## ABSTRACT

For the development of technology, the threat to information security needed is even greater, especially for confidential information. Various problems in the world such as hackers, crackers, carders that make people worry about the security of the information they send related to this can involve certain confidential information. With the existence of these problems, the information to be sent can be maintained through data hiding techniques. The data hiding technique is also commonly called the steganography technique. Steganography is a technique for hiding personal information with something whose results will look like other normal information.is actually personal with something that will look like other normal information.

The purpose of this research is to analyze the image that has gone through the Compressive Sensing process with the Discrete Cosine Transform-2D and the Orthogonal Matching Pursuit algorithm which are carried out using the Singular Value Decomposition insertion method.

The final result of this thesis research was the application of steganography in Matlab which has a stable BER (robustness) value to get 0 without attacks and the PSNR value above 45 dB (49,647-not-up). With Compressive Sensing Optimization using the Orthogonal Matching Pursuit algorithm in the host image, the PSNR value is better than without optimization (50,9814-infinite) but the increase in attack and BER value tend to fluctuated (non-fixed).



***Keywords: Steganography, Compressive Sensing, Orthogonal Matching Pursuit, Discrete Cosine Transform-2D, PSNR, MSE, BER.***