Abstract

This paper presents a watermarking technique for fingerprint images using the DWT-SVD (Discrete Wavelet Transform - Singular Value Decomposition). The watermarking image is embedded and extracted to calculate the PSNR (Peak Signal to Noise Ratio) and NC (Normalized cross correlation) value. Watermark Embedding Technique or the algorithm should be imperceptible i.e. embedding watermark should not affect the quality of original image but can be improved the quality of image. MSE (Mean Squared Error), PSNR (Peak Signal to Noise Ratio) between the original host image and the corresponding watermarked image to calculate of the superiority of a watermark embedded images and NC (Normalization co-relation) is calculated between Watermark images and extracted watermarked to the superiority of a watermark extracted images. Watermark should be robustly embedded into image which remains in fact after any type of image processing. This research work will be to present highly imperceptible & robust. Images watermark embedding and extraction technique. The DWT-SVD (Discrete Wavelet Transform - Singular Value Decomposition) domain is used to embed the watermark data into fingerprint images and Singular Value Decomposition (SVD) is used to
transform the image in this technique are going to present a watermarking algorithm with the combination of images.

References


Index Terms

Computer Science Pattern Recognition

Keywords

DWT-SVD, Watermarking Image, Embedding, Extraction, Fingerprint Image