

CALL FOR PAPERS: SAFETRONIC 2021

Submit your paper via e-mail to: kontakt@safetronic.fraunhofer.de

1 Details

- Self-explanatory title for your abstract and presentation
- Information on the presenter and co-authors (names and contact data)
- Assignment of presentation to one or more appropriate topics
- If available, list of previous publications on the topic
- The abstract shall be written as continuous text and must not exceed one page. Please conclude the abstract with a summary regarding the key take-aways for the audience.
- As file formats .docx or .pdf are preferred.
- With the submission of an abstract and a presentation you agree on publishing your presentation for the conference attendees in the password protected download area.

For each paper the schedule is 30 minutes for presentation and 10 minutes for subsequent discussion.

The abstracts will be reviewed and selected by the advisory board.

2 Deadlines

- Submission of abstract: July 23th, 2021
- Submission of final abstract and presentation: October 19th, 2021
- Conference: Stuttgart on November 16th – 17th, 2021

3 Topics

Safetronic.2021: From Functional Safety to Holistic Safety for Road Vehicles

We would like to address all relevant aspects of safety for road vehicles in the conference programme including but not limited to functional safety, SOTIF, cybersecurity, safety-in-use and others.

3.1 Best practices for successful implementations

- Safety analyses (hazard analyses and risk assessments, system, hardware, software, environmental protection, critical situations)
- Analytic methods to technical safety and security of software, hardware and design
- Processes like concrete implementation of normative requirements; handling of variability; accelerated development cycles, tailoring and argumentation
- Safety in the context of new methods like model-based systems engineering and analysis
- Agile development for safety-related systems
- Safety & security: interactions, contradictions, solutions
- Integration of the various aspects of safety from different domains (E/E, mechanical safety, human factors, etc.)

3.2 Innovative safety approaches

- Safety for AI / machine learning, like DNNs, reinforcement learning and validation (insights from standards like ISO/IEC TR 24029 or IEC 61508 are welcome)
- Safe POSIX OS architecture and qualification approaches, e.g. SafeLinux
- SafeDevOps like continuous deployment of safety concept and mechanisms e.g. when expanding the ODD
- Off-board aspects of safety like safety-related elements outside the vehicle such as backend, infrastructure, connectivity, communication and safety for cloud services such as maps or on road estimation
- Dynamic safety management and dynamic safety architectures
- Road safety and traffic safety
- Digital twin theory for road traffic in the context of simulation and models
- Safety in the context of electrification (e.g. batteries, hydrogen systems, charging infrastructure)
- Consideration of human factors