ABSTRACT

(Design and Simulation Of Steganography Gifshuffle Algorithm with Cryptography TEA Algorithm)

To protect the secret message in order to unknown by those who are not entitled to, the techniques can use such as steganography and cryptography. Steganography of Gifshuffle algorithm utilizing GIF file header that stores a limited palette of 256 colors to hide the secret message. GIF file format does not lose quality when compressed so it can be used as a medium for message insertion. Cryptography of Tiny Encryption Algorithm (TEA) has advantages in simplicity of implementation and and minimal memory usage so in appropriate with steganography of Gifshuffle algorithm with limited insertion message.

In this paper, simulation of data security by combining the techniques of steganography and cryptography to secure data. The first process is encrypted the message using TEA algorithm, then the message is embedded in a GIF digital image using Gifshuffle algorithm.

From the test results, it is known that steganography of Gifshuffle has the value of accuracy level as big as 87.7%. It can withstand attack Gaussian and Salt&Pepper noise, with good enough PSNR and MSE value.

Keyword : Data Security, Steganography, Cryptography, GIF, GifShuffle, TEA