1ˢᵗ International Workshop on Safe Autonomous Systems

EDCC 2024: 1ˢᵗ International Workshop on Safe Autonomous Systems

The Safe Autonomy workshop explores concepts, techniques and technology related to the continuous safety assurance of autonomous systems (AS). The first three workshops in the series ran under the name DREAMS (Dynamic Risk managEment for Autonomous Systems) and focused on dynamic risk management of AS. This remains an important aspect of safety assurance for AS, but for this workshop we also welcome a broad range of contributions in any related area. AS have enormous potential to transform society. The key trait of AS is their ability to pursue and achieve their goals independently and without human guidance or intervention. In contexts where safety needs to be guaranteed, it is difficult currently to exploit autonomous systems to their full potential due to the difficulty in providing assurance they will be safe throughout operation. The assurance challenge increases when AS take advantage of Machine Learning to cope with the complexity of their mission and the operating context, and when assuring AS in the context of systems of systems where emergent behaviours and dynamic composition must be considered.

The Safe Autonomy workshop will explore a range of topics related to continuous safety assurance of AS including but not limited to:
- Dynamic risk management
- situational awareness
- resilience
- human machine interaction
- uncertainty management
- assurance cases
- virtual validation
- Safety assessment

It invites experts, researchers, and practitioners for presentations and in-depth discussions about assuring autonomy, its relevance for specific use cases, its relation to exiting regulatory frameworks and standardization activities, and solutions from systems and software engineering.

Safe Autonomy aims at bringing together communities from diverse disciplines, such as safety engineering, runtime adaptation, predictive modelling, control theory, and from different application domains such as automotive, healthcare, manufacturing, agriculture and critical infrastructures.

All submissions will be peer-reviewed by at least three members of the program committee. They will be evaluated based on originality, contribution to the field, technical and presentation quality, and relevance to the workshop.

Please consider the following page limits:
- Regular technical papers describing original theoretical or practical work (6-8 pages)
- Case studies describing practitioner experience or field studies (8-12 pages)
- PhD Forum papers describing objectives, methodology, and results at an early stage of research (6-8 pages)
- Position papers on challenges and emerging trends (3-4 pages)

Author's Schedule | Important Dates:
- **Paper submission:** **18 December 2023**
- **Author notification:** **26 January 2024**
- **Camera-ready paper:** **5 February 2024**

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- **Rasmus Adler (Fraunhofer IESE, Germany)**
- **Richard Hawkins (University of York, UK)**
- **Phillipp Schleiß (Fraunhofer IKS, Germany)**

Important Links:
- **SafeAutonomy Homepage:**
  https://s.fhg.de/safe-autonomy-edcc-workshop
- **Easychair Submission:**
  https://easychair.org/cfp/SafeAutonomy2024
- **EDCC Workshop:**
  https://edcc2024.esat.kuleuven.be/workshops.html