

# **IMPLEMENTATION OF TEXT FILE ENCRYPTION AND CRYPTOGRAPHIC PERFORMANCE ANALYSIS IN AFFINE CIPHER ALGORITHM**

**MANDIRA DWI KURNIA NUGROHO**

*Informatics Study Program Faculty of Science & Technology*

*University of Technology Yogyakarta*

*Jl. Ringroad Utara Jombor Sleman Yogyakarta*

*E-mail : [mandiradwi22@gmail.com](mailto:mandiradwi22@gmail.com)*

## **ABSTRACT**

*Security is the most important factor in an aspect of information that must be protected, data should not be known by people who do not have access rights to access it. So security is needed to maintain the confidentiality of information in a data. The security aspect of a data can be increased by using a cryptographic algorithm for the security process. This study will discuss the Affine Cipher cryptographic algorithm in handling the encryption and decryption process. The affine cipher algorithm is a development of the caesar cipher algorithm where this algorithm uses two keys. By implementing the affine cipher algorithm into a program, it is hoped that we can maintain the confidentiality of the information in the text file document from anyone who opens the text file. This research uses the Java programming language. Several examinations were carried out to determine the performance level of the affine cipher algorithm in handling the encryption and decryption process. The performance of the affine cipher algorithm is seen based on speed, file size and analysis of the effect of processing time on applications that are running on the text data being tested.*

*Keywords: Cryptography, Affine Cipher, Encryption, Decryption.*