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A novel disparity transformation algorithm for road segmentation

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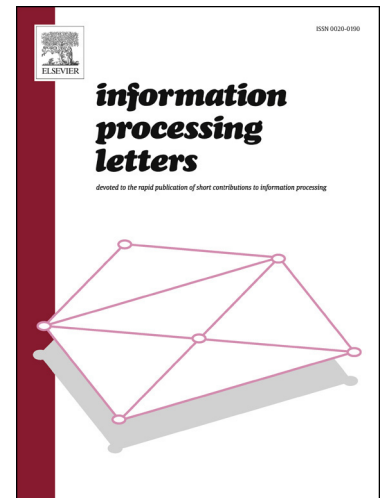
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Highlights

- A novel disparity transformation algorithm acting on the disparity maps for road segmentation.
- The proposed algorithm can estimate the roll angle for vehicles accurately and efficiently.
- To improve the processing efficiency, the algorithm is optimised using golden section search and dynamic programming.
- The disparity values of the road pixels become similar while they differ greatly from those of obstacles and potholes, which makes the extraction of the road areas much easier.

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