Energy-efficient Servers for Cloud and Edge Computing

Scope of the workshop

Emerging applications like cloud computing and Big Data analytics have increased significantly the volume of traffic in data centers. However, the speed and energy efficiency improvements of typical general –purpose processors and memories used in servers has slowed down dramatically. Next generation servers will need more energy-efficient hardware as well as software ecosystems to sustain the vast amount of data center traffic which is expected to grow even more with the advent of Internet-of-Things. This workshop aims to present the most recent work on next generation energy-efficient servers and foster the interaction between the universities, research centers and industry that work on this area.

In particular we call for original papers on the domain of servers for cloud- and edge- computing, microservers based on embedded processors, micro-architectures for low-power, dependable and/or secure servers, hardware accelerators for servers, run-time systems, middleware and programming frameworks that are used to reduce the power consumption in the data centers and/or deal with potential faults induced by reliability/variability issues.,w

Topics include:
- Energy-efficient servers
- Edge servers
- Hardware accelerators for servers/data centers
- Hardware accelerators for machine learning, graphs and databases
- Microarchitectures for low power server processors
- Reconfigurable computing for customized servers
- Application benchmarks on embedded-based servers
- Low power server interconnects
- Programming frameworks for energy efficient servers
- Energy-efficient resource management
- Run-time system software
- Disaggregated and Rack-scale Computing
- Server architectures/system software/testbeds for near-data computing

Important dates:
- November 4, 2016 (AoE): Paper Submission deadline
- December 2, 2016: Acceptance Notification
- January 13, 2017: Camera ready version of accepted papers
- January 23, 2017: Workshop

Information for Authors:
Paper submission: Papers should be submitted electronically through the workshop website. Electronic paper submission requires a full paper, up to 6 double-column ACM format pages (A4), including figures and references. Papers should be submitted in PDF format. Please use the following template when preparing your manuscript:
http://www.acm.org/sigs/publications/proceedings-templates

Accepted papers will be invited for an extended version as book chapters in Elsevier Book.

General Co-Chairs:
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Program Co-Chairs:
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