Wheeler-Classified Vehicle Detection System using CCTV Cameras

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Abstract

Wheeler-Classified Vehicle Detection System is the implementation to check whether vehicle is two-wheeler or four-wheeler from the ordinary traffic images captured through CCTV cameras installed at crossings along a particular road at an instant which is an important task in Intelligent Transportation Systems (ITS). The key contribution of this work are the introduction of methodology to reflect type of vehicle (two or four-wheeler) using MATLAB. Firstly, the region containing the vehicle is identified which is then cropped automatically from the traffic image and vehicle type is resulted using the approach of total number of corners obtained through corner detection of individual vehicle. If total number of corners exceeds the defined limit then output is reflected as four-wheeler otherwise two-wheeler.

References

- Tavel, P. 2007 Modeling and Simulation Design. AK Peters Ltd.


**Index Terms**

Computer Science  
Automated Systems

**Keywords**

MATLAB  
CCTV  
Wheeler-Classified Vehicle Detection  
Corner Detection.