

## 1. Title

Special Issue on: “Embedded Multi-core Computing and Applications”

## 2. Description

In the past few years, multi-core and many core systems have been utilized to accelerate the research domains including: image processing, molecular dynamics, astrophysics, financial simulation, computer tomography, quantum chemistry, bioinformatics and many others. Especially, General Purpose Graphic Process Units (GPGPUs) and Intel Xeon phi become popular to lot of scientific computing domains. Leveraging computing power of such systems, the computational cost of many applications is able to significantly be decreased. In many of these applications, a speedup of 20-100X has been realized.

In this special issue, we attempt to focus on research and development experiences and outputs on the massively parallel GPU platforms, multi-core system, optimization techniques, parallel algorithm design, applications, high-performance computing and all kinds of successful applications, presenting new directions for future research, are also welcome. This special issue provides an international forum for researchers to present their developments and ideas in the field, with particular emphasis on the technical and observational results obtained within the recent years. Potential topics include, but are not limited to:

- Performance Modeling and Benchmarking
- Middleware and Libraries
- GPU Programming and Applications
- Multi-core Computing and Applications
- Parallel Algorithm on Multi-core Systems
- Embedded Cloud Computing
- Multi-core System Cloud
- Power Efficiency of Multi-core Application

The best papers presented in HPCC 2015 and EMCA 2015 will be selected to be

published in this special issue.

Important Dates

Manuscript Due	October 10, 2015
First Round of Reviews	January 10, 2016

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