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# Advanced Computer Architecture

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# Preface

It is a great pleasure and honor to present the proceedings of ACA 2018, the 12th Conference on Advanced Computer Architecture. ACA is sponsored by the China Computer Federation (CCF) and it is the flagship conference of the CCF Technical Committee on Computer Architecture (TCArch). It has been one of the most important academic conferences in the field of computer architecture in China since 1995.

The 2018 edition of ACA was held in the scenic area of Yingkou, a port city of the Bohai Sea. The theme this year was "Intelligent Architecture: From the Cloud to the Edge." ACA 2018 created a forum for academic researchers and industry practitioners in China to share their insights on the next-generation computing systems. We continued the trend of making ACA an inclusive and interactive event that features invited keynotes, top paper presentation, poster showcase, and design competition, etc.

This year, we received over 120 paper registrations. Finally, there were 80 successful submissions. Each submission was reviewed by three Program Committee (PC) members on average. In all, 13 papers were rejected immediately in the first round of review and 67 papers were sent out for a second round of review. Only the papers with an average score of $\geq 3$ (borderline) were considered for final inclusion, and almost all accepted papers had positive reviews or at least one review with a score of 5 (accept) or higher. Finally, the PC decided to accept 47 submissions, including 17 papers in English and 30 in Chinese. We asked the authors of all the accepted papers to submit a revised version based on the review reports.

This program would have not been possible without the efforts of the PC, the external reviewers, and the authors. We would like to express our gratitude to all the authors who submitted their papers. We would like to convey our deepest and sincerest appreciation for all the hard work and dedication of our PC members and external reviewers. We also gratefully acknowledge the kind support from our general chair, Prof. Yong Dou, organization chair, Prof. Kuanjiu Zhou, and our Steering Committee. Our thanks also go to the China Computer Federation (CCF), Technical Committee on Computer Architecture of CCF, Dalian University of Technology, the City of Yinkou, Xilinx, Baidu, and all the other institutes that kindly helped us. Finally, we greatly appreciate the steady support provided by Springer.

August 2018

Chao Li
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