Lecture Notes in Computer Science 10537

Commenced Publication in 1973
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Economics of Grids, Clouds, Systems, and Services

14th International Conference, GECON 2017 Biarritz, France, September 19–21, 2017 Proceedings

Springer

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ISSN 0302-9743 ISSN 1611-3349 (electronic)
Lecture Notes in Computer Science
ISBN 978-3-319-68065-1 ISBN 978-3-319-68066-8 (eBook)
DOI 10.1007/978-3-319-68066-8

Library of Congress Control Number: 2017955086

LNCS Sublibrary: SL5 – Computer Communication Networks and Telecommunications

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Printed on acid-free paper

This Springer imprint is published by Springer Nature
The registered company is Springer International Publishing AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

This volume constitutes the proceedings of the 14th International Conference on the Economics of Grids, Clouds, Systems, and Services (GECON 2017). This series of conferences serves as an annual meeting place, to bring together distributed systems expertise (e.g., in resource allocation, quality of service management, and energy consumption) with economics expertise (focusing on both micro- and macro-economic modelling and analysis) for creating effective solutions in this space. The conviction that we need to adopt a multidisciplinary approach and build links between ICT technical expertise and economics expertise has been the main leitmotif of GECON conferences.

The intertwinement of economy and technology is more and more present, and complexity is gaining momentum. Now more than ever, it is necessary to understand the interdependencies between the economy and ICT as a discipline. Only then it is possible to deal with the complexity. The cloud is the best exponent of this approach. As it is not possible to isolate the economy from other disciplines, such as politics or sociology, economics should be considered in the development of cloud systems and cloud services. Moreover, the impact of ICT is becoming so significant compared with other disciplines that the economy itself is transforming into an information and knowledge economy.

GECON 2017 was held during September 19–21, 2017, by the Laboratoire d'Informatique de l'Université de Pau et des Pays de l'Adour (LIUPPA) in the exceptional Biarritz city located in the heart of the French Basque Country. The conference took place at the Municipal Casino of Biarritz offering both high-level conference facilities and an incredible view of the ocean! We would like to express our deepest thanks to the Organizing Committee chaired by Congduc Pham.

For this year's edition, we received 38 submissions. Each submission was assessed by three to five reviewers of the international Program Committee. Ten of these 38 submissions were selected as full papers, for an acceptance rate of 26%. Additionally, shorter work-in-progress papers were integrated in the volume. This combination of full and work-in-progress papers fulfills the twofold aim of gathering original work and building a strong multidisciplinary community in this increasingly important area of a future information and knowledge economy. It enables open and informed dialogue between presenters and the audience. Our intention in accepting work-in-progress papers is underpinned by our conviction that the GECON conference is the best framework for presenters to better position their work for future events and to get an improved understanding of the impact their work is likely to have on the research community. The schedule for the conference this year was structured, to encourage discussions and debates with enough discussion time included in each paper presentation session, led by the session chair.

We would like to wholeheartedly thank the reviewers and Program Committee members for completing their reviews on time and giving insightful and valuable feedback to the authors. Furthermore, we would like to thank Alfred Hofmann of Springer for his support in publishing the proceedings of GECON 2017. The collaboration with Alfred Hofmann and his team was, as in the past years, efficient and effective. We are also grateful to the invited speakers for their contributions:

- Bruno Tuffin, Inria Campus Universitaire de Beaulieu, Rennes, France, who delivered a talk about "Network Neutrality: Modeling and Challenges and Its Impact on Clouds"
- Abdur Rahim, Fondazione Bruno Kessler (FBK)/Create-Net, Trento, Italy, who delivered a talk on "IoT and Data Analytics for Developing Countries from Research to Business Transformation"
- Corentin Dupont, Tomas Bures, Mehdi Sheikhalishahi, Congduc Pham, and Abdur Rahim, who discussed their invited paper "Low-cost IoT, Big Data, and Cloud Platform for Developing Countries"

This volume of the GECON 2017 proceedings has been structured in sections following the sessions that comprised the conference program:

Section 1: Pricing in Cloud and Quality of Service
Session 2: Work in Progress on Service Management
Session 3: Work in Progress on Business Models and Community Cooperation
Session 4: Work in Progress on Energy Efficiency and Resource Management
Session 5: Resource Management
Session 6: Edge Computing
Session 7: Cloud Federation
Session 8: Work in Progress on Service Selection and Coordination

September 2017

Congduc Pham
Jörn Altmann
José Ángel Bañares

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GECON 2017 was organized by the Laboratoire d'Information de l'Université de Pau et des Pays de l'Adour (http://liuppa.univ-pau.fr).

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