

**Abstract:** Design of a CMOS robust low-distortion fully differential second-generation current conveyor (CCII) is presented. The proposed circuit is essential to extend the use of the CCII-based circuits to high-performance VLSI applications. The design avoids using current mirror(s) in the signal path in order to minimise the distortion caused by mismatched mirroring transistors. The proposed circuit is implemented in a standard 0.5  $\mu\text{m}$  CMOS technology and its different characteristics are measured. Statistical measurement results show that the proposed fully differential CCII exhibits total harmonic distortion (THD) of -78.9 dB associated with less than 0.1 dB variation.