

عنوان مقاله:

The Effect of DNA in Image Steganography on Privacy Preservation in Smart City

محل انتشار:

مجله سیستم های دینامیکی کاربردی و کنترل, دوره 5, شماره 1 (سال: 1401)

تعداد صفحات اصل مقاله: 16

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خلاصه مقاله:

The smart city is one of the Internet of Thing-based applications that its use is increasing today. One of the requirements of this system is privacy which protects citizens from disclosure. This paper proposes to protect citizens' privacy by combining chaotic functions and a new method of steganography and image blocking. In this paper, two methods are proposed. In the first proposed method, randomly selected secret data bits are hidden in the pixels of image blocks that have also been randomly selected by the least significant bit method. In the second proposed method, the secret data and image are first converted to the DNA sequence, then the secret data genomes are replaced with the least significant genomes of the pixels of the image blocks that have also been randomly selected. Simulation results show that DNA use increases the quality of hidden images compared to without DNA methods and existing methods.

کلمات کلیدی:

Internet of Thing, Smart city, privacy preservation, Steganography, DNA

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