



World Computer Congress 2010

International Federation for Information Processing
Brisbane Convention & Exhibition Centre, Australia
20-23 September 2010

www.wcc2010.com



ifip

Call for papers

7th IFIP Conference on Distributed and Parallel Embedded Systems

www.wcc2010.com/DIPES2010



DeliverT

Conference topics

Embedded Systems build the key technological components of all kinds of complex technical systems, ranging from tele-communications devices to automobiles, aircraft and even complete production lines. Traditionally, such embedded control systems have been implemented in a monolithic, centralized manner, but distributed solutions have steadily been gaining popularity. In a distributed setup, the control task is carried out by a number of controllers distributed over the entire system and interconnected as a network by communication components such as field buses.

The individual nodes of such a network usually consist of a processor (microcontroller) together with some sensors and actuators. More demanding local control applications require more powerful controllers based on parallel architectures such as multiprocessor systems-on-chips (MPSoCs) or multicore systems. Distribution and parallelism in embedded system design increase the engineering challenges and demand new development methods and tools. Also, the increasing relevance of intelligent applications like autonomous systems or systems with self-x properties calls for new design methods and tools. Due to the growing complexity of these kinds of embedded systems, their development requires new, consistent and integrated design methodologies and tools, covering the path from specification to implementation and test.

DIPES will be an ideal opportunity to present exchange and discuss the state of the art, novel ideas, actual research results, and future trends in the field of distributed embedded systems. Contributors and participants from both industry and academia are encouraged to take active part in this conference.

Topics include but are not limited to following aspects of distributed embedded systems

- Specification and modelling
- Design methodology
- Design support for intelligent features
- Self-x properties
- Simulation and verification
- Hardware/Software co-design
- Software synthesis
- Scheduling, partitioning, allocation

- Real-time operating systems
- Communication networks and middleware
- Specific architectures and design support (e.g. multicore, networked embedded systems)
- Design space exploration
- Power-efficient design
- Dependability and fault tolerance
- Case studies

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Important dates

Submission of papers: January 31, 2010
Notification to authors: April 20, 2010
Camera-ready copies: May 2, 2010

Instructions for paper submission

- You may submit full papers up to 10 pages or extended abstracts (3 - 5 pages) describing original work on the topics above or related topic.
- Extended abstracts should provide a summary of the main results and some details to allow the program committee to assess their merits and significance, including references and comparisons.
- The contribution must be unpublished and not submitted for publication elsewhere, including journals and the proceedings of other symposia or workshops.
- One author of each accepted paper has to register and present the paper at the conference.
- The proceedings will be published by Springer Science and Business Media, the official IFIP publisher.
- The final paper may be up to 10 pages in 10 point or larger formatted in Latex or WORD. Further formatting guidelines can be found at the publisher's website <http://springer.com/series/6102> or at the DIPES website <http://www.c-lab.de/dipes>.

The Congress

The World Computer Congress (WCC2010) will bring together IT research and industry sectors in one event. The congress will combine 18 IFIP conferences with partner conferences from other international and regional, specialist IT organisations.

The conference content will be presented in eight program streams. Delegates may attend any of the participating conference, industry or partner events as well as networking, social, technical tours and certification courses offered at the congress.



Deliver IT

- Wireless Communications and Information Technology in Developing Countries (WCITD 2010)
 - Biologically-Inspired Collaborative Computing (BICC 2010)
 - Distributed and Parallel Embedded Systems (DIPES 2010)
 - Artificial Intelligence in Theory and Practice (IFIP AI 2010)
 - Network of the Future (NF)
 - Enterprise Architecture, Integration, Interoperability and Networking (EAI2N)
 - Human Choice and Computers International Conference (HCC9 2010)
- Track 2: Virtual Technologies and Social Shaping



Trust IT

- International Information Security Conference (SEC 2010)
 - Critical Information Infrastructure Protection (CIP)
 - Human Choice and Computers International Conference (HCC9 2010)
- Track 3: Surveillance and Privacy



Value IT

- Theoretical Computer Science (TCS 2010)
- Human Computer Interaction (HCI 2010)



Learn IT

- Key Competencies in the Knowledge Society (KCKS 2010)
- History of Computing (HC)



Govern IT

- Global Information Systems Processes (GISP)
 - E-Government and E-Services (EGES)
 - Human Choice and Computers conference (HCC9 2010)
- Track 1: Ethics and ICT Governance



Treat IT

- E-Health (EHEALTH)



Sustain IT

- Human Choice and Computers International Conference (HCC9 2010)
- Track 4: ICT and Sustainable Development



Play IT

- Entertainment Computing Symposium (ECS 2010)