

## **ABSTRACT**

Cryptography is the science or art of hiding information that is made with the technique of encryption, or change the message or information into code that is not understood by others, in addition to the manufacturer and the recipient. While steganography is the science and art of hiding a secret message (the hiding message) so that the existence of the message is not detectable by human senses. In contrast to cryptography, steganography is not the result of striking, the changes that occur in the container media did not change so significant that it can not be detected by naked eyes.

In this thesis, created a system that combines steganography and cryptography in order to get higher security. Both concealment technique this message has been implemented on a digital video file that is used as a cover. In the video has inserted a secret message in the form of text that has previously been encrypted with Advanced Encryption Standard method (AES). The method used for steganography technique is the method of Least Significant Bit (LSB).

The results obtained from this final project is a stego video file that already contains a secret message. Each frame and video is used as a medium stego reservoir has a pretty good performance, in terms of PSNR values are quite high ranging between 59-83 dB and MOS values have average above 4 . But the system that has been created does not have a good performance when given in the form of offensive noise and compression process. The whole secret message that has been inserted can not be extracted again resulting in a BER value reaches 100%.

**Keywords : Steganography, Cryptography, Digital Video, Least Significant Bit (LSB), Advanced Encryption Standard (AES)**