Welcome to Chongqing, China, and the 20th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA 2014). RTCSA has been a long-running technical conference sponsored by IEEE. The objective of the conference is to bring together academic researchers and industry developers for intensive discussion of recent advancing in the field of embedded systems, real-time systems, system design practice and emerging applications.

This year we received 175 submissions to three technical tracks: Embedded Systems (ES), Real-Time Systems (RTS), and System Design Practice and Emerging Applications (SDPEA). The submissions came from the United States, China, Germany, Taiwan, Brazil, New Zealand, Sweden, Portugal, The Netherlands, France, India, Hong Kong, Korea, and other countries all over the world. Among the submissions, 39 papers are accepted as full papers, and 16 are accepted as short papers. The acceptance ratio of full papers is no higher than 23%, indicating that our technical program this year will be very strong. All the accepted papers are organized into 12 sessions.

Besides the regular sessions, this year RTCSA has a WiP session organized by Prof. Jingtong Hu, a tutorial organized by Prof. Samarjit Chakraborty, Prof. Majid Zamani and Prof. Jason Xue, a co-located Conference organized by Prof. Jiwu Shu, and a Workshop coordinated by Prof. Zili Shao and organized by Prof. Weichen Liu. We are also honored to have Prof. Tei-Wei Kuo from National Taiwan University to give a keynote speech “Non-Volatile Memory Innovation”, and also Dr. Qinfen (Jeff) Hao from Huawei Technologies Co. to give a keynote speech ”High Throughput Computing Data Center”.

We would like to thank all the authors for their contributions and their participation to the conference. We also thank the Program Committee members for their professional evaluation on all submissions. A special thanks is due to the RTCSA Steering Committee and Advisory Committee, especially the Steering Committee Chair, Prof. Steve Goddard, for their guidance throughout the entire conference organizing process. Without their efforts, the conference and this volume would not have been possible.

Edwin Sha and Jorg Henkel
RTCSA 2014 General Co-Chairs

Kaijie Wu, Tarek F. Abdelzaher and Hojung Cha
RTCSA 2014 Program Co-Chairs