

## Abstract

Nowadays, *Short Message Service* (SMS) has a very important role in communication especially in communication via cell phone. Message that sent by SMS is vary. There also a message that purposely need to be secret but actually message sent by SMS is a plaintext message that people can take or read it.

From the problem above, encryption is needed so the SMS message can preserve a confidentially. One of a well known encryption method is Rijndael Algorithm that already proved efficient and easy to implement. Besides, for message that has size more than cipher block used *Cipher Block Chaining* (CBC).

In this final assignment, writer made an application of SMS encryption in cell phone based on Java 2.0. This SMS application was analized from response time for encryption and decryption. Besides, analized the amount of character before and after encryption.

From the experiment result, Rijndael algorithm is one of the algorithm that suitable to be used for encryption process in cell phone. But, with CBC method the character amount that produced after encryption will increase. This can make the sent SMS segment amount will increase so the delivery cost will also increase.

**Keywords:** SMS, encryption, rijndael, CBC, java.