



**Department of Instrumentation & Control Engg.**

**DATA STRUCTURES AND ALGORITHMS (ICE 2128)**

**Assignment 1**

- 1) Given a positive integer, write a program having a function that returns true if the given number is a palindrome, else false.
- 2) Given a string, write a program using recursion to count the total number of consonants in it.
- 3) Write a program to insert a new element at the 6<sup>th</sup> position of the linked list of array size 15. Write the algorithm for the same.
- 4) Write a C++ Program to Swap data using function template.
- 5) Given a doubly-linked list, write a program to find the largest node in the doubly linked list.