

ESP1828

Automatic Detection of Red Light Running Using Vehicular Cameras

Red light running is a very common traffic violation. Nowadays, vehicles running red traffic lights are detected by sensors fixed on the streets. However a very small percentage of all traffic lights is equipped with such sensors. For this reason, this work proposes a red light running detection system that analyzes the video captured by a camera inside the vehicle. The goal of the proposed algorithm is to monitor the behaviour of drivers in public transportation, without any intervention in driving itself, but rather acting in an educational way. Tests are performed using publicly available benchmark videos and other recordings taken in the traffic of a large city. The results are compared based on the execution time, accuracy and error rates. The video processing took less than one tenth of the video duration and the accuracy was up to 96%