Abstract:

This dissertation attempts to find out in which way introducing autonomous cars to the traditional traffic will affect the traffic itself and how human drivers will interact with driverless vehicles. It is claimed that at least for the next two or three decades we will be observing transitions period that will eventually lead to fully autonomous traffic. During that period human drivers will have to coexist with driverless cars and therefore the study on interactions between them is very relevant. The claim is also supported by the fact that the main focus in relevant literature is towards the development of sensors and algorithms while little attention is given to study on the interactions and their possible consequences.

The central part of the project is a simulation of urban traffic. It was run in form of the experiment involving multiple human participants simultaneously connected to the one simulation. Participants were asked to control one of the vehicles and drive along the track, while avoiding collisions with other participants. The experiment consisted of various sessions in which human drivers were accompanied by autonomous vehicles.

driving cars while being accompanied by autonomous vehicles.

controlling cars

The research questions arises from identified gap in the current research.

The main objective of the research was conducting an experiment that was a simple traffic simulation. The experiment involved human participants controlling cars and

which human participants would control

t was to conduct the experiment that would be a simplified  
simulation of traffic and would involve human drivers and autonomous cars

The document describes the design of simulation

The

In the centre of the project is

Its relevance is

It is argued that in the next decades we will observe a transition period when humans and self-driving cars will have to successfully cooperate. It is claimed that

ignificance of the study

It is argued that

The questions arise from potential gap in research on autonomous cars.