Multiple-parts Based Vehicle Detection Integrated with Lane Detection

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TECHNOLOGY DESCRIPTION

On-road vehicle detection and lane detection are critical tasks in vision-based active safety systems for vehicles. UCSD Inventors have come up with a robust and efficient computational method for allowing a car to detect other cars and lanes (from lane markers). By focusing on computational efficiency - while maintaining effective sensitivity and specificity for car and lane detection - this invention meets an important requirement for embedded realization of such systems for in-vehicle electronic systems. Also, with emerging hybrid and electric vehicles that rely on battery power, it is important that advanced driver assistance systems are designed such that they are power efficient.

RELATED MATERIALS

- On Performance Evaluation Metrics for. Lane Estimation. Ravi Kumar Satzoda and Mohan M. Trivedi. Laboratory for Intelligent and Safe Automobiles.
- Vision-Based Lane Analysis: Exploration of Issues and Approaches for Embedded Realization. Ravi Kumar Satzoda and Mohan M. Trivedi.
- Overtaking & Receding Vehicle Detection for Driver Assistance and Naturalistic Driving Studies, Ravi Kumar Satzoda and Mohan M. Trivedi. IEEE Conference on Intelligent Transportation Systems, Oct. 2014

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	10,576,974	03/03/2020	2014-316

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OTHER INFORMATION

KEYWORDS

vehicle detection, lane detection, vision-based active safety sytems for vehicles, vehicle safety, smart cars

CATEGORIZED AS

- **Computer**
  - Software
- **Transportation**
  - Automotive
  - Other
- **Engineering**
  - Other

RELATED CASES

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