Condensed Object Representation with Corner HOG Features for Object Classification in Outdoor Scenes

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Nowadays, HOG (Histogram of Gradient) feature is extracted from the objects and using it in the classification tasks among the many visual application systems such as object tracking, action recognition and automated video surveillance. Most techniques of extraction HOG feature are based on cells and blocks. Although the HOG feature on cell and block are being robust for current visual systems, the alternative way to extract HOG feature that focus on corner points are presented in this paper. HOG features on corner points is extracted for multiple object detection system in which single or multiple moving objects are classified and labeled. And also comparison results on outdoor challenging sequences for HOG feature extraction on blocks and corners are provided with experimental results.