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**245**

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# Smart Grid and Innovative Frontiers in Telecommunications

Third International Conference, SmartGIFT 2018  
Auckland, New Zealand, April 23–24, 2018  
Proceedings

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## Preface

We are delighted to introduce the proceedings of the third edition of the 2018 European Alliance for Innovation (EAI) International Conference on Smart Grid and Innovative Frontiers in Telecommunications (SmartGIFT 2018). Different from the last two SmartGIFT conferences that were held in the UK, this year, we brought SmartGIFT from the northern hemisphere to the southern hemisphere and it was held at Auckland, New Zealand, during April 23–24, 2018. SmartGIFT 2018 was co-organized by EAI and Auckland University of Technology. The theme of SmartGIFT 2018 was “Smart Grid and Innovative Frontiers in Telecommunications.” This conference brings together researchers, developers, and practitioners from around the world who are leveraging and developing next-generation smart grids for a smarter and more resilient grid, and for advancing telecommunications as an important enabler for human-to-human, human-to-machine, and machine-to-machine connectivity.

The technical program of SmartGIFT 2018 consisted of 28 full papers, including five invited papers in oral presentation sessions. Aside from the high-quality technical paper presentations, the technical program also featured three keynote speeches and three invited talks. The keynote speeches were by Professor Soung Chang Liew from The Chinese University of Hong Kong, Hong Kong, Professor Tek Tjing Lie, from Auckland University of Technology, New Zealand, and Professor Maode Ma from Nanyang Technological University, Singapore. The three invited speakers were Professor Ho-Pui Ho from The Chinese University of Hong Kong, Hong Kong, Professor Yong Liang Guan from Nanyang Technological University, Singapore, and Professor Ivan Wang-Hei Ho from The Hong Kong Polytechnic University, Hong Kong. Selected best papers were invited to submit manuscripts to special issues of Springer’s *Wireless Networks* on “Caching for Wireless Communication Systems and Networks” and *AIMS Electronics and Electrical Engineering* on “Mobile and Wireless Technologies for Sustainable Mobility and Transportation System.”

Coordination with the steering chairs, Imrich Chlamtac, Bruno Kesler, Victor C. M. Leung, and Kun Yang, was essential for the success of the conference. We sincerely appreciate their constant support and guidance. It was also a great pleasure to work with such an excellent Organizing Committee team for their hard work in organizing and supporting the conference. In particular, we thank the Technical Program Committee, led by co-chairs, Dr. Xuejun Li and Dr. Faraz Hasan, who completed the peer-review process of technical papers and compiled a high-quality technical program. Other Organizing Committee members who supported and co-organized this conference were Dr. Ke Wang, Dr. Ramon Zamora, Dr. Saeed Rehman, and Dr. Hakilo Sabit. We are also grateful to the EAI conference manager, Lenka Bilska, for her support and all the authors who submitted to and presented their papers at the SmartGIFT 2018 conference. We strongly believe that the SmartGIFT conference provides a good forum

for all researchers, developers, and practitioners to discuss all aspects of science and technology relevant to smart grids. We also expect that future SmartGIFT conferences will be as successful and stimulating as indicated by the contributions presented in this volume.

Peter Chong  
Boon-Chong Seet  
Michael Chai  
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