Jaihind College of Engineering, Kuran (4084)
Department of Computer Engineering
Course Outcomes

Third Year of Computer Engineering (2019 Course)		
Database Management Systems	310241	CO1: Analyze and design Database Management System using ER model CO2: Implement To understand systematic database design approaches CO3:database queries using database languages CO4: Apply Transaction Management concepts in real-time situations CO5: Use NoSQL databases for processing unstructured data CO6: Differentiate between Complex Data Types and analyze the use of appropriate data types
Theory of Computation	310242	CO1: Understand formal language, translation logic, essentials of translation, alphabets, language representation and apply it to design Finite Automata and its variants CO2: Construct regular expression to present regular language and understand pumping lemma for RE CO3: Design Context Free Grammars and learn to simplify the grammar CO4: Construct Pushdown Automaton model for the Context Free Language CO5: Devise Turing Machine for the different requirements outlined by theoretical computer science CO6: Analyze different classes of problems, and study concepts of NP completeness
Systems Programming and Operating System	310243	CO1: Analyze and synthesize basic System Software and its functionality. CO2: Identify suitable data structures and Design & Implement various System Software CO3: Compare different loading schemes and analyze the performance of linker and loader CO4: Implement and Analyze the performance of process scheduling algorithms CO5: Identify the mechanism to deal with deadlock and concurrency issues CO6: Demonstrate memory organization and memory management policies
Computer Networks and Security	310244	CO1: Summarize fundamental concepts of Computer Networks,architectures, protocols and technologies CO2: Illustrate the working and functions of data link layer CO3: Analyze the working of different routing protocols and mechanisms CO4: Implement client-server applications using sockets CO5: Illustrate role of application layer with its protocols, client-server architectures CO6: Comprehend the basics of Network Security
Elective I- Internet of Things and Embedded Systems	310245A	CO1: Understand formal language, translation logic, essentials of translation, alphabets, language representation and apply it to design Finite Automata and its variants CO2: Construct regular expression to present regular language and understand pumping lemma for RE CO3: Construct regular expression to present regular lan Design Context Free Grammars and learn to simplify the grammar CO4: Construct Pushdown Automaton model for the Context Free Language CO5: Devise Turing Machine for the different requirements outlined by theoretical computer science CO6: Analyze different classes of problems, and study concepts of NP completeness
Elective I- Human Computer Interface	310245B	CO1: Design effective Human-Computer-Interfaces for all kinds of users CO2: Apply and analyze the user-interface with respect to golden rules of interface CO3: Analyze and evaluate the effectiveness of a user-interface design CO4: Implement the interactive designs for feasible data search and retrieval CO5: Analyze the scope of HCI in various paradigms like ubiquitous computing, virtual,reality ,multi-media, World wide web related environments CO6: Analyze and identify user models, user support, and stakeholder requirements of HCI systems
Elective I- Distributed Systems	310245C	CO1: Analyze Distributed Systems types and architectural styles CO2: Implement communication mechanism in Distributed Systems CO3: Implement the synchronization algorithms in Distributed System applications CO4: Develop the components of Distributed File System CO5: Apply replication techniques and consistency model in Distributed Systems CO6: Build fault tolerant Distributed Systems

Elective I- Software Project Management	310245D	CO1: Comprehend Project Management Concepts CO2: Use various tools of Software Project Management CO3: Schedule various activities in software projects CO4: Track a project and manage changes CO5: Apply Agile Project Management CO6: Analyse staffing process for team building and decision making in Software Projects and Management
Database Management Systems Laboratory	310246	CO1: Design E-R Model for given requirements and convert the same into database tables CO2: Design schema in appropriate normal form considering actual requirements CO3: Implement SQL queries for given requirements, using different SQL concepts CO4: Implement PL/SQL Code block for given requirements CO5: Implement NoSQL queries using MongoDB CO6: Design and develop application considering actual requirements and using database concepts
Computer Networks and Security Laboratory	310247	CO1: Analyze the requirements of network types, topology and transmission media CO2: Demonstrate error control, flow control techniques and protocols and analyze them CO3: Demonstrate the subnet formation with IP allocation mechanism and apply various routing algorithms CO4: Develop Client-Server architectures and prototypes CO5: Implement web applications and services using application layer protocols CO6: Use network security services and mechanisms
Laboratory Practice I	310248	**Systems Programming and Operating System** CO1: Implement language translators CO2: Use tools like LEX and YACC CO3: Implement internals and functionalities of Operating System **Internet of Things and Embedded Systems** CO4: Design IoT and Embedded Systems based application CO5: Develop smart applications using IoT CO6: Develop IoT applications based on cloud environment
Seminar and Technical Communication	310249	CO1: Analyze a latest topic of professional interest CO2: Enhance technical writing skills CO3: Identify an engineering problem, analyze it and propose a work plan to solve it CO4:Communicate with professional technical presentation skills
Audit Course 5	310250	**310250(A) Cyber Security** CO 1: Understand and classify various cybercrimes CO 2: Understand how criminals plan for the cybercrimes CO 3: Apply tools and methods used in cybercrime CO 4:Analyze the examples of few case studies of cybercrimes
Data Science and Big Data Analytics	310251	CO1: Analyze needs and challenges for Data Science Big Data Analytics CO2: Apply statistics for Big Data Analytics CO3: Apply the lifecycle of Big Data analytics to real world problems CO4: Implement Big Data Analytics using Python programming CO5: Implement data visualization using visualization tools in Python programming CO6: Design and implement Big Databases using the Hadoop ecosystem
Web Technology	310252	CO1: Implement and analyze behavior of web pages using HTML and CSS CO2: Apply the client side technologies for web development CO3: Analyze the concepts of Servlet and JSP CO4: Analyze the Web services and frameworks CO5: Apply the server side technologies for web development CO6: Create the effective web applications for business functionalities using latest web development platforms

Artificial Intelligence	310253	CO1: Identify and apply suitable Intelligent agents for various AI applications CO2: Build smart system using different informed search / uninformed search or heuristic approaches CO3: Identify knowledge associated and represent it by ontological engineering to plan a strategy to solve given problem CO4: Apply the suitable algorithms to solve AI problems CO5: Implement ideas underlying modern logical inference systems CO6: Represent complex problems with expressive yet carefully constrained language of representation
Elective II- Information Security	310254(A)	CO1: Model the cyber security threats and apply formal procedures to defend the attacks CO2: Apply appropriate cryptographic techniques by learning symmetric and asymmetric key cryptography CO3: Design and analyze web security solutions by deploying various cryptographic techniques along with data integrity algorithms CO4: Identify and Evaluate Information Security threats and vulnerabilities in Information systems and apply security measures to real time scenarios CO5: Demonstrate the use of standards and cyber laws to enhance Information Security in the development process and infrastructure protection
Elective II- Augmented and Virtual Reality	310254(B)	CO1: Understand the basics of Augmented and Virtual reality systems and list their applications