ABSTRACT

Security and confidentiality of data in the process of exchanging data between information devices is the important thing in communication system. Cryptography which to date continues to grow even enough to keep confidential the information submitted because the form of information sent to third parties who want to make it easier to steal information to guess , and finally crack the password of the encryption key. Alternative information security technique is to use a steganography technique that aims to hide secret messages in a file or other data. We can hide the secret message in the text ,images ,video or other format.

In this final project has been implemented on the video with the text steganography DCT (Discrete Cosine Transform) and AES (Advanced Encryption Standard) by Region of Interest. ROI method is the determination of specific areas on video for embedding secret messages to be in the encoding with higher quality than other. Before secret message embedded on the video ,AES encryption will be done that would eventually produce the ciphertext as data hiding. Testing performed consisted of a comparison of the performance of the video as a data host based format ,frame quality analyzer based on the value of MSE and PSNR , the validity of the secret message ,data hiding resilience (robustness).

The test results produced by the insertion of text is not too much effect on the quality of the resulting stego video so that the video PSNR owned stego greater equal to 30 dB. In addition, the use of ROI does not affect the quality of stego video and extracted message.

Keywords : *steganography*, *Region of Interest*, AES, video, PSNR, DCT.