Abstract

This paper proposes a new steganographic algorithm in spatial domain. A filtering method selects some color components of pixels in BMP cover images for embedding according to their Most Significant Bits (MSB) value. The components whose MSB value is greater than a particular threshold are qualified and the other ones will be skipped. This mechanism makes the retrieval of embedded message possible. Moreover, a matching technique ensures the most possible closeness of new intensity generated in embedding process to its original value. Performance of proposed method is evaluated by some measures namely MAE, MSE, LMSE, LP-Norm, SNR, PSNR, and NCC according to which, proposed method offers up to 40% better results in some measures compared to two other methods; LSB and SLSB.

References


Index Terms

Computer Science

Security

Keywords

Filtering
Intensity Adaptive LSB (IALSB)
LSB Matching
LSB Plane
LSBSteganography
MSB
Performance Measure
SLSB
Spatial Domain
Threshold