

Department of Computer Science and Engineering

B.E. 5th Sem

Course: Data Communication

Course Code: (5KS01)

At the end of Data Communication course the student will be able:

- CO 1:** To explain fundamental concepts of data communications.
- CO 2:** To evaluate the data conversion and data transmission techniques.
- CO 3:** To design the network by applying the network terminologies like multiplexing, error detection and correction methods.
- CO 4:** To describe the concept of data link control and protocols.
- CO 5:** To design the local area network and illustrate the concept of Switching.
- CO 6:** To understand and describe the features of frame relay.

Course: File Structure and Data Processing

Course Code: (5KS02)

At the end of File Structure and Data Processing course the student will be able:

- CO 1:** To define the fundamental concepts of file processing operations and storage structures.
- CO 2:** To explain the concept of Secondary storage and system software.
- CO 3:** To describe the fundamental concepts of file structures.
- CO 4:** To illustrate the concepts of sorting and merging on multiple files.
- CO 5:** To elaborate the indexed sequential file accessing techniques with appropriate data structures.
- CO 6:** To demonstrate the usage of hashing techniques to organize file structures.

Course: System Software**Course Code: (5KS03)**

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

- CO 1:** To classify different phases and passes of Compiler, specifying different types of tokens by lexical analyzer.
- CO 2:** To understand the role of Parser with Top-Down Parsing with YACC tool.
- CO 3:** To illustrate the concept of Bottom-Up Parsing along with Construction of SLR, CLR and LALR parsing table.
- CO 4:** To explain Syntax directed translation along with synthesized and inherited attributes.
- CO 5:** To describe Fundamentals of Run time environment with storage allocation strategies and symbol table.
- CO 6:** To interpret Code generation and its design issues along with limitations.

Course: Switching Theory and Logic Design**Course Code: (5KS04)**

At the end of Switching Theory and Logic Design course the student will be able:

- CO 1:** To discuss the VHDL-A hardware descriptive language used to design digital systems.
- CO 2:** To analyze VHDL Programming and ability to write programs.
- CO 3:** To apply important switching functions- K-map, Quine-McCluskey minimization in designing combinational circuits.
- CO 4:** To examine combinational logic design, its application to digital system design.
- CO 5:** To Analyze and design combinational digital circuits using building blocks such as multiplexers, adders, subtractors, encoders, and decoders
- CO 6:** To Design standard of synchronous sequential circuits using primitives such as latches, flip-flops, registers, and counters also understand the Finite State Machine (FSM) and digital design approach.

Course: Data Communication and Networking (FE-I) Course Code: (5FEKE05)

At the end of Data Communication and Networking course the student will be able:

- CO 1:** To explain fundamental concepts of data communications.
- CO 2:** To evaluate the data conversion and data transmission techniques.
- CO 3:** To design the network by applying the network terminologies like multiplexing, error detection and correction methods.
- CO 4:** To describe the concept of data link control and protocols.
- CO 5:** To design the local area network and illustrate the concept of Switching.
- CO 6:** To acquaint with networking devices and their functionalities

Course: Communication Skill

Course Code: (5KS06)

At the end of Communication Skill course the student will be able:

- CO 1:** To classify and explain basics concepts of Communication and its barriers.
- CO 2:** To become an active listener.
- CO 3:** To discuss ways of effectively speaking, public speaking.
- CO 4:** To present and speak effectively in public
- CO 5:** To face job interviews and group discussions,
- CO 6:** To read and write technical reports, proposals, research papers scientifically.

B.E. 6th Sem

Course: Operating System

Course Code: (6KS01)

At the end of Operating System course the student will be able:

- CO 1:** To describe the services provided by operating system and to comprehend design of an operating system.
- CO 2:** To evaluate the various CPU scheduling algorithms and to implement deadlocks avoidance, prevention techniques.
- CO 3:** To explain various memory management techniques and to analyze concept of thrashing and to provide its appropriate solution.
- CO 4:** To use disk management and disk scheduling algorithms for better utilization of external memory.
- CO 5:** To recognize file system interface, protection and security mechanisms.
- CO 6:** To describe design principles and network structure of Linux system.

Course: Database System

Course Code: (6KS02)

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

- CO 1:** To define the basic concepts and terminologies of Database systems.
- CO 2:** To design the relational databases and SQL queries.
- CO 3:** To apply the solutions on integrity and security issues in database systems.
- CO 4:** To demonstrate the basic concepts of query processing and query optimization.
- CO 5:** To explain the basic concepts of transaction management in database management systems.
- CO 6:** To explain the basic concepts of concurrency control in database management systems.

Course: Computer Resources Management

Course Code: (6KS03)

At the end of Computer Resources Management course the student will be able:

- CO 1:** To interpret the concept of Systems Management and IT Service Management.
- CO 2:** To analyze the Availability and Problem Management.
- CO 3:** To understand the Storage Management and Network Management.
- CO 4:** To describe Configuration Management and Capacity Planning.
- CO 5:** To analyze the Strategic Security and Facilities Management.
- CO 6:** To illustrate the basic concepts of Developing Robust Processes and Client-Server Environment.

Course: Computer Architecture

Course Code: (6KS04)

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

- CO 1:** To recognize the Characteristics and functions of Instruction sets.
- CO 2:** To examine the concept of addressing modes, instruction formats of Instruction sets of Intel and Arm Family.
- CO 3:** To recognize the processor structure, function and concept of instruction pipelining.
- CO 4:** To recognize the working of RISC Architecture and RISC pipelining.
- CO 5:** To appraise the control unit operation, understand microinstruction sequencing & execution.
- CO 6:** To recognize the parallel processing, use of multiple processor and Intel x86 multicore organization.

Course: Software Project Management (FE-II)

Course Code: (6FEKS05)

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

- CO 1:** To explain the software process & various process models to implement software.
- CO 2:** To apply the metrics for software quality & do the risk analysis by using RMMM plan.
- CO 3:** To perform the project scheduling, project planning in order to achieve project success.
- CO 4:** To explain System engineering, Business Process & Product engineering, Requirement engineering.
- CO 5:** To define architectural styles, golden rules for User-interface design.
- CO 6:** To design the test cases and apply the unit testing, integration testing, validation testing, system testing.

Course: Professional Ethics

Course Code: (6KS06)

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

- CO 1:** To illustrate computers in social context with their moral and legal issue and to understand the importance of code of Ethics and professional Conduct.
- CO 2:** To explain the Ethics and Internet significantly.
- CO 3:** To impart senses of responsibilities and accountability of information technology with Internet as a Democratic technology.

