

ABSTRACT

In global communication network like internet, data security which is transmitted have to saved from peoples that want stealing or damage that data. To guarantee of data security in transmit from sender to destination, hence data is encrypted to be meaningless form. There are so many encrrips algorithms that have been applied by various reliability level. Example like in chaos, is one of encrrips method that is used in security system for a secret data, that only can be opened and rad by peoples who know the key. Chaos is a data randoming where have a basic characteristic, it is sensitive in first condition. It is used to encrypted and decripted an information file, remember it capability in information data randoming. Symmetric Criptography is one of cryptography method that used the same key between sender and receiver. Determining an efective and reliable security system is very needed in file saving.

To know until how far reliability of chaos algorithm and how the reliability analyze method, in this last project, be done analyze by comparing reliability level between Lorentz algorithm, Julia Set and Tent Function in decript and encrypt a information file proccess. Done method is doing simulate by used Matlab.

Analyze is done based on some parameter, there is Periodic test, autocorrelation, *power spectral density*, *avallanche effect* and output data lenght in algorithm chaotic. From that analyze result obtained that Lorentz algorithm more reliable than the other algorithm.