ABSTRACT

Sms is the delivery process and a short message from one individual to another one. Sms communication at this time is more often used because its use is easy and shipping costs are cheap. But on the other hand, with the rapid development of technology, the use of Sms communication also has disadvantages. There is no guarantee of security in the process of send and receive message and the message sent has not been definitly accepted. That requires and pplication that can maintain the integrity of the message, so message send could not be opened. Solution to maintain seurity is to encrypt sms before it sending.

At this final project wiil be created a design that can secure the message before sending it. The design is built using J2ME programming language. Stages are made to pass the design include designing applications involving algorithms and flowcharts and modeling used the program structure and application interface design, so the application is formed into a simple to use.

From the experiment results, the FEAL algorithm has average values of the time required for encryption with a length of 8 characters and the rotation difference feal 4, feal 8, feal 16, and feal 32 in a sequence are 3.93%, 4.96%, 5.6% and 7.4%. For the decryption process with a length of 8 characters and the rotation difference feal 4, feal 8, feal 16, and feal 32 the average values in a sequence are 2.9%, 3.7%, 4.3%, and 6.16%. The memory used for encryption with a length of 8 characters, 24 characters, and 120 characters in a sequence are 518 bytes, 1164 bytes and 3516 bytes. And the results for the decryption process are similar to the encryption process. This algorithm also has a good level of security which is proven by value 51,5625% on the result of the avalanche effect on feal 32.

***Key word**: SMS, encryption, decryption, FEAL*