Lecture Notes in Computer Science 7513

Commenced Publication in 1973
Founding and Former Series Editors:
Gerhard Goos, Juris Hartmanis, and Jan van Leeuwen

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Network and Parallel Computing

9th IFIP International Conference, NPC 2012
Gwangju, Korea, September 6-8, 2012
Proceedings

Springer

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ISSN 0302-9743 e-ISSN 1611-3349
ISBN 978-3-642-35605-6 e-ISBN 978-3-642-35606-3
DOI 10.1007/978-3-642-35606-3
Springer Heidelberg Dordrecht London New York

Library of Congress Control Number: 2012953907

CR Subject Classification (1998): D.3.4, C.2.1-2, C.2.4, F.2.2, H.3.4-5, C.2.0, D.4.1-2, K.6.5, C.1.4

LNCS Sublibrary: SL 1 – Theoretical Computer Science and General Issues

Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)

Preface

The IFIP International Conference on Network and Parallel Computing is an international conference aimed at providing an exciting platform and forum for researchers and developers from academia and industry to present their latest research in the field of parallel computing systems and applications.

This year NPC fostered state-of-the-art research in the area of converging information technologies, including virtualization techniques, tools, and applications; parallel programming models and languages; parallel language compiler and run-time support; parallel and distributed systems; network architecture and protocol design; network security; network storage; network reliability, security, and dependability; network algorithms; communication technology, scheduling and load balancing; advanced Web and proxy services; middleware frameworks and toolkits; performance modeling, prediction, and tuning; multi-core and cluster computing; ubiquitous communications and networks; USN and RFID; embedded and pervasive computing; peer-to-peer networks, social network and services; multimedia communications; cloud computing and networks; machine-to-machine communications; runtime systems; operating systems; resource management; data mining as well as algorithms and performance evaluation and measurement in parallel computing. The NPC 2012 conference also provided an opportunity for academic and industry professionals to discuss the latest issues and progress in the area of convergence of future computing technologies and applications.

We are proud to have had a prestigious set of keynote speakers, and would like to thank them for their distinguished keynote speech:

- Leonard Barolli (Fukuoka Institute of Technology, Japan)
- Fatos Xhafa (Technical University of Catalonia, Spain)
- Ned Kock (Texas A&M International University, USA)
- Yang Xiao (The University of Alabama, USA)
- Juan Carlos Augusto (The University of Ulster, UK)
- Habib F Rashvand (The University of Warwick, UK)

Owing to many high-quality paper submissions and the lack of space in proceedings, the review process was very tough and we had no choice but to reject several good papers. Each paper was assessed by at least three peer reviewers. The call for papers attracted a total of 136 submissions to the main conference, and only 38 papers were selected for presentation and are included in this volume.

Additionally, we are sure that the distinguished workshop papers from the officially selected five workshops added to the diverse coverage spectrum of our conference. We would like to thank all organizers and all authors of ATIMCN-12, ATSME-12, Cloud&Grid-12, DATICS-12, and UMAS-12.

Finally, we would like to thank all the participants, authors, reviewers, and Organizing Committee members.

September 2012

James J. Park
Albert Zomaya
Sang-Soo Yeo
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ATIMCN

ATSME

Cloud & Grid

DATICS

UMAS