ATC-2012 CFP

The 9th IEEE International Conference on

Autonomic and Trusted Computing (ATC 2012)

- Bring Safe, Self-x and Organic Computing Systems into Reality -

http://conf.kyusan-u.ac.jp/atc2012/

Kyushu Sangyo University, Fukuoka, Japan, September 04-07, 2012

Co-located with UIC 2012, ICA3PP-2012

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Computing systems including hardware, software, communication, and networks are growing towards an ever-increasing scale and heterogeneity, becoming overly complex. Such complexity is getting even more critical with the ubiquitous permeation of embedded devices and other pervasive systems. To cope with the growing and ubiquitous complexity, Autonomic Computing (AC) focuses on self-manageable computing and communication systems that exhibit self-awareness, self-configuration, self-optimization, self-healing, self-protection and other self-x operations to the maximum extent possible without human intervention or guidance. Organic Computing (OC) additionally addresses adaptivity, robustness, and controlled emergence as well as nature-inspired concepts for self-organization.

Any autonomic or organic system must be trustworthy to avoid the risk of losing control and retain confidence that the system will not fail. Trust and/or distrust relationships in the Internet and in pervasive infrastructures are key factors to enable dynamic interaction and cooperation of various users, systems, and services. Trusted/Trustworthy Computing (TC) aims at making computing and communication systems as well as services available, predictable, traceable, controllable, assessable, sustainable, dependable, persistent, security/privacy protectable, etc.

A series of grand challenges exists to achieve practical autonomic or organic systems with truly trustworthy services. Started in 2005, the series of ATC conferences has been held at Nagasaki, Vienna, Three Gorges (China), Hong Kong, Oslo, Brisbane, Xian, and Banff. ATC 2012 will include a highly selective program of technical papers, accompanied by workshops, panel discussions and keynote speeches. Established as a premier venue in the area of autonomic and trusted computing, ATC 2012 will offer a forum for researchers to exchange ideas and experiences in the most innovative research and development in these challenging areas and includes all technical aspects related to autonomic/organic computing (AC/OC) and trusted computing (TC). Topics include but are not limited to the following:

- **AC/OC Theory and Models**
  Models, negotiation, cooperation, competition, self-organization, emergence, verification, etc.
- **AC/OC Architectures and Systems**
  Autonomic elements & their relationship, frameworks, middleware, observer/controller architectures, institutional architectures, etc.
- **AC/OC Components and Modules**
  Multi-core CPU, memory, storage, database, device, server, proxy, software, OS, I/O, etc.
- **AC/OC Communication and Services**
  Networks, self-organized net, web service, P2P, grid, EaaS, cloud, etc.
- **AC/OC Tools and Interfaces**
  Tools/interfaces for AC/OC system development, test, monitoring, assessment, supervision, etc.

- **Trust Models and Specifications**
  Models and semantics of trust, distrust, mistrust, over-trust, cheat, risk, reputation, reliability, etc.
- **Trust-related Security and Privacy**
  Trust-related secure architecture, framework, policy, Intrusion detection/awareness, protocols, trust-adaptive agents and communities, etc.
- **Trusted Reliable and Dependable Systems**
  Fault-tolerant systems, hardware redundancy, robustness, survivable systems, failure recovery, etc.
- **Trustworthy Services and Applications**
  Trustworthy Internet/web/P2P/grid/cloud services, secure mobile services, novel applications, etc.
- **Trust Standards and Non-Technical Issues**
  Trust standards and issues related to personality, ethics, sociology, culture, psychology, economy, etc.

IMPORTANT DATES

Papers Submission Deadline: May 15, 2012 (HARD DEADLINE)
Authors Notification: June 15, 2012
Final Manuscript Deadline: June 28, 2012

WORKSHOPS/DEMOS/EXHIBITS

The ATC 2012 Organizing Committee invites proposals for workshops/demos/exhibits affiliated with the conference and addressing research areas related to the conference. Accepted workshop/demo papers will be included in the proceedings published by IEEE CPS Press. Click the following links for submission details/deadlines.
For workshop proposals: http://conf.kyusan-u.ac.jp/atc2012/wsprop/
For demo/exhibit proposals: http://conf.kyusan-u.ac.jp/atc2012/demoprop/

PAPER SUBMISSION

Main conference papers need to be prepared according to the IEEE CPS format, 7 to 8 pages, and submitted in PDF format via the ATC 2012 submission site: http://cse.stfx.ca/~atc2012/sub/

PAPER PUBLICATION

Accepted main conference papers will be published by IEEE CPS (IEEE-DL indexed). At least one author of each accepted paper is required to register and present their work at the conference; otherwise the paper will not be included in the proceedings.
Best Paper Awards will be presented to high quality papers. Selected papers, after further extensions and revisions, will be published in special issues of prestigious journals (Computing (Springer), IJAC (Inderscience), IJARAS (IGI)).