

ABSTRACT

Ensure the security of the confidential data in the virtual world from a hacker attack can be carried out by some method, one of them is using steganography method. Steganography is a technique that can be used to hide secret information by inserting a message into the media cover.

In this final program, we will be carried out steganography simulations with Dynamic Cell Spreading (DCS) method. This method will insert every bit messages into low bit LSB of the cover image at a distance corresponding bit stream is created. However, this method has the disadvantage that the size of stego image is very large, therefore this study will be used lossless compression method that is ZIP Compression algorithm. This compression method aims to produce stego image size smaller.

From the results of testing the system, we obtained stego image with excellent quality that the MSE value is $\pm 0,0003$ and PSNR more than 40 dB. The output of the system can be extracted by recipient as a whole and the information sent can be delivered. While the size of the compressed file can be minimized though it can not yet approaching the size of the original file with a compression ratio resulting average at 0.68.

Keyword : steganography, image, Dynamic Cell Spreading, Compression, ZIP Compression algorithm.