Abstract

Whenever the illumination from the light source is occluded by an object, shadow will be created in the video sequence. Shadow is a main factor affecting computer vision performance. Sometimes it will provide useful information about objects. However, the reliability of many vision algorithms may be reduced because of this same shadow. Therefore, to improve the performance of Computer vision processes, shadow detection and removal is an important pre-processing step. Moving Shadow detection has an important role in computer vision applications including video conference, vehicle tracking, and three-dimensional (3-D) object identification. This paper proposed a simple and efficient method to detect the moving shadow from video sequences. The basic principles underlying the area variation of the shadow from frame to frame and the relationship between the position of light source and the direction of object movement are employed in this approach. The performance of the technique is demonstrated and it is found to be efficient in detection and removal of shadows.

References

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Index Terms
Computer Science
Multimedia

Keywords
Computer Vision  Foreground Extraction  Background Subtraction