

Message from the Workshop Chairs

ACSOS 2023

The fourth edition of the IEEE International Conference on Autonomic Computing and Self-Organizing Systems (ACSOS 2023) welcomes five workshops. Each workshop aims to be a forum for exchanging ideas, raising interesting discussions, identifying new approaches and solutions for self-organizing and autonomous systems, as well as identifying possible new research directions. The workshops are open to all ACSOS 2023 attendees, who are welcome to join the presentation and discussion sessions. For the first time, we had one workshop day between the regular conference days. The list of workshops co-located with ACSOS 2023 is as follows:

- The 10th Self-Improving Systems Integration Workshop (SISSY) focuses on applying self-principles to the integration of "Interwoven Systems" (where an "Interwoven System" is a system cutting across several technical domains, combining traditionally engineered systems, systems making use of self-properties and methods, and human systems). The workshop aims to identify key challenges in creating self-integrating systems and consider methods to achieve continuous self-improvement for this integration process.

- The 1st International Workshop on Sustainable and Scalable Self-Organisation (SaSSO) is an interdisciplinary workshop that addresses two contrasting pairs of inter-related research questions: Firstly, the sustainability of self-organization, and conversely, self-organization for sustainability. Second, the SaSSO workshop focuses on the scalability of self-organization and, conversely, self-organization for scalability.

- The 16th International Workshop on Models@run.time bridges the gap between research on the reflection and adjustment of systems at runtime with research on model-driven software development, which traditionally focused on the design phase of software systems. On the one hand, the model-driven software development community provides a variety of approaches to support or enable the construction and operation of systems reflecting upon themselves using a mixture of runtime and design time models. On the other hand, applying modeling techniques at runtime poses new challenges for the model-driven software development community.

- The 1st International Workshop on Artificial Intelligence for Autonomous Computing Systems (AI4AS) discusses recent advancements in Artificial Intelligence (AI) and Machine Learning (ML) that significantly impacted and fostered the development of autonomous computing systems, providing new or enhanced methodologies to cope with system complexity and uncertainty. Topics include Fundamental issues regarding the applicability of AI and ML techniques across diverse domains.

- The 1st Workshop on Autonomic and Self-* Management for the Edge-Cloud Continuum (ASMECC) targets the paradigm enabling distributed/pervasive computing and networking to support various novel ICT-based applications and services. The workshop discusses relevant issues, such as how MAPE-K architecture can be adapted to work on the edge-cloud continuum, how dynamic deployment policies can be refined by learning approaches, or what programming models can adequately express application logic independently of its deployment.

All papers submitted to the workshops were subjected to rigorous peer review. Workshops enrich the ACSOS conference series with a valuable diversity of topics, which often bring researchers together in a uniquely cooperative and collaborative environment open to interesting discussions and new ideas.

We would like to thank all the workshop organizers for their proposals and invaluable organizational work, all the workshop program committee members for their reviews and timely collaboration, and the authors of the workshop papers for sharing their research results. We would also like to thank all the participants of the workshops for their invaluable input.

Lastly, we would like to thank the ACSOS General Chairs, Peter Lewis and Marin Litoiu, the Program Chairs, Ivana Dusparic and Bary Porter, the Proceedings Chair, Norha Villegas, the Publicity Chairs, Antonio Garcia-Dominguez, Roberto Rodrigues Filho, and Nicolás Cardozo, and the Web Chairs, Elia Henrichs and Nathan Lloyd, for their help and support throughout the organization of the workshops for ACSOS 2023.

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