



# 6<sup>th</sup> International Symposium on Software Engineering for Adaptive and Self-Managing Systems

Sponsored by ACM SIGSOFT and IEEE TCSE

Waikiki, Honolulu, Hawaii, USA

May 23-24, 2011



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## Important (New) Dates

Submission: **10 Jan. 2011**

Notification: **25 Feb. 2011**

Camera ready: **10 Mar. 2011**

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## Theme

An increasingly important requirement for a software-based system is the ability to self-manage by adapting itself at run-time to handle changing user needs, system intrusions or faults, a changing operational environment, and resource variability. Such a system must configure and reconfigure itself, augment its functionality, continually optimize itself, protect itself, and recover itself, while keeping its complexity hidden from the user.

The topic of self-adaptive and self-managing systems has been studied in a large number of specific areas, including software architectures, fault-tolerant computing, robotics, control systems, programming languages, and biologically-inspired computing.

The objective of this symposium is to bring together researchers and practitioners from many of these diverse areas to engage in stimulating dialogue regarding the fundamental principles, state of the art, and critical challenges of self-adaptive and self-managing systems. Specifically, we intend to focus on the software engineering aspects, including the methods, architectures, algorithms, techniques, and tools that can be used to support dynamic adaptive behavior that includes self-adaptive, self-managing, self-healing, self-optimizing, and self-configuring, and autonomic software.

## Topics of Interest

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

- formal notations for modeling and analyzing software self-adaptation
- programming language support for self-adaptation
- reuse support for self-adaptive systems (e.g., patterns, designs, code, etc.)
- design and architectural support for the self-adaptation of software
- algorithms for software self-adaptation
- integration mechanisms for self-adaptive systems
- evaluation and assurance for self-\* systems (e.g., run-time verification)
- modeling and analysis of adaptive systems (e.g., run-time models, cost-benefit analysis, architectural styles and patterns, requirements)
- decision-making strategies for self-adaptive and self-organizing systems
- support for run-time monitoring (for requirements, design, performance, etc.)
- model problems and exemplars

The following application areas are of particular interest: mobile computing, dependable and resilient computing, autonomous robotics, adaptable user interfaces, service-oriented systems, and autonomic computing.

## Paper Submission Details

We are soliciting three types of papers: research papers and experience reports (up to 10 pages, ACM SIG Proceedings Format) and position papers for new ideas (up to 6 pages, ACM SIG Proceedings Format). Research papers should clearly describe the technical contribution and how the work has been validated. Experience reports should describe how an existing technique has been applied to real-world examples, including lessons learned from the experience. New idea papers provide an opportunity to describe novel and promising ideas and/or techniques that might not have been fully validated. All submitted papers will be reviewed by at least three program committee members. Papers must not have been previously published or concurrently submitted elsewhere. The accepted papers will appear in the symposium proceedings that will be published as ACM conference proceedings.

## Further Information

Symposia-related email should be addressed to: [seams2011@seams-symposia.org](mailto:seams2011@seams-symposia.org)

Symposium home page: <http://2011.seams-symposia.org/>