

Abstract

Watermarking is the incorporation of cryptography and steganography that make use of the deficiencies of the human sensory system. It aims to protect the ownership of a file by inserting something that could be evidence of who owns the file.

The final task is to implement and analyze the comparison of watermarking on grayscale images with a binary image of Dual Tree - Complex Wavelet Transform (DT-CWT) - Singular Value Decomposition (SVD) with the Discrete Wavelet Transform (DWT) - Singular Value Decomposition (SVD). The final task is to analyze the correlation between the results of extraction of the watermark image was watermarked image.

PSNR values between host image and watermark image was generated DT-CWT has higher value than the DWT since DT-CWT has good shift invariance, good directional selectivity, has very little redundancy, and a little calculation algorithm.

Keyword: *watermarking image, Dual Tree – Complex Wavelet Transform, Discrete Wavelet Transform, Singular Value Decomposition*