

Master 2019

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Metrics Based Reporting to Secure Highly Automated Driving Functions and Test Runs.

ABSTRACT - Masterthesis

The topic "Metrics based reporting to secure highly automated driving functions and test runs" is based on the topic of a reporting with the target to support the protection of autonomous vehicles. Scientists are currently researching a mileage that has to be completed before a vehicle function can be classified as safe. In this work, this theory is extended by metrics that assess the risk of a simulated scenario. This allows scenarios to be distinguished between low-risk journeys, for example on the right lane of a motorway, and high-risk journeys within a large city. For this purpose, a suitable test automation of system and integration tests is required, which test the vehicle functions in interaction with each other and before implementing into a real vehicle. Live Reporting is developed to monitor the test process and its status. The user interface is adapted to the user so he can find all information clearly. Key elements for evaluating the past tests are key values for supporting test results for highly automated driving functions. In summary, the developed metrics are presented in a Live Reporting system that supports the test manager in the process of approving the release process of highly automated driving functions.