



CALL FOR PAPERS

ACM Transactions on Design Automation of Electronic Systems Special Issue on

Reliable, Resilient, and Robust Design of Circuits and Systems

Submission Deadline: July 14, 2014

Organizers

Editor-in-Chief
Massoud Pedram

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Aims and Scope

Computational systems have long been designed under the premise that their fundamental circuit elements function correctly and reliably. As technology continues to scale, this premise no longer holds, due to physical effects, thermal effects, and increased process variation. This special issue will focus on recent advances in new techniques and methodologies to address reliability, resiliency, and robustness of future computing systems that are composed of these faulty elements. We invite proposed solutions from multiple levels: system, architecture, logic, circuit, or a combination of the above that address design, test, or validation. ACM Transactions on Design Automation of Electronic Systems (ACM TODAES) will publish a special issue on Reliable, Resilient, and Robust Design of Circuits and Systems, with the goal to disseminate developments and research results in the area. Topics of interest to the special issue include, but are not limited to, the following:

- Reliable networks-on-chip/interconnect
- Specification methods for robust design
- Benchmarking robustness and resiliency
- Reliable memories and memory systems
- Resilient multiprocessor architectures
- Reliable embedded systems
- Reliable field programmable logic
- Fault tolerant Analog/mixed-signal circuits and systems
- Performance, power, reliability tradeoffs
- Design for reliability/resiliency in CAD
- Robustness of emerging technologies
- Co-design for reliable systems
- New circuit topologies for error resiliency

Submission Format

Submissions should be written in general terms understandable by the usual audience of the journal. Authors are encouraged to submit high-quality original research contributions that will not require major revisions. Extensions of papers conforming to the special theme of reliability, resiliency, robustness and presented at the GLSVLSI '14 Symposium, Houston, Texas, May 21-23, 2014 (<http://www.glsvlsi.org>) are especially encouraged. Please identify clearly the additional material from the original symposium paper in your submitted manuscript. Submissions of relevant original work not presented at GLSVLSI '14 are also welcome. Concurrent submission to any other conference or journal is a ground for rejection of a manuscript without review. All papers will be fully refereed to the usual journal standards. Since a key objective of the special issue is to provide a comprehensive reference for the different research challenges and progress made in the area, a detailed discussion of related research is expected.

Submissions should be formatted according to TODAES author guidelines available at: <http://todaes.acm.org/author.html@ManuscriptPreparation>

Dates

Paper Submission	July 14, 2014
Notification	November 17, 2014
Camera-ready version	January 5, 2015

Submission Procedure

Submission must be made through the ACM Manuscript Central (<http://mc.manuscriptcentral.com/todaes>) and must contain the following information:

1. Title of the paper
2. Names and affiliations of the authors
3. An abstract not exceeding 300 words
4. A list of at most five keywords (optional)
5. A pdf version of the full paper

Contact Information

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