Optical Flow Direction Determination for Railway Crossing Occupancy Monitoring

Authors : Zdenek Silar, Martin Dobrovolny

Abstract : This article deals with the obstacle detection on a railway crossing (clearance detection). Detection is based on the optical flow estimation and classification of the flow vectors by K-means clustering algorithm. For classification of passing vehicles is used optical flow direction determination. The optical flow estimation is based on a modified Lucas-Kanade method. **Keywords :** background estimation, direction of optical flow, K-means clustering, objects detection, railway crossing monitoring, velocity vectors

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