

## عنوان مقاله:

Use of a Novel Concept of Potential Pixel Energy for Object Tracking

## محل انتشار:

ماهنامه بین المللی مهندسی، دوره 27، شماره 7 (سال: 1393)

تعداد صفحات اصل مقاله: 10

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## خلاصه مقاله:

In this paper, we propose a new method for kernel-based object tracking. Definition of union imageblob and mapping it to a new representation which we named as potential pixels matrix are the mainpart of tracking algorithm. The union image blob is constructed by expanding the previous objectregion based on the histogram feature. The potential pixels matrix of union blob is used to obtain analgebraic equation for tracking the location of the kernel. We demonstrate that tracking accuracy isindependent of the previous object region and it takes effect only from the expanded area of the unionblob. To eliminate the background information, we propose a new method which is performed in twostages. At first, the effect of background of expanding part is reduced using a threshold distance. Then,the expanding part is divided into two parts. Tracking equations and a similarity criterion are used foreach part to detect the background and target regions. We demonstrate thatthe background removing ofproposed method has better performance than the mean shift tracking. Also, for better cancellation ofbackground, the segmentation of object is used. We demonstrate the capability of the proposed methodfor several image sequences

## کلمات کلیدی:

Kernel-based Object Tracking, MappingPotential Pixels MatrixUnion Image Blob

## لینک ثابت مقاله در پایگاه سیویلیکا:

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