

ABSTRACT

In nowadays, the advancement of technology has a big role in having a rapid and accurate exchanging information, by that lot of people using the internet as their way to exchange the information. This trait lead to the raised of crime in sending message either it is text, data, voice or even image. As the result, people are feeling insecure in communicate because the message that they sent can be known by other party that does not even has privilage to it anytime. Therefore, a genuine security method is needed.

In this research has been designed an application that can fulfill a data security needs as mentioned above, which is a Java base data security in the form of text that is manipulated using AES cryptography method and spread spectrum steganography into a digital image. This application has a function as an encoder to the decoder side and sending the data to the receiver side. In such a way that, hopefully this application can be an option to secure the data text in an environment that is vulnerable to eavesdropping attacks.

From the testing result, this application can encrypting a text data then inserting it to an image to become a stegano-image, and vice versa this application can extracting the message back. The robustness testing shows that this application cannot be robust towards the changing/manipulation that performed towards the perotasian stegano-image, however the application is robust towards the changing/manipulation in form of format and compression. for the recovery, and security are well function.

Keywords: Steganography, spread spectrum, Cryptography, AES