



Aneeq Aslam

### **„Comparative Analysis of OS 2.0 (Open Scenario 2.0) and SES (System Entity Structure)“**

A scenario is a specification of events, entities, weather conditions, and situations that describe the behavior of a system. A simulation scenario is an artificial representation of a real-world event to achieve goals through experiential learning. Open Scenario 2.0 (OS 2.0) is part of the ASAM simulation standards that focus on simulation data for the automotive field. OS 2.0 language is used in automotive for developing the verification of scenarios via systematically generating test cases. System Entity Structure (SES) is used to create and save domain models as node graphs. Pruning tool imports created models in SES and prunes the developed scenarios. SES is widely used for various modeling and simulation purposes. The aim of this research is to review, compare the features and do a comparative analysis of both languages OS 2.0 and SES. An external tool (Trace-Tronic) was used to build the automation and aviation scenarios in OS 2.0 meanwhile SES was used to develop the exact scenarios for aviation and automation. The Entities, Events, and weather conditions were kept the same for all scenarios built-in OS 2.0 and SES to fairly associate them. The conclusion describes that the automotive and aviation fields can benefit from OS 2.0 and SES in the usage of testing and verification of new hardware and software systems along with their interaction with the environment of driving.

**Freitag, 21.10.2022, 10:00 Uhr**

**Videokonferenz: BBB**<https://webconf.tu-clausthal.de/b/umu-2ey-ekt>