ABSTRACT

Mobile device that used nowadays is very fascinating. Mobile technology developed rapidly and not only for communication, and also for self assistant, multimedia, storage media, and so on. The mobile device nowadays has external memory with big enough capacity and keep increasing. In a certain storage media, there are some important or secret data that couldn't be accessed by anyone. That's why it is necessary to create file and folder security system on mobile device with cryptography algorithm and can encrypt-decrypt optimally.

The method that used is Android programming. In that programming would be used several function that used to read input key, transform file and folder become into archive and vice-versa, and encryption-decryption process use TEA Algorithm.

This research is expected to create program that can be implemented, such as file and folder can be encrypted with algorithm that examined and can be decrypted to previous file and folder.

On implementation of this application, encryption system, decryption system, and archiving is installed on open source file manager due to make the user easy to run the application.

After doing some testing with several parameters, it gets the result that the implementation of TEA algorithm on application encryption-decryption needs to be reexamined because it has percentage of avalanche effect on the differences bit of plaintext against differences bit of ciphertext that has a value below from standard.

Keywords : Cryptography, Encryption, Decryption, Android, File,Folder, Archive