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Algorithms for Sensor Systems

13th International Symposium on Algorithms and Experiments
for Wireless Sensor Networks, ALGOSENSORS 2017
Vienna, Austria, September 7–8, 2017
Revised Selected Papers



Springer

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Preface

ALGOSENSORS, the International Symposium on Algorithms and Experiments for Wireless Sensor Networks, is an international conference dedicated to algorithmic aspects of networks of restricted devices. The 13th edition of ALGOSENSORS was held during September 7–8, 2017, in Vienna, Austria, as a part of the ALGO 2017 event.

While ALGOSENSORS was created to focus on sensor networks, in recent years it has broadened its scope to topics around the common theme of wireless networks of computational entities. For example, networks of (static or mobile) sensors, cyber-physical systems, mobile robots, Internet of Things (IoT) devices, and drones. Aspects explored include optimization, security and privacy, energy management, localization, coordination and pattern formation, data collection and aggregation, and fault tolerance. This year, ALGOSENSORS had two tracks: Algorithms and Theory, and Experiments and Applications.

For ALGOSENSORS 2017, we received 30 submissions from more than 20 countries. These manuscripts were rigorously reviewed by our Program Committee of 25 members and some external reviewers. Each submission had three or more reviews. As a result, 17 papers were accepted and presented at the conference. The program was completed with the keynote presentation by Jie Gao (Stony Brook University), to whom we are very grateful for delivering an excellent talk. This volume contains the technical details of the papers presented at the conference.

This year, for the first time, one paper was selected to receive the ALGOSENSORS Best Paper Award in the Algorithms and Theory Track. The paper selected was “Parameterized Algorithms for Power-Efficient Connected Symmetric Wireless Sensor Networks” by Matthias Bentert, René van Bevern, André Nichterlein, and Rolf Niedermeier. Congratulations to the authors.

We want to thank all the Program Committee members, and their external reviewers, for their efforts in selecting the best papers. The strong final program of ALGOSENSORS 2017 is a reflection of their excellent work. We also want to thank the Organizing Committee of ALGO 2017 for the great coordination of the ALGO event, and facilitating the hosting of ALGOSENSORS 2017 in such a nice environment. We are particularly grateful to the Organizing Committee chair, Stefan Szeider, who was always there to help. Finally, we want to thank the Steering Committee of ALGOSENSORS for trusting us with the task of driving ALGOSENSORS 2017, and in particular the Steering Committee chair, Sotiris Nikolettseas, for all the help and guidance he provided.

November 2017

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