

ABSTRACT

The increasing development of communication technology is directly proportional to the aspects of data security and confidentiality. Various kinds of methods are used to protect the information to unauthorized parties such as by using cryptography and steganography. Currently steganography has been widely used to store confidential information on digital media. One methods used is Least Significant Bit (LSB). However LSB steganography method is very simple and commonly used to embed text in digital media files that allows third parties to disclose the information.

In this project, steganography will be combined with cryptography. Cryptography is used to randomize the plaintext before it is embedded into the RGB image. Cryptographic algorithms that used in this project is Relative Displacement Cipher (RDC) symmetric key and steganographic technique used is Least Significant Bit (LSB).

The results of this final project is an image containing the encrypted text on the last bit pixels constituent. With 45.2209dB PSNR after it inserted the maximum message length that can be accommodated by the cover image. But when given the noise, the information bits that stored in the cover image will be changed so that the stored message will be disrupted. It can be concluded that this system will work well if the stego image is not given the attack.

Keyword: Steganography, Criptography, LSB, Relative Displacement Cipher