Call for Papers
Special Issue on Network-based Many-core Embedded Systems

Many-core embedded system will integrate a large number of cores (several hundred) in order to meet the performance requirements of parallel applications. As the number of cores integrated into a chip increases, the conventional on-chip communication becomes power and performance bottleneck in many-core embedded systems. Network-on-Chip (NoC) architectures have been emerged as the most viable solution to meet the performance and design productivity requirements of the complex on-chip communication infrastructure in many-core embedded systems. NoC provides an infrastructure for better modularity, scalability, fault-tolerance, and higher bandwidth compared to traditional infrastructures.

Topics of interest include, but are not limited to:

- NoC architecture for many-core embedded system
- Task mapping and scheduling
- Quality of service and reliability issues
- Physical design of interconnects and switches
- Design exploration for 3D stacked logic and memory
- Synthesis, verify, debug and test
- Formal modeling and verification
- Performance and power issues
- Re-configurability
- Optical NoCs
- FPGAs for NoCs
- Unicast and multicast communication protocols
- On-chip learning and adaptation

Submitted articles must not have been previously published or currently submitted for publication elsewhere. For work that has been published previously in a workshop or conference, it is required that submissions to the special issue have at least 30% new content. Submissions that do not meet this requirement will be rejected without review. The papers should be submitted via the Manuscript Central website and should adhere to standard Elsevier formatting requirements.

All manuscripts should be submitted via the online submission at *http://ees.elsevier.com/jsa*. Please select the article type as "SI: **NEMES**". All manuscripts should comply with the journal's Guide for Authors: *http://www.elsevier.com/wps/find/journaldescription.cws_home/505616/authorinstructions*.

Schedule:

Paper submission deadline	Aug. 1, 2012	Review decisions	Oct. 1, 2012
Revisions due (if needed)	Nov. 1, 2012	**Notification of final acceptance**	Dec. 15, 2012
Final manuscript due	Jan. 15, 2013	**Tentative publication date**	Mar. 2013

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