

## **Data Structures and Algorithms Lab**

### **Assignment-4**

1. Write a menu-driven program (both recursive and iterative) to implement the following searching techniques using an array

(a) Linear or sequential search (b) Binary search

2. Write a menu-driven program to implement the following sorting techniques using an array

(a) Bubble sort (b) Insertion sort (c) Selection sort

3. Write a menu-driven program to implement the following sorting techniques using a single linked list (interchanging data)

(a) Bubble sort (b) Insertion sort (c) Selection sort

4. Write a menu-driven program to implement the following sorting techniques using a single linked list (interchanging links)

(a) Bubble sort (b) Insertion sort (c) Selection sort

5. Write a menu-driven program to implement the following sorting techniques using an array (recursive functions)

(a) Quick sort (b) Merge sort