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MobiCom'13

Proceedings of the 19th Annual International Conference on
Mobile Computing & Networking

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**Association for
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Advancing Computing as a Science & Profession

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General Chair's Welcome Message

It is my great pleasure to welcome you to Miami, Florida, and to the 19th Annual International Conference on Mobile Computing and Networking – *MobiCom'13*. This year the program is packed with exciting and high quality sessions, including nine paper sessions, seven workshops on emerging research/technologies, four keynotes from highly recognized researchers and visionary leaders in the industry, two hot panels, and a joint demos and posters session along with an associated one-minute-madness preview show. Additionally, and new this year, are the industry paper session addressing emerging trends and the mobile app competition. The latter, which I co-chaired with Wendong, has attracted over 50 mobile app submissions from 20 countries, utilizing Android (and Google Glass), iOS, Windows Phone, and HTML5 platforms.

In addition to the technical program, an exciting social program has been planned for all registrants. A welcome reception will kick start our social program. A Gala dinner will follow offering banquet food and entertainment. An Afro-Cuban band from the Miami area known for its unique rhythms influenced by Jazz, Blues, Brazilian and Soul music will hopefully please, entertain, and energize the *MobiCom* crowd after two intense conference days.

Putting together *MobiCom'13* has been a team effort. I would like to first thank the authors for submitting their best work and providing the content of the program in terms of papers, demos and posters. I would also like to thank the workshop organizers, the panelists, and the four keynote speakers for their contributions. I am grateful to the organization committee and its dedication in making *MobiCom'13* a success. Victor provided invaluable guidance which was very helpful throughout the process. Ranveer and Robin did an excellent job in assembling a world-class program committee for soliciting and reviewing the main track papers. Paolo and Tamer N., and Yongguang and Tamer E. have also done an excellent job in organizing an exciting joint posters and demo session. Sasu and Lili, with help from Marco and Thyaga, pulled two panels on very hot de jour topics. The panels will spice up our program and for that we are thankful to them. I am very grateful to Christine Julien for handling the tricky Publications Chair role so professionally and attending to many details carefully. Moustafa and Raja have done an awesome job in attracting and selecting interesting workshops and handling many details to meet the individual needs of each workshop. My Thai sat up RegOnline and handled registration smoothly and professionally – many thanks to My. Ahmed kept an eye on the conference finances and to him I am grateful. Many thanks go to Wendong who has put significant effort in getting the mobile app competition off the ground. Maria also did her share of carefully attending to details and running the NSF student travel grants competition. Souvik kindly stepped up to take care of the SRC competition. The publicity campaign and the timely messaging orchestrated by Pei were no doubt vital in reaching out to the broadest audience, and for that I am thankful to Pei. Last but not least, Jung Wook Park, our Web Chair, has done a herculean job in managing the *MobiCom* web site content and meticulously keeping it up to date. I am truly appreciative of all his efforts.

Now we cannot forget to thank our sponsor, ACM SIGMOBILE, and our generous government, academic and corporate supporters: the National Science Foundation (Platinum), Microsoft Research (Gold), Google and IBM Research (Silver), and the University of Florida (Bronze). Their sponsorship and support were vital to the successful organization of this conference.

I wish you all a pleasant stay in Miami, and a memorable and rich experience in *MobiCom*.

Sumi Helal
MobiCom'13 General Chair

Message from the Technical Program Chairs

Welcome to ACM MobiCom 2013, the 19th Annual International Conference on Mobile Computing and Networking. Over the years, MobiCom has established itself as a premier forum for publishing and presenting cutting-edge research in mobile systems and wireless networks, and this year's final program continues this wonderful tradition.

The high quality and success of MobiCom can be credited to two groups. First and foremost is the authors of all of the submitted papers who submitted their very best research ideas and results. The 28 accepted papers represent leading-edge, and sometimes bleeding-edge, advances in a large variety of important mobile computing topics – from traditional yet still very important topics, such as improving the efficiency of cellular and Wi-Fi networks, to topics focusing on the use of new wireless technologies in new mobile environments, such as enabling gesture recognition, managing indoor white space networks, and deploying performance improving femto cells. However, the hidden strength of MobiCom comes from the hard work of a very dedicated program committee, which consisted of 41 members from academia, government and industry spread across 7 different countries with expertise in many areas relevant to wireless networking and mobile computing.

As Program Committee (PC) chairs, it was our task to keep MobiCom fresh and grow it to keep up with all the new challenges of the wireless and mobile community. This year, we introduced several new initiatives to further enhance the reach and quality of the conference. To increase MobiCom's visibility in industry, we included five PC members from product teams of Cisco, Google, Qualcomm and Broadcom. To ensure the strength and breadth, but most importantly the vision, of the PC, one-sixth of the PC were new members who had previously not served on the MobiCom PC. This year's MobiCom also has an invited industry session, in which speakers from Broadcom, Alcatel-Lucent, Google, and Microsoft will present the latest results and research challenges from industry in an effort to bridge the gap between academic research and how it is, or maybe isn't, relevant to industry.

This year's call for papers attracted 207 submissions from five continents: Asia, Europe, Africa, North America and South America. We used HotCRP for handling the paper submission and reviewing, which was done in three phases. In the first phase, each paper was reviewed by at least three PC members, and the top 98 papers were selected for the next round. In the second phase, each paper was reviewed by at least two more PC members. In some cases when the paper was at the intersection of new topics, such as RADAR or robotics, additional expert opinions were solicited. The final phase was the PC meeting held on May 30th and 31st in Redmond, WA. A total of 34 members attended the PC meeting in-person, while 5 members attended the meeting on Skype. Over one and a half days, the PC extensively discussed the merits and flaws of the 60 top-rated papers and ultimately accepted 28 papers for final publication in the conferences' proceedings. Across the three phases, each PC member reviewed about 25 papers, such that most round two papers had an average of 6 reviews (a high number for any top-tier conference). To ensure fairness and preserve the anonymity of all authors and reviewers, papers authored by PC chairs were mixed with a random selection of other papers and handled out-of-band by Alex Snoeren, who was the PC co-chair for MobiCom 2012.

All of this would not have happened without the time and effort of several people. We would like to thank Alex Snoeren and Geoff Voelker for hosting the HotCRP site in UCSD and ensuring that it had no downtime throughout the review process. We are also grateful to Kirstie Magness and

the Microsoft Research A/V team for ensuring a smooth, glitch-free PC meeting in Redmond, WA. Finally, we would like to thank all of the PC members for the hard work in ensuring such a high-quality conference program.

The final success of MobiCom is now up to you, the participants. We put it to you to read the papers, attend the talks and participate in the wonderful technical discussion and professional networking that go on during and between the sessions. We hope that you will find this program interesting and look forward to meeting you in Miami.

Ranveer Chandra

Microsoft Research

Robin Kravets

University of Illinois

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