

عنوان مقاله:

A Novel High Security and High Speed Image Encryption Method Based On Chaos Algorithm and Carbon Nanotube Technology

محل انتشار:

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خلاصه مقاله:

The use of chaos algorithms in image encryption has drawn increasing attention in the past few years. In this paper we present a novel high ultra speed and high security encryption method and it's VLSI XOR architecture based on carbon nanotube technology. In this method we focused on providing a high security and high speed image encryption algorithm that we reached this goals using chaos signals and carbon nanotubes technology; Therefore, in proposed encryption algorithm in order to encrypt the images, after a series of mathematical operations on the key and initial values which are based on logistic map function, chaos parameter values are extracted and with each level of image pixels used in mentioned XOR circuit in a bitwise operation. Many experiments have been conducted on algorithm security, analysis and its performance on different images that all of them confirm that the high performance and low delay system in encryption applications has been provided.

کلمات کلیدی:

chaos, carbon nanotube, image, encryption, XOR, logistic map

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