

## عنوان مقاله:

Analysis and simulation of novel CNTFET based full adders

## محل انتشار:

سومین کنفرانس بین المللی مهندسی برق (سال: 1397)

تعداد صفحات اصل مقاله: 10

## نویسندگان:

Shabnam Qasemi - *Electronics department, Faculty of Engineering South Tehran branch Islamic Azad University*

Poya Soleimani Abhari - *Electronics department, Faculty of Engineering South Tehran branch Islamic Azad University*

## خلاصه مقاله:

Ternary logic circuits have advantage over the corresponding binary counterparts with respect to area and interconnect complexity. CNFET technology is ideal to implement ternary logic circuits because the threshold voltage of CNFETs depends on the physical dimensions of their channel. The Full Adder is one of the most important and basic units of mathematic circuits that is the basic structure of many complex systems. Moreover, serial and parallel mathematic processes can be carried out faster and more operative error-detection and error-correction codes can be employed in ternary logic implementations. In this paper several state of the art CNTFET based full adder have been inspired. The presented structure reduces the delay of the Ternary Full Adder and has high driving capability. The proposed Ternary Full Adder is simulated at varying supply voltages and temperatures using different frequencies by the Synopsys HSPICE circuit simulator.

## کلمات کلیدی:

CNTFET, Full Adder, Ternary logic

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/832075>

