Institute of Engineering & Management
Department of Computer Science & Engineering
Communication Engineering Laboratory for 2nd year 4th semester 2017
Code: CS 491

Date: 18/9/18

ASSIGNMENT-3

Experiment Name: **Triangular waves in three different frequencies**

Objective: Generating three triangular waves in three different frequencies and displaying it in DSO

Theory: A function generator is usually a piece of electronic test equipment or software used to generate different types of electrical waveforms over a wide range of frequencies. Some of the most common waveforms produced by the function generator are the sine, square, triangular and saw-tooth shapes

A digital storage oscilloscope (often abbreviated DSO) is an oscilloscope which stores and analyses the signal digitally rather than using analog techniques.

A waveform is the shape and form of a signal such as a wave moving in a physical medium or an abstract representation. Here we are working with three waveforms mainly sine wave, square wave, and triangular wave.

A triangular wave is a non-sinusoidal waveform named for its triangular shape. It is a periodic, piecewise linear, continuous real function.

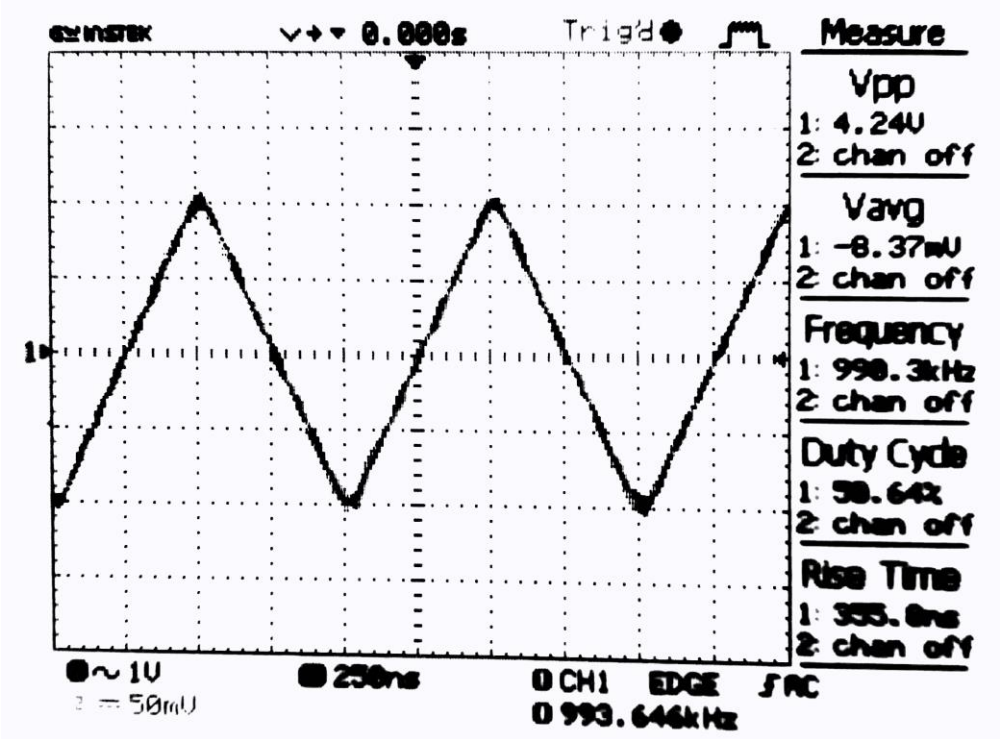
We are generating these three waveforms using function generator and displaying them in the DSO (Digital Storage Oscilloscope) for different frequencies.

Observation Table:

Triangular Wave:

Function Generator		Oscilloscope		
Frequency	Volt(V)	Frequency	V_{pp}(V)	V_p(V)

Waveforms:



Triangular wave

Discussion: From this experiment we learned how to use a function generator to generate triangular waves of different frequencies and amplitudes and also how to display the wave in DSO