

ABSTRACT

Usage of internet to exchange information that have been developed cause worries about security and privacy of digital data being transmitted. To secure the data sent via internet, a technique to guarantee the security and privacy is needed. One of the method is called Steganography. Steganography is a method used to hide a message in digital media such as: audio, image, and video.

*In this final assignment, a Steganography system is designed to embed *.bmp formatted RGB image to *.avi formatted video. The image is secret message, while the video is used as cover. The secret message is embedded by Enhanced Least Significant Bit method to video frames based on silence detection with Discrete Wavelet Transform method.*

The success rate of Video Steganography carried out by measuring several parameters, such as: PSNR, MSE, BER, and MOS. PSNR in embedding proses with ELSB method is good. PSNR biggest result obtained is 68,7518 dB and MSE lowest result is 0,00867. Longest computational time in embedding process is 91,15508 second, while longest computational time in extraction process is 76,71934 second. MOS result have an average of 4,1764, meaning that the quality of the video after embedded with image is good. Message extraction results when given the noise easily damaged . Can only survive on the attack with the mean and variance are very small. This is because ELSB is a method where the message is pasted committed against one of the first three bits LSB in each pixel . The resulting BER is equal to 0.901899 when the mean = 0 and variance = 0.5.

Keywords: *Video Steganography, RGB Image, Silence Detection, Discrete Wavelet Transform, ELSB.*