

Abstract

This time, there is a lot of cryptography algorithms created for software application or hardware application. From the simple one to the complex one. All of that algorithms have each excess. Excess of encryption and decryption speed or excess of memory usage. This excess can be used to select which cryptography algorithm used to protect data.

In this Final Assignment, there are two cryptography algorithm implemented, which are DECIM and Grain. That two algorithm are stream cipher. Then, that algorithm will be compared. The comparison is done to time required for encryption and decryption process, change of size of input file and output file, memory usage and avalanche effect.

Pursuant to the implementation and analysis which have been done, can be concluded that Grain algorithm require briefer process time and memory usage which is fewer than DECIM algorithm. Grain algorithm also have higher avalanche effect value than DECIM algorithm.

Keywords: Cryptography, DECIM, Grain, Encryption, Decryption