



2013 IEEE COOL Chips XVI

Yokohama Joho Bunka Center, Yokohama, Japan

(Yokohama Media & Communications Center, Yokohama, Japan)

April 17-19, 2013

Message from the Organizing Committee Chair

It is my pleasure to welcome you to the COOL Chips XVI, the 16th IEEE Symposium on Low-Power and High-Speed Chips. COOL Chips Conference Series started in 1998, which was held in Tokyo as a one-day event of invited talks only. Now COOL Chips is a three-day event fully sponsored by IEEE Computer Society, which covers not only the chip architecture design, but also software technologies at system software and application levels.

Program Chairs Makoto Ikeda (Univ. of Tokyo) and Fumio Arakawa (Renesas Electronics) did an excellent job to organize the program of COOL Chips XVI. They brought together an outstanding Program Committee and together composed an interesting program for COOL Chips XVI, in collaboration with Vice Program Chairs Hajime Shimada and Jun Yao (both from NAIST). COOL Chips XVI features 7 keynote and invited talks, and 12 technical papers. The keynote and invited talks cover a wide variety of topics such as low power technologies, low-power/high-performance processor designs, and cool applications co-designed with low-power hardware platforms. I would like to thank Bert Gyselinckx (IMEC/Holst Centre, Netherlands), Hiroshi Kanayama (IBM, Japan), Michael McCool (Intel, USA), Shintaro Momose (NEC, Japan), Takeshi Kataoka (Renesas Mobile, Japan), James Myers (ARM, UK), and Toshio Yoshida (Fujitsu, Japan) for accepting our invitation and contribution to COOL Chips this year.

For organizing the technical sessions, the Program Committee reviewed all the submitted papers professionally, and selected these 12 excellent papers. The Program Committee also continues the tradition of having a panel session moderated and organized by Yoshio Masubuchi (Toshiba, Japan), which will be composed of several keynote and invited speakers as panelists. I also want to recognize Hiroyuki Tomiyama (Ritsumeikan Univ.) for his work to organize the special invited lecture session that lecture the latest topics about a multi-processor platform and programming environment given by Pierre G. Paulin (STMicroelectronics, Canada), and low-power memory subsystem design given by Jung Ho Ahn (Seoul National Univ., Korea) and Sungjoo Yoo (POSTECH, Korea). Poster

Chair Koji Hashimoto (Fukuoka Univ.) organized a very interesting poster session consisting of 26 posters.

I also happily thank all the Organizing Committee members who helped me make this conference a success. Vice-Chairs: Josep Torrellas (Univ. of Illinois), Kunio Uchiyama (Hitachi), Chong-Ming Kyung (KAIST) and Hideharu Amano (Keio Univ.), Secretaries: Kazumasa Suzuki (Renesas Electronics) and Hiroyuki Igura (NEC), Treasurers: Koyo Nitta (NTT) and Ryusuke Egawa (Tohoku Univ.), Publicity Chair: Masato Suzuki (Panasonic), Publication Chairs: Yasuo Unekawa (Toshiba) and Yoshio Hirose (Fujitsu Labs.), Registration Chair: Koji Takano (IBM), Local Arrangement Chairs: Yusuke Nitta (Renesas Electronics) and Akihiko Hashiguchi (Sony), and Web Manager: Yukinori Sato (JAIST). I would like to express my sincere appreciation for their significant efforts to make the symposium happen.

I also want to thank the Advisory Committee members chaired by Tadao Nakamura (Keio Univ.) with Michael J. Flynn (Stanford Univ.) for offering the Organizing Committee advice and guidance when needed, and to Hot Chips and Hot Interconnect Committee members for their continuous support and encouragement to COOL Chips as their sister conference. Thanks also go to Donald Draper (True Circuits), Chair of Technical Committee for Microprocessors and Microcomputers and the IEEE Computer Society Staff for their kind help and assistance, and Erik R. Altman, Editor in Chief of IEEE Micro for providing us with an opportunity for the publication of a special issue on “COOL Chips.” Finally, I also want to thank IEICE, Information Processing Society of Japan, and City of Yokohama for their kind cooperation and precious supports to run COOL Chips XVI.

I would like to close by thanking the authors, presenters, and conference attendees who support COOL Chips. Your work and contributions ultimately are what will make this event exciting, successful, and rewarding. I really hope you enjoy the COOL Chips XVI symposium!



Hiroaki Kobayashi
COOL Chips XVI Organizing Committee Chair
Tohoku University