

ABSTRACT

Steganography is a technique to hide an information that will be sent in other media so that only sender and receiver who know the content of information. Informations which are embedded can be a text, image, video, or audio. Cover media also can be text, image, audio, or video. As its development, to improve security system, steganography combined with other systems as an example of system identification for purposes of authority and encryption so that information is more difficult to be known by others.

In this final assignment has been simulated steganography using digital image as a cover media and secret information. The secret information is a signature which covered by other digital image and then the signature will be identified by the receiver for authority service. Identification using Levenberg Marquardt back propagation algorithm, meanwhile the embedded technique using Discrete Cosine Transform (DCT).

The results that have been obtained are maximum PSNR value for steganography image is 31,7674 dB. The average value of BER for all testing is 0,026758. Secret image which has been extracted has minimum BER 0. Signature identification system has an accuracy 81,5% for original image practice data testing and 90% for extracted image practice data testing. Maximum accuracy for identification system using 2D Gabor Wavelet feature extraction is 53% with 20 training data and 10 practice data.

Keywords : steganography, digital image, signature, identification, back propagation algorithm Levenberg Marquardt, DCT, Gabor Wavelet