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Yevgeni Koucheryavy · Sergey Balandin ·
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Internet of Things, Smart Spaces, and Next Generation Networks and Systems

21st International Conference, NEW2AN 2021
and 14th Conference, ruSMART 2021
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Proceedings

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Editors
Yevgeni Koucheryavy
Tampere University
Tampere, Finland

Sergey Balandin
FRUCT Oy
Helsinki, Finland

Sergey Andreev
Tampere University
Tampere, Finland

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Preface

We welcome you to the joint proceedings of the 21st International Conference on Next Generation Teletraffic and Wired/Wireless Advanced Networks and Systems (NEW2AN 2021) and the 14th Conference on the Internet of Things and Smart Spaces (ruSMART 2021) held in St. Petersburg, Russia, during August 30–31, 2021.

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

NEW2AN and ruSMART are well-established conferences with a unique cross-disciplinary mixture of telecommunications-related research and science, featuring outstanding keynotes from speakers at universities and companies across Europe, the USA, and Russia.

The NEW2AN 2021 technical program addressed various aspects of next-generation data networks, while special attention was given to advanced wireless networking and applications. In particular, the authors demonstrated novel and innovative approaches to performance and efficiency analysis of 5G and beyond systems, game-theoretical formulations, advanced queuing theory, and machine learning. It is also worth mentioning the rich coverage of the Internet of Things, optics, and signal processing, as well as business aspects.

RuSMART 2021 provided 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 institutions around the world. This year, we saw participation from representatives of various players in the field, including academic teams and industrial companies, particularly representatives of Russian R&D centers, which have a solid reputation for high-quality research and business in innovative service creation and development of applications. The conference was held virtually due to the COVID-19 pandemic.

We would like to thank the Technical Program Committee members of the two conferences, as well as the invited reviewers, for their hard work and important contributions to the conference. This year, the conference program met the highest quality criteria with an acceptance ratio of around 35%. The number of submissions sent for peer review 118, while the number of full papers accepted is 41. A single-blind peer-review process was employed.

This year's conferences were organized in cooperation with the IEEE Communications Society Russia Northwest Chapter, YL-Verkot Oy, the Open Innovations Association FRUCT, Tampere University, the Peter the Great St. Petersburg Polytechnic University, the Peoples' Friendship University of Russia (RUDN University), the National Research University Higher School of Economics (HSE), the St. Petersburg State University of Telecommunications, and the Popov Society. The conference was held within the framework of the "RUDN University Program 5–100."

We believe that the NEW2AN 2021 and ruSMART 2021 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 ways of hospitality, and the beautiful city of St. Petersburg.

August 2021

Yevgeni Koucheryavy
Sergey Balandin
Sergey Andreev

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