

Department of Computer Science and Engineering

B. E. 3rd Sem

Course: Engineering Mathematics- III

Course Code: (3KS01)

At the end of Engineering Mathematics-III course the student will be able:

- CO 1:** To apply the fundamental concepts of Ordinary Linear Differential Equation by different methods.
- CO 2:** To apply Laplace Transform to solve Differential Equation with constant coefficients.
- CO 3:** To solve difference equation first & Higher order and to evaluate Difference equation by z-transform
- CO 4:** To solve Fourier Transform & to solve first, higher order Homogeneous Partial Differential Equations with constant coefficients.
- CO 5:** To apply CR equations, Cauchy's integral Theorem, Singularity and Expansion of function using Taylor's, Laurent's series & conformal mapping.
- CO 6:** To evaluate the derivative & integration of Vector, scalar Point Function with their physical meaning

Course: Discrete Structure and Graph Theory

Course Code: (3KS02)

At the end of Discrete Structure and Graph Theory course, the students will be able:

- CO 1:** To apply mathematical induction and other techniques to prove mathematical results
- CO 2:** To analyze and express logic sentence in terms of predicates, quantifiers, and logical connectives.
- CO 3:** To derive the solution for a given problem using deductive logic and prove the solution based on logical inference.
- CO 4:** To classify algebraic structure for a given mathematical problem.
- CO 5:** To perform combinatorial analysis to solve counting problems.
- CO 6:** To develop the given problem as graph networks and solve with techniques of graph theory.

Course: Object Oriented Programming

Course Code: (3KS03)

At the end of Object Oriented Programming course the student will be able:

- CO 1:** To apply Object Oriented approach to design software.
- CO 2:** To implement programs using classes and objects.
- CO 3:** To specify the forms of inheritance and use them in programs.
- CO 4:** To analyze polymorphic behavior of objects.
- CO 5:** To design and develop GUI programs.
- CO 6:** To develop Applets for web applications.

Course: Data Structures

Course Code: (3KS04)

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

- CO 1:** To apply various linear and nonlinear data structures.
- CO 2:** To demonstrate operations like insertion, deletion, searching and traversing on various data structures.
- CO 3:** To examine the usage of various structures in approaching the problem solution.
- CO 4:** To choose appropriate data structure for specified problem domains.
- CO 5:** To describe and implement concepts of trees and related algorithms.
- CO 6:** To represent graphs and evaluates sorting algorithms.

Course: Analog & Digital Electronics

Course Code: (3KS05)

At the end of Analog & Digital Electronics course the student will be able:

- CO 1:** To explain basic concepts of semiconductor devices and its application.
- CO 2:** To explain different types of Field Effect Transistors.
- CO 3:** To compare different Number System and basics of conversion of number systems.
- CO 4:** To realize different minimization technique to obtain minimized expression.
- CO 5:** To design Combinational Circuits.
- CO 6:** To design and Develop Sequential Circuits.

B.E. 4th Sem

Course: Artificial Intelligence

Course Code: (4KS01)

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

- CO 1:** Explain concepts of Artificial Intelligence and different types of intelligent agents and their architecture.
- CO 2:** Formulate problems as state space search problem & efficiently solve them..
- CO 3:** Summarize the various searching techniques, constraint satisfaction problem and example problems - game playing techniques..
- CO 4:** Apply AI techniques in applications which involve perception, reasoning and learning.
- CO 5:** Compare the importance of knowledge, types of knowledge, issues related to knowledge acquisition and representation.

Course: Data Communication and Networking

Course Code: (4KS02)

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

- CO 1:** Describe data communication Components, Networks, Protocols and various topology based network architecture.
- CO 2:** Design and Test different encoding and modulating techniques to change digital –to-digital conversion, analog-to-digital conversion, digital to analog conversion, analog to analog conversion,.
- CO 3:** Explain the various multiplexing methods and evaluate the different error detection & correction techniques.
- CO 4:** Illustrate and realize the data link control and data link protocols.
- CO 5:** Describe and demonstrate the various Local area networks and the IEEE standards.

Course: Operating System

Course Code: (4KS03)

At the end of Object Oriented Programming course the student will be able:

- CO 1:** Explain memory management issues like external fragmentation, internal fragmentations.
- CO 2:** Illustrate multithreading and its significance.
- CO 3:** List various protection and security mechanisms of OS.
- CO 4:** Analyze and solve the scheduling algorithms.
- CO 5:** Analyze the deadlock situation and resolve it..
- CO 6:** Compare various types of operating systems.

Course: Microprocessor & Assembly Language Programming Course Code: (4KS04)

At the end of Assembly Language Programming course the student will be able:

- CO 1:** Describe 8086 microprocessor and its architecture; also understand instruction processing during the fetch-decode-execute cycle
- CO 2:** Design and Test assembly language programs using 8086 microprocessor instruction set.
- CO 3:** Demonstrate the implementation of standard programming constructs, including control structures and functions, in assembly language.
- CO 4:** Illustrate and realize the Interfacing of memory & various I/O devices with 8086 microprocessor.
- CO 5:** To describe in details concept of 8086 Interrupt and its types.
- CO 6:** To explain the basic concepts of Internet of Things.

Course: Theory of Computation

Course Code: (4KS05)

At the end of Theory of Computation course the student will be able:

- CO 1:** To construct finite state machines to solve problems in computing..
- CO 2:** To write regular expressions for the formal languages
- CO 3:** To construct and apply well defined rules for parsing techniques in compiler
- CO 4:** To construct and analyze Push Down, Turing Machine for formal languages.
- CO 5:** To express the understanding of the Chomsky Hierarchy.
- CO 6:** To express the understanding of the decidability and un-decidability problems.