

ABSTRACT

At present, the development of technology is growing very rapidly. The process of exchanging data and information will be easier. This can be used by people who are not responsible for committing a crime, such as duplicating data or copyright infringement. Watermarking techniques are solutions that can be used to prevent these actions. By inserting a digital data or information into other digital media, which the human senses cannot know. Image watermarking is the development of the watermarking technique itself, by inserting a digital data into an image file or image media that wants authenticity.

In this final project, the writer analyzes image watermarking by using a host in the form of an image file, and the data inserted is in the form of an image / image. The method used is by combining Discrete Wavelet Transform (DWT) and Discrete Cosine Transform (DCT) methods, Huffman Coding, and compressive sensing techniques. To assess the quality of image files that have been inserted by the watermark in it, measurements are taken with several performance parameters such as BER, PSNR, SSIM, MOS.

After doing research, the best results obtained in the form of PSNR value of 25.3232 dB, BER value 0 and SSIM value 1 when not given an attack and without noise. As well as MOS parameters in numbers 3.1333. Also the watermark data in the form of binary imagery still has good imperceptibility. So that it can reduce the gap of crime that can harm many people.

Keywords : Copyright Protection, Watermarking Technique, Image Watermarking, Compressive Sensing, DWT (Discrete Wavelet Transform), DCT (Discrete Cosine Transform)