

IMPLEMENTATION OF STEGANOGRAPHY ON DIGITAL IMAGES USING LEAST SIGNIFICANT BIT (LSB) AND ADVANCED ENCRYPTION STANDARD (AES) METHODS FOR SECURING TEXT DATA

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ABSTRACT

Increasing internet access is being used by irresponsible individuals for negative activities such as data theft, as a result, crime in the cyber world is becoming increasingly dangerous. Therefore, data security threats are a serious problem and the need for data security, especially for confidential information, is absolute. In this research, the proposed solution is to encrypt information using the Advanced Encryption Standard (AES) algorithm and then insert it into the image using the Least Significant Bit (LSB) steganography method. The aim is to combine the AES and LSB algorithms to increase information security. The implementation of AES and LSB in information security allows information to be sent or stored in a decoded state. The test results show that of the 12 encoded data, all of them can be returned to their original values, so the success rate in this research reaches 100%. The conclusion is that by implementing AES and LSB, the risk of theft and leakage of confidential information can be minimized.

Keywords: *Security, Steganography, Least Significant Bit (LSB), Advanced Encryption Standard (AES)*