## **ABSTRACT**

Issues of security and confidentiality is one important aspect of a message, data or information. By using various techniques, many people are trying to access information that is not right. With the development of science, the application of information security techniques and data that have been used in ancient times can be an alternative in securing data communications. Cryptography is a science and art to maintain the security of messages sent from one place to another. RC4 is one of the cryptographic algorithms. RC4 widely applied to encrypt the text. Cryptography can still be solved even if the process takes time, cost and effort. Other data security techniques are also quite popular is steganography. In contrast to cryptographic techniques, steganography can reduce suspicion because the message is disguised is hidden in another file. LSB is one of steganographic methods. LSB widely applied to insert a secret message into a digital image.

This software is made in order to secure the secret message into a digital image using the RC4 algorithm and the method of LSB. The software is built using the waterfall model of software development.

The results of the development of this software has been able to secure the secret message in the form of text into a digital image with a BMP format using RC4 algorithm and the method of LSB.

## Keyword:

Cryptography, Steganography, RC4, LSB.