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IEEE Transactions on Multi-Scale Computing Systems
Special Issue on Emerging Technologies and Architectures for Manycore Computing

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TOPIC SUMMARY:

The pursuit of Moore's Law is slowing and the exploration of alternative devices is underway to replace the CMOS transistor and traditional architectures at the heart of data processing. Moreover, the emergence of stringent application constraints, particularly those linked to energy consumption, require new system architectural strategies (e.g. manycore) and real-time operational adaptability approaches. Such complex systems require new and powerful design and programming methods to ensure optimal and reliable operation. This special issue aims at collating new research along all the dimensions of emerging technologies and architectures for computing in manycores. The topics of interest include, but are not limited to:

- Emerging on-chip computing technologies and architectures
- Many-core architecture customization, heterogeneous architectures
- Runtime resource management (energy, memory, reliability …)
- Programming models, languages, compilers and virtualization techniques for new computing paradigms

IMPORTANT DATES:

Open for submissions in ScholarOne Manuscripts:	October 1, 2016
Closed for submissions:	December 1, 2016
Results of first round of reviews:	March 1, 2017
Submission of revised manuscripts:	April 1, 2017
Results of second round of reviews:	May 1, 2017
Publication materials due:	June 1, 2017

SUBMISSION GUIDELINES:

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