

## **ABSTRACT**

Developments in technology and the growth of the Internet very rapidly supporting the access needs of data and information exchange should be fast and precise. An important message contained in the information of data creates a afraid of falsification of the message. For that it is necessary to secure a promising safety information submitted does not leak to other people. Steganography is one of technique hide a secret message or data in a media container so that others are not aware of the messages in the media. In a physical sense steganography is the art and science of writing hidden messages in such a way so that no one realizes that there is a secret message, unless the sender and receiver.

In this final project , the system simulation and analysis of the text in the image steganography. Where steganography will be conducted using the Modified Least Enhanced significant Bits (MELSB). And insertion performed on the image after going through edge detection to find the object image as a place of insertion.

The result of steganography system with the fastest computing time 2.7216 seconds at the time of insertion and 1,8113 seconds at the time of extraction. The system also generates a value of 100% accuracy and PSNR reached 80.6239 dB with BER and CER is equal to 0 when no attack Gaussian noise. Systems resistant to attack Gaussian noise in the image with the mean = 0 and variance value =  $1 \times 10^{-7}$ . Results MOS obtained from a survey of 40 correspondents had an average total of 4.4 which means better quality of stego image.

Keywords: Steganography, pictures, MELSB, edge detection