
Abstract

One of the characteristics of image manipulation is the inconsistency of lighting. In the process of manipulating an image, it is sometimes difficult to make lighting conditions exactly match. The inconsistency of lighting can make evidence for image manipulation.

There is a method to detect image manipulation based on lighting inconsistency. However, that method still has a disadvantage that is the method still can't detect image manipulation with multiple light sources. This research proposes a method that can detect image manipulation with multiple light sources.

The result shows that the system can detect image manipulation with several light sources including 2, 3, and 4 light sources. Also, the system can detect image manipulation with rotation and scaling distortion. The system reaches optimum AUC at 91.95%.

Keywords: multiple light source, image manipulation, light source inconsistency.
