ABSTRACT

The development of data communications enabling the exchange of information via mobile devices more easily. Security in the exchange of information on mobile devices is very important. Encryption is one technique of data security by scrambling information, but the result of encryption are random characters that can make people suspicious. With steganography the data can be emebedded to another media. One of the weaknesses in steganography is the capacity of data that can be inserted. With compression, the size of the data will be reduced.

In this final project, designed a system application on the Android platform with the implementation of LSB steganography and cryptography using TEA to the security of a text message. The size of this text message may be reduced by performing lossless compression technique using LZW method. The advantages of this method is can provide double security and more messages to be inserted, so it is expected be a good way to exchange information data.

The system is able to perform the compression process with an average ratio of 67.42 %. Modified TEA algorithm resulting average value of avalanche effect 53.8%. Average result PSNR of stego image 70.44 dB. As well as average MOS values is 4.8.

Key Word: *Steganography, Encryption, Compression, LSB, TEA , LZW, Android*