DESIGN AND ANALYSIS OF ALGORITHMS LAB SYLLABUS

Greedy Strategy

- Activity Selection
- Huffman Coding

Dynamic Programming

- ALS (Assembly Line Scheduling)
- Matrix Chain Multiplication
- Longest Common Subsequence
- 0-1 Knapsack

Divide and Conquer

- Maximum Subarray
- Karatsuba Faster Integer Multiplication Algorithm

Backtracking

- N-Queens Problem

Branch and Bound

- Job Selection Problem

String Matching Algorithms

- Naïve Algorithm
- Knuth-Morris-Pratt (KMP) Algorithm
- Rabin-Karp Algorithm
- Suffix Trees

Minimum Spanning Tree (MST) and All Pair Shortest Path Algorithms

Network Flows

- Ford-Fulkerson Algorithm
- Edmond-Karp Algorithm

Geometric Algorithms

- Intersection of Line Segments
- Finding Convex Hull
- Finding Closest Pair of Points

Polynomial Time Algorithm for Verification of NP-Complete Problems

Approximation and Randomized Algorithms