CERTIFICATE

This is to certify that the work contained in this dissertation entitled "ANALYSIS OF MCFOA BASED FUNCTION GENERATOR" by Ravinder Singh Rawat has been carried out under my supervision for the award of the degree of "**Master of Technology**" in **Control and Instrumentation** of Delhi Technological University, Delhi.

The matter submitted in this report has not been submitted to any other institute or university for award of any degree or diploma, to the best of my knowledge.

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ABSTRACT

Instrumentation is very important part in signal processing, most system there is a voltage feedback oscillator which provides oscillation to the instrument but nowadays there is a concept of current feedback oscillator which provides high oscillation which is a demand of fast world. Here using current feedback operational amplifier we are building modified current feedback operational amplifier (MCFOA).

Use of high speed MCFOAs in analog signal processing offers several advantages over voltage feedback operational amplifier. These advantages are wide bandwidth, high slew rate, and ease of realizing various functions with the least possible number of external passive components. They do not require any component-matching requirements. There is also a growing demand/interest in realization of active filter, sinusoidal oscillators using MCFOA. The maximum frequency of operation of any circuit depends on the bandwidth of the amplifier. Signal generator build with a MCFOA will operate at higher frequencies than that of a VFOA. Today's electronic systems require many signal waveform shapes in addition to the sinusoidal waveform. Common waveforms are the square wave, triangular wave, and single pulse wave with fixed duration. Fixed duration pulses are used in communication and control systems. Square waves are used as a clock for digital systems. Triangular waves are used for scanning an electron beam on a CRT screen, in precise time measurements, and in time modulation.

LIST OF FIGURE

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