ABSTRACT

Information exchange is growing quickly and provides a major influence for human life. Along with this development of crime information were also developed, so that the security and confidentiality of information transmitted is not safe. Steganography is originated from Greek, which means hidden writings. Steganography is the art or field to secret messages to another unsuspicious media so the message itself won't recognized. There's a lot of steganography method, one of them is DWT (Discrete Wavelet Transform) which divides the image into subband which have high frequency and low frequency.

This final project made the data insertion technique of text message using Discreet Wavelet Transform (DWT). The main objective of this final project is to hide important information which it will be inserted to the digital image. For a better security, the secret messages encrypted using the Advanced Encryption Standard (AES) which is the best encryption at this time according to NIST (National Institute Standarts and Technology) and encoding using convolutional code. On the receiver side, then the process will be reversed to get the secret message.

The research says, steganography system using DWT give the imperceptibility performance between cover image and stego image is very similar. The conclusion obtained from PSNR value of 85,7921 and MSE of 0,00017134 on the cover image insert with message 33 characters. Robustness performance for stego image the value of BER is 0 (zero), the meaning is there is no bit error in extraction.

Key Words : Steganography, Security and confidentiality information, discret wavelet transform.