We are delighted to welcome you to the seventh edition of SASO, the IEEE International Conference on Self-Adaptive and Self-Organizing Systems. SASO 2013 is held in Philadelphia, Pennsylvania (USA) from 9-13 September 2013, and is kindly hosted by Drexel University.

This year we received 64 full submissions, 7 poster submissions, and 11 demo submissions, lower perhaps than in previous years but representative more, we believe, of the increased cost of conference travel in as time of economic downturn that any actual diminishing of the enthusiasm for and importance of SASO systems. After careful reviewing and some considerable discussion we accepted 18 full papers, resulting in an acceptance rate of just fewer than 22%, although reflecting the generally high quality of the submissions also accepted were 8 papers which in previous years would have been short papers. However, this year we tried something new and accepted these papers as full papers for the proceedings but tried a different format of presentations (pechakucha style with subsequent poster presentation) in order to encourage interaction and scientific networking, exposure to new ideas, and generally foster and bind the community.

The 18 full papers are presented in six sessions reflecting the general thematic content of the papers themselves. This year, two of the dominant themes have been SmartGrids and Swarming. In SmartGrids, papers have been accepted that explore a holonic smart grid control architecture as well as more specific solutions e.g. using self-adaptive coalition formation for effective vehicle-to-grid (V2G) or a trust-based solution to resource allocation in SmartGrids. In Swarming, studies investigate swarms with hidden leaders, dispersing a swarm over an environment, task allocation in swarms, and tracking physical phenomena in a space that change over time. In addition to application of SASO techniques to sensor and wireless networks (for which there is a third session), what is particularly interesting and encouraging about both sets of papers is the application focus: this is indicative that SASO systems are moving out of the laboratory and the realm of formal modelling and more towards applications.

However, both formal and engineering aspects of SASO systems have been emphasised in other themes, and there are sessions on formal models and algorithms, learning, and software engineering through autonomic systems and adaptive middleware. A Model-based approach is used to self-adapt the optimal number of threads in a concurrent application, and in the design of networked signal processing algorithms, while other papers focus on multiple cameras that learn strategies to coordinate object-tracking, meta-management of security (balancing resources expended on repairing detected vulnerabilities vs discovering new ones), and a new, decentralised balanced graph partitioning algorithm, an area that remains of deep concern given the prevalence of massive graph-based infrastructures such as cloud computing and social networks. Adaptive middleware and autonomic management is a recurrent theme, and a dedicated session reports on a new proposed control scheme for multiple autonomic managers in a cloud environment an efficient pipeline execution method for a data-flow based middleware system based on self-adapting the data generation rate.

Besides six sessions devoted to presentation of the full papers, this year’s program also features a diverse group of workshops supporting specialised discussion of leading-edge SASO research topics, several tutorials informing participants of the latest SASO developments, and a highly interactive additional programme, with a pechakucha and poster session for the “short” papers, and a pechakucha and poster session for the posters and demos. There is a Panel on the “Social Implications of SASO Technology”, and three keynote talks.
Finally we would like to express our considerable thanks to everyone who contributed to SASO and its organization this year. We are of course indebted to the entire Technical Program Committee for their commitment and enthusiasm in all phases of the reviewing process, and for the quality and insight of their reviews. We also thank the Steering Committee, the Advisory Committee and the chairs of previous SASOs for their feedback on past experiences and general advice along the way, which was extremely helpful. We have also benefited from working closely with the other chairs on the Technical Committee, Salima Hassas, Ingo Scholtes, Daniel Dubois, Jacob Beal, David Breen, Nagarajan Kandasamy, Ada Diaconescu and Sara Montagna, Jose Luis Fernandez-Marquez and Marcelo Serrano Zanetti, James Chacko and Cem Sahin, and Mark Burstein. Lastly, but not least, we are particularly grateful to the General Chairs, Peppo Valetto and Ozalp Babazoglu, for their continual and unstinting support in the entire endeavour.

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