 **FACULTY OF COMPUTER SCIENCE AND ENGINEERING**

**Time: 1.5 hr CS221 Lab Marks: 10**

**Lab No: 02 Dated: 10/23/2021**

**Lab Activity 1:**

Learning Objective: Basic Syntax and accessing structures elements

Design a C++ program in which you declare a structure named Distance with two data members i.e. feet (int) and inches(float). Create two distance variables and initialize them with some values (take values from the user)

After successful initialization create the third structure variable named as sum which contains summation of already entered distance variables.

Note: Apply the check for changing the inches into feet if inches are equal or greater than 12.

Expected Output

1st distance

Enter feet: 12

Enter inch: 7.9

2nd distance

Enter feet: 2

Enter inch: 9.8

Sum of distances = 15'-5.7"

**Lab Activity 2:**

Learning Objective: how to pass structures to a function and nested structures

Design a C++ program using nested structures which make a **structure** named **Date** with data members **month**, **day** & **year** of type of **int** and another structure named as **University** with its data members **Uni\_Name**, **Category**, and **Location** of type char **array**. Add **Date** object as a data member into **University** structure.

Now write two functions **void input\_details(University \*u)** and **void** **print\_details(University u).** Input details of any university using **input\_details** function and **print\_details** to display data.

Display details are as the following:

**Expected Output:**

S.No University Name Category Location Established

1 Giki Engineering Topi(Swabi) January 12, 1988