

ALGORITHMS DESIGN AND ANALYSIS LAB

Paper Code: ETCS 351

Paper: Algorithms Design and Analysis Lab

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List of Experiments:

1. To implement following algorithm using array as a data structure and analyse its time complexity.
 - a. Merge sort
 - b. Quick sort
 - c. Bubble sort
 - d. Bucket sort
 - e. Radix sort
 - f. Shell sort
 - g. Selection sort
 - h. Heap sort
2. To implement Linear search and Binary search and analyse its time complexity.
3. To implement Matrix Multiplication and analyse its time complexity.
4. To implement Longest Common Subsequence problem and analyse its time complexity.
5. To implement Optimal Binary Search Tree problem and analyse its time complexity.
6. To implement Huffman Coding and analyse its time complexity.
7. To implement Dijkstra's algorithm and analyse its time complexity.
8. To implement Bellman Ford algorithm and analyse its time complexity.
9. To implement naïve String Matching algorithm, Rabin Karp algorithm and Knuth Morris Pratt algorithm and analyse its time complexity.

NOTE:- At least 8 Experiments out of the list must be done in the semester.