



SASO 2013 - Call for Demos

7th IEEE International Conference on Self-Adaptive and Self-Organizing Systems
Philadelphia, USA; 9-13 September 2013

<http://www.saso-conference.org>

1. Important Dates

Deadline for demo submission:	July 9, 2013
Notification of acceptance or rejection:	August 9, 2013
Demo session date:	September, 2013

2. Call for Demos

2.1. General Call

Students and researchers are invited to present their applications and systems during the Demo session organised at SASO 2013.

Submissions will be evaluated by a group of judges from academia and industry. Each submission will be evaluated based on its overall self-* abilities, originality and maturity. In particular, the committee will consider system robustness, resilience and scaling abilities, in addition to the self-* functions.

Demonstrations may target:

- *virtual systems* - such as software applications;
- *physical systems** - such as robots or sensor networks;
- *cyberphysical systems** - combining both of the above.

*Demonstrations of physical systems may either rely on real equipment or be simulated; mixed demos using both simulations and real platforms are also welcome.

This year we invite Demonstration submissions on **two main themes**:

- **Generic Theme:** the subject for demos in this theme is *free*, as long as it is of relevance to the topics promoted by the [SASO conference](#). At the same time, this year we encourage contributions that can *highlight their reusability* as conceptual or concrete artefacts to help analyse, design, implement and maintain SASO systems (see [Generic Demo Theme - call for SASO Systems](#) for details).
- **Specific Theme:** focused on *self-growing and self-assembling systems*. This includes systems capable of building and adapting themselves in order to achieve a predefined goal; rather than being manually designed and constructed by computing engineers (see [Specific Demo Theme](#) for details).

Authors of the Best Demo in each theme will receive a 400\$ prize.

2.2. Submission

Demo submissions for either theme must include:

- a **short paper** (2 pages, [conference format](#)) describing the system and its abilities;
- a link to a **web page/site** providing a self-explanatory video showing the system at work; and (optionally) allowing viewers to play with the real system or with an emulator.

Authors should defend their submission indicating why the committee should select their proposal for a demo at SASO and within the targeted theme.

Electronic submission via email to: sara.montagna_at_unibo.it and

ada.diaconescu_at_telecom-paristech.fr

At the conference, software applications will be presented on computers. For cyber-physical systems, if possible, authors are invited to bring their materials (smart-devices, sensors, actuators, robots, and so on). Software simulations or video recordings can be accepted as an alternative.

Authors can apply to both Demo themes.

2.3. Evaluation and awards

Proposals will undergo **two rounds of evaluation**.

In the first round, the technical papers and the online demos will be evaluated, based on the following criteria:

- *Technical Paper (50%)*: the novelty and impact of the application, as well as the technical depth and presentation of the paper.
- *Online Demo System (50%)*: design, degree of innovation, technical solution, clarity of the contribution and possibility of reuse.

Finalists will be selected and invited to present their proposals during the Demo session at SASO 2013. They will have to register to the conference.

In the second round, finalists will do an on-site presentation and demonstration of their systems to the evaluation committee, as well as to conference attendees. For finalists in the Specific Demo theme, it will be a great plus if the evaluation committee will also be able to play with the proposed systems (see [Specific Demo Theme](#)).

In both themes, authors must bring a *poster* summarizing their system and demo.

The evaluation criteria for the second round will include the technical paper, the online demo system and, most importantly, the on-site presentation and demo.

The evaluation committee will award a **prize to the Best Demo within each theme (400\$)**. They consist of the [Demo Program Committee](#) members attending the conference.

2.4. Generic Demo Theme - call for SASO Systems

The generic demo theme includes *the same topics of interest as those for the main conference* - see the [SASO 2013 CFP](#).

At the same time, this year, especially welcome are contributions that bring to the fore *reusable artefacts* that could help design, develop and maintain SASO systems. These include artefacts that address one or several of the important aspects of SASO systems, like self-adaptation, self-organisation, self-stabilisation, self-synchronisation, handling conflicting goals, and so on. Such reusable artefacts may include anything from conceptual and theoretical entities, such as paradigms, principles or methodologies; through generic or domain-specific architectures, models, design patterns and toolkits; and to concrete building blocks like platforms, frameworks, algorithm implementations, communication and coordination facilities.

Authors should demonstrate their contributions via a concrete demo that illustrates the advantages and reusability of their proposal.

2.5. Specific Demo Theme

- call for Self-Growing and Self-Assembling Systems

The specific demo theme focuses on *computing systems that can construct themselves*, from pre-existing and/or self-fabricated building-blocks, in order to *achieve a predefined goal* (e.g. software services, virtual or physical shapes, physical capabilities, ...). This is in contrast to most existing systems that must be designed and constructed by computing engineers by hand. Additional self-* properties, such as self-adaptation and self-repair, based on the same principles are a plus.

Demonstrations may include virtual, physical, cyber-physical or simulated systems.

Examples of relevant submissions include, while not being limited to:

- systems that can construct *spatial structures or patterns* featuring predefined characteristics - e.g. a self-growing shape fitting a given template or featuring specific properties; or robots self-organising into a predefined formation;
- systems that can construct *physical or virtual networks* featuring predefined properties - e.g. static or mobile sensors discovering each other and self-assembling into networks with particular topologies, like random, small-world, scale-free or community networks; network peers self-organising into P2P overlays with predefined topologies; or software services multiplying or self-destructing and interconnecting so as to maintain a predefined architectural template at various scales;
- systems that can construct *software applications* that can ensure targeted functionalities and/or QoS properties - e.g. a multi-agent system opportunistically finding, instantiating and integrating software components or services into an overall application that can provide a targeted global service; or generic software services self-replicating, self-connecting and differentiating into specific services in order to form an overall application.

Authors are encouraged to emphasise the envisaged utility and general applicability of their contributions, be it over the short, medium or long term.

3. Demo Program Committee

3.1. Chairs

- [Ada Diaconescu](#), Telecom ParisTech, France
Email: ada.diaconescu_at_telecom-paristech.fr
- [Sara Montagna](#), Universita di Bologna, Italy
Email: sara.montagna_at_unibo.it

3.2. Program Committee

(TBA)