

Call for Papers

16th Annual IEEE International Conference and Workshop on the Engineering of Computer Based Systems (ECBS)



Conference and Workshops: Date 13-16, April 2009
Location: San Francisco, CA, USA

Mastering the Complexity of Computer-Based Systems

CONFERENCE AND WORKSHOPS: ECBS 2009 will be the 16th formal IEEE sponsored meeting dedicated to formulating and advancing methods, techniques and tools for the engineering of computer-based systems. The conference is devoted to the design, development, deployment, and analysis of complex systems whose behavior is largely determined or controlled by computers. Such systems are characterized by functional, performance, and reliability requirements that mandate the tight integration of information processing and physical processes.

ECBS encompasses many facets: system modeling, requirements specification, simulation, architectures, communications, safety, security, reliability, software, hardware, human computer interfacing, system integration, verification and validation and project management. Effectively, ECBS spans and integrates several engineering disciplines including software, hardware, and communications into a complete engineering discipline.

The conference provides a bridge between industry and academia; the program will provide a balanced view of academic research and industrial developments. Papers are sought which reflect this theme in fundamental ECBS technologies, or application domains listed below, and integrate them with a system's perspective.

- Adaptive Computing
- Architectures
- Autonomic Systems
- Co-design
- Component-Based System Design
- Design Evolution
- Distributed Systems Design
- ECBS Infrastructure (Tools, Environments)
- Education & Training
- Embedded Real-Time Software Systems
- Formal Methods
- Lifecycle Processes and Process Evolution
- Integration Engineering
- Model-Based System Development
- Modeling and Analysis of Complex Systems
- Open Systems
- Product-Families Models and Architectures
- Reengineering & Reuse
- Reliability, Safety, Dependability, Security
- Requirements Elicitation and Analysis
- Standards
- System on a Chip
- System Assessment, Testing and Metrics
- Verification & Validation

Reports of practical solutions, trends and new system characteristics for ECBSs may include application domains such as: Aerospace Systems, Command and Control, Continuous and Discrete Manufacturing, Environmental Systems, Instrumentation and Control Applications, Internet Technology and Applications, Intelligent Highway-Vehicle Systems (IHVS), Medical Systems, Telecommunication

WORKSHOPS:

ECBS 2009 will feature a range of workshops, including the following

1. EASe: Engineering of Autonomic Systems, see <http://www.ulster.ac.uk/ease>
2. Model-Based Development of Computer-Based Systems, see <http://www.proinf.de/mbd>

The workshops include short presentations and a forum for focused discussions. Traditionally for ECBS conferences, workshops are strongly connected to the conference sessions to enable continued in-depth discussions.

POSTER SESSIONS: Posters and abstracts presenting work in progress are invited for a poster session. Accepted abstracts will be published in the proceedings. Graduate students are especially welcome to participate.

DOCTORAL SYMPOSIUM: The Doctoral Symposium provides a forum for PhD candidates to present work in progress and get feedback from the research community.

INDUSTRIAL TRACK: The industrial track provides a forum for short papers on results of industrial research and development.

SUBMISSION OF PAPERS: Full papers and doctoral symposium papers must be 6 to max 10 pages in Computer Society format, poster abstracts 1 to 2 pages, and industrial track papers 2 to 4 pages.

IMPORTANT DATES:

Submission of all papers:	Nov 10, 2008
Notification of acceptance:	Dec 15, 2008
Camera-ready material for publication:	Jan 14, 2009
Registration deadline for authors:	Jan 14, 2009

Submission dates for workshops may differ. Please refer to the Call for Papers for each individual workshop.

For more information see <http://www.ece.usu.edu/ecbs09>
Please direct comments/suggestions to ecbs09@engineering.usu.edu

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