

Abstract

Recently, image manipulation are getting more difficult to detect along with the development of technology and image processing skills. However, image manipulation undermines trust and has a bad impact in society. One of the most common image manipulation known is image splicing, which crops and paste some region of image into another image. Image splicing which focuses on face is called face splicing. One of detection methods proposed are based on 2-D Phase Congruency and Statistical Moment of Characteristic Function using SVM as its classifier. But this method did not provide good result for face splicing case. On this paper, improvement based on dimension reduction using PCA. System are evaluated using ROC Curve with variation of PCA's parameters on face splicing case with and without post-processing, and combination of them. The proposed system have improved than the past method. The proposed system gave AUC score 90.99% which grade excellent classification. The proposed system successfully detected face splicing.

Keywords: image forensic, image manipulation detection, image manipulation