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# CoNEXT '17

Proceedings of the 2017

The 13th International Conference on emerging  
Networking EXperiments and Technologies

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## Welcome Message from the General Chairs

It is our great pleasure to welcome you to CoNEXT 2017, one of ACM SIGCOMM's four flagship conferences in networking, taking place in Incheon/Seoul in South Korea.

CoNEXT 2017 is a single-track event over three days, preceded by three one-day workshops and enhanced by several social events to foster interaction. Our Technical Program Co-Chairs, *Marco Mellia and Phillipa Gill*, together with an outstanding Technical Program Committee, have put together an exciting technical program of 32 full-length and 8 short papers. We defer to the TPC Chairs' message for details. *Mohammadreza Alizadeh* is the recipient of this year's ACM SIGCOMM Rising Star Award and will deliver the keynote speech in the main conference.

Three workshops taking place on the day before the main conference are: Cloud Assisted Networking (CAN), ICT Tools for Emergency Networks and Disaster Relief (I-TENDER), and the Student Workshop. CAN is co-chaired by *Puneet Sharma and Jinho Hwang*, and features a keynote by Kang-Won Lee. I-TENDER is the first workshop that focuses on networking for emergency and disaster situations. The CoNEXT Student Workshop is a unique event collocated with CoNEXT, addressed specifically to and free for students. This year, it is co-chaired by *Nishanth Sastry, Pan Hui, and SuKyoung Lee*, and features a keynote speech by *Victor Li*. The three workshops are chosen by the careful considerations of the workshop co-chairs: *Peter Steenkiste, Rajesh Balan, and Jongwon Yoon*.

We would like to appreciate many people that made this conference great. In addition to the aforementioned chairs, we would like to especially recognize the efforts of our dedicated Local Arrangements Chair, *Sangheon Pack*, who handled and coordinated the heavy load and wide range of local arrangements. Our diligent Publications Chair, *Dongsu Han*, has devoted himself to making sure the program is published on time. *Shinae Woo* has been our reliable webmaster, who has managed the web pages timely and thoroughly. *Joon-sang Park, Sun Yi and David Choffnes* served as the Travel Grants Chairs, including handling the NSF grant and evaluating the applications. *Pedro Casas* did a great job as the Publicity Chair. The *ACM Conference Management Team* has been a pleasure to work with. We are so lucky to have *Simon Woo*, who has been in charge of the financial details of the conference. We would like to thank the Steering Committee for being resourceful and responsive. CoNEXT has always encouraged and supported student participation, a tradition that successfully continues this year, thanks to the efforts of the travel grants and student workshop chairs, the volunteering and participation of local students, as well as to the generosity of our sponsors: KIISE and NSF. We are grateful to our sponsors that made this conference even greater.

We encourage you to consider taking a few days before or after the conference to enjoy the location and surrounding areas. Incheon is located right next to Seoul. There are great points of interest in both Incheon and Seoul. Incheon has a mix of tradition and modernism; Chinatown is 133 years old, and Songdo is filled with skyscrapers much like Central Park in Manhattan. Also, Wolmido is famous for its theme park, fun places, restaurants and so on. Seoul has been the

capital of Korea for longer than 600 years. More than 20 million people live in the Seoul metropolitan area, creating hubbub from all sorts of activities all around the year.

We hope that you enjoy the Technical Program and find CoNEXT 2017 to be a great stimulating event in both scientific and social aspects. Looking forward to seeing you at CoNEXT 2017 in December!

CoNEXT 2017 General Chairs

**Sue Moon and Taekyoung (Ted) Kwon**

## **TPC Chairs' Message**

It is our pleasure to welcome you to the 13th edition of the ACM Conference on Emerging Networking Experiments and Technologies (ACM CoNEXT '17). Networking continues to be one of the key building blocks of vital societal services, with new technologies reshaping our life, from wireless connectivity and Internet of Things, to Content Delivery Networks and large-scale data centers. Experimental approaches are increasingly common with researchers adopting it to both assess the performance of proposed solutions, and to untangle complex systems and applications. In this panorama, ACM CoNEXT has become one of the preeminent conferences for the networking community at large.

For CoNEXT'17, we have composed a single-track program consisting of a keynote by Mohammadreza Alizadeh Attar from MIT (winner of this year's ACM SIGCOMM "Rising Star" Award), followed by 31 long and 8 short paper presentations. These papers were chosen from the initial batch of 171 long papers (18.1% acceptance rate) and 51 short papers (15.7%). Overall, the acceptance rate was 18.0%.

There were a total of 222 papers submitted, 10% more than in the prior year, and the highest in the history of ACM CoNEXT. All papers proceeded to the review process which was split into two rounds. In the first round, each paper received three reviews. We largely followed Remzi Arpaci-Dusseau's guidelines of promoting a paper to round two if it received at least one positive review. After an online discussion among reviewers, this led to 109 papers advancing to the second round where each paper received at least two additional reviews. With the round two complete, we held detailed online discussions to decide which papers to bring to the TPC meeting, and requested external reviews in several situations.

The Program Committee (PC) meeting was held in Rome, on September 1st. 39 PC members attended the meeting in person, while others joined online. We discussed 60 papers during the PC meeting. We almost always achieved consensus on the fate of the papers, and used excellence as our guiding principle. Short papers were judged according to the published guidelines in the call for papers. The discussions were detailed, and respectful.

Needless to say, we are very grateful to all authors who submitted their papers. We would also like to extend our warmest thanks to the PC members who did a terrific job in helping us to run the paper selection process in a very timely manner, and providing very thorough and objective reviews. We also thank Alessandro Mei for hosting the TPC meeting in Rome and showing the committee great Italian hospitality. Finally, we would like to thank the conference organizers, led by the General Co-chairs Sue Moon and Taekyoung "Ted" Kwon.

We sincerely hope that you will enjoy the ACM CoNEXT '17 program.

**Marco Mellia and Phillipa Gill**

CoNEXT'17 Technical Program Committee Chairs

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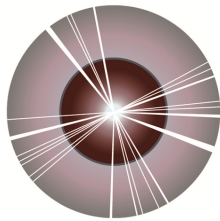
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