

EVALUATION OF WAVELET TRANSFORMATIONS IN DIFFERENT BANDS BY APPLYING NOISE

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ABSTRACT

The expansion of the internet has frequently increased the availability of digital data such as audio, images and video. Digital watermarking is a technology being developed to ensure authentication, security and copyright protection of digital media. Watermarking is a technique to hide data by embedding the watermark in the original image at the sender and delete the watermark at the receiver to get the original image. During transmission if the image is effected by noise, it has to recovered from the noise. Here original image is transformed using DWT based scheme and noise is applied to different bands to observe the results. Performance measures like PSNR, MSE, NCC are measured in all four bands.

KEYWORDS: Discrete Wavelet Transform(DWT), Singular Value Decomposition(SVD), High Frequency(HH), Low Frequency(LL), Peak Signal to Noise Ratio(PSNR), Normalized Correlation Coefficient(NCC), Mean Square Error(MSE)