## Abstract

Delivery of important data through accessing internet in this period have become commonplace. This matter generate progressively expand the badness through internet like increasing of badness taping, theft and forgery of information data sent through internet especially in business, banking, commerce, until the governance sector. For that, cryptography becomes a choice to pacify data.

RSA(Rivers Shamir Adleman) represent secure assumed cryptography algorithm, because of RSA have factoring that very big prime number. Others, DES is an algorithm that becoming choice to take care of data security. For example, DES is used in chip card owned by all bank clients. DES use same key to encode (encryption) and also for translation (description), while RSA use two different key. Equally, DES referred as symmetrical encode system whereas RSA referred as unsymmetrical encode system.

This Final Task made software to analyze performance both of the algorithms by parameters: encryption time, description time, using of memory, and increasing of chipertext size. After get the conclusion taken pursuant to examination and analysis from the software hence got that RSA algorithm by using big key is better than by DES algorithm.

Keywords: cryptography, DES, RSA.