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Abstract

Image encryption has to be conducted prior to image compression. In this paper how to design a pair of image encryption and compression algorithms such that compressing encrypted images can still be efficiently performed. This paper introduced a highly efficient image encryption-then compression (ETC) system. The proposed image encryption scheme operated in the prediction error domain is able to provide a reasonably high level of security. More notably, the proposed compression approach applied to encrypted images is only slightly worse, unencrypted images as inputs. In contrast, most of the existing ETC solutions induce significant penalty on the compression efficiency.

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Index Terms

Computer Science   Image Processing

Keywords

Compression Of Encrypted Image   Encrypted Domain Signal Processing