DELHI COLLEGE OF ENGINEERING DELHI Department of Electrical Engineering



### **CERTIFICATE**

It is certified that Ms.SMITHA .P Roll No.13962 ,student of M.E,Control and Instrumentation, Department of Electrical Engineering, Delhi College of Engineering, has submitted the dissertation entitled "Survey of post Current Conveyor Voltage mode / Current mode active building blocks" under my guidance towards partial fulfillment of the requirements for the award of the degree of Master of Engineering in Electrical Engineering (Control and Instrumentation). This dissertation is a bonafide record of project work carried out by her under my guidance and supervision and has not been presented earlier for the award of any degree / diploma.

I wish her success in all her endeavors.

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### ABSTRACT

In the present work a survey of the active building blocks introduced in the domain of analog signal processing after the introduction of Current Conveyor has been presented. Particular emphasis has been put on those works which have been presented during the last one decade. Developments in the field of analog signal processing post conveyor is briefly described in the first chapter highlighting the differences between analog signal processing, its types and digital signal processing. In this thesis the newly introduced active elements are categorized in three headings *Current Conveyors and it's derivatives ; Opamps, FTFNs, Hybrid Opamp-CC ; Other Active elements*. Each of these classes and the developments in each of the category is described in detail in subsequent second, third and fourth chapters. The fifth chapter discuss about the practical implementation of few of the active blocks described in the previous chapters. Some of their applications are simulated using off the shelf components like AD844 and LM13600 using ORCAD-PSPICE 9.1version. The simulation results are also presented in the same chapter.