

ABSTRACT

Currently the exchange of information can be done very easily. For example, now many ways to transmit the information from the sender to the receiver at a considerable distance. One of them is through the internet. Amid the development of information technology is more lively, the internet is no longer ensure the provision of secure information. Various search-engine continues to grow coupled with the virus, bugs, spam and hackers who can steal mushrooming data can be confidential. Therefore, to improve the security of the information can be made an attempt to hide a message into other media. The technique called steganography techniques.

In this final project designed a simulation and analysis of text steganography as a message using the Arabic as a cover image. The system is designed include the segmentation process to get the punctuation "fathah" that will be used as a host and steganography using Enhanced Least Significant Bit (ELSB).

The results of this final project is to get the punctuation "fathah" with an average accuracy on three sources of data, such as: 85.43% from Scan Qur'an, 89.10% from Google and 87.78% from Scan Handwriting. Use of the method ELSB successfully insert message by not damaging the image quality of the original image with the PSNR VALUE lowest of 145 925 dB and MSE value lagest of 0.0299, obtained on Data 6 - Google with the message length of 287 characters. Results Mean Opinion Score (MOS) for testing image quality with a maximum scale of 5, shows the average value of a total of 4,58. With the first scheme can withstand manipulations such as cropping stego data, but vulnerable against to attack gaussian noise dann salt and pepper with 0,01 density with maximum BER value at 0.50463 and CER value at 0.37037. While the manipulation cropping in the second scheme, obtained BER value at 0.4475 and CER value at 0.0185, but can withstand the attack gaussian and salt and pepper on all density testing. As well as the largest computing time on Data 8 - Google with the message length of 786 characters, has a 3.8596 second insertion and extraction time of 5.3717 seconds.

Keywords: Segmentation, Arabic, Steganography, Enhanced Least Significant Bit