Abstract

Video forgery, also referred as video falsifying, is a technique for generating fake videos by altering, combining or creating new video contents. Exemplar-based inpainting technique can be used to remove objects from an image/video and play visual tricks, which would affect the authenticity of videos. In this paper, a blind detection method based on zero-connectivity feature and fuzzy membership function is proposed to detect the video forgery. Firstly, the forged video is converted into frames, then zero-connectivity labelling is applied on block pairs to yield matching degree feature for all blocks in the forged region and construct ascending semi-trapezoid membership for computing fuzzy membership function. Finally, the tampered regions are identified using a cut set.
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**Index Terms**

Computer Science

Pattern Recognition

**Keywords**

Video forgery  
Exemplar-based inpainting  
Zero-connectivity labelling  
Fuzzy Membership  
Cut set