



# CALL FOR PAPERS

## SPECIAL ISSUE



## Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS)

### Heterogeneous nano-circuits and systems December 2012

JETCAS will publish a special issue on **heterogeneous nano circuits and systems** in December 2012. Submission is open to everyone. Presenters of the CAS-FEST event in Seoul are encouraged to submit.

Circuits and systems have been evolving in various directions, such as the downscaling of physical sizes, the increase in complexity, and the heterogeneity of materials and components. Recent application examples include, but are not limited to, prototypes and products for personalized medicine (e.g., chemical and biological analysis, medical stimulators, labs-on-chips), for environmental control (e.g., sensor networks, smart buildings, smart city, smart grid) and for the consumer market (e.g. next generation displays and signal/image processing systems).

Analysis and design of such heterogeneous nano circuits and systems is an open challenge which will become increasingly more important in the coming years. Heterogeneity stems from various aspects, such as: i) *hybridization of technologies and devices* (i.e., the combination of emerging and standard technologies), ii) the *merging of circuits and sensors* and the development of *3D integrated systems*, iii) the development of *system applications* requiring heterogeneous components.

It is the purpose of this call to receive contributions related to fundamental advances in research on circuits and systems that stress the use of nano-components and heterogeneity. Experimental validation of such systems is expected in terms of prototypes and results measured in the field/lab.

**Specific sub topics include (but are not limited to):**

1. Heterogeneous nano-electronic technologies and circuits
2. Nano-bio-sensors
3. Sensor and circuit co-design
4. Circuits and systems for energy harvesting and storage
5. Nano-architectures and 3D integration
6. Emerging applications: image processing, biomedical diagnostics, security

Authors are invited to submit to JETCAS via the JETCAS website and according to JETCAS policies and procedures. For details see <http://jetcas.polito.it/index.html>.

**Deadlines**

Paper submission.....	June 30, 2012
JETCAS reviews completed .....	August 1 <sup>st</sup> , 2012
Revised manuscripts due.....	August 22 <sup>nd</sup> , 2012
Final notification of acceptance (JETCAS) .....	September 15, 2012
Final manuscript due (hard deadline).....	October 1 <sup>st</sup> , 2012

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