



External Communication of Autonomous Vehicles

BA & MA Thesis Topic Areas

Background

Highly automated vehicles are about to be introduced at least for some use cases. Such vehicles will then become actors in socio-technical systems involving pedestrians and other human drivers where some communication will be necessary.

Aiding People with Visual Impairments

Research Goal

The aim of this thesis is to investigate how to aid people with **visual impairments** in future traffic with the possibilities arising with autonomous vehicles. A related work research should be conducted. A prototype should be designed and implemented that investigates several of these aspects. Finally, the defined hypothesis should be evaluated by conducting a study.

Aiding Deafblinded People

Research Goal

The aim of this thesis is to investigate how to aid people with **deafblindedness** in future traffic with the possibilities arising with autonomous vehicles. A related work research should be conducted. A prototype should be designed and implemented that investigates several of these aspects. Finally, the defined hypothesis should be evaluated by conducting a study.

Aiding People with Visual Impairments

Research Goal

The aim of this thesis is to investigate how to aid people with **visual impairments** in futuristic autonomous taxis. For this, requirements have to be defined and a prototype should be implemented (in VR or as a mocked hardware setup) and a user study should be conducted.

