DESCRIPTION

Until recently, repairing faults, or performing upgrades on software systems have been activities performed by human operators. However, both the increasing complexity of systems and the growing uncertainty in their operational environments have created a critical need to develop systems able to improve their operation, adapt to change, and recover from failures autonomously. This situation has led to recent advances in self-adaptive systems able to reconfigure their structure and modify their behaviour at run-time to adapt to environmental changes.

Despite these advances, one key aspect of self-adaptive systems that remains to be tackled in depth is assurances: that is, providing evidence that systems satisfy their set of stated functional and non-functional properties during operation. Developing high-assurance, self-adaptive systems is difficult because they tend to be highly context-dependent, and this fact introduces a high degree of uncertainty. ASAS is a one-day workshop that will bring together researchers to discuss software engineering aspects of self-adaptive systems, including methods, architectures, languages, algorithms, techniques, and tools that can be used to support assurances in self-adaptive system development.

TOPICS OF INTEREST

We are interested in submissions from both industry and academia on all topics related to this important area. Topics of interest to ASAS include, but are not limited to:

- formal notations for modeling and analyzing self-adaptation
- measurement and evaluation of resilience, security, performance, and cost in adaptive systems
- run-time verification and validation
- stochastic analysis
- reasoning in the presence of uncertainty
- benchmarking resilience
- combination of run-time and development-time evidence
- social aspects of assurances
- resilient cases for self-adaptive systems

SUBMISSION AND PUBLICATION

We solicit the submission of (1) position papers and progress reports describing ongoing work or new ideas, (2) research papers and experience reports describing substantive research results, and (3) survey papers. Papers submitted for consideration should not have been published elsewhere and should not be under review or submitted for review elsewhere during the duration of consideration. All papers must conform, at time of submission to the ACM SIG Proceedings Templates and be up to 4 pages (position papers and progress reports) or 10 pages (research, experience, and survey papers). All submissions must be in English (PDF format) and must be uploaded through our Easychair submissions website (https://www.easychair.org/conferences/?conf=asas2011). Workshop proceedings will be published in the ACM digital library. In addition to the workshop proceedings, a post-proceedings book (under negotiation with Springer) containing a selection of extended versions of the presented papers will be considered, depending on the scientific quality of the contributions received.

IMPORTANT DATES

Paper submission: June 15 * Notification of acceptance: July 5 * Workshop: September 4

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