

CALL FOR PAPERS
Java Technologies for Real-Time Distributed and Embedded Systems
Concurrency and Computation: Practice and Experience Estimated Publication
Date: February 2011

Concurrency and Computation: Practice and Experience seeks original manuscripts for a Special Issue on **Java Technologies for Real-Time Distributed and Embedded Systems** scheduled to appear in **Summer 2010**.

Real-time applications include mission-critical and safety-critical systems in which critical human infrastructures and even human life is sometimes at stake. Therefore it is essential that the production of distributed real-time embedded systems take advantage of languages, tools, and methods that enable higher software productivity. The Java programming language has become an attractive choice because of its safety, productivity, relatively low maintenance costs, and the availability of well trained developers. Although it has good software engineering characteristics, Java has often been deemed unsuitable for developing distributed real-time embedded systems, mainly due to under-specification of thread scheduling and the presence of garbage collection. Recently, to address these problems, some significant extensions to Java have been introduced by such efforts as the Java Community Process Expert Group for the Real-Time Specification for Java (RTSJ). The rapid progress in processor and sensor technology combined with the expanding diversity of applications fields is placing enormous demands on the facilities that an embedded operating system must provide.

Topics of interest include but are not limited to:

- Innovative real-time operating system architectures for embedded systems
- Open components for embedded real-time applications
- Innovative techniques in: scheduling, memory management, quality of service, communications
- Multiprocessor embedded system support
- Hardware support for operating systems
- Real-time communication systems
- Power aware operating systems
- Case studies of open embedded real-time operating system developments

Submitted articles must not have been previously published or currently submitted for journal publication elsewhere. Significant extensions to substantive papers published in conferences are also welcome, provided that the editors are made aware of the previous publications (i.e., [JTRES 2009](#)). As an author, you are responsible for understanding and adhering to our submission guidelines. You can access them by clicking on <http://www.cc-pe.net/journalinfo/>. Please thoroughly read these before submitting your manuscript. Please submit your paper to Manuscript Central at <http://mc.manuscriptcentral.com/cpe>. Please feel free to contact the guest editors at martin@jopdesign.com and mthiguer@dacya.ucm.es if you have any questions.

Please note the following important dates.

Firm Deadline for Author Submission: 30th Nov 2009

Decision to Authors: 15th February 2010

Major revision due (if necessary): 15th March 2010

Minor revision (if necessary): 15th April 2010

Notification of Final Decision: 1th July 2010

Publication of issue: Summer 2010 (subject to editorial calendar).

Please address all other correspondence regarding this special Section to Guest Editors M. Schoeberl and M.T. Higuera-Toledano

GUEST EDITORS

| | |
|--|--|
| Martin Schoeberl, Vienna University of Technology, Austria, martin@jopdesign.com | M. Teresa Higuera-Toledano, Madrid Complutense University, Spain, mthiguer@dacya.ucm.es |
|--|--|