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Andrzej M. J. Skulimowski · Zhengguo Sheng  
Sondès Khemiri-Kallel · Christophe Cérin  
Ching-Hsien Hsu (Eds.)

# Internet of Vehicles

Technologies and Services  
Towards Smart City

5th International Conference, IOV 2018  
Paris, France, November 20–22, 2018  
Proceedings

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# Preface

As the era of Internet of Things is arriving, the Internet of Vehicles (IOV) plays an important role for constructing smart cities as well as for establishing smart industrial environments according to the Industry 4.0 paradigm. Smart cities are complex integrated network systems, which connect different people within automotives, different automotives, and different environmental objects in cities. In the industrial environments, IOV focuses on providing new efficient solutions with digital intervehicular data transfer and overall communications. Yet, IOV is different from telematics, vehicle ad hoc networks, and intelligent transportation, in which vehicles like phones can run within the whole network, and obtain various services by swarm intelligent computing with people, vehicles, and environments.

This volume contains the proceedings of the 5th International Conference on Internet of Vehicles (IOV 2018), which was held in Paris, France during November 20–22, 2018. We accepted for publication a total of 21 high-quality papers selected from 41 submissions. The articles in this volume are grouped in 4 Parts, namely “IoV communications and networking” (5 papers), “IoV clouds and services” (6 papers), “Vehicular modelling and simulation” (5 papers), and “Vehicular security and privacy” (5 papers). The above Part titles correspond to the research areas traditionally covered by the IOV conference series. Like all previous conferences in this series, IOV 2018 was intended to play an important role for researchers and industry practitioners to exchange information regarding advancements in the state of art and practice of IOV architectures, protocols, services, and applications. It was also intended to identify emerging research topics and define the future directions of IOV and its related areas such as Internet-supported autonomous driving. We believe that this volume not only presents novel and interesting ideas but also will stimulate interesting discussions from the participants and inspire new ideas that will be submitted and presented at further conferences in this series.

The organization of conferences is hard work. This conference would not have been possible without the exceptional commitment of many expert volunteers. We would like to take this opportunity to extend our sincere thanks to all the authors, keynote speakers, Technical Program Committee members, and reviewers. Special thanks go to the entire local arrangements committee for their help in making this conference a success. We would also 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 the underlying proceedings.

Last, but not least, we hope that the participants not only enjoyed the technical program during this prestigious conference but also discovered many historical

attractions in Paris, to make their stay unforgettable. Thanking you for your participation in this fruitful and enjoyable IOV 2018 Conference!

November 2018

Andrzej M. J. Skulimowski  
Zhengguo Sheng  
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