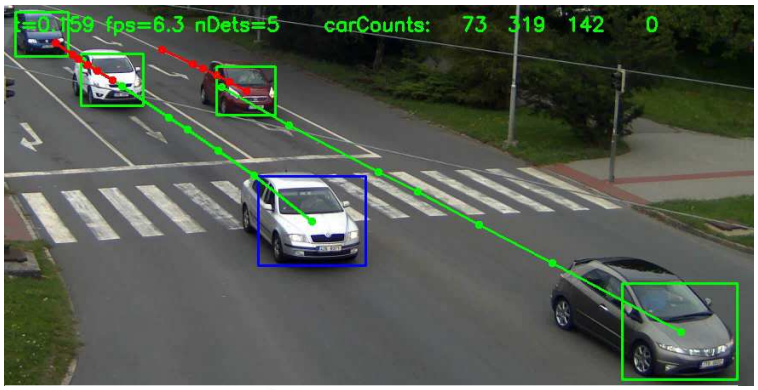
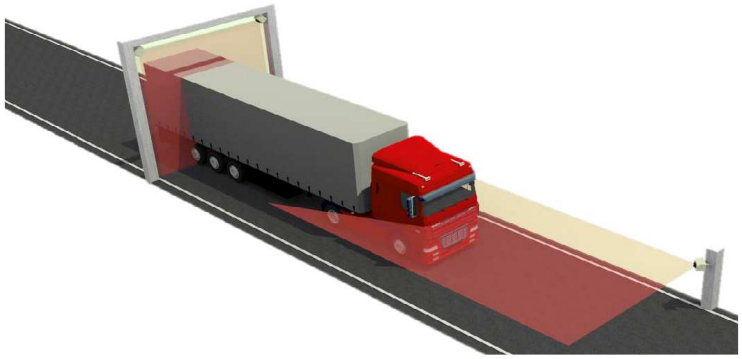
Selection of new sensor techniques to control traffic





Introduction

Traditionally, induction loops in the road are installed to control traffic at intersections and to monitor traffic at other road locations. Installation and maintenance of induction loops require lane closures however, which causes extra costs. The research question is to find other kind of vehicle detection methods which less installation and maintenance costs but the same quality as loop detectors.

Vehicle detection systems

A number of different vehicle detection systems are being introduced based on new sensor techniques like video, radar, LIDAR etc.
The Dept. of Geoscience & Remote Sensing at TU Delft is developing tools and expertise that will allow Vialis to research possibilities in vehicle detection with Traffic Light Controllers. What is already available on the market? What needs more research? What are the business cases?

Goal of the Project

As a MSc student your task will be to select and test a sensor technique or a combination of sensor techniques to fulfil at least the same task with the same or higher quality as the existing induction loops for less costs. During your MSc project, you will design and perform your own experiments for which Vialis tests facilities can be used. In addition you will demonstrate, by designing and implementing a suitable processing workflow, to what extend your solution is matching the requirements from Vialis on traffic monitoring.

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