Abstract

At present, there are many data security mechanisms available in the information security horizon. Many of them mostly emphasize how to make an algorithm that is computationally hard decipher by a cryptanalysis attack. However, in day to day life computational power is increasing in the digital world. So recent trend in the data security paradigm is changing from one layer security to two-layer security first layer is called cryptography, which secured against cryptanalysis and second layer is steganography that prevents, as much as possible, against any suspicion of the hidden text. In this approach, firstly, it is required to extract all the three-color components of a digital image then to find the edges of each component. Since intensity values of edge pixels differ abruptly in comparison to nearest neighbor pixels, it will not arouse suspicion if the intensity values of these pixels are changed. Thus, embedding of the higher-order bits in the edge pixels is possible as compared to the lower-order bits in the non-edge pixels. Thus finally this work is more contributive towards the goal of increasing the embedding rate and strength against steganalysis attack in the edge based steganography.
A Novel Approach for Data Hiding using LSB on Edges of a Gray Scale Cover Images

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- http://www.sarc-wv.com/about_steganography

Index Terms

Computer Science
Image Processing

Keywords

LSB  EG-LSB  Data hiding  Steganography  Edge extraction  Canny Edge Detector etc…