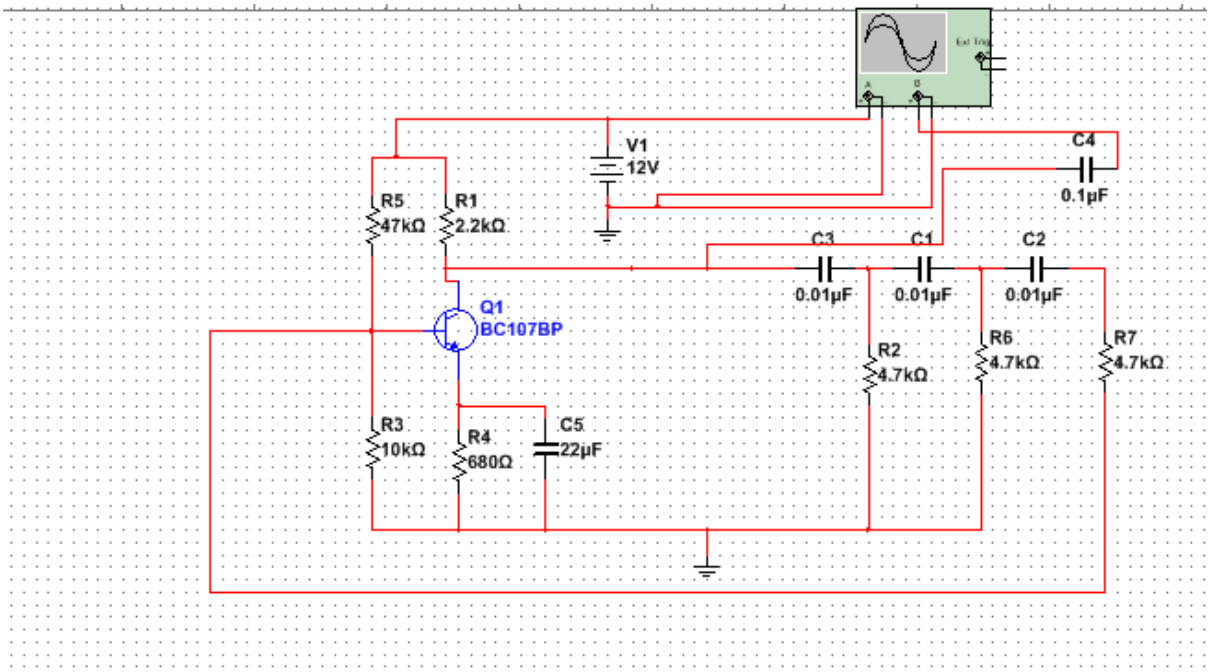
Title of the experiment:

RC Phase Shift Oscillator using BJT in Multisim and eSim.

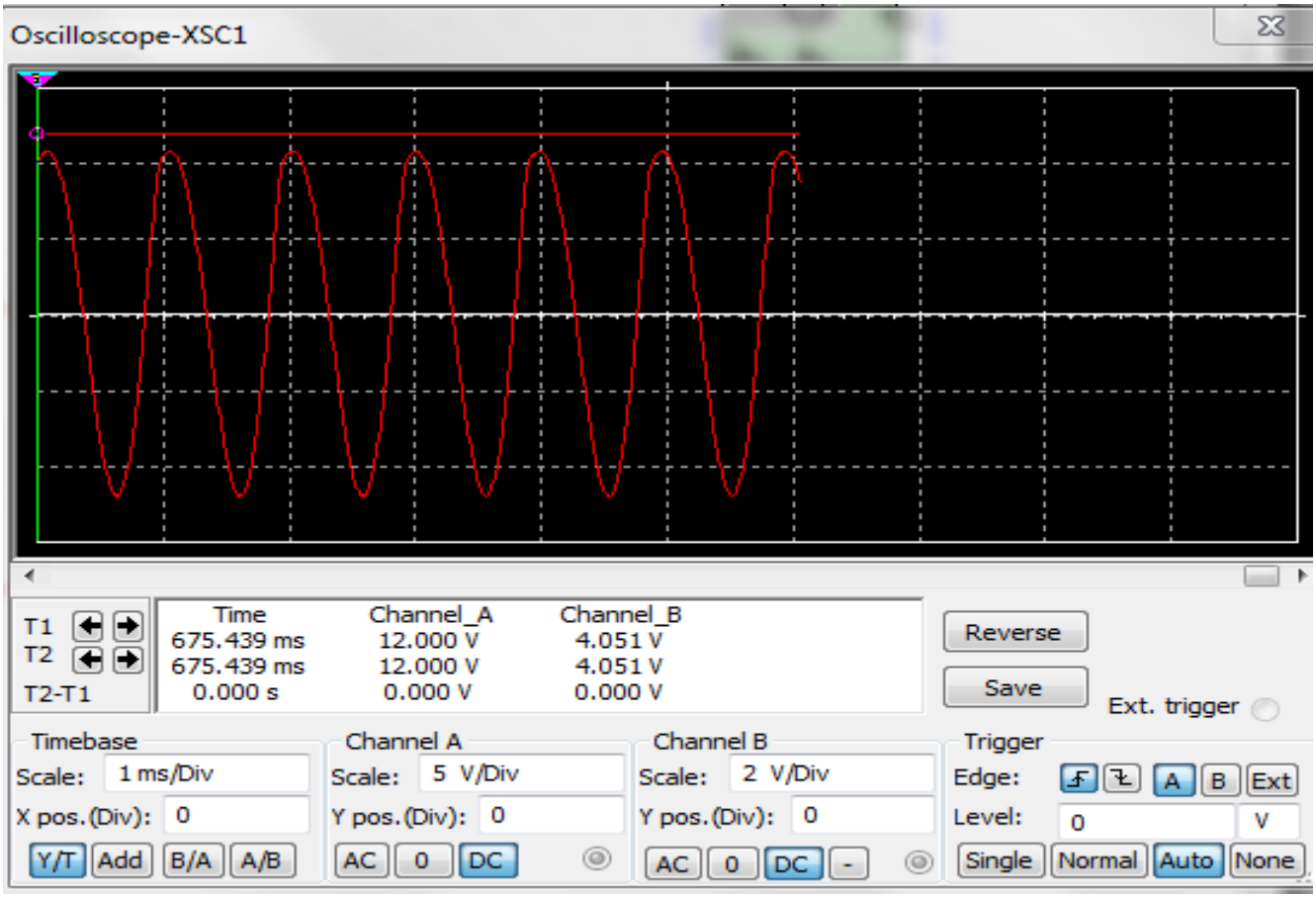
Theory:

This is a linear electronic oscillator circuit which produces a sine wave output. This oscillator is widely used in frequency variable signal generators. The feedback network shifts the phase of the amplifier output by 180 degree at the oscillation frequency to give positive feedback. This is mostly used in audio frequencies. The range of frequencies can be from few HZ to several hundred KHZ depending upon the applications.

Schematic diagram using Multisim:

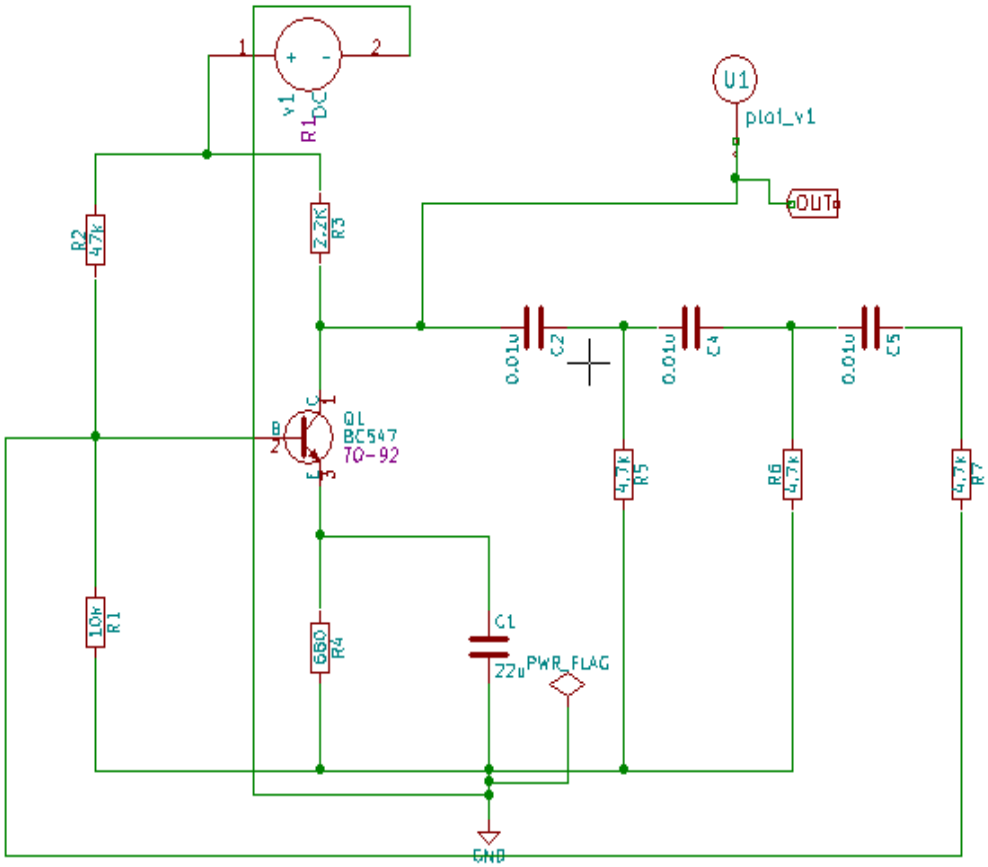


Simulation result :

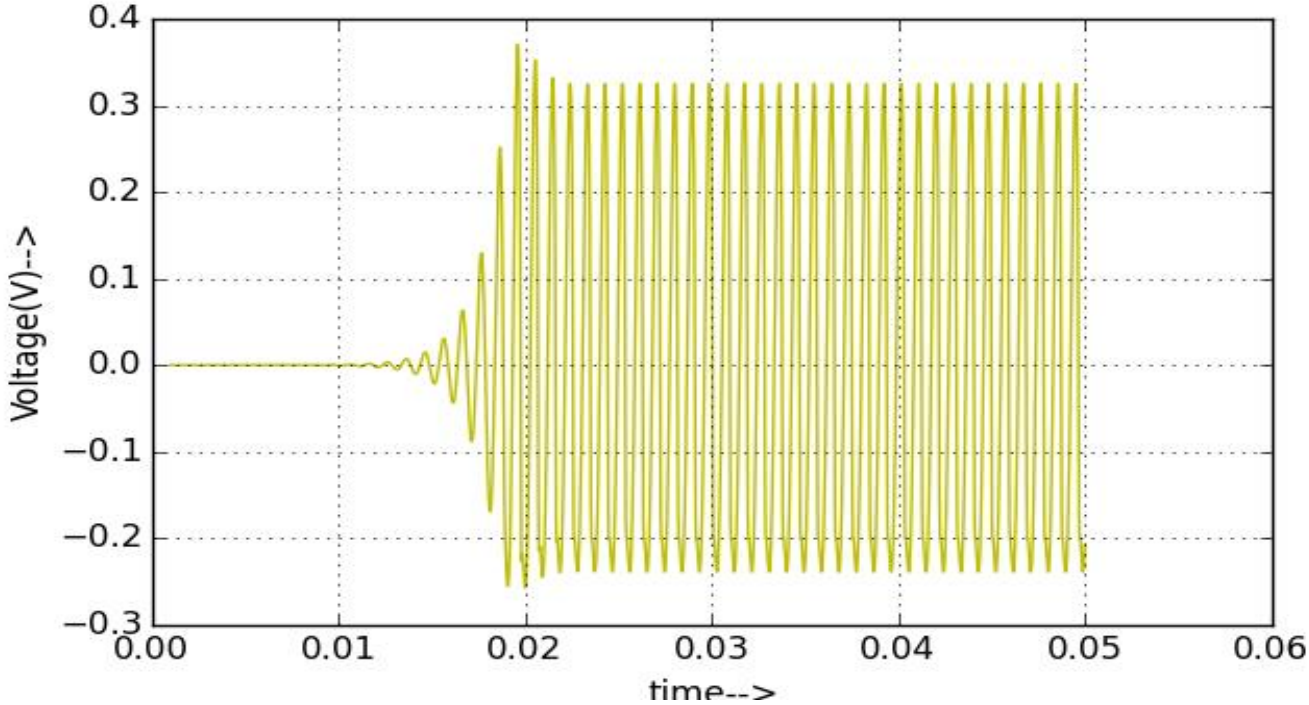


Schematic diagram using eSim:

The circuit schematic of the RC Phase Shift Oscillator using BJT using eSim.



Simulation Result:



Conclusion:

Thus, we have studied the RC Phase Shift Oscillator using BJT using eSim and we get the appropriate waveforms.

References:

https://www.elprocus.com > rc phase shift oscillator

www.electronics-tutorials.ws > oscillator