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Internet of Things, Smart Spaces, and Next Generation Networks and Systems

16th International Conference, NEW2AN 2016
and 9th Conference, ruSMART 2016
St. Petersburg, Russia, September 26–28, 2016
Proceedings

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Preface

We welcome you to the joint proceedings of the 16th NEW2AN (Next Generation Teletraffic and Wired/Wireless Advanced Networks and Systems) and the 9th conference on Internet of Things and Smart Spaces ruSMART (Are You Smart?), held in St. Petersburg, Russia, on September 26–28, 2016.

Originally, the NEW2AN conference was launched by ITC (International Teletraffic Congress) in St. Petersburg in June 1993 as an ITC-Sponsored Regional International Teletraffic Seminar. The first event was entitled “Traffic Management and Routing in SDH Networks” and held by R&D LONIIS. In 2002, the event received its current name, the NEW2AN. In 2008, NEW2AN acquired a new companion in Smart Spaces, ruSMART, hence boosting interaction between researchers, practitioners, and engineers across different areas of ICT. From 2012, the scope of the ruSMART conference has been extended to cover the Internet of Things and related aspects.

Presently, NEW2AN and ruSMART are well-established conferences with a unique cross-disciplinary mixture of telecommunications-related research and science. NEW2AN/ruSMART is accompanied by outstanding keynotes from universities and companies across Europe, USA, and Russia.

The 16th NEW2AN technical program addresses various aspects of next-generation data networks. This year, special attention is given to advanced wireless networking and applications as well as to lower-layer communication enablers. In particular, the authors have demonstrated novel and innovative approaches to performance and efficiency analysis of ad hoc and machine-type systems, employed game-theoretical formulations, Markov chain models, and advanced queuing theory. It is also worth mentioning the rich coverage of graphene and other emerging materials, photonics and optics, generation and processing of signals, as well as business aspects.

The 9th conference on Internet of Things and Smart Spaces, ruSMART 2016, provides a forum for academic and industrial researchers to discuss new ideas and trends in the emerging areas of the Internet of Things and Smart Spaces that create new opportunities for fully-customized applications and services. The conference brought together leading experts from top affiliations around the world. This year, ruSMART enjoyed active participation from representatives of various players in the field, including academic teams and industrial world-leader companies, particularly representatives of Russian R&D centers, which have a good reputation for high-quality research and business in innovative service creation and applications development.

We would like to thank the Technical Program Committee members of both conferences, as well as the associated reviewers, for their hard work and important contribution to the conference. This year, the conference program met the highest quality criteria with an acceptance ratio of around 35 %.

The conferences were organized in cooperation with the Open Innovations Association FRUCT, IEEE Communications Society Russia NorthWest Chapter, Tampere University of Technology, St. Petersburg State Polytechnical University, Peoples’

Friendship University of Russia, St. Petersburg State University of Telecommunications, and the Popov Society. This year the conference was held in conjunction with the 40th Interdisciplinary Conference and School Information Technology and Systems 2016. The support of these organizations is gratefully acknowledged.

We also wish to thank all those who contributed to the organization of the conferences. In particular, we are grateful to Aleksandr Ometov for his substantial work on supporting the conference website and his excellent job on the compilation of camera-ready papers and interaction with Springer.

We believe that the 16th NEW2AN and 9th ruSMART conferences delivered an informative, high-quality, and up-to-date scientific program. We also hope that participants enjoyed both technical and social conference components, the Russian hospitality, and the beautiful city of St. Petersburg.

September 2016

Olga Galinina
Sergey Balandin
Yevgeni Koucheryavy

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