

Abstract: A new universal current-mode biquad filter circuit suitable for integrated circuit implementation is presented. The circuit uses three two-output current followers, two voltage buffers, two grounded capacitors and four virtually grounded resistors to realise all the standard biquad filters without changing the circuit topology. The proposed circuit can be used to achieve independent control of the natural frequency and the bandwidth. Also, the filter exhibits a low input impedance, high output impedance as well as low active and passive sensitivities. Simulation results using CMOS unity gain cells are also presented.