

32nd SafeTRANS Industrial Day

in cooperation with

DLR Institute of Systems Engineering for Future Mobility

Topic

Robustness Guarantees for Perception Systems in Highly Automated Vehicles

Objective of Workshop

This workshop will bring together leading experts from industry and research to discuss possible approaches on

Bounding the Uncertainty of Perception

for highly automated transportation systems, providing a basis for type certification. The workshop will address all elements of the perception chain with the particular focus on providing quality guarantees for sensors, digital maps, sensor fusion systems, and object classification systems, to ultimately derive a world model of the environment of the ego system meeting requirements on quality of perception of all relevant objects in its environment, such as confidence levels in existence and classification of such objects, as well as bounds on uncertainty on their physical attributes, such as location, distance, velocity, etc.

Call for Contributions/Presentations

Contributions, i.e. 30 min presentations, covering the following, non-exclusive list of topics are therefore highly welcome:

- Sensor Models and Environment Models
- Sensor Fusion
- Robustness Guarantees for AI-based Object Classification Systems
- Faithfull Co-Simulation Platforms

- Bounding Perception Errors
- V&V methods for Bounding Uncertainty in the Perception System
- How to achieve Certifiable Robustness for Perception Systems
- Building Safety Assurance Cases for highly automated transportation systems

Please submit speaker, title and abstract (ca. ½ -1 page) of your presentation by 7. October 2023 to katja.bonhagen@safetrans-de.org. Selection and notification of acceptance will be done by Oct., 14th.

Workshop language

The workshop languages are English and German. Typically, slides will be in English, while speakers speak German or English, depending on the audience and their preferences.

Date and Venue

Date: 09.11.2023, 9:30 to 17:00.

Venue: HIIVE Hotel, Oldenburg (Oldb) (www.hiive.de/hotel/hiive)

Webseite: www.safetrans-de.org