

IMPLEMENTATION OF OFFICE LETTER ENCRYPTION AND DECRYPTION USING THE VIGENERE CIPHER ALGORITHM

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ABSTRACT

Official letter is a container and media for exchanging data or messages carried out by employees in an office or government agency. Along with the times, the mechanism for sending official letters also involves the use of internet technology so that the delivery process becomes faster. However, the absence of a form of security for the contents of the message can trigger or have a negative impact on the internal agency. Therefore, it is proposed to standardize the mechanism for sending letters including securing the official letter documents to be sent in the form of data encoding using cryptographic methods. One of the cryptographic algorithms for encoding text is the Vigenere Cipher algorithm. This study aims to implement the Vigenere Cipher algorithm to encrypt and decrypt desktop-based official letters. This application is intended to secure documents with .docx and .doc extensions, and you can see how long it takes for the encryption and decryption process. The results of the study can be concluded that the Vigenere Cipher algorithm can encrypt and decrypt official letter documents. In this study it was also concluded that the length of the key character did not have a significant effect on the speed of encryption and decryption of the Vigenere Cipher algorithm. In testing, it was also found that the Vigenere Cipher algorithm has a faster decryption process than the encryption process.

Keywords: Cryptography, Vigenere Cipher, Official letter