

Forschungspraxis

# Traffic-Aware View Prioritization for Teleoperated Driving

This work can be done in German or English

Existing teledriving setups use multiple cameras to cover the vehicle's surrounding environment in order to provide the operator with sufficient information of the current traffic situation. However, the importance of individual camera views varies for different driving tasks. Modeling the importance of individual camera view according to the current traffic situation can be used in several applications for teledriving.

The goal of this project is the creation and conduction of a user study for measuring the influence of traffic-aware view adaptation. The goal of the user study is to evaluate the performance of our traffic-aware view adaptation compared to a simple uniform bit budget distribution among all camera views.

## Tasks

- Introduction to the existing TELECARLA driving setup [1]
- Design a driving user study with the CARLA scenario runner
- Evaluate the results in terms of driving performance, lane invasions, etc.

## References

[1] TELECARLA: An Open Source Extension of the CARLA Simulator for Teleoperated Driving Research Using Off-the-Shelf Components, Markus Hofbauer, Christopher B. Kuhn, Goran Petrovic, Eckehard Steinbach; IV 2020

## Prerequisites

- Experience with ROS (C++ and Python)

## Advisors

Markus Hofbauer