July 17 – 21, 2017
Columbus, OH USA

ICAC 2017

14th IEEE International Conference on Autonomic Computing

ICAC 2017 Preliminary Call for Papers

14th IEEE International Conference on Autonomic Computing

Columbus, Ohio USA, July 17 – 21, 2017

http://icac2017.ece.ohio-state.edu/

Scope and Topics

ICAC is the leading conference on autonomic computing techniques, foundations, and applications. Large-scale systems, such as data centers, compute clouds, smart cities, cyber-physical systems, sensor networks, and embedded or pervasive environments, are increasingly complex and burdensome to manage. Systems that employ autonomic computing adaptively manage their own failures, performance and resources. Achieving self-management requires and motivates research that spans a wide variety of scientific and engineering disciplines, including distributed systems, artificial intelligence, machine learning, modeling, control theory, optimization, planning, decision theory, user interface design, data management, software engineering, emergent behavior analysis, and bio-inspired computing.

Important Dates (tentative)

Abstracts Open: Feb 14, 2017
Papers Due: Feb 28, 2017
Notifcation: Apr 22, 2017

Topics of interest include, but are not limited to:
• Self-managing components, such as compute, storage, networking devices, real time systems, embedded systems, Internet of Things, and mobile devices.
• AI and mathematical techniques, such as machine learning, control theory, operations research, probability and stochastic processes, queueing theory, rule-based systems, neural networks, bio-inspired techniques.
• End-to-end design and implementation of systems for management of resources, workloads, scalability, availability, performance, reliability, power/cooling, and security.
• Monitoring components and platforms for autonomic systems in IT or cyber-physical environments.
• Hypervisors, operating systems, middleware, and application support for autonomic computing.
• Goal specification and policies, IT governance, and business-driven IT management.
• Frameworks, architectures, toolkits (from software engineering practices and to agent-based techniques).
• Automated management techniques for emerging applications, systems, and platforms, including data analytics, cloud computing, big data systems, edge systems, multi-core servers, smart cities, and cyber-physical systems.
• Fundamental science and theory of self-managing systems
• Self-organization and emergent behavior in technical systems trustworthy self-organizing systems.
• Infrastructures and architectures for organic computing systems.
• Applications of autonomic computing and experiences with prototyped or deployed systems solving real-world problems in science, engineering, business, or society.

Paper Submission

All papers must represent original and unpublished work that is not currently under review. Papers will be judged on originality, significance, interest, correctness, clarity, and relevance to the broader community. Papers are strongly encouraged to report on experiences, measurements, user studies, and provide an appropriate quantitative evaluation if at all possible. *See conference website for format instructions.*