

Student thesis



Bachelor / Master thesis

Calibration and Validation of Traffic Simulation and Driver Model with Field Data from Multiple Sources

Topic and Goal of the Thesis

Virtual testing is a process in which the vehicle performance is tested on various characteristics. As an important ingredient of virtual testing, the microscopic traffic simulation can serve as a platform to test different driving functions under close-to-reality road conditions. However, the simulation models need to be calibrated and validated before they can provide reliable results. The goal of this thesis is to calibrate and validate the traffic simulation and the driver model by using field data from multiple sources.

Working Points

- Literature research on validation approaches of traffic simulation
- Execution of driving tests for validation purposes
- Statistical analysis of field data from multiple sources
- Modification of traffic simulation and calibration of driver model
- Scientific documentation

Requirements

- Good English or German language skills
- Reliability, commitment and enjoyment of working independently
- Experience with Matlab

Department

Drivetrain

Contact



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Language

German or English

Entry Date

Earliest possible date

Prior knowledge

Matlab