SSGMCE SHEGAON

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE OUTCOMES OF ALL COURSES OF FOURTH SEMESTER BE CSE (COMPUTER SCIENCE AND ENGINEERING) NEP-2020

4CS209PC: Data Communication and Networking

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

1. Analyze the functions of each layer in the OSI and TCP/IP models to interpret network communication.
2. Evaluate different types of transmission media and justify their use in real-time applications.
3. Analyze application and presentation layer functions and protocols used in internet communication.
4. Apply transport layer concepts and services to ensure reliable data transmission.
5. Analyze routing protocol classifications and apply IP addressing schemes for a given network.
6. Analyze data link layer functions and protocols to achieve efficient and error-free communication.

4CS210PC: 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

4CS211PC: 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.

4CS212PC: Data Communication and 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

4CS213PC: 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

4CS214MD: Data Structures and Problem Solving
On completion of the course, the students will be able to:

1. Understand and differentiate various data structures and their use cases.
2. Apply linear and non-linear data structures in solving engineering problems.
3. Analyze algorithm performance and implement solutions using appropriate structures

4CS215VS: Computing Skill #1 (VSEC-III)
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 in Python
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

4CS216OE: Information System for Engineers
On completion of the course, the students will be able to:

1. Understand the basic structure and components of Information Systems used in engineering.
2. Identify and evaluate applications of Information Systems across different engineering disciplines.
3. Demonstrate understanding of ERP, MIS, and database systems and their integration with engineering workflows.

4CS217EM: Social Science & Engineering Economics
On completion of the course, the students will be able to:

1. Understand the significance of social sciences and economic principles in engineering.
2. Analyze the role of governance, laws, and policies in shaping society and business environments.
3. Apply economic and market principles to assess financial systems and business trends.