

Department of Computer Science and Engineering

B.E. 7th Sem

Course: Digital signal processing

Course Code: (7KS01)

At the end of Digital signal processing course the student will be able:

- CO 1:** To understand concept of discrete time signal and system.
- CO 2:** To apply convolution and correlation concept on discrete time signals.
- CO 3:** To apply concept of Z-transform.
- CO 4:** To apply concept of Fourier transform, Discrete Fourier Transform and Fast Fourier Transform.
- CO 5:** To design Finite impulse Response Filter and Their Structures.
- CO 6:** To design Infinite impulse Response Filter and Their Structures.

Course: Computer Networks

Course Code: (7KS02)

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

- CO 1:** To understand the layered architecture, application layer in details with its protocols.
- CO 2:** To describe Transport Layer and its services with various protocols along with congestion control.
- CO 3:** To describe routing and congestion in Network Layer with routing algorithm and classify IPV4 addressing Scheme.
- CO 4:** To explain Data link Layer, its protocols, CSMA techniques and IEEE 802 standards for LAN.
- CO 5:** To describe Network security and integrity with the help of numerical and protocols
- CO 6:** To understand Firewalls and network management with its protocols.

Course: Design Analysis and Algorithm

Course Code: (7KS03)

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

- CO 1:** To understand mathematical formulation, complexity analysis and methodologies.
- CO 2:** To design algorithms using standard paradigms Divide and Conquer.
- CO 3:** To find optimal solution using Greedy strategy.
- CO 4:** To recognize the optimum solution to find the shortest path and able to solve deadline problem.
- CO 5:** To understand search and traversal technique
- CO 6:** To deal with Time and Space complexity, NP and NPT algorithms.

Course: Object Oriented Analysis & Design

Course Code: (7KS04)

At the end of Object Oriented Analysis & Design course the student will be able:

- CO 1:** To describe and distinguish the fundamental principles of OO programming.
- CO 2:** To examine, design and gain exposure to object Oriented Methodologies & UML Diagrams.
- CO 3:** To discuss and apply Unified Modeling Language (UML) towards analysis and design.
- CO 4:** To apply Object Oriented Analysis Processes for projects.
- CO 5:** To synthesize key principles of OO in analysis, design, and development.
- CO 6:** To describe Object Oriented Software Development Process.

Course: Web Engineering (PE-I)

Course Code: (7KS05)

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

- CO 1:** To describe basics of web engineering and different protocols.
- CO 2:** To describe basics of hypertext mark-up language and cascaded style sheets.
- CO 3:** To describe extensible mark-up language and implementation of document type definition.
- CO 4:** To evaluate W3C schema and implement built in data types.
- CO 5:** To describe basics of java scripts and implementation of objects.
- CO 6:** To describe and implementation of common gateway interfaces

B.E. 8th Sem

Course: Artificial Intelligence

Course Code: (8KS01)

At the end of Artificial Intelligence course the student will be able:

- CO 1:** To demonstrate an understanding of various searching algorithms commonly used in artificial intelligence software.
- CO 2:** To describe and demonstrate better understanding of Solving Problems by conventional searching and beyond classical search.
- CO 3:** To demonstrate an understanding of adversarial search and game-playing.
- CO 4:** To explain basic techniques for knowledge representation.
- CO 5:** To understand the fundamentals of knowledge representation (logic-based, frame-based, semantic nets), inference and theorem proving and know how to build simple knowledge-based systems.
- CO 6:** To apply the methods to Natural Language Processing (NLP) problems.

Course: Embedded System

Course Code: (8KS02)

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

- CO 1:** To analyze the concepts, area of application and purpose of Embedded Systems.
- CO 2:** To explain Components of Embedded system with case study.
- CO 3:** To demonstrate the 8051 Architecture, Memory Organization and register organization of 8051
- CO 4:** To explain instruction set, Addressing modes and Assembly Language based Embedded Firmware development.
- CO 5:** To illustrate the Programming in Embedded C, Coding Interrupt Service Routines, use of delay generation loop and memory allocation
- CO 6:** To describe the VxWorks Real Time Operating System and Task Communication

Course: Software Engineering

Course Code: (8KS03)

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

- CO 1:** To analyze the evolving role of software and project management concepts.
- CO 2:** To explain the concept of software projects planning and measures, metrics & indicators.
- CO 3:** To illustrate the basic concepts of project scheduling and software quality assurance.
- CO 4:** To explain the basic concepts of system engineering process & product engineering.
- CO 5:** To describe the software architecture, user interface design and component level design.
- CO 6:** To demonstrate the software testing fundamentals.

Course: Network Security (PE-II)

Course Code: (8KS04)

At the end of Network Security course the student will be able:

- CO 1:** To describe security trends, attacks, services & mechanism through OSI security architecture.
- CO 2:** To distinguish the concept of cryptography with symmetric and asymmetric key encryption methods.
- CO 3:** To classify authentication applications through Kerberos and X.509 certificate; understand PGP and S/MIME.
- CO 4:** To illustrate IPsec and Web Security and how to apply them for Secure Communication.
- CO 5:** To conclude the concept of network management through SNMP.
- CO 6:** To identify malicious software's and tell counter measurement for them.