

## **ABSTRACT**

*The development of information and communication technology has brought rapid change in human life. To maintain the security and confidentiality of messages, data, or information in a computer network would require some encryption to create messages, data or information that can not be read or understood by anyone. One of the science to maintain the security and confidentiality of data or information that is cryptography. Algorithm was developed to allow certain designated organizations to access the information. Julius caesar is known as the person who first developed the cryptographic algorithm to send a message to the troops. Algorithm consists of encryption algorithms and decryption algorithms.*

*Digital imagery has been widely used in various processes so that the protection of digital images of the party who does not have access rights are very important. There are many models and encryption methods, one of which is encrypted with DES (data encryption standard). This model is one of the key algorithms in the form of symmetric block cipher. The algorithm is based on algorithms lucifer made by Horst Feistel. This research will build an application for the encryption and decryption of digital images with DES (data encryption standard). The methods used in data collection systems and stages of development model in this study using Waterfall model. And image formats used are 24-bit bitmap format.*

***Keywords: Cryptography, DES, Digital Image, Encryption, Decryption.***