

博士论坛

防止人-车碰撞的交叉口过街行人位置预测

马国胜^{1,2}, 白玉¹, 朱彤¹

1. 同济大学 交通运输工程学院, 上海 201804

2. 哈尔滨工业大学(威海) 交通运输工程系, 山东 威海 264209

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摘要 为减少交叉口人-车碰撞事故的发生, 利用单目视觉技术和行人横道线特征建立图像像素坐标与实际路面坐标的映射关系, 进行行人检测, 在获得实时、可靠的过街行人交通参数的基础上采用卡尔曼滤波器预测过街行人的位置, 用于判断行人-车辆潜在冲突点, 为驾驶员提供行人信息, 以便驾驶员采取相应措施保障过街行人的安全; 最后进行了相关试验验证。

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分类号

Predicting position of pedestrian at crossroad for preventing pedestrian-vehicle collision

MA Guo-sheng^{1,2}, BAI Yu¹, ZHU Tong¹

1. School of Transportation Engineering, Tongji University, Shanghai 201804, China

2. Department of Transportation Engineering, Harbin Institute of Technology at Weihai, Weihai, Shandong 264209, China

Abstract

In order to decrease the pedestrian-vehicle accident at crossroad, coordinate relations between the image and road position based on monocular camera and zebra stripes feature is founded. After detecting pedestrian and getting real-time and reliable traffic information of pedestrian at crossroad, the position of pedestrian is predicted based on Kalman prediction to prejudge pedestrian-vehicle conflict point and provide pedestrian information for driver. Finally detecting and predicting method experiments are performed and the method has been proved to be correct.

Key words [zebra stripes feature](#) [area of interesting](#) [Kalman prediction](#)

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通讯作者 马国胜 ma_guosheng@163.com

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