

Call For Papers

6th International Symposium on Model-Based Safety and Assessment

(IMBSA 2019)

16-18 OCTOBER 2019

THESSALONIKI, GREECE

The 6th International Symposium on Model Based Safety and Assessment (IMBSA 2019) will be held in Thessaloniki, a coastal city of Greece and designated Unesco world heritage site for its significant Roman, Byzantine and Paleochristian monuments.

IMBSA is the key event in the field of MBSA bringing together the latest developments in model-based engineering, formal techniques, probabilistic analyses, cutting edge optimisation, and developments in artificial intelligence that address hard problems in the design of safe complex systems including software intensive and open cyber-physical systems. The symposium provides a dedicated forum, where state-of-the-art research, leading edge technology and industrial experiences are brought together. The objectives are to present experiences and tools, to share ideas, and to consolidate and grow the community.

IMBSA solicits two types of contributions:

Regular submissions should present significant (theoretical or practical) novel results to the model-based safety assessment community, and discuss advances with respect to the state-of-the-art. Possible contributions include, but are not limited to: research papers focusing on the theoretical foundations or implementation of model-based technology; case study papers reporting on industrial-size applications of these methods; tool papers focusing on the theoretical foundations, design, implementation and usage of model-based tools; industrial experience papers reporting on practical use of model-based methodology and technology in industry. Regular submissions can have a maximum of 15 pages in LNCS style, and they will be presented orally at the conference.

Short submissions may report on ongoing research work, industrial applications and experiences, describe tools and their usage and/or introduce tool demonstrations. Short submissions should aim at introducing new, usable methods and tools to the model-based safety assessment community, raise new challenges and/or evaluate existing approaches on the basis of practical experiences. Short submissions can have a maximum of 2 pages in LNCS style and they will be presented either orally or as a poster/demo at the conference, at discretion of the Program Committee.

All the authors of accepted tool papers and demonstrations, will be given the opportunity to present their tools live in an interactive session.

Topics of Interest

We solicit contributions concerning the design and verification of safety critical systems and applications using model-based methods. Conference topics include, but are not limited to:

- System Dependability Modeling and Assessment
- Domain Specific Modeling Formalisms
- Model-Driven Engineering Methodologies

- Specification, Traceability and Verification of Safety Requirements
- System Architecture and Optimization
- System Engineering Modeling Tools with Safety Assessment Capabilities
- Certification and Standardization of and with Model-Based Methods
- Integration in Interdisciplinary Processes
- Models@run.time
- Dependability of Systems with Learning Capabilities
- Synthesis of Model-based, Bio-inspired and other AI techniques for Dependability
- Case Studies and Practical Experiences

The IMBSA Approach

IMBSA is looking back at a rich tradition of successfully combining research with a high number of industrial contributions. It shows that bridging the gap between basic research and industrial practice can be done effectively through interactive presentation of tools and methods. To take this into account, the conference will – in contrast to solely scientific events – be split into three main parts:

- A scientific part, where newest findings are presented by renown scientists
- A tools and tutorials parts, in which consolidated research achievements are interactively demonstrated
- One part reporting on experiences and hot challenges in industrial practice of safety critical systems

This way, participants from the industry learn about new tools and techniques, while research groups and spin-off companies can present their achievements to an interested audience. Also industrial contributors and young spin-offs can convince future customers of their tools in this mixed environment. We believe, that this mixture of conventional talks about newest achievements, presentation of practical experiences and interactive learning allows for fruitful discussions, exchange of information as well as future cooperation.

Submission Details

For each contribution, an abstract should be submitted by 5 April 2019, using the EasyChair website, whereas full papers must be submitted by 3 May 2019. Regular submissions should not exceed 15 pages, whereas short submissions are limited to 2 pages. Both forms of submission have to comply with the LNCS style format. All papers will be subjected to a full review by the Program Committee. It is planned to publish regular contributions as a proceedings volume in Springer's Lecture Notes in Computer Science. To be considered for the proceedings, at least one author of each accepted paper has to participate at the conference.

Important Dates

Abstract submission: 19 April 2019

Full paper submission: 17 May 2019

Notification of acceptance: 7 June 2019

Camera-ready submission: 28 June 2019

Conference: 16-18 October, 2019