Abstract

The current mode programmable analog modules are realized using digitally controlled low voltage CMOS current conveyors. These programmable modules include current mode amplifiers, integrators, differentiators, first order multifunctional filter and second order multifunctional filters. The realized current mode programmable analog modules can provide digital control to the parameters through an n-bit control word with high resolution capability and reconfigurability. These programmable analog modules are suitable for realizing current mode field programmable analog array. The realized programmable analog modules are 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 independent gain, \( \omega \)0 and \( Q \) control based on new digitally programmable CMOS CCII, Journal of Circuits, Systems and Computers, 18, No. 5, 875-897.


http://www.anadigm.com-dynamically programmable Analog Signal Processor or Field Programmable Analog Array.

Index Terms

Computer Science

Integrated Circuits
Keywords
Current Conveyors  Current Mode Amplifiers  Filters