

عنوان مقاله:

Image Hashing Algorithm : An Analysis and Improvement

محل انتشار:

دومین کنفرانس فضای سایبر (سال: 1402)

تعداد صفحات اصل مقاله: 10

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خلاصه مقاله:

Image authentication code algorithms are schemes wherein the authenticity of an image is considered in a robust way. As the images are mainly subjected to some authorized modifications, such schemes must be able to accept the authorized changes while rejecting the malicious ones. This article analyzes an image authentication algorithm based on error detection code. The image authentication scheme utilizes a type of error detection code in order to encode the mixed most significant bits (MSB) intensity value of each image pixel. The secrecy of the system is based on two secret keys. The algorithm provides an acceptable robustness and elaborate design however, it suffers from some security features that leave a gap for improvement. These features are analyzed and will be employed to show the vulnerabilities of the scheme. Also, some solutions are proposed to elaborate the algorithm more. The solutions will increase the strength of the scheme while keeping the robustness.

کلمات کلیدی:

Image Authentication, Robustness, Image Hashing, Error detection and correction

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