Abstract

This paper presents a robust and blind watermarking scheme for copyright protection of images in discrete wavelet transform domain based on the support vector machines (SVMs). This scheme is based on the relation between the coefficients in various sub bands in discrete wavelet transform decomposition. The proposed scheme is very secured and robust to various attacks, viz. Low pass Filtering, Salt & Pepper noise, Gamma Correction, JPEG Compression, Row-Column Copying, Row-column blanking, Bit plane removal, Cropping, Resize and Histogram Equalization etc. Experimental results show that the proposed scheme has significant improvements in both robustness and imperceptibility and superior to an algorithm proposed by Li et al. in terms of Normalized Cross correlation (NC) and Peak Signal to Noise Ratio (PSNR).

References

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Index Terms

Computer Science
Security
Keywords
Digital Image Watermarking  Discrete Wavelet Transform  Support Vector Machines