

عنوان مقاله:

An Improve current mode XOR\ XNOR circuits design with temperature independency in Range (۰ to ۱۰۰)

محل انتشار:

اولین همایش ملی نوآوری در مهندسی: راهی به سوی توسعه (سال: ۱۴۰۲)

تعداد صفحات اصل مقاله: ۷

نویسنده:

Peiman Keshavarzian - Department of Computer Engineering, Kerman Branch, Islamic Azad University, Kerman, Iran

خلاصه مقاله:

In many applications, device speed is the most important requirement, and so conventional voltage mode silicon based devices cannot solve this necessity. Many years ago the current mode logic is proposed as a potential solution for this problem but combining this logic and MOSFET technology reduces the speed advantage pertains to the current mode logic and furthermore have additional imperfection due to using MOSFET technology. By using current mode logic we have achieved a significant improvement in the circuit parameters such as delay and power delay product. This paper presents an efficient circuit designs for XOR-XNOR logical functions in the current mode and MOSFET technology. The circuits being studied are optimized for energy efficiency at ۰.۱۳u CMOS technology. HSPICE is used to simulate these circuits. The denouements, that we have achieved, show the best performance in the different .Temperature (۰ to ۱۰۰) in comparison with the state of the art designs

کلمات کلیدی:

MOSFET technology, Multiple-valued logic, XOR/ XNOR logic functions

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