ABSTRACT

The steganography technique is one that is used to hide a secret message into another medium, so that between the original image and the stego image does not look much different from the visible. While cryptographic techniques are used to maintain the confidentiality of the data you want to send. In previous studies, with modified bit selection rules, MELSB can improve SNR from better stego-images than ELSB, with the result that the MELSB scheme provides a larger SNR than ELSB.

The insertion of text messages on steganography still has constraints that is when the text message can be extracted then the text message can be directly read. Text messages that want to be inserted into steganography are encrypted first so that to read the text it needs to be decrypted. Encryption uses RSA criteria as an alternative to previous research using Chaining hill Cipher. In this Final Project, the comparison between the MELSB (MODIFIED ENHANCED LSB) scheme with the FN (Four Neighbors) method is tested which of the two schemes is better. In addition, this steganography technique is also combined with cryptographic techniques so that information security is expected to stay awake. The cryptographic techniques used are RSA and the steganography techniques used in message insertion are the Modified Enhanced LSB method and the FN (Fout Neighbors) method.

The result of this final project is Mean square error (MSE) 0,83975 for MELSB (Modified Enhanced LSB*) method, and 17,06415 Four Neighbors method, Mean Opinion Subject (MOS) get 4,666 for MELSB method and 4,598 for Four Neighbros method, Bit Error Rate (BER) and Character Error Rate (CER) = 0 for both methods.*

Keywords: Steganography, Cryptography, Modified Enhanced LSB, Four Neighbors, RSA cryptographic technique.