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Abstract

Digital images have been spread all over the world. With rapidly development and ease of use of digital image editing tools like Photoshop TM and paint TM, it is important to authenticate or detect the forged regions in any suspicious digital image. In this paper, new and robust method for authenticating and identifying the forged regions in the scanned images is proposed. The method is based on using dust/scratch and source imperfection pattern of scanned images to identify the forged regions. Each suspicious image is divided into non-overlapping blocks. The

correlation features between each block and acquisition scanner's template have been extracted to identify the correct scanned blocks and the tampered ones. Four groups of the tampered images are tested. The experimental results have approved the validity, efficiency, and robustness of the proposed method to identify the tampered images and define their forged regions. The proposed results are then compared to the results of the two previously published methods. The proposed method is simple and easy to apply to all types of the tampered images, regardless the acquisition source noise or the image contents.

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