

## **ABSTRACT**

Data security is the important thing to be noticed in the world of communication and cryptography is the solution. The RSA algorithm is algorithm of the asymmetrical cryptographic, it still has endurance from threats until now. While the AES algorithm is a symmetrical cryptographic algorithm that is still used as a cryptographic standard at the moment. The length of RSA keys used are from 1024 bits to 4096 bits. While the AES key used is 128 bits.

In this final task, the RSA algorithm will be applied and the AES algorithm in the chat application, where by implementing a cryptographic mechanism, will close the security gaps that are present in the simple messaging application. With the implementation of aplication, it can be generated a safe communication mechanism to be used in important communication in order not to be intercepted by an irresponsible party. The result of applying from 2 algorithms increases the security level of the transmitted data.

Keywords: RSA, AES, Cryptography, Chat Encrypted.