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Special Session on Design of Heterogeneous Cyber-Physical Systems (DCPS)

Future cyber-physical systems will be heterogeneous systems made of components from different domains, such as digital (hardware, software, network) and analog (electronic, electromechanical, etc.), as for instance MEMS, power sources, thermal sources, sensors and actuators).

Special Session Scope

Future cyber-physical systems will be heterogeneous systems made of components from different domains, such as digital (hardware, software, network) and analog (electronic, electromechanical, etc.), as for instance MEMS, power sources, thermal sources, sensors and actuators). To fully exploit the potential of current nanoelectronics technologies, as well as to enable the integration of existing/new IPs and "More than Moore" devices, new methodologies and tools for multi-disciplinary and multi-scale design, modeling, and simulation are needed.

Papers on any of the following and related topics can be submitted to the special session:

Foundations of heterogeneous systems: discrete and hybrid models of computation; domain-specific languages for specification (e.g., SysML, SystemC-AMS, VHDL-AMS).

Efficient simulation and emulation of heterogeneous systems. Co-simulation techniques.

Design and optimization of heterogeneous systems and co-design techniques.

Case studies and applications include, but are not limited to, networked embedded systems and networked control systems taken from transportation (e.g., automotive), building automation, electricity generation and management, environmental monitoring, biomedical chips, tele-operation and robotics.

Submission Guidelines

Prospective authors are encouraged to submit their manuscripts for review electronically through the following web page (<http://www.easychair.org/conferences/?conf=dsd2012>) or by sending the paper to the DCPS SS program Chair davide.quaglia@univr.it only if an unexpected web access problem is encountered before the deadline for submission.

Each manuscript should include the complete paper text, all illustrations, and references. The manuscript should conform to the required IEEE format: single-spaced, double column, A4/US letter page size, 10-point size Times Roman font, up to 8 pages. In order to conduct a blind review, no indication of the authors' names should appear in the submitted manuscript, references included.

The IEEE Conference Publishing Services (CPS), Conference Publishing Services, publishes the DSD Proceedings, which are available worldwide through the IEEE Xplore Digital Library. An extended version of the best papers will be published in a special issue of the ISI-indexed "Microprocessors and Microsystems: Embedded Hardware Design" journal, printed by Elsevier Ltd.

Important Dates

- **Submission of papers: March 26th, 2012**
- Notification of acceptance: May 7th, 2012
- Camera ready papers: May 31st, 2012

Web Links

DSD'12 web page:
www.univ-valenciennes.fr/dsd2012/
Euromicro web page:
<http://www.euromicro.org>