



# Call for Papers

## Journal of Systems Architecture

### Special Issue on

*Hardware / Software Co-Design*

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#### General Information

Design of embedded systems is an extended activity for different markets such as aeronautics, telecommunications, consumer electronics, audiovisual, automotive, etc. The strong requirements for many applications in these areas (real-time, power consumption, cost and many others) do necessary the simultaneous use of both hardware and software to design and implement in a successful product. Besides this, the more and more complex systems would need to be designed by engineers with deep knowledge in computer architecture if the software is not taken advantage of as powerful tool that facilitates the work of designing.

Traditional methodologies for designing embedded systems distinguish hardware and software separately, avoiding the relationship of both during the first phases of the design cycle. Nowadays, fortunately Hardware/Software co-design involves many technologies and methods, making easier the electronic engineer's work. Nevertheless, there are still many challenges, trends and open possibilities in this area that it is necessary to know.

According to the above-mentioned, this special issue seeks to explore the last advances in the Hardware/Software co-design. In this special issue, we seek original, high quality articles, clearly focused on theoretical or practical aspects of the Hardware/Software co-design of embedded systems, including but not limited to the topics shown below:

- Frameworks for Hardware/Software co-design.
- Architectures:
  - Embedded processors and Systems on Chip (SoC).
  - DSPs and systems for real-time.
  - Reconfigurable processors and FPGAs.
  - Multiprocessors and Multiprocessor System-on-Chip (MPSoC).
  - Networks on Chip (NoC).
- Methodologies and tools for designing:
  - CAD tools.
  - Modelling HW/SW systems with hardware description languages.
  - Compilers, interfaces and protocols.
  - Operating system support.
  - Concurrency and parallel programming.
- Co-verification and co-simulation.
- Performance analysis.
- Applications and case studies.

## Submission Information

All manuscripts and any supplementary material should be submitted via the online submission and peer review systems at <http://ees.elsevier.com/jsa>. Follow the submission instructions given on this site.

Please select the article type as "*Special Issue: Hardware/Software Co-Design*". All manuscripts should comply with the journal's Guide for Authors. Please refer to the following site:

[http://www.elsevier.com/wps/find/journaldescription.cws\\_home/505616/authorinstructions](http://www.elsevier.com/wps/find/journaldescription.cws_home/505616/authorinstructions).

## Important Dates

Submission Deadline:	30 Sep 2009
Acceptation Notification:	30 Dec 2009
Final Papers:	15 Jan 2010
Publication:	Spring of 2010 (subject to JSA editorial calendar)

## JSA Editor-in-Chief

Dr. Iain Bate

## Guest Editor for the JSA Special Issue on *Hardware/Software Co-Design*:

- Dr. Juan A. Gómez-Pulido  
Associate professor  
Department of Technologies of Computers and Communications  
University of Extremadura.  
Escuela Politecnica. Campus Universitario s/n  
10071 – Cáceres - Spain  
e-mail: [jangomez@unex.es](mailto:jangomez@unex.es)  
web: <http://arco.unex.es/jangomez>