Abstract

The influence of digital images on modern society is incredible, image processing has now become a significant component in almost all the areas. But storing images in a safe and sound way has become very complicated. Sometimes, for processing we can only use raster bitmap format. Therefore processing of such images should be carried out without knowledge of past processing on that image. Even though many image tampering detection techniques are available, the number of image forgeries is increasing. Therefore it is important to find the weaknesses of offered detection methods to prevent further forgeries. In this paper, a new approach is designed to prevent the bitmap compression history. Then it also explains how this can be used to perform unnoticeable forgeries on the bitmap images. It can be done by the estimation, examination and alteration in the transform coefficients of image. The existing methods for identification of bitmap compression history are JPEG detection and Quantizer estimation. The JPEG detection is used to find whether the image has been previously compressed. But the proposed method indicates that proper addition of noise to an image’s transform coefficients can adequately eliminate quantization artifacts which act as indicators of JPEG compression. Using the proposed technique the modified image will appear to have never been compressed. Therefore this technique can be used to cover the history of operations performed on the image in the past and there by rendering several forms
of image tampering.

References

A Tailored Anti-forensic Technique for Digital Image Applications


Index Terms

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Keywords

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