ABSTRACT

The development of technology that is currently growing more rapidly helps facilitate the wider community in terms of delivery and storage of data. Behind these benefits there is a danger that is not realized by most novice users, which intercepts and changes the data. The solution that can respond in maintaining security is needed, cryptography is one of the answers.

In this research, implemented a symmetric cryptographic algorithm to secure payment system based on fingerprint authentication. The concentration of this research lies in the implementation symmetric cryptographic algorithms in the design of biometric payment systems that play a role in maintaining the security of data communications.

The test results on this system shows that the algorithm can be implemented on Biometric Payment. Time encryption process takes 0.00994 seconds longer than the time the decryption process and the times needed are affected by the key size that is used to do the encryption and decryption. The average of Avalanche Effect obtained from the two scenarios is 55.5855%.

Keywords: Algorithm, Cryptography, Symmetric, Camellia, Biometric Payment.