Abstract

Image forgery means manipulation of digital image to conceal meaningful information of the image. The detection of forged image is driven by the need of authenticity and to maintain integrity of the image. A copy–move forgery detection theme victimization adaptive over segmentation and have purpose feature matching is proposed. The proposed scheme integrates both block-based and key point-based forgery detection methods. The proposed adaptive over-segmentation algorithm segments the host image into non-overlapping and irregular blocks adaptively. Then, the feature points are extracted from each block as block features, and the block features are matched with one another to locate the labeled feature points; this procedure can approximately indicate the suspected forgery regions. To detect the forgery regions more accurately, we propose the forgery region extraction algorithm which replaces the features point with small super pixels as feature blocks and them merges the neighboring blocks that have similar local color features into the feature block to generate the merged regions. Finally, it applies the morphological operation to merged regions to generate the detected forgery regions. In cut-paste image forgery detection, proposed digital image
forensic techniques capable of detecting global and local contrast enhancement, identifying the use of histogram equalization.

References


Index Terms

Computer Science Image Processing

Keywords
Copy-move forgery detection; Adaptive over-segmentation; Feature point matching and extraction; Cut-paste forgery detection.