CALL FOR PAPERS
Software Engineering for Adaptive and Self-Managing Systems—SEAMS 2009
Two-Day ICSE Workshop: Mon/Tue, May 18-19, 2009 Vancouver, British Columbia, Canada
http://www.seams2009.cs.uvic.ca

THEME

With the rapid growth of web services and the continuous evolution from software-intensive systems to socio-technical ecosystems, the management complexity of these modern, decentralized, distributed computing systems presents significant challenges for businesses and often exceeds the capabilities of human operators. End-users increasingly demand from business that they provide software systems that are versatile, resilient, dependable, robust, service-oriented, mashable, inter-operable, continuously available, decentralized, self-healing, configurable, or self-optimizing. One of the most promising approaches to achieving some of these properties is to equip software systems with feedback control to address the management of inherent system dynamics. The resulting self-adapting and self-managing computing systems are better able to cope with and even accommodate changing environments, shifting requirements, and computing-on-demand needs.

TOPICS OF INTEREST

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 concepts, methods, architecture, feedback control, and tools that can be used to support dynamical adaptive and self-managing behaviour. Moreover, in this 4th workshop, we will look at results achieved in self-adaptability and focus on experimental systems by including a demonstration session. Topics of interest include, but are not limited to: feedback control and architecture patterns for self-adaptation and self-management; models and algorithms for software self-management; integration mechanisms for self-adaptive and self-managing systems; formal notations for modeling and analyzing software self-adaptation; methods for engineering user-trust of self-adaptive and self-managing systems; methods to instrument existing systems to observe self-managing behaviour over long periods of time; dynamical verification and validation of self-managing software; evaluation and assurance for self-adaptive systems; decision algorithms for self-adaptive systems; and exemplars for benchmarking. The following application areas are of particular interest: autonomic computing; problem determination including logging, analysis and diagnostics; mobile computing; dependable computing; autonomous robotics; adaptable user interfaces; service-oriented applications.

PAPER SUBMISSION DETAILS

We invite (1) position papers and progress reports describing ongoing work or new ideas, (2) research papers and experience reports describing validated research results, and (3) survey papers—all within the scope of the workshop. Papers should be between 5-10 pages long and must not have been previously published or submitted elsewhere. Accepted papers will be published in the ACM and IEEE Digital Libraries under SEAMS 2009 Workshop Proceedings as part of the ICSE 2009 Workshop publications. Please submit papers for SEAMS 2009 electronically using SEAMS 2009 electronic submission web site which is powered by CyberChairPROv7. Please follow the ICSE 2009 paper format instructions.

IMPORTANT DATES

Submission deadline: Saturday, January 26, 2009
Author notification: Tuesday, February 10, 2009
Camera ready copy: Thursday, February 19, 2009

SYMPOSIUM ORGANIZATION

General Chair
   Hausi Müller, University of Victoria, Canada
Program Chair
   Jeff Magee, Imperial College, UK
Program Committee
   Nelly Bencomo, Lancaster University, UK
   Betty Cheng, Michigan State University, USA
   Rogério de Lemos, University of Kent, UK
   Giovanna Di Marzo Serugendo, U. of London, UK
   Anthony Finkelstein, UCL, UK
   Cristina Gacek, Univ. Newcastle upon Tyne, UK
   David Garlan, Carnegie Mellon University, USA
   Kurt Geihs, University of Kassel, Germany
   Holger Giese, Hasso Plattner Institute, Germany

Ethan Hadar, CA, Israel
Paola Inverardi, University of Aquila, Italy
Holger Kienle, University of Victoria, Canada
Gail Kaiser, Columbia University, USA
Marin Litoiu, York University and IBM, Canada
Jeff Magee, Imperial College, UK
Serge Mankovski, CA Canada Inc.
Pat Martin, Queen's University, Canada
Hausi Müller, University of Victoria, Canada
John Mylopoulos, University of Trento, Italy
Sooyong Park, University of Sogang, South Korea
Anna Perini, FBK-IRST, Trento, Italy
Mauro Pezzè, University of Lugano, Switzerland
Masoud Sadjadi, Florida Int. University, USA
Mary Shaw, Carnegie Mellon University, USA
Dennis Smith, SEI, USA
Richard Taylor, Univ. of California, Irvine, USA
Danny Weyns, Katholieke Univ. Leuven, Belgium