

The Fifth International Workshop on Programmability in Mobile Platforms for Emerging Applications



Toronto, Canada, June 25, 2017

<http://prism.sejong.ac.kr/>

In conjunction with the 44th International Symposium on Computer Architecture (ISCA-44)

CALL FOR PAPERS

One of the most important principles in designing today's computing systems is to exploit programmability and parallelism. Mobile platforms are no exception and we find increasingly more instances of the use of programmability and parallelism in them. At the hardware level, there are: multiple processor cores, GPGPU, accelerators, multiple banks of memory, multiple channels to non-volatile memory chips, and multiple radios, to name a few. At the software level, parallel and concurrent threading techniques are commonly employed to improve responsiveness and throughput in the OS and applications alike. We anticipate that future mobile platforms will make more extensive and creative use of parallelism and programmability.

This workshop focuses on how programmability and parallelism is, and can be, utilized in hardware, software and their interaction in order to improve the user experiences with mobile platforms. Topics of particular interest include, but are not limited to:

- Emerging parallel application processor architectures and hardware features in mobile/IoT platforms;
- Mobile GPGPU architectures and programming models;
- Hardware accelerators for mobile/IoT applications;
- Storage architectures in mobile/IoT platforms;
- Radio and networking architectures in mobile/IoT platforms;
- Compiler/OS support for parallel/programmable mobile/IoT platforms;
- Experiences in mobile/IoT applications development;
- Novel techniques to improve performance/energy/responsiveness by exploiting programmability and parallelism;
- Mobile/IoT platform performance evaluation methodologies;
- Application benchmarks for mobile/IoT platforms;
- Characterization of emerging workloads on mobile/IoT platforms;
- IoT enabling technologies (smart sensors, energy harvesting, sensor networks, etc.);
- Machine learning techniques/applications and cloud systems for mobile/IoT platforms.

Organizers

Sangyeun Cho, Samsung Electronics
Hyesoon Kim, Georgia Tech.
Hsien-Hsin Lee, TSMC.
Giho Park, Sejong Univ.
Vijay Janapa Reddi, UT Austin

Web Chair

SeungJin Lee, Junwhan Choi,
Sejong Univ.

The workshop aims at providing a forum for researchers, engineers and students from academia and industry to discuss their latest research in designing mobile/IoT platforms and systems, to bring their ideas and research problems to the attention of others, and to obtain valuable and instant feedback from fellow researchers.

SUBMISSION GUIDELINE

Submit a 2-page presentation abstract to a web-based submission system (TBA) by April 24, 2017. Notification of acceptance will be sent out by May 29, 2017. Final presentation material (to be posted on the workshop web site) due June 12, 2017. For additional information regarding paper submissions, please contact the organizers.

IMPORTANT DATES

- Abstract submission **April 24, 2017**
- Author notification **May 29, 2017**
- Final camera-ready paper **June 12, 2017**
- Workshop **June 25, 2017**