# CALL FOR PAPERS: SASSUR 2018

**7th International Workshop on Next Generation of System Assurance Approaches for Safety-Critical Systems - SASSUR 2018**
Västerås, Sweden, September 18th, 2018
In conjunction with the International Conference on Computer Safety, Reliability and Security - **SAFECOMP** (http://www.es.mdh.se/safecomp2018/)

Safety assurance and certification are amongst the most expensive and time-consuming tasks in the development of safety-critical systems. The increasing complexity and size of these systems combined with their growing market demand requires the industry to implement coherent reuse strategies. A key difficulty appears when trying to reuse products from one application domain in another, because different domains are subject to different safety regulations. Subsequently, for a reused product, the full safety assurance and certification process usually has to be applied, just as for a new product. This reduces the return on investment of such reuse. Further, market trends strongly suggest that many future safety-critical systems will be comprised of heterogeneous, dynamic coalitions of systems of systems. For this type of systems, it is crucial to develop sound strategies that would allow safety assurance and certification to be done compositionally. Last but not least, the new characteristics of safety-critical systems, such connectivity, autonomy, and other cyber-physical properties, makes assurance more challenging. It is not possible anymore to assure a system only dealing with its safety, but other quality concerns must be addressed, e.g. security.

The SASSUR workshop is intended to explore new ideas on compositional, evolutionary, and multi-concern assurance and certification of safety-critical systems. In particular, SASSUR will provide a forum for thematic presentations and in-depth discussions about reuse, composition, and combination of assurance arguments, assurance evidence, and contextual information about safety-critical products, in a way that makes assurance and certification more cost-effective, precise, and scalable.

SASSUR aims at bringing together experts, researchers, and practitioners, from diverse communities, such as safety and security engineering, certification processes, model-based technologies, software and hardware design, safety-critical systems, and application communities (railway, aerospace, automotive, healthcare, industrial automation, etc.).

## TOPICS

Contributions are sought in (but are not limited to) the following topics:
- Industrial challenges for cost-effective safety assurance and certification
- Assurance and certification of autonomous or adaptive systems
- Robust and verifiable artificial intelligence: safety and ethics
- Cross-domain product certification
- Integration of process-centric and product-centric assurance
- Management of compliance with standards and regulations
- Evidence traceability
- Transparency of assurance and certification processes: metrics and business cases
- Multi-concern (safety, security, privacy, reliability…) system assurance
- Evolutionary approaches for safety and security assurance
- Tools support for safety and security assurance
- Seamless toolchains for development, assurance, and certification of safety-critical systems
- Evolution of standards and trends on regulations
- Human factors in safety and security assurance
- COTS or external sourcing management of evidence in safety-critical systems
- Mixed-criticality system assurance
- Assurance for new technologies and for their application (e.g. blockchain)

## INFORMATION FOR AUTHORS

Authors are invited to submit position papers (max. 6 pages) or full technical contributions (max. 12 pages) written in English in PDF format using Easychair: https://easychair.org/conferences/?conf=sassur2018

Submissions must conform to the Springer LNCS formatting guidelines. Papers will be peer-reviewed by at least three members of the organisation, steering, and programme committees. If accepted for presentation, the papers will be published in the SAFECOMP 2018 Workshops proceedings (LNCS series).

For each accepted paper, at least one author must register to the workshop. The authors will be notified about acceptance before the SAFECOMP 2018 early registration deadline.

As a novelty for this edition, each paper will have an assigned discussant that will have to perform a short critical review of the corresponding paper to trigger discussion. The discussants will be an author of another accepted paper.

## DEADLINES

Paper submission: May 29th, 2018 (extended)

Notification of acceptance: June 11th, 2018

Camera-ready submission: June 21st, 2018

Workshop: September 18th, 2018

## WORSKSHOP COMMITTEES

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- Jose Luis de la Vara, Universidad Carlos III de Madrid, Spain
- Alejandra Ruiz, TECNALIA, Spain
- Tim Kelly, University of York, UK

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