STEGANOGRAPHY USING TWELVE SQUARE SUBSTITUTION CIPHER AND LSB POSITIONS

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ABSTRACT

The use of Internet has been extensively increased. Sometimes, it is needed to keep the information secret and secure without attracting the attention of unauthorized person. Here, we proposed Steganography method along with cryptography for secret communication. We are using both cryptography and steganography. Firstly, we encrypt the secret message using our new cipher algorithm called twelve square substitution cipher algorithm, and then embed the cipher text in the carrier image in 6th and 7th bit locations or 7th and 8th bit locations or 6th and 8th bit locations of the different pixels (bytes) of the carrier image depending on the value of an index variable. Using variable LSB position for substitution purpose. After embedding the resultant image should be sent to the receiver and receiver should retrieve the cipher text from the said locations and then decrypt by using the twelve square cipher algorithms to get the secret message. The embedding locations are not same in all pixels, so it is a stronger approach. The algorithm is implemented using MATLAB programming language.

KEYWORDS: Twelve Square Substitution Cipher, Steganography, Index Variable