ABSTRACT

Visual Cryptography is an extension of secret sharing cryptographic techniques to secure an image. Secret sharing is one method for securing a secret by dividing the data into several sections called share. The purpose of the division is so that users can protect the key without fear of forgotten or lost. Previous research has been done on Visual Cryptography to determine the effectiveness and implementation of Visual Cryptography if applicable. Then do also research on the implementation of the RGB image Visual Cryptography. There is also research how to develop Visual Cryptography with other algorithms and also the use of steganography in Visual Cryptography.

In this final task will be to try to apply the method of Visual Cryptography on digital image and calculates computation time. Encryption is done is the establishment of two share and 4 share. The technique used is experimental. The implementation will use MATLAB R2014a software for programming languages. In this final project will also see the difference on the outcome of the results decryption share the image formation 2 and 4 share the image as well as the impact, if exposed to noise.

Cryptographic performance testing done by comparing data from the implementation of the two share and 4 share. Data that is seen is the computational time required to both be able to encrypt a message, image quality, and noise resistance. From the measurement results after trying on several digital image encryption ranges then known time in 2-6 seconds to 2 seconds for the 4-10 share and 4 share. The result of this cryptography experience the difference at the time of attack from noises.

Keywords : Cryptographic, visual, encryption, decryption, image