Abstract

This paper deals with an efficient background subtraction of image/frames of video by improving the execution speed, accuracy and reduce the usage of memory. Three important techniques are applied to improve the efficiency: superpixel extraction, canny edge detection and fuzzy c means. On applying the above three methods sequentially, the background of image/video can be segmented from foreground object accurately. The first method reduces the processing data more than 75%. Canny edge detection is an optimized method to detect edges. Fuzzy c means works well and good to segment the overlapped objects in an image/video.

References

- G. Mori, X. Ren, A. Efros, and J. Malik, Recovering Human Body Configurations: Combining Segmentation and Recognition, IEEE Computer Vision and Pattern Recognition,
Improving the Efficiency of Background Subtraction using Superpixel Extraction and Midpoint for Centroid

2004.
- Ser-nam Lim, Anurag Mittal, Larry S. Davis, and Nikos Paragios, "Fast

Index Terms

Computer Science  
Pattern Recognition

Keywords

Centroid Edge Pixel Superpixel Subpixel Suppression Thresholding