

## ABSTRACT

Steganography is a technique to hide the secret message in another message, where the other people will not know the existence of the hidden information. Steganography can be done in the form digital media, images, video, and audio. Current technology users can access all the information they need, but no guarantees on access the information, so they are need the security. Security process are important factors that must be maintained in the delivery of confidel information. One technique that can be used is Steganography.

One method used to overcome limitations in the process of securing the insertion of steganography is using methods based S-Transform. Which were previously performed using Harmony Search optimization to obtain the most optimal combination to insert the message information.

From the results of the testing system, the stego image obtained are tested on this system has a very good quality (PSNR > 30 dB). At that time of the stego image was not given AWGN (Additive White Gaussian Noise) attack, the accuracy of extracting secret message was to reach 100 %, whereas at the time of the attack given, accuracy reach 99.498 %. Subjective MOS measurement using the 20 respondents to measure the performance in inserted digital image when it was given attack or not.

**Key Word :** *Steganography, AWGN, PSNR, S-Transform, Harmony Search, Stego Image*