Name: Software Testing**

**At the end of the course, the student will be able to:**

<b>CO363.1</b>	Derive test cases for any given problem.	K3
<b>CO363.2</b>	Compare the different testing techniques.	K3
<b>CO363.3</b>	Classify the problem into suitable testing model.	K3
<b>CO363.4</b>	Apply the appropriate technique for the design flow graph.	K3
<b>CO363.5</b>	Create appropriate document for the software artefact.	K3

**Sub. Code: 17CS64**

**Sub. Name: Operating Systems**

**At the end of the course, the student will be able to:**

<b>CO364.1</b>	Understand operating system, system structure and management.	K2
<b>CO364.2</b>	Compare Process synchronization approaches.	K2
<b>CO364.3</b>	Explain different types of deadlocks handling methods.	K2
<b>CO364.4</b>	Categorize the various memory management schemes, file management and secondary storage management.	K2
<b>CO364.5</b>	Explain the different concepts of OS in platform of usage through case studies.	K2

**Sub. Code: 17CS653**

**Sub. Name: Operations Research**

**At the end of the course, the student will be able to:**

<b>CO365.1</b>	Formulate linear programming problems and its graphical interpretation.	K3
<b>CO365.2</b>	Solve linear programming problems using simplex method and its variants.	K3
<b>CO365.3</b>	Apply duality theory and dual simplex method to solve LPP.	K3
<b>CO365.4</b>	Determine solutions to the transportation and Assignment problems.	K3
<b>CO365.5</b>	Implement game theory concepts and understand Metaheuristics.	K3

**Sub. Code: 17CS664**

**Sub. Name: Python Application Programming**

**At the end of the course, the student will be able to:**

<b>CO366.1</b>	Illustrate Python syntax and semantics and be fluent in the use of Python flow control and Functions	K3
<b>CO366.2</b>	Demonstrate the proficiency in handling Strings and File Systems L	K3
<b>CO366.3</b>	Develop, run and manipulate Python programs using Core data structures like Lists, Dictionaries, and use of regular expressions	K3
<b>CO366.4</b>	Interpret the concepts of object-oriented programming using Python	K3
<b>CO366.5</b>	Develop real world applications related to Network Programming, Web Services and Databases in Python.	K3

**Sub. Code: 17ISL67**

**Sub. Name: Software Testing Lab**

**At the end of the course, the student will be able to:**

<b>CO367.1</b>	Illustrate the requirements for the given problem.	K3
<b>CO367.2</b>	Design and implement the solution for given problem in any programming language(C,C++,JAVA).	K3
<b>CO367.3</b>	Discuss test cases for any given problem.	K3
<b>CO367.4</b>	Apply the appropriate technique for the design of flow graph.	K3
<b>CO387.5</b>	Create appropriate document for the software artefact.	K3

**Sub. Code: 17ISL68**

**Sub. Name: File Structures Lab**

**At the end of the course, the student will be able to:**

<b>CO368.1</b>	Implement operations related to files	K3
<b>CO368.2</b>	Apply the concepts of file system to produce the given application	K3
<b>CO368.3</b>	Evaluate performance of various file systems on given parameters	K3
<b>CO368.4</b>	Perform Various Operations on Filed and Records	K3
<b>CO368.5</b>	Implement mini project using the concepts studied from the theory subject	K3



**Sub. Code: 17CS71**

**Sub. Name: Web Technology and its Applications**

**At the end of the course, the student will be able to:**

<b>CO471.1</b>	Adapt HTML and CSS syntax and semantics to build web pages.	K3
<b>CO471.2</b>	Construct and visual format tables and forms using HTML and CSS.	K3
<b>CO471.3</b>	Develop client-side scripts using JavaScript and Server-side Scripts using PHP to generate and display the contents dynamically.	K3
<b>CO471.4</b>	Appraise the principles of object-oriented development using PHP.	K3
<b>CO471.5</b>	Inspect JavaScript frameworks like jQuery and backbone which facilitates developer to focus on core features.	K3

**Sub. Code: 17IS72**

**Sub. Name: Software Architecture and Design Patterns**

**At the end of the course, the student will be able to:**

<b>CO472.1</b>	Describe codes with higher performance and lower complexity	K2
<b>CO472.2</b>	Illustrate the code qualities needed to keep code flexible	K3
<b>CO472.3</b>	Explain core design principles and understand the importance to assess the quality of a design with respect to these principles.	K2
<b>CO472.4</b>	List the capabilities of applying these principles in the design of object oriented systems.	K3
<b>CO472.5</b>	Demonstrate an understanding of a range of design patterns.	K3

**Sub. Code: 17CS73**

**Sub. Name: Machine Learning**

**At the end of the course, the student will be able to:**

<b>CO473.1</b>	Apply Principles of Concept Learning for designing effective classification Techniques.	K3
<b>CO473.2</b>	Apply and analyze the role of Decision Trees in Machine Learning.	K3
<b>CO473.3</b>	Apply and analyze the role of Artificial Neural Networks in Machine Learning.	K3
<b>CO473.4</b>	Apply Principles of Bayesian Learning for designing effective classification Techniques.	K3
<b>CO473.5</b>	Apply Instance based and Reinforcement learning methods to solve problems on Classifications.	K3

**Sub. Code: 17CS743**

**Sub. Name: Information and Network Security**

**At the end of the course, the student will be able to:**

<b>CO474.1</b>	Understand cryptography, Analyze various Classic Crypto.	K3
<b>CO474.2</b>	Illustrate Hash Function and different usage of Hash Function.	K3
<b>CO474.3</b>	Explain Fundamental Authentication Scheme and Analyze basic Cryptographic Protocols.	K2
<b>CO474.4</b>	Illustrate the need of key management.	K3
<b>CO474.5</b>	Analyse the Digital security lapses.	K3

**Sub. Code: 17IS753**

**Sub. Name: Information Management System**

**At the end of the course, the student will be able to:**

<b>CO475.1</b>	Illustrate the role of information systems and fundamentals of strategic advantages in business.	K3
<b>CO475.2</b>	Illustrate the Enterprise Business systems and functional business systems.	K3
<b>CO475.3</b>	Illustrate the current issues of information technology and relate those issues to the Firm.	K3
<b>CO475.4</b>	Analyse the importance of electronic commerce in business.	K3
<b>CO475.5</b>	Demonstrate the advantage of Decision support in business.	K3

**Sub. Code: 17CSL76**

**Sub. Name: Machine Learning Lab**

**At the end of the course, the student will be able to:**

<b>CO476.1</b>	Demonstrate simple algorithms for most specific hypothesis.	K3
<b>CO476.2</b>	Design and implement the various classification algorithms.	K3
<b>CO476.3</b>	Design and implement the algorithms for Bayesian Belief Network and Artificial Neural Network.	K3
<b>CO476.4</b>	Design and implement the various clustering algorithms.	K3
<b>CO476.5</b>	Demonstrate simple algorithms for most specific hypothesis.	K3

**Sub. Code: 17CSL77**

**Sub. Name: Web Technology Lab with  
Mini Project**

**At the end of the course, the student will be able to:**

<b>CO477.1</b>	Design and develop dynamic web pages using javascript with good aesthetic sense.	K3
<b>CO477.2</b>	Design and develop web applications using PHP.	K3
<b>CO477.3</b>	Design and develop web applications using XML and CSS.	K3
<b>CO477.4</b>	Illustrate the how to connect web pages to database.	K3
<b>CO477.5</b>	Implement mini project for a specific web applications.	K3

**Sub. Code: 17CSP78**

**Sub. Name: Project Work Phase 1**

**At the end of the course, the student will be able to:**

<b>CO478.1</b>	Analyze the problem, formulation and solution of the selected project	K3
<b>CO478.2</b>	Develop solutions for contemporary problems using modern tools for sustainable development.	K3
<b>CO478.3</b>	Demonstrate ethical and professional sustainability while working in a team and communicate effectively for the benefit of the society.	K3
<b>CO478.4</b>	Apply the engineering, finance and management principles.	K3
<b>CO478.5</b>	Write test cases and prepare project documentation.	K3

**Sub. Code: 17CS81**

**Sub. Name: Internet of Things  
Technology**

**At the end of the course, the student will be able to:**

<b>CO481.1</b>	Differentiate the IoT Architectures based on functionality and its applications.	K4
<b>CO481.2</b>	Apply and Analyze the communication criterion and access technologies for connecting Smart Objects.	K3
<b>CO481.3</b>	Apply and Optimize the Internet Protocol for IoT.	K3
<b>CO481.4</b>	Analyze the Role of Data and Network Analytics in the development of Secured IoT Applications.	K4
<b>CO481.5</b>	Analyze the Technical Specifications of Arduino and Raspberry Pi Board for the development of Smart IoT Applications.	K4

**Sub. Code: 17CS82**

**Sub. Name: Big Data Analytics**

**At the end of the course, the student will be able to:**

<b>CO482.1</b>	Explain the concepts of HDFS and Map Reduce framework.	K2
<b>CO482.2</b>	Investigate Hadoop related tools for Big Data Analytics and perform basic Hadoop Administration.	K2
<b>CO482.3</b>	Appraise the role of Business Intelligence, Data warehousing and Visualization in decision making.	K2
<b>CO482.4</b>	Assess the importance of core data mining techniques for data analytics.	K2
<b>CO482.5</b>	Identify various Text Mining Techniques.	K2

**Sub. Code: 17IS832**

**Sub. Name: User Interface Design**

**At the end of the course, the student will be able to:**

<b>CO483.1</b>	Illustrate User Interface, importance and characteristics the of graphical and web user interfaces	K3
<b>CO483.2</b>	Analyse the study about business functions and Requirement	K3
<b>CO483.3</b>	Illustrate the components of Menus and the various controls for the Menus	K3
<b>CO483.4</b>	Illustrate about various Characteristics in window design with text, graphics	K3
<b>CO483.5</b>	Analyse the methods of screen-based controls	K3

**Sub. Code: 17IS84**

**Sub. Name: Internship and Professional Practice**

**At the end of the course, the student will be able to:**

<b>CO484.1</b>	Analyse and apply engineering knowledge and management principles to design the solution for the given problem statement.	K4
<b>CO484.2</b>	Analyse and apply knowledge and skills relevant to their field through the interaction with their group members.	K4
<b>CO484.3</b>	Analyze and apply the application and modern tools to improve the efficiency of the challenges present in project.	K4
<b>CO484.4</b>	Analyse and apply the practice of professional ethics and responsibilities.	K4
<b>CO484.5</b>	Analyse and apply efficient communication and team work strategies.	K4

**Sub. Code: 17ISP85**

**Sub. Name: Project Work Phase 2**

**At the end of the course, the student will be able to:**

<b>CO485.1</b>	Analyze the problem, formulation and solution of the selected project	K4
<b>CO485.2</b>	Analyse and develop solutions for contemporary problems using modern tools for sustainable development.	K4
<b>CO485.3</b>	Analyse and apply ethical and professional sustainability while working in a team and communicate effectively for the benefit of the society.	K4
<b>CO485.4</b>	Analyse and apply the engineering, finance and management principles.	K4
<b>CO485.5</b>	Analyse and apply proper test cases and prepare project documentation.	K4

**Sub. Code: 17ISS86**

**Sub. Name: Technical Seminar**

**At the end of the course, the student will be able to:**

<b>CO486.1</b>	Analyse recent technical topics from interested domains.	K4
<b>CO486.2</b>	Analyze the applicability of modern software tools and technology.	K4
<b>CO486.3</b>	Analyze and apply the application and modern tools to improve the efficiency of the challenges present in project.	K4
<b>CO486.4</b>	Analyse and apply the practice of professional ethics and responsibilities.	K4
<b>CO486.5</b>	Analyse and apply efficient communication skills.	K4