

**SSN COLLEGE OF ENGINEERING  
DEPARTMENT OF CSE**

**DATA STRUCTURES LABORATORY (CS8381)**

**Ex. No. 1 Implementation of sorting and searching algorithms**

- 1) Get the input for  $n$  student records. The student record should contain *stud\_rollno*, *stud\_name*, *address*, *mobile\_no*. Search a student record by name and display the mobile number by using linear search algorithm.
- 2) For the above said problem, sort the student records by name using selection sort algorithm and perform binary search.
- 3) Get a set of integers as input, perform insertion sorting and shell sorting, and compare their time complexity.

**Note:** Write C Programs using the concept of arrays, functions and structures. User-defined functions are must for getting input, searching, sorting and displaying the required results. No global declaration should be made. Pass the required data as arguments to functions and return the result.