Abstract

Detection of moving objects in video streams is the first stage in many computer vision applications. Although this subject has been studied for many years, it is still a significant and difficult research problem. This paper proposes a hybrid motion detection algorithm which combines the temporal differencing, background subtraction and dynamic thresholding method together. As to which kind of temporal differencing technique or which kind of background model to take in our scheme, we can choose them flexibly according to concrete demands. In order to overcome the major drawback of background subtraction algorithm, which may cause false detection when stationary objects in the scene start to move, a temporal foreground mask is built and applied to adjust the initial detected results. Finally, several video sequences are tested to validate our hybrid algorithm. Experimental results show that our hybrid algorithm is very effective, which can satisfy the robustness of the moving object detection.
A Hybrid Motion Detection Algorithm in Video Surveillance

A synopsis can be created with the help of motion detection

References


Index Terms

Computer Science

Computational Intelligence

Keywords

Motion detection Thresholding segmentation Hybrid algorithm