ABSTRACT

Data security is a thing that needs to be considered in the world of communication and cryptography is the solution.RSA algorithm is a symmetric cryptographic algorithms which still has the resilience of a threat until now. RSA with a key length of 1024 bits can be consuming 1.43×10^{213} years if using brute force.

In this final project, the RSA algorithm will be applied to the chat application, where by applying cryptographic mechanism will close the security gaps that exist in the instant messaging application. With the implementation of the application can be produced secure communication mechanism to be used in the intercepted communication is important in order not to irresponsible parties. The results of the application of algorithms increase the security level of data transmitted. Text sent transformed into a random ciphertext that can only be decrypted by the time arrived at the destination.

Keywords: *Cryptography, RSA, Chat Encrypted, Client-Server Chat.*