ABSTRACT

The security and confidentiality of the information becomes an important thing to note, given the convenience of everyone to access the network. Improving the security of information becomes the solution. One of the techniques used to improve information security is Steganography. Steganography is one method or way that can be used to maintain the confidentiality of a message. Steganography is a method of hiding secret messages on a media or host. The medium used can be image, audio, and video. Similarly, messages that are hidden, can be image, video and audio. Steganography is developed with a variety of methods that can be either a new method or a combination of several existing methods. This is done to increase the security level of any information submitted with steganography.

On this final task done inserting data in the form of a text file into the original image using the method of Discrete Cosine Transform and upgrade for the selection of the place of insertion of messages selected based on the fibonacci sequence. The combination of these two methods can improve efficiency. In addition, the DCT is one of the best methods in the insertion of information with steganography while the Fibonacci sequence is used to determine the layout of the text message to placed on the cover image.

Parmeter-parameters that can be used in a study conducted this is the Bit Error Rate (BER), the Peak Signal to Noise Ratio (PSNR) and Mean Opinion Score (MOS). BER obtained in this research is 0 and the average PSNR values obtained was more than 40 dB as well as MOS brings expected worth 4.46. These values indicate that the image of the stego has good quality and exactly the same as the original image and the message can be extracted back

Key words: Discrete Cosine Transform, Steganography, Fibonacci, digital image.