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Abstract

This paper presents a robust and secure watermarking technique for digital image. To implement the technique, Discrete Wavelet Transform (DWT) is applied on cover image. Further on Low-Low (LL) sub-band of DWT, Discrete Cosine Transform (DCT) is applied which is followed by Singular Value Decomposition (SVD). To introduce the secure watermarking, watermark is secured using Arnold Transformation and embedded in the cover image. Parameters such as Peak Signal to Noise Ratio (PSNR) and Normalized Correlation (NC) are used for checking the reliability of the proposed technique. Different attacks like noise, filtering, rotation, cropping, flipping, and compression are applied on watermarked image to check the robustness of the proposed approach.

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Index Terms

Security

Keywords

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