



**Software Engineering for Adaptive
and Self-Managing Systems**

CALL FOR PAPERS

**Software Engineering for Adaptive and Self-
Managing Systems (SEAMS 2007)**

<http://www.seams2007.cs.uvic.ca>

Two-Day Workshop at
the end of ICSE Week
May 26-27, 2007
Minneapolis, USA

IMPORTANT DATES

Submission deadline:	Mon, Feb 5, 2007
Acceptance notification:	Tue, Feb 20, 2007
Camera ready copy:	Mon, Mar 5, 2007

THEME

An increasingly important requirement for software-intensive systems is the ability to self-manage by adapting at run time to handle such things as resource variability, changing user needs, and system intrusions or faults. Such a system must configure and reconfigure itself, continually tune and optimize itself, protect 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 application areas, including autonomic computing, robotics, control systems, programming

languages, software architectures, fault-tolerant computing, and biological computing. The goal of this symposium is to bring together researchers and practitioners from many of these diverse areas to discuss 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 and self-managing behavior.

TOPICS OF INTEREST

The aim of the workshop is to bring together the different communities in software engineering to discuss the state of research and practice of self-managing and self-adaptive software. 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: design and architectural language support for the self-adaptation of software; algorithms for software self-management; integration mechanisms for self-adaptive and self-managing systems; formal notations for modeling and analysis of software self-adaptation; architecture patterns for supporting self-adaptation;

verification and validation of self-managing software; methods for engineering user-trust of self-managing systems; methods to instrument existing systems to observe self-managing behaviour over long periods of time; adaptive components; evaluation and assurance for self-adaptive systems; and decision algorithms for self-adaptive systems. The following application areas are of particular interest: system management; problem determination including logging, analysis and diagnostics; mobile computing; dependable computing; autonomous robotics; adaptable user interfaces; service-oriented architectures.

PAPER SUBMISSION DETAILS

We are soliciting papers (length and format as per ICSE 2007 workshop guidelines), both research papers and experience reports that concisely describe ongoing work, new ideas, experiences, etc. All submitted papers will be reviewed by at least three program

committee members. Papers must not have been previously published or concurrently submitted elsewhere. Submission instructions at <http://www.seams2007.cs.uvic.ca/> The accepted papers will be published in the SEAMS 2007 proceedings.

SYMPOSIUM ORGANIZATION

Organizing Committee

Betty Cheng, Michigan State University, USA
Rogério de Lemos, University of Kent, UK
Stephen Fickas, University of Oregon, USA
David Garlan, Carnegie Mellon University, USA
Marin Litoiu, IBM Toronto, Canada
Jeff Magee, Imperial College, UK
Hausi Müller, University of Victoria, Canada
Richard Taylor, Univ. of California, Irvine, USA

Program Committee

Betty Cheng, Michigan State University, USA
Rogério de Lemos, University of Kent, UK
Stephen Fickas, University of Oregon, USA
Cristina Gacek, Univ. Newcastle upon Tyne, UK
David Garlan, Carnegie Mellon University, USA
Karl Goeschka, Vienna Uni. of Technology, Austria
Mike Godfrey, University of Waterloo, Canada
Svein Hallsteinsen, SINTEF, Norway
Mike Hinchey, NASA Goddard, USA
Arno Jacobson, University of Toronto, Canada
Gail Kaiser, Columbia University, USA
Marin Litoiu, IBM Toronto, Canada

Jeff Magee, Imperial College, UK
Pat Martin, Queen's University, Canada
Neno Medvidovic, USC, USA
Hausi Müller, University of Victoria, Canada
John Mylopoulos, University of Toronto, Canada
and University of Trento, Italy
Masoud Sadjadi, Florida International Univ., USA
Gabby Silberman, CA Labs, USA
Dennis Smith, SEI, USA
Roy Sterritt, University of Ulster, UK
John Strassner, Motorola Research Labs, USA
Kenny Wong, University of Alberta, Canada

<http://www.seams2007.cs.uvic.ca/>