ATME College of Engineering

# Department of Computer Science & Design

## Lesson Plan & Work-done Diary for AY: 2025, EVEN Semester

| Course with Code: Analysis & Design of Algorithms Lab (BCSL404) | | | | Faculty: Darshini Y | | Semester & Section:4 'A' | |
|---|---|---|---|---|---|---|---|
| **Class No.** | **Date planned (DD/MM)** | **Topics to be covered** | **TLP Planned** | **Date of Conduction (DD/MM)** | **Topics Covered** | **TLP Executed** | **Remarks if any deviation** |
| 1. | | C Program to find Minimum Cost Spanning Tree of a given connected undirected graph using Kruskal's algorithm. | Chalk & Talk PPT | | | Chalk & Talk PPT | |
| 2. | | C Program to find Minimum Cost Spanning Tree of a given connected undirected graph using Prim's algorithm. | Chalk & Talk PPT | | | Chalk & Talk PPT | |
| 3. | | a. Design and implement C Program to solve All-Pairs Shortest Paths problem using Floyd's algorithm.<br>b. Design and implement C Program to find the transitive closure using Warshal's algorithm. | Chalk & Talk PPT | | | Chalk & Talk PPT | |
| 4. | | C Program to find shortest paths from a given vertex in a weighted connected graph to other vertices using Dijkstra's algorithm. | Chalk & Talk PPT | | | Chalk & Talk PPT | |
| 5. | | C Program to obtain the Topological ordering of vertices in a given digraph. | Chalk & Talk PPT | | | Chalk & Talk PPT | |
| 6. | | C Program to solve 0/1 Knapsack problem using Dynamic Programming method. | Chalk & Talk PPT | | | Chalk & Talk PPT | |
| 7. | | C Program to solve discrete Knapsack and continuous Knapsack problems using greedy approximation method. | Chalk & Talk PPT | | | Chalk & Talk PPT | |


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| 8. | | C Program to find a subset of a given set S = {sl , s2, … ,sn} of n positive integers whose sum is equal to a given positive integer d. | Chalk & Talk PPT | | | Chalk & Talk PPT | |
| 9. | | C Program to sort a given set of n integer elements using Selection sort method and compute its time complexity. | Chalk & Talk PPT | | | Chalk & Talk PPT | |
| 10. | | C Program to sort a given set of n integer elements using Quick Sort method and compute its time complexity.. | Chalk & Talk PPT | | | Chalk & Talk PPT | |
| 11. | | C Program to sort a given set of n integer elements using Merge Sort method and compute its time complexity | Chalk & Talk PPT | | | Chalk & Talk PPT | |
| 12. | | C Program for N Queen's problem using Backtracking. | Chalk & Talk PPT | | | Chalk & Talk PPT | |

| | Activity | Planned | Actual | Remarks |
|---|---|---|---|---|
| **1** | No of Labs | 12 | | |
| **2** | Assignments/ Quizzes/ Self-study | - | | |
| **3** | Tutorials/ Extra classes | - | | |
| **4** | Internal Assessments | 2 | | |
| **5** | ICT based Teaching (% of usage in Curriculum) | 100% | | |
| **Planning** | | | **Execution** | |
| **Faculty Signature:** | | | **Faculty Signature:** | |
| **HoD Signature:** | | | **HoD Signature:** | |