Abstract

This paper presents a novel watermarking scheme based on Discrete Wavelet Transforms and Singular Value Decomposition. The singular values of HL band is going to embedded with watermark singular values making use of scaling factor (\( \alpha \)). The effectiveness of the proposed algorithm is measured using peak signal to noise ratio (PSNR), structural similarity index (SSIM) and normalized correlation (NC) factors. The robustness of the proposed algorithm is tested by performing various attacks like Salt & Pepper noise, Gaussian noise and rotation etc on watermarked image. The experimental results show both the robustness and high fidelity of the algorithm.

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Index Terms

Computer Science

Algorithms

Keywords

Discrete Wavelet Transform  Singular Value Decomposition  Quality metrics.