Call for papers

Space-Air-Ground Communications and Networks (SAGCN) Symposium

FCN 2025

August 18-22, 2025 Belgrade, Serbia http://www.future-forum.org.cn/en/fcn2025/index.html

Co-Chairs

Qiang Ye	Dalhousie University, Canada (<u>qye@cs.dal.ca</u>)
Soumaya Cherkaoui	Polytechnique Montreal, Canada (soumaya.cherkaoui@polymtl.ca)
Juan A. Fraire	Inria Lyon, France (juan.fraire@inria.fr)
Haibo Zhou	Nanjing University, China (<u>haibozhou@nju.edu.cn</u>)

Scope

Supported by various platforms such as satellites, high altitude platforms (HAP) and unmanned aerial vehicles (UAV), together with terrestrial infrastructures, three dimensional space-air-ground integrated communications and networking are emerging to provide ubiquitous connectivity for global broadband coverage, machine type communications, and computing services in the future sixth-generation (6G) networks. The Space-Air-Ground Communications and Networks (SAGCN) symposium focuses on topics related to all aspects of space-air-ground communications and networking technologies and systems, and seeks original unpublished papers focusing on theoretical analysis, algorithm/protocol design, novel system architectures, experimental studies, emerging applications, standardizations, testbeds, etc. The goal is to bring together and disseminate the latest developments and technical solutions concerning all facets of the broad area of space-air-ground communications and networks, including new architectures and key technologies meet the major technical challenges imposed by the massive space-air-ground networks. The symposium calls for original, previously unpublished papers on the topics including, but not limited to, the following:

- · Space-air-ground communications and networks architecture
- Space-air-ground communications and networks security architecture
- Space-air-ground communications and networks application architecture
- Space-air-ground communications and networks network management
- Space-air-ground communications and networks resource optimization
- Space-air-ground communications and networks mobility management
- · Space-air-ground communications and networks transmission technology
- Space-air-ground communications and networks protocols
- Space-air-ground communications and networks air interface
- Space-air-ground communications and networks for machine type communications
- Mega constellation network design for space-air-ground communications and networks
- · Non-terrestrial networking technologies for space-air-ground communications and networks
- Simulation, emulation and testbed for space-air-ground communications and networks
- Digital twin technologies for space-air-ground communications and networks
- AI in space-air-ground communications and networks

Submission Guidelines

Perspective authors should follow the instructions at <u>http://www.future-forum.org.cn/en/fcn2025/Kit.html</u> to prepare their manuscripts. All papers should be submitted via EDAS. Submission information can be found at <u>http://www.future-forum.org.cn/en/fcn2025/Submission.html</u>.

Short Biographies of Co-Chairs

Qiang Ye

Dr. Qiang Ye is a Professor in the Faculty of Computer Science at Dalhousie University, Canada. His current research interests lie in the area of communication networks in general. Specifically, he is interested in Wireless Networks, Internet of Things, Network Security, and Machine Learning. He has published a series of papers in top publication venues such as IEEE/ACM Transactions on Networking (TON), IEEE Transactions on Parallel and Distributed Systems (TPDS), IEEE Transactions on Wireless Communications (TWC), IEEE International Conference on Computer Communications (INFOCOM), and ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc). He has been the co-symposium chair for several tier-1 international conferences such as IEEE Global Communications Conference (GLOBECOM). He received a Ph.D. in Computing Science from the University of Alberta in 2007. His M. Engr. and B. Engr. in Computer Science and Technology are from Harbin Institute of Technology, P.R. China. He is a Senior Member of IEEE.

Soumaya Cherkaoui

Dr. Soumaya Cherkaoui is a full professor in the Computer and Software Engineering department at Polytechnique Montréal, where she leads a research group that conducts government and industry-funded research. Her research and teaching interests focus on the convergence of artificial intelligence and communications, quantum computing and artificial intelligence, quantum communications, and frugal intelligence at the network edge for verticals such as connected and autonomous cars, IoT and industrial IoT. She has published over 200 research articles in reputed journals and conferences, and her research has led to transfers to industry and patented technologies. She has served on numerous national and international scientific committees and panels. She has been an associate editor of several IEEE, Wiley and Elsevier journals, including IET Quantum Communication, IEEE Systems, IEEE Journal on Selected Areas in Communications, and IEEE Network where she has also been Column Editor. She was awarded the title of IEEE Communication Society Distinguished Lecturer in 2020. She is the recipient of the ACM Mirela Notare Award (2023), as well as the IEEE Bio-Inspired Computing STC Leadership Award (2023). She was named Star by the N2Women: Stars in Networking and Communications in 2023.

Juan A. Fraire

Dr. Juan A. Fraire is a researcher and professor at INRIA (France) and CONICET-UNC (Argentina) and a guest professor at Saarland University (Germany). Core topics of his interest are near-Earth and deep-space networking and informatics, adding up to more than 70 published papers in international journals and leading conferences. Juan is the founder and chair of the Space-Terrestrial Internetworking Workshop (STINT) and participates in diverse joint projects with space agencies (e.g., NASA, ESA, CONAE) and companies in the space sector (e.g., D3TN, Skyloom).

Haibo Zhou

Dr. Haibo Zhou (Senior Member, IEEE) received the Ph.D. degree in information and communication engineering from Shanghai Jiao Tong University, Shanghai, China, in 2014. From 2014 to 2017, he was a Postdoctoral Fellow with the Broadband Communications Research Group, Department of Electrical and Computer Engineering, University of Waterloo. He is currently a Full Professor with the School of Electronic Science and Engineering, Nanjing University, Nanjing, China. He was a recipient of the 2019 IEEE ComSoc Asia–Pacific Outstanding Young Researcher Award, 2023-2024 IEEE ComSoc Distinguished Lecturer, and 2023-2025 IEEE VTS Distinguished Lecturer. He served as Track/Symposium Co-Chair for IEEE/CIC ICCC 2019, IEEE VTC-Fall 2020, IEEE VTC-Fall 2021, WCSP 2022, IEEE GLOBECOM 2022, IEEE ICC 2024, IEEE GLOBECOM 2024. He is currently an Associate Editor of the IEEE Transactions on Wireless Communications, IEEE Internet of Things Journal, IEEE Network Magazine, and Journal of Communications and Information Networks. His research interests include resource management and protocol design in B5G/6G networks, vehicular ad hoc networks, and space-air-ground integrated networks.