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Authors:

Yuvraj Hembade, Nikita Bhanose, Grishma Kulkarni, Utkarsha Memane,  
Jayashree Patil

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## Abstract

Nowadays, due to extensive usage of internet for communication, the possibility, threat to data being communicated can't be neglected. Wherever there is a need to have secrecy of the data, there must be a strong technique of encryption. To improve the security features in case of data transfers over the internet, the techniques that have been known till now are like Cryptography, Steganography, etc. Where Cryptography is defined as the method to conceal information by encrypting plaintexts to cipher texts and later transmitting it to the intended recipient using an unknown key, on the other hand Steganography provides or extends security further to a high level by hiding the cipher text into text, image or other formats. For hiding secret information in images, there are many steganography techniques. Each of them has strong and weak points. The methods used before, were having limitations of payload capacity, specific image formats to be used, and more distortion of image quality.

The major advantages of this work are having maximum payload capacity, minimum kind of

distortion in actual image quality, negligible change into original covert medium and encrypted file.

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### Index Terms

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### Keywords

Covert image, Plaintext, Payload Capacity