ABSTRACT

Steganography is a technique used to hide the message, so no one knows the secret message other than the sender and recipient. The word "steganography" is derived from the Greek Steganos, meaning "hidden or disguised," and graphein which means "to write". According to the literal sense as information hiding steganography can then use a variety of media as a place to hide secret messages.

In this final project, it has been simulated steganography system in video using Enhanched Least Significant Bit (ELSB) is a modification of the method of Least Significant Bit (LSB). Insertion will be carried out on the image (image) when there is no sound (silence) in the video by using Mel-Frequency Cepstral Coefficient (MFCC) which is extracting characteristic sound signal based on the character of the sound frequency response.

The result is steganography system with minimal computing time is 1.38774 seconds when embedding and 0.1635 when extracting. The system also produces 100% accuracy and PSNR value reach 73.5329 dB with BER and CER is 0 when there is no attack from Gaussian noise. This steganography system is resistant to *noise* Gaussian in image with mean=0 until variance $1x10^{-7}$. The average value of MOS result from 30 correspondent is 4.5 that means the quality of the stego-video is good.

Keywords: Steganography, video, ELSB, MFCC