MELT 2015 Workshop Report
The Fifth ACM SIGSPATIAL International Workshop on Mobile Entity Localization and Tracking in GPS-less Environments
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After a decade of research and development for GPS-less localization and tracking, there has been significant progress in location-awareness and location-based services around the world. Almost all cell phone platforms, Android, iPhone and Windows phones, have localization and tracking facilities. In addition, special hardware and infrastructure (e.g., RFID, UWB and BLE or sensor tags) have been developed and deployed for tracking people and merchandise. The advances in cameras and computer vision make it possible for cheap simultaneous localization and mapping (SLAM). However, there are still many challenging problems to be solved, such as accuracy, power management, effective sensor fusion with increasingly powerful embedded computation and resourceful parallel computing backend, learning, transmitting and storing individual trajectories and spatial environment representation, labor-less environmental survey or infrastructure establishment for location-awareness, crowd computing or collective intelligence for map creations, and big data analytics of real-time and historical semantic locations that helps improving efficiency for both consumers and businesses.

After four successful workshops (2008, 2009, 2010 and 2011) held with various conferences in mobile, ubiquitous and sensor computing, this year we have aimed to provide a forum for knowledge sharing and academic-industrial networking. We have successfully hold a full day program with five invited talks from industrial research institutions (Google, Microsoft Research, Disney Research and OmniTrail Technologies) and six technical talks from academia/universities worldwide (Finland, Japan, Brazil, Israel and US). At the end of the workshop, we have demonstrated Google's recent innovation on Tango devices. In addition, Google sponsored a networking lunch and OmniTrail Technologies sponsored the best paper and the best presentation awards. MELT workshop at SIGSPATIAL 2015 continued to provide a leading international forum for researchers, developers, and practitioners in the field of mobile tracking and localization for location-based services.

We would like to thank all the invited speakers and their organizations, Google, Microsoft Research, Disney Research and OmniTrail Technologies, for the support of this workshop. We like to also thank the authors who submitted papers and authors who accepted our invitations for submitting their work in short amount of time.