Lab Assignment#0: Demonstration of two circuits

Improved Differentiator Circuit & an array of diode circuit

(Demonstration due by 17th February, 2017, in lab session)

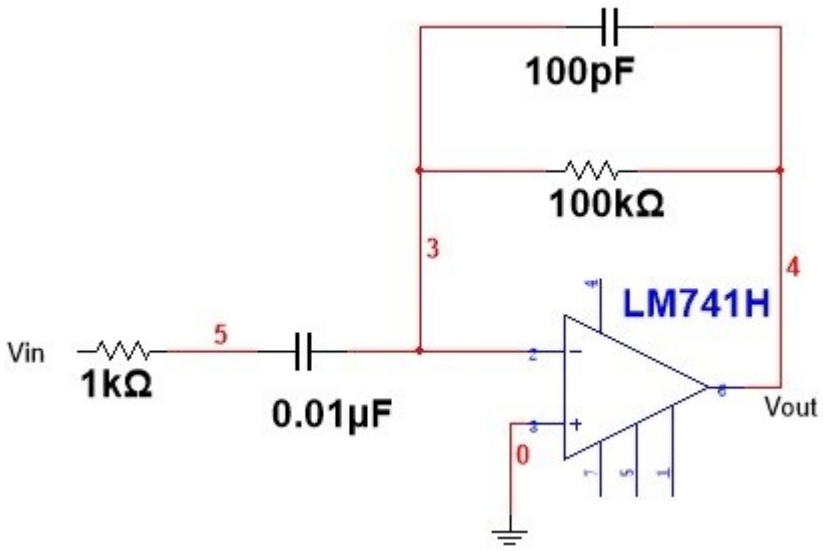

Figure 1: Schematic of Improved differentiator

Capture the input and output voltage with respect to time domain. Apply Vin of 1 Vp-p at 1 KHz, Sine wave signal. Compare the frequency response of the circuit with the differentiator circuit, you had in Lab2. Draw the frequency response of both the circuit. Compare and suggest the changes. What happens to the nature of the signal at different frequency, whether sine signal remains sine ?

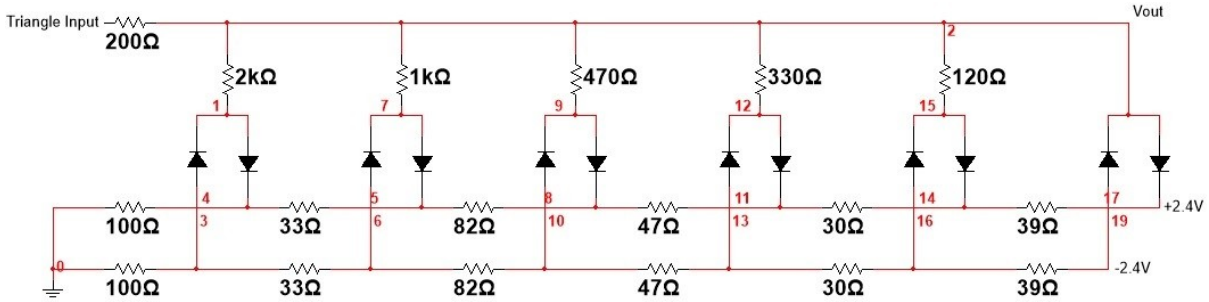

Figure 2: Schematic of an array of circuit

Capture the input and output voltage with respect to time domain. Apply Vin of 1 Vp-p at 1 KHz, Triangle wave signal. Justify the output signal.