Department of Computer Science and Engineering

B.E. 5th Sem

Course: Database Management Systems **Course Code: (5KS01)**

At the end of Database Management System course the student will be able:

CO 1: To model, design and normalize databases for real life applications.

CO 2: To discuss data models, conceptualize and depict a database system using ER diagram.

CO 3: To query database applications using Query Languages like SQL.

CO 4: To design & develop transaction processing approach for relational databases.

CO 5: To understand validation framework like integrity constraints, triggers and assertions.

Course: Compiler Design **Course Code: (5KS02)**

At the end of Complier Design course the student will be able:

CO 1: To describe the fundamentals of compiler and various phases of compilers.

CO 2: To design and implement LL and LR parsers.

CO 3: To solve the various parsing techniques like SLR, CLR, LALR.

CO 4: To examine the concept of Syntax-Directed Definition and translation.

CO 5: To assess the concept of Intermediate-Code Generation and run-time environment.

CO 6: To explain the concept code generation and code optimization.

Course: Computer Architecture and Organization **Course Code: (5KS03)**

At the end of Computer Architecture and Organization course the student will be able:

CO 1: To discuss basic structure of computer.

CO 2: To understand the basic operation of CPU.

CO 3: To compare and select various Memory and I/O devices as per requirement.

CO 4: To solve the concepts of number representation and their operation.

CO 5: To explain the concept of parallel processing and pipelining.

Course: Introduction to Cyber Security (PE-I) **Course Code: (5KS04)**

At the end of Introduction Cyber Security course the student will be able:

CO 1: To know fundamentals of Cybercrimes and Cyber offenses.

CO 2: To realize the Cyber threats, attacks and Vulnerabilities.

CO 3: To explore the industry practices and tools.

CO 4: To comprehend the Access Control and Authentication Process.

CO 5: To implement Intrusion Detection and Prevention.

Course: Entrepreneurship (OE-I) **Course Code: (5KS05)**

At the end of Entrepreneurship course the student will be able:

CO 1: To analyze the business environment in order to identify business opportunities.

CO 2: To identify the elements of success of entrepreneurial ventures.

CO 3: To evaluate the effectiveness of different entrepreneurial strategies,

CO 4: To specify the basic performance indicators of entrepreneurial activity

CO 5: To explain the importance of marketing and management in small businesses venture.

CO 6: To interpret their own business plan.

B.E. 6th Sem

Course: Security Policy and Governance **Course Code: (6KS01)**

At the end of Security Policy and Governance course the student will be able:

CO 1: To list and discuss the key characteristics of Information Security, Leadership and Management.

CO 2: To differentiate between Law and Ethics.

CO 3: To describe why ethical codes of conduct are important to Information Security.

CO 4: To discuss the importance, benefits and desired outcomes of Information Security Governance.

CO 5: To discuss the process of developing, implementing and maintaining various types of Information Security Policies.

CO 6: To define Risk Management and its role in the organization.

Course: Design and Analysis of Algorithm **Course Code: (6KS02)**

At the end of Design and Analysis of Algorithm course the student will be able:

CO 1: To carry out the analysis of various Algorithms for mainly Time complexity.

CO 2: To apply design principles and concepts to algorithm design.

CO 3: To understand different algorithmic design strategies.

CO 4: To analyze the efficiency of algorithms using time complexity.

CO 5: To apply the standard sorting algorithms.

Course: Software Engineering **Course Code: (6KS03)**

At the end of Software Engineering course the student will be able:

CO 1: To decide on a process model for a developing a software project.

CO 2: To classify software applications and identify unique features of various domains.

CO 3: To design test cases of a software system.

CO 4: To understand basics of Project management.

CO 5: To plan, schedule and execute a project considering the risk management.

CO 6: To apply quality attributes in software development life cycle.

CO 7: To understand quality control and to ensure good quality software.

Course: Cryptography (PE-II) **Course Code: (6KS04)**

At the end of Cryptography course the student will be able:

CO 1: To classify the symmetric encryption techniques.

CO 2: To illustrate various public key cryptographic techniques.

CO 3: To evaluate the authentication and hash algorithms.

CO 4: To discuss authentication applications.

CO 5: To summarize the intrusion detection and its solutions to overcome the attacks.

CO 6: To understand basic concepts of system level security.

Course: Intellectual Property Rights (OE-II) **Course Code: (6KS05)**

At the end of Intellectual Property Rights course the student will be able:

CO 1: To demonstrate a breadth of knowledge in Intellectual property.

CO 2: To assess fundamental aspects of Intellectual Property Rights.

CO 3: To discuss Patents, Searching, filling and drafting of Patents.

CO 4: To discuss the basic principles of geographical indication, industrial designs, and copyright.

CO 5: To explain of Trade Mark and Trade Secret.

CO 6: To investigate current trends in IPR and Government initiatives in fostering IPR.