

## عنوان مقاله:

A New Trans-admittance-Mode Biquad Filter Suitable for Low Voltage Operation

## محل انتشار:

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## خلاصه مقاله:

The trans-admittance-mode (TAM) might act as a transforming bridge for voltage-mode to currentmodeconversion. In this study a new low voltage operated electronically tunable TAM biquad filterstructure realizing all the seven standard filtering functions namely; low-pass (LP), band-pass (BP), highpass(HP), regular-notch (RN), low-pass-notch (LPN), high-pass-notch (HPN) and all-pass (AP) from thesame configuration through appropriate selection of voltage input signals is presented. The proposed circuitstructure comprises of three current conveyor trans-conductance amplifiers (CCTAs). Moreover, the newbiquad filter structure still enjoys (i) realizations require neither inverted, nor scaled voltage input(s),(ii) the employment of two capacitors, hence providing canonical structure, (iii) the pole frequency canbe tuned electronically, and (iv) possesses low incremental active and passive sensitivity performanceand useful in low-voltage low-power applications. Personal simulation program with integrated circuitemphasis (PSPICE) simulation results using 0.25 $\mu$ m taiwan semiconductor manufacturing company(TSMC) complementary metal-oxide semiconductor (CMOS) parameters verify the theoreticalanalysis

## کلمات کلیدی:

Analog Signal Processing, Biquad, Filter, Transadmittance-Mode

## لینک ثابت مقاله در پایگاه سیویلیکا:

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