

ABSTRACT

Currently the Internet technology that allows users to access all the information they want. But there is no limit so anyone freely access the information they want. So that information security is needed. Security process in the delivery of confidential information is an important factor that must be maintained to keep the possibility of information is seen by people who are not interested. One technique that can be used is steganography. The insertion process and their attacks against steganography image causes a drop in image quality. This led to the decline of image quality of image information to be reduced and raised suspicions. Then the image needs to be manipulated so that the quality of the image after inserted resembles the original image. The restoration process is one technique to restore the image to its original shape.

The purpose of the final project to simulate the process of restoration with Fuzzy Adaptive Histogram method (HAF) in image steganography and analyze result of the method. Methods Least Significant Bit (LSB) based on the spatial domain is used to insert a secret message to the host of its image.

Image steganography will be degraded by salt and pepper noise, Gaussian noise, uniform noise with different parameters. Then the image will be restored with Fuzzy Adaptive Histogram method (HAF). The performance of the Fuzzy Adaptive Histogram (HAF) will be compared with the methods Mean Filter views of PSNR, ISNR, CER. The result of simulation is PNSR range about 22-27 dB and ISNR range about 5-56 dB.

Keyword: *Steganography, Least Significant Bit (LSB), Histogram Adaptive Fuzzy (HAF), Image Restoration*