A Technique of Image Steganography using Parity Checker and LSBraille

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Abstract

Today, internet made it easier to send the data more accurately and faster to the destination with the increasing unauthorized access of confidential data. So that, the issue nowadays reduces detection of information during transmission. To hide the secret information during transmission, there are two methods cryptography and steganography. Cryptography is a method of storing and transmitting data in a particular form so that only those for whom it is intended can read and process it. Steganography is a Greek origin word which means “hidden writing”. In this paper, a new image steganography method is proposed. The proposed method hides the secret message inside the cover image by representing the secret message characters using Braille method of reading and writing for blind people. Which all pixels of the cover image can be used and message bit is stored in LSB of one of the three color components Blue (B) only; based on the parity of three LSBs of R, G, and B components of 24-bit color image. From the experimental results it’s founded that the proposed method can hide a lot of data in single RGB image which a few pixels of image can be changed so that method can achieve higher value of (PSNR) and Maximum Hiding Capacity (MHC).
References


Index Terms

Computer Science

Image Processing

Keywords

Steganography, Peak Signal-to-Noise Ratio (PSNR), Least Significant Bit (LSB), even odd Parity.