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ROBUST METHOD FOR EMBEDDING AN IMAGE INSIDE COVER IMAGE BASED ON LEAST SIGNIFICANT BIT STEGANOGRAPHY

Sahera A. Sead Almola, Najat Hameed Qasim, Hamid Ali Abed Alasadi

Abstract

According to the enormous evolution of the internet and communications, the security of private or sensitive information has become the important issue. The private information can be passed between a sender and a receiver with high security using Cryptography and Steganography. By the cryptography, as the information can be secured with the cipher key for encryption. By the Steganography, the secret information can hide within usual data such as images, videos, audios. In this paper we proposed the robust method that includes two phases. The first phase consists of two stages. In the first stage we encrypt a secret image using encryption algorithm in order of increasing security of information. In the second stage, we complete the first stage for embedding the most significant bits (MSB) of the encrypted image into the least significant bits (LSB) of the cover image for instituting the stego image. The second phase is the obverse of the first phase, where, the encrypted image is retrieved from the stego image and then, decrypted process construct the secret image. The proposed method is efficient in terms of security compare with the other methods. Where, both encryption and embedding algorithms have an efficient role for embedding the secret image and preserving the good visual quality of stego images. Furthermore, extraction algorithms obtained better and faster results to a restoration of the secret image.

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DOI: <https://doi.org/10.31449/inf.v46i9.4362>



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Informatika is financially supported by the Slovenian research agency from the Call for co-financing of scientific periodical publications.

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