一种基于颜色属性的通用目标检测方法

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摘　要：通用目标检测是视频分析技术中目标定位、检测和跟踪的关键技术.针对数字图像分析中的通用目标检测问题，提出了一种基于颜色属性的通用目标检测算法，用以提取图像中有可能包含目标的子区域并以外接矩形的形式输出.该算法首先利用输入图像的颜色属性对其进行区域分割并计算划分后的区域相似度，接着根据相邻区域间的相似度进行区域合并，最后结合选择性搜索策略，实现了通用目标的检测.实验表明此算法检测出的候选框的精度可以满足通用目标检测的要求.

关键词：颜色属性；区域分割；选择性搜索；通用目标检测

A Method of Generic Object Detection Based on Image Color Names

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Abstract：Generic object detection is the key to object localization, detection and tracking in video analyzing. In this paper , we propose a algorithm of generic object detection based on image color names , by which we can obtain sub-regions containing objects in the form of rectangle. In the beginning, an input image is segmented by using color names and the similarity of different regions is computed. Next, we merge the regions based on the similarity between the adjacent ones . Last but not least , selective search strategy is adopted to realize generic object detection in the images. The Experiments show that the candidate boxes detected by this method can meet the accuracy requirements of generic object detection.

Key words：color names; region segmentation; selective search; generic object detection

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