

Institut für Informationssicherheit und Verlässlichkeit (KASTEL)

Test, Validierung und Analyse Software-intensiver Systeme Prof. Dr.-Ing. Ina Schaefer

Compositional Variability Models for Test Generation in Scenario-based Testing

Projektgruppe "Praxis der Forschung" Sommersemester 2024

1 Projekt

Scenario-based testing is considered state-of-the-art for verifying and validating Advanced Driver Assistance Systems and Automated Driving Systems. Combinatorial scenario generation techniques model an overall scenario space and select a subset to practically perform scenario-based testing. Feature models are used as a formalism to model the overall scenario space. In this "Praxis der Forschung"-project, we aim to tailor the space of possible scenarios to the system under tests' functionality using multi-feature models. We analyze current literature, develop, and evaluate a novel feature model structure that can be used to compose possible scenario spaces that are relevant for testing specific systems under tests by reusing pre-define sub-scenario spaces.

2 Kontakt

Lukas Birkemeyer (lukas.birkemeyer@kit.edu)