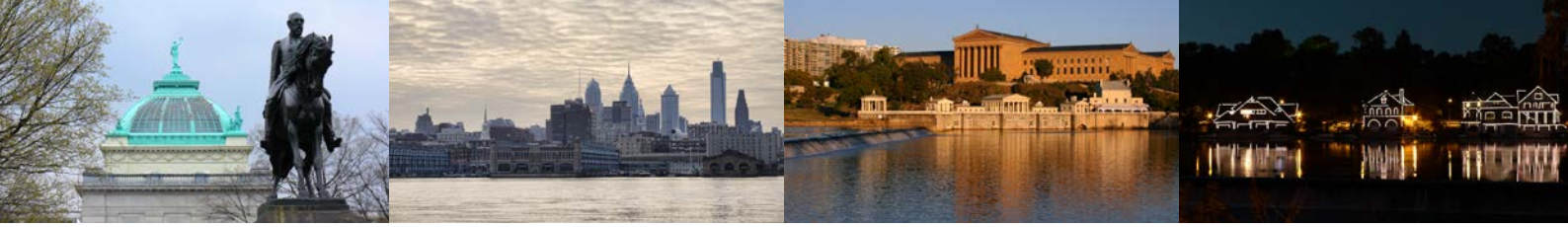

CALL FOR PAPERS

The 19th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS 2013)

Philadelphia, Pennsylvania, USA, April 9-11 2013
Web site: http://www.rtas.org

RTAS'13, the nineteenth in a series of annual conferences sponsored by IEEE, will be held in Philadelphia, USA, as part of the Cyber-Physical Systems Week (CPSWeek) between the 9th and the 11th of April, 2013. CPS Week 2013 will bring together four leading conferences, the International Conference on Information Processing in Sensor Networks (IPSN'13), the International Conference on Hybrid Systems (HSCC'13), the International Conference on Cyber-Physical Systems (ICCPS'13), the International Conference on High Confidence Networked Systems (HiCoNS'13) and RTAS'13.
RTAS 2013 invites papers describing original systems and applications, case studies, methodologies and applied algorithms that contribute to the state of practice in the broad field of embedded and open real-time systems and computing. The scope of RTAS 2012 will consist of four tracks: Applications, Systems, RTOSs and Tools, Applied Methodologies and Foundations, Hardware/Software Integration and Co-design, and Wireless Sensor Networks.

Track 1: Applications, Systems, RTOSs, and Tools. Papers submitted to this track are aimed at presenting specific systems and implementations. They must introduce the application context and clearly define motivating application examples. Authors must introduce the related research challenges and illustrate the theoretical foundations of the methodology adopted in the considered application/tool/RTOS, with applicability. Papers in this session must include a section on experimental results with a real implementation of the proposed system or applicability to an industrial case study or working system. The experiment/use case discussion must highlight problems/bottlenecks encountered in the implementation and show the measurements/evaluations on the prototype. Simulation-based results are acceptable when the authors motivate the impossibility of an actual system development.

Track 2: Applied Methodologies and Foundations. Papers submitted to this track are aimed at basic methodologies and algorithms that are applicable to real systems to solve specific problems. Authors must introduce the application context and clearly define motivating application examples. The system models and any assumptions used in the derivation of the results must be applicable to real systems and reflect actual needs. Papers must also include a section on experimental results, preferably on real case studies or models of real systems, although the use of synthetic workloads and models is acceptable if motivated. Papers failing to address applicability as defined in the previous guidelines are not considered as acceptable.

Track 3: Wireless Sensor Networks. Real-time communication and computation over sensor networks are enabling sensing/control/actuator networks across emergency response, critical infrastructure protection, medical care, intelligent transportation, and smart manufacturing. Topics of interest for this track include (but are not limited to): sensor network applications and deployment experiences; real-time operating systems and middleware for sensor networks; real-time operation issues in sensor networks; distributed networked sensing; actuation and control; power and energy management/harvesting; wide-area sensing services; detection, classification, and estimation; localization and time synchronization; security and privacy.

Track 4: Hardware-Software Co-design. This track focuses on design methodologies and tools for hardware/software integration and co-design of modern embedded systems for real-time applications. General topics relevant to this track include, but are not limited to, architecture description languages and tools, WCET analysis, software architectures, design space exploration, synthesis and optimization. Of special interest are SoC design for real-time applications, special purpose functional units, specialized memory structures, multi-core chips and communication aspects, FPGA simulation and prototyping, software simulation and compilation for novel architectures and applications, as well as power, timing and predictability analyses.

SUBMISSION OF PAPERS

All papers must be submitted electronically in PDF format. Submissions can be made through the RTAS'13 web site (http://www.rtas.org).
The material must be unpublished and not under submission elsewhere. Submissions should be no more than 10 pages in IEEE two-column, 10pt format. Papers that do not comply with these restrictions may not be considered for review.

IMPORTANT DATES

Submission Deadline:	**October 15, 2012 (firm, no extensions)**
Acceptance Notification:	**December 14, 2012**
Conference:	**April 9-11, 2013**

ORGANIZERS

General Chair: Marco Di Natale, Scuola Superiore S. Anna, Italy
Program Chair: Eduardo Tovar, Polytechnic Institute of Porto, Portugal

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Track 2: *Applied Methodologies and Foundations*: Eduardo Tovar, Polytechnic Institute of Porto, Portugal
Track 3: *Wireless Sensor Networks*: Anthony Rowe, Carnegie Mellon University, USA
Track 4: *Hardware/Software Integration and Co-design*: Petru Eles, Linköping University, Sweden

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