A Hybrid Block Based Watermarking Algorithm using DWT-DCT-SVD

V. Santhi

Abstract - It has been observed from literature, a robust water making technique which combines the features of discrete wavelet transformation (DWT) , Discrete cosine transformation (DCT)and Singular Value Decomposition (SVD). This technique is used to decompose the color image into various frequency and time scale .Block DCT is applied DWT coefficients of various frequency to provide high level of robustness. DCT transformed blocks of size 4x4 are further decomposed using dual SVD technique to get singular values in which watermark is to be hidden. Algorithm is tested using Lena test image in RGB and YIQ color model. AS per the results combining the features of DWT-DCT with SVD technique provides robustness against image processing and geometric attacks in YIQ color model than RGB color model.