Abstract

The needs for steganographic techniques for hiding secret message inside images have been arise. This paper is to create a practical steganographic implementation to hide text inside grey scale images. The secret message is hidden inside the cover image using Five Modulus Method. The novel algorithm is called (ST-FMM. FMM which consists of transforming all the pixels within the 5?5 window size into its corresponding multiples of 5. After that, the secret message is hidden inside the 5?5 window as a non-multiples of 5. Since the modulus of non-multiples of 5 are 1,2,3 and 4, therefore; if the reminder is one of these, then this pixel represents a secret character. The secret key that has to be sent is the window size. The main advantage of this novel algorithm is to keep the size of the cover image constant while the secret message increased in size. Peak signal-to-noise ratio is captured for each of the images tested. Based on the PSNR value of each images, the stego image has high PSNR value. Hence this new steganography algorithm is very efficient to hide the data inside the image.

References

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A Novel Steganography Algorithm for Hiding Text in Image using Five Modulus Method


Index Terms

Computer Science

Security

Keywords

Image processing steganography information hiding five modulus method