

## **Department of Computer Engineering**

### **Course Outcomes [CO'S]**

#### **SUBJECT/CODE: DESIGN AND ANALYSIS OF ALGORITHMS []**

1. To survey algorithmic strategies give presentations using open source documentation tools like Latex and soft skill methodologies.
2. To write mathematical modeling of algorithms for problem solving.
3. To develop SRS in the UG projects.
4. To solve problems for multi-core or distributed or concurrent/Parallel/Embedded environments.

#### **SUBJECT/CODE: PRINCIPLES OF MODERN COMPILER DESIGN []**

1. To write symbol tables, different types of grammars to solve problem of parsing.
2. To design and write simple compiler using FOSS tools.
3. To practice compiler tools in basic, concurrent, distributed and embedded environments.
4. To survey and use latest trends and advances in compilers.

#### **SUBJECT/CODE: SMART SYSTEM DESIGN AND APPLICATIONS []**

1. To write and survey solution for multidisciplinary case-study using mathematical modeling give presentations using soft skills methodologies.
2. To write and survey embedded systems applications using machine learning.
3. To solve problems for multi-core or distributed, concurrent and embedded environments.

#### **SUBJECT/CODE: DATA MINING TECHNIQUES AND APPLICATIONS []**

1. To present survey on different learning, classification and data mining foundations.
2. To write programs and methods for data Mining applications.
3. To solve problems for multi-core or distributed, concurrent/Parallel environments.

**SUBJECT/CODE: PERVASIVE COMPUTING []**

1. To present a survey on pervasive computing building blocks.
2. To create presentations using pervasive computing techniques and devices.
3. To solve problems for multi-core or distributed, concurrent/Parallel environments.

**SUBJECT/CODE: COMPUTER LABORATORY-I []**

1. To write efficient mathematical design, analysis and testing of algorithmic assignments.
2. To debug and demonstrate the Testing of functioning using Software Engineering for OO-programming.
3. To write programs using advanced FOSS tools and technologies.
4. To write test case using multi-core or distributed, concurrent/Parallel environments.

**SUBJECT/CODE: COMPUTER LABORATORY-II []**

1. To write mathematical modeling for problem solving.
2. To write programs for smart devices using FOSS Tools.
3. To write Programs for gamifications.
4. To write test cases to solve problems for pervasiveness, embedded security and NLP applications.
5. To write test cases for multi-core or distributed, concurrent/Parallel environments.

**SUBJECT/CODE: PROJECT []**

1. To write problem solutions in projects using mathematical modeling, using FOSS programming tools and devices or commercial tools.
2. To write SRS and other software engineering documents in the project report using mathematical models developed and NP-Hard analysis.
3. To write test cases using multi-core, distributed, embedded, concurrent/Parallel environments;
4. To write a conference paper.
5. To practice presentation, communication and team-work skills.

**SUBJECT/CODE: SOFTWARE DESIGN METHODOLOGIES AND TESTING []**

1. To present a survey on design techniques for software system
2. To present a design and model using UML for a given software system
3. To present a design of test cases and implement automated testing for client server, Distributed, mobile applications.

**SUBJECT/CODE: HIGH PERFORMANCE COMPUTING []**

1. To transform algorithms in the computational area to efficient programming code for modern computer architectures
2. To write, organize and handle programs for scientific computations.
3. To create presentation of using tools for performance optimization and debugging
4. To present analysis of code with respect to performance and suggest and implement performance improvements.
5. To present test cases to solve problems for multi-core or distributed, concurrent/Parallel environments.

**SUBJECT/CODE: MOBILE COMPUTING []**

1. To write a survey on Mobile Computing Building Blocks.
2. To write a presentation on survey FOSS tools and Technologies.
3. To write test cases to solve problems using Mobile Computing algorithms.

**SUBJECT/CODE: MOBILE APPLICATIONS []**

1. To write a survey on tools and architectures for Mobile Applications.
2. To write using mathematical models the problem solutions using Mobile Applications.
3. To write develop mobile applications using open source tools.