

ABSTRACT

The current technological development has been growing rapidly. One of these internet technologies are already very global provide facilities and services to send information or exchange data. Everyone is free to access. As the development of Internet technology, led to the emergence of a crime called "cybercrime" or crime through the internet network. So it is necessary techniques to maintain security and confidentiality of information or data transmitted. One of them with Steganography technique. Steganography is a technique used to hide secret information in an information media that transmitted data can not be identified by unauthorized parties. Steganography had some method, which is often used is the method of LSB. LSBmethod is a method of hiding a secret message by inserting the low bit or bits (LSB) right on the data pixels that make up the file.

In this final project, the writter has to apply Braille method to improve the reliability of LSB with embedding secret messages with the input of text and then converted into binary number 6 bits. The embedding at Red Layer until full, then at Green Layer until full and the last at Blue layer. Then the results were analyzed through objective and subjective assessment. Objective assessment through the Mean Square Error (MSE), Peak Signal to Noise Ratio (PSNR), Bit Error Rate (BER) and Character Error Rate (CER). While subjective assessment through assessment Mean Opinion Subject (MOS).

From testing done system can perform steganography with subjective assessment by 30 people respondents get value MOS is 4,47 – 4,73 on scale 1-5. This indicates that the results of the stego images look similar to the cover image. While the objective assessment stego images not given attack has a value $PSNR \leq 126,435$ dB, $MSE \leq 0,233$ then $BER = 0$ and $CER = 0$ this means no bit error messages and characters that once extracted. But at a time when the image of various attacks have given stego value of BER is more than 0,5 and CER is 0,99. This shows that the steganograpy system was not resistant to attack.

Keywords : Steganography, LSB, Braille method, MSE, PSNR, BER, CER, MOS