ABSTRACT

Video editing software has increased rapidly, causing manipulation of digital video can be performed easily. Commonly video forgery is an inter-frame forgery that occurs in the temporal domain, such as frame duplication, frame insertion, and frame deletion. Many forgeries can happen in a static scene, which is not easy to detect based on existing methods. This work introduces scene segmentation on changes of optical flow to detect outlier and perform similarity to check correlation each frame. The performance of experimental results 100% in Precision and Recall for frame duplication, 95% in Precision and 100% in Recall for frame insertion and 100% in Precision and 93,8% in Recall for frame deletion. The results performance prove that the proposed method can identify the forgeries effectively.

Keywords: Inter-frame Forgery, Optical Flow, Similarity, Static Scene, Scene Segmentation, Video Forgery