

ABSTRACT

Free downloading of digital data on the internet is vulnerable to changes in the data. Digital data that is spread can be in the form of images, writing, sound, and video. The process of deployment is easy to worry about copyright infringement. Watermark is one solution to overcome the many violations that occur. Watermarks usually contain information about the ownership marks of a data, so that others cannot modify, disseminate or acknowledge the data.

In this final project discusses the implementation of watermarking images with the Discrete Wavelet Transform (DWT) and Spread Spectrum (SS) methods using Compressive Sensing techniques. This compression compressing technique is used to increase the capacity and perceptibility of watermarking techniques, while the DWT method to decompose the host image which is the place of insertion of the watermark image, and the spread spectrum method for the insertion process by publishing watermark bits on the host image, after that reconstruction of sensing compression with L1 regularized Least Square (LS). Software that is Matlab R2015a.

Watermarking performance in this final project is obtained by testing the files that have been inserted in the watermark. By testing both the insertion and extraction process, the parameters obtained in the implementation of this image watermarking with the PSNR value with an average of 59.11888 dB, MSE with an average of 0.156002, SSIM = 0.753889 and the average BER = 0.074067

.Keywords: Image watermarking, Discrete wavelet transform, Spread spectrum, Compressive sensing.