



॥ ऋते ज्ञानान्न मुक्तीः ॥

Dwarka Bahuuddeshiya Gramin Vikas Foundation's

Rajarshi Shahu College of Engineering, Buldana

Approved By AICTE New Delhi, NAAC Accredited, Affiliated to Sant Gadge Baba Amravati University



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE OUTCOMES OF ALL COURSES OF THIRD SEMESTER & FORTH SEMESTER BE CSE (COMPUTER SCIENCE AND ENGINEERING)

THIRD SEMESTER

3KS01 ENGINEERING MATHEMATICS – III

On completion of the course, the students will be able to:

1. Solve the Linear Differential equations with constant coefficients by various methods.
2. Find Laplace Transform of various types of functions and apply this knowledge to find Laplace Transform of Periodic, Impulse & Unit step function.
3. Use Laplace Transform to solve Linear Differential equations with constant coefficients & Find Fourier Transform of various types of functions and apply this knowledge to find Fourier Transform of functions, in their core subjects.
4. Find the solution of partial differential equations of first order also learn statistical methods
5. Test the analyticity, find the harmonic conjugates and expand the function in Taylor's or Laurent's series, find conformal mapping.
6. Differentiate vector point functions, find gradient of scalar point function, and find divergence and curl of vector point function. Integrate vector point functions Evaluate line, surface and volume integrals.

3KS02 DISCRETE STRUCTURES AND GRAPH THEORY

On completion of the course, the students will be able to:

1. Analyze and express logic sentence in terms of predicates, quantifiers, and logical connectives.
2. Derive the solution for a given problem using deductive logic and prove the solution based on logical inference.
3. Classify algebraic structure for a given mathematical problem.
4. Perform combinatorial analysis to solve counting problems.
5. Perform operation on trees data structures.
6. Develop the given problem as graph networks and solve with techniques of graph theory

3KS03 OBJECT ORIENTED PROGRAMMING

On completion of the course, the students will be able to:

1. Apply Object Oriented approach to design software.
2. Implement programs using classes and objects.
3. Specify the forms of inheritance and use them in programs.
4. Analyze polymorphic behaviour of objects.
5. Design and develop GUI programs.
6. Develop Applets for web applications

3KS04 DATA STRUCTURES

On completion of the course, the students will be able to:

1. Apply various linear and nonlinear data structures
2. Demonstrate operations like insertion, deletion, searching and traversing on various data structures.
3. Examine the usage of various structures in approaching the problem solution.
4. Choose appropriate data structure for specified problem domain

3KS05 ANALOG & DIGITAL ELECTRONICS

At the end of course students will able to:

1. Explain basic concepts of semiconductor devices and its application.
2. Compare different Number System and basics of conversion of number systems.
3. Realize different minimization technique to obtain minimized expression.
4. Design Combinational Circuits.
5. Design and Develop Sequential Circuits.

3KS06 OBJECT ORIENTED PROGRAMMING LAB

Design, implement, test, and debug simple programs in an object-oriented programming language.

1. To develop the knowledge of object-oriented paradigm in the Java programming language.
2. To evaluate classical problems using java programming.
3. To develop software development skills using java programming for real world applications.

3KS07 DATA STRUCTURE LAB

On completion of the course, the students will be able to:

1. Apply various linear and nonlinear data structure.
2. Demonstrate operations like insertion, deletion, searching and traversing on various dataStructures.
3. Examine the usage of various structures in approaching the problem solution.
4. Choose appropriate data structure for specified problem domain

3KS08 ANALOG & DIGITAL ELECTRONICS LAB

After successfully completing the lab, the students will be able to:

1. Apply practically the concepts of analog and digital electronics.
2. Explain the operation and characteristics of semiconductor devices.
3. Illustrate the operation of various logic gates and their implementation using digital IC's.
4. Design and implement various combinational logic circuits.
5. Design and implement various sequential logic circuits

3KS09 C-SKILL-LAB I

On completion of the course, the students will be able to:

1. Describe the Numbers, Math functions, Strings, List, Tuples and Dictionaries in Python
2. Interpret different Decision-Making statements, Functions, Object oriented programming inPython
3. Summarize different File handling operations
4. Explain how to design GUI Applications in Python and evaluate different database operations
5. Develop applications using Django framework or Flask

FOURTH SEMESTER

4KS01 ARTIFICIAL INTELLIGENCE

On completion of the course, the students will be able to:

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

4KS02 DATA COMMUNICATION AND NETWORKING

On completion of the course, the students will be able to:

1. Describe data communication Components, Networks, Protocols and various topology-based network architecture.
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.
3. Explain the various multiplexing methods and evaluate the different error detection & correction techniques.
4. Illustrate and realize the data link control and data link protocols.
5. Describe and demonstrate the various Local area networks and the IEEE standards.

4KS03 OPERATING SYSTEM

On completion of the course, the students will be able to:

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

4KS04 MICROPROCESSOR & ASSEMBLY LANGUAGE PROGRAMMING

On completion of the course, the students will be able to:

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

4KS05 THEORY OF COMPUTATION

On completion of the course, the students will be able to:

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

4KS06 DATA COMMUNICATION & NETWORKING LAB

On completion of the course, the students will be able to:

1. Analyze performance of various communication protocols.
2. Implement Configure various network protocols.
3. Compare IP Address classes of networks.

4KS07 OPERATING SYSTEM LAB

On completion of the course, the students will be able to:

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

4KS08 MICROPROCESSOR & ASSEMBLY LANG. PROG LAB

On completion of the course, the students will be able to:

1. Analyze the internal workings of the microprocessor.
2. Design and develop programs in Assembly Language Programming.
3. Describe 8086 microprocessor and its architecture; also understand instruction processing during the fetch-decode-execute cycle.
4. Design and Test assembly language programs using 8086 microprocessor instruction set.
5. Demonstrate the implementation of standard programming constructs, including control structures and functions, in assembly language.
6. Illustrate and realize the Interfacing of memory & various I/O devices with 8086 microprocessor.

4KS09 C-SKILL-LAB II

On completion of the course, a student will be able to:

1. Develop client server program and web applications.
2. Make use of project-based experience for web application development.
3. Create embedded systems using Raspberry Pi/Arduino.