Abstract

The digitally controlled current conveyor has been used to realize a novel digitally controlled reconfigurable continuous time voltage mode first order multifunctional filter. The realized filter can provide first order voltage mode low pass, high pass and all pass responses. The pole frequency of the continuous time filter is directly proportional to an n-bit digital control word. The realized digitally controlled continuous time filter is designed and verified using PSPICE and the results thus obtained justify the theory.

References

- Hassan, T. M. and Mahmoud, S. A. 2009, Fully programmable universal filter with
Reconfigurable Voltage Mode First Order Multifunctional Filter using Single Low Voltage Digitally Controlled CMOS CCII

Independent gain, $Q$ and $\theta$ control based on new digitally programmable CMOS CCII, Journal of Circuits, Systems and Computers, 18, No. 5, 875-897.


**Index Terms**

- Computer Science
- Signal Processing

**Keywords**

- Current Conveyors
- Filters
- Oscillators