Abstract

Previous research on Least Significant Bit (LSB) matching performed by Bin Xia and Yunkai Gao describes a method for detecting LSB matcing detection in grayscale images. The type of detector used by Bin Xia is a learning-base detector. This method extracts the neighborhood degree feature on the image. While the type of detector used Yunkai Gao is a special detector. This method uses the histogram value feature in the image, then formulated to produce a value called threshold. Both methods have good performance in detecting grayscale images. The problem is, both of these methods have never been used to detect LSB matching steganography on color images. Departing from the problem, the author propose a new method, which incorporated both previous methods for detecting LSB steganography matching on color images. The type of detector proposed is the type of learning-base detector using the Support Vector Machine (SVM). This method extracts features on the colored image, which is the histogram value and the value of the neighboring degree. These features are then used in the SVM training process. Based on the results of tests conducted, it was found that the proposed method can classify a color image as setego or cover appropriately.

Keywords: LSB Matching, Steganography, Steganalysis, Support Vector Machine