

IEEE International Workshop on Trusted and Autonomous Computing Systems (TACS-06)

April 18 – 20, 2006

[Vienna University of Technology, Vienna, Austria](http://www.cs.okstate.edu/~xiaolin/tacs06)

In conjunction with the 20th IEEE International Conference on Advanced Information Networking and Applications ([AINA 2006](http://www.cs.okstate.edu/~xiaolin/tacs06))

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PROGRAM COMMITTEE

The TACS-06 program committee includes leading researchers from academia and industry. The list is available at the workshop web site.

PUBLICATION

Accepted papers will appear in proceedings published by IEEE Computer Society Press, which will be distributed at the workshop. Distinguished papers that are presented will be published in a special issue of *Journal of Autonomous and Trusted Computing*.

INFORMATION

WWW: <http://www.cs.okstate.edu/~xiaolin/tacs06>

SPONSORS

IEEE Computer Society TCDP

Vienna University of Technology, Vienna, Austria

CALL FOR PAPERS

As computer systems become increasingly large and complex, their trustworthiness and self-manageability play critical role at supporting next-generation science, engineering, and commercial applications. These systems consist of heterogeneous software/hardware/network components of changing capacities, availability, and in varied contexts. They provide computing services to large pools of users and applications, and thus are exposed to a number of dangers such as accidental/deliberate faults, virus infections, malicious attacks, illegal intrusions, and natural disasters etc. As a result, too often computer systems fail, become compromised, or perform poorly. Therefore, it remains a challenge to design, analyze, evaluate, and improve the performance of trustworthy systems. Trusted computing targets computing and communication systems as well as services that are predictable, traceable, controllable, assessable, sustainable, dependable, and privacy protect-able. The scale and complexity of information systems evolve towards overwhelming the capability of system administrators, programmers, and designers. This calls for the autonomic computing paradigm, which meets the requirement of self-management by providing self-optimization, self-healing, self-configuration, and self-protection. As a promising means to implement trusted and self-managing systems, autonomic computing technology needs to be further explored. On the other hand, any autonomic system must be trustworthy to avoid the risk of losing control and retain confidence that the system will not fail. Trusted and autonomic computing and communications need synergistic research efforts covering many disciplines, ranging from computer science and engineering, to the natural sciences to the social sciences. It requires scientific and technological advances in a wide variety of fields, as well as new software, system architectures, and communication systems that support the effective and coherent integration of the constituent technologies.

This workshop is to bring together computer scientists, industrial engineers, and researchers to discuss and exchange experimental and theoretical results, novel designs, work-in-progress, experience, case studies, and trend-setting ideas in the area of trusted and autonomic computing systems. Topics of interest include, but are not limited to:

- Trusted Autonomic Computing and Communications
- Trust Models and Specifications
- Trust-related Security and Privacy
- Autonomic Computing Theory and Models
- Autonomic Computing Architectures and Systems
- Autonomic System Tools and Interfaces
- Autonomic Grid Systems, Middleware, and Services
- Trusted Reliable and Dependable Systems
- Security Models and Quantification
- Context-aware Access Control
- Self-healing, Self-protecting and Fault-tolerant Systems
- Software and Hardware Reliability, Verification and Testing
- Reliability Measurement, Modeling and Evaluation
- Sensing, Monitoring and Measurements for Self-managing Systems
- Human Interaction with Trusted and Autonomic Computing Systems
- Reliability and Availability Issues in Embedded and Sensor-network Systems

PAPER SUBMISSIONS

Full papers (up to 6 pages) are invited on a wide variety of topics relating to trusted and autonomic computing as indicated above. All manuscripts will be reviewed and judged on correctness, originality, technical strength, significance, quality of presentation, and interest and relevance to the workshop. Authors should submit full papers electronically (PDF or postscript) to program co-chairs by email using IEEE CS Proceedings format. More information is available at the workshop web site <http://www.cs.okstate.edu/~xiaolin/tacs06>.

IMPORTANT DATES

Submission deadline: (extended) 11/21/2005, please submit abstract ASAP

Notification of acceptance: December 15, 2005

Final manuscript due: January 15, 2006

Workshop: April 18-20, 2006