A Traffic Scene Object Detection Method Combining Deep Learning and Stereo Vision Algorithm

Linhui Li, Minhang Fang, Yuhang Yin, Jing Lian, and Zhenghao Wang

Vehicle Engineering and Mechanics, School of Automotive Engineering, Dalian University of Technology, Dalian

- A method combining depth information with YOLOv5s object detection algorithm is proposed.

- The depth information is obtained by the disparity images which generated by the PSMNet.

- Add Attention Feature Fusion Module to YOLOv5s to improve the accuracy of small object detection.

- The depth information is fused with the object detection to obtain distance information.