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# Network and Parallel Computing

11th IFIP WG 10.3 International Conference, NPC 2014 Ilan, Taiwan, September 18-20, 2014 Proceedings



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## **Preface**

This volume contains the proceedings of NPC 2014, the 11th IFIP International Conference on Network and Parallel Computing, which was held in Yilan, Taiwan, during September 18–20, 2014.

NPC is recognized as the main regular event of the world that covers many dimensions of network and parallel computing, including architectures, systems, algorithms, and applications. NPC 2014 is intended to play an important role for researchers and industry practitioners to exchange information regarding advancements in the state of art and practice of IT-driven services and applications, as well as to identify emerging research topics and define the future directions of network and parallel computing.

This year, the technical program of NPC 2014 drew from a large number of submissions: 196 papers submitted from 42 countries representing four regions - Asia Pacific, Europe, North, and South America. In the first stage, all papers submitted were screened for their relevance and general submission requirements. These manuscripts then underwent a rigorous peer-review process with at least three reviewers, coordinated by the international Program Committee. The Program Committee accepted 42 papers for presentation and included in the main proceedings, resulting in an acceptance rate of 21.4%. We believe that this volume not only presents novel and interesting ideas but will also stimulate future research in the area of NPC. To encourage and promote the work presented at NPC 2014, we are delighted to inform the authors that some of the papers will be accepted in special issues of International Journal of Parallel Programming. The journal has played a prominent role in promoting the development and use of network and parallel computing.

Organization of conferences with a large number of submissions requires a lot of hard work and dedication from many people. First of all, we would like to thank the Steering Committee chair, Dr. Kemal Ebcioglu, Prof. Hai Jin, and Prof. Zhiwei Xu; the general chairs, Prof. Wen-Mei Hwu and Prof. Kun-Ming Yu, for nourishing the conference and guiding its course. We are grateful to the publicity chair, Dr. Erik Altman for his excellent job in publicizing the conference. Thanks also go to Prof. Xuanhua Shi for his help with the conference proceedings and a lot of detailed work, which facilitated the overall process of publication. We wish to thank the authors for submitting high quality papers that contributed to the conference technical program. We wish to express our deepest gratitude to all Program Committee members and external reviewers for their excellent job in the paper review process. Without their help, this program would not have been be possible. We appreciate the participation of the keynote speakers, Dr. Michael Gschwind and Dr. Yunquan Zhang; their speeches greatly benefited the audience. Special thanks go to the entire Local Arrangement Committee, Prof. Chang-Wu Yu, Liwen Chang, and Ya-Hui (Batty) Hsu

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for their help in making the conference a wonderful success. We take this opportunity to thank all the presenters, session chairs and participants for their presence at the conference, many of whom traveled long distances to attend this conference and make their valuable contributions. Last but not least, we would like to express our gratitude to all the organizations that supported our efforts to bring the conference to fruition. We are grateful to Springer for publishing these proceedings.

We are proud to have the authors sharing their research with you, fellow members of the technical community, through NPC 2014 and these proceedings. We hope that you enjoy the NPC 2014 proceedings, as much as we do. Welcome again!

September 2014

Valentina Salapura Robert Hsu

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