Editorial

Wireless and Networking Frontiers: A Platform for Groundbreaking Research and Collaboration

Yonghui Li

School of Electrical and Information Engineering, The University of Sydney, Camperdown NSW 2006, Australia; yonghui.li@sydney.edu.au

It is with great pleasure and enthusiasm that I extend a warm welcome to you in the Editorial of the Wireless and Networking Frontiers Journal. As the Editor-in-Chief, I feel truly honored to guide a publication committed to advancing the state-of-the-art in wireless communications, networking, computing, security, and signal processing.

Current Trends in the Field

In the dynamic landscape of wireless communications and networking, staying attuned to current trends is paramount for navigating the frontiers of technological advancements. As we embark on the journey toward the sixth generation (6G) of communication networks, our researchers are poised to address the grand challenges outlined in signal processing for communications. The Wireless and Networking Frontiers Journal serves as a dynamic platform for disseminating groundbreaking research, contributing to the realization of objectives in this rapidly evolving field.

The field is experiencing rapid and transformative developments, with emerging technologies such as 5G and beyond, the Internet of Things (IoT), and edge computing reshaping the landscape. The impending 6G networks depart from the singular pursuit of higher data rates, prioritizing various design objectives including data rate, intelligence, energy and spectral efficiency, scalability, latency, and reliability. Unlike its predecessors, 6G aims for significantly higher data rates and efficiency, extreme low latency, high reliability, and scalability.

Machine learning technologies are anticipated to play a pivotal role in future networks, enabling automated network management, control, and optimization. Traditional signal processing techniques and communication design frameworks are considered inadequate to meet the dynamic demands of future applications and complex network scenarios. The transition from small pilot projects to global large-scale deployment necessitates the design of new signal processing technologies and optimization tools in beyond 5G or 6G wireless systems.

The proliferation of smart devices, the escalating demand for high data rates, and the exploration of new frequency bands like mmWave and THz are driving innovation. Security and privacy concerns are gaining prominence as networks become more interconnected and data-intensive. The Wireless and Networking Frontiers Journal aims to capture and disseminate these trends through cutting-edge research articles

Scope of the Journal

The aim of the Wireless and Networking Frontiers Journal is unequivocal: to publish timely and high-quality original papers that contribute to the advancement of wireless technologies and networking paradigms. Our scope encompasses a broad spectrum of topics reflecting the multifaceted nature of this dynamic field.

Our areas of interest include, but are not limited to:

Modelling and Localization: Channel modelling**,** Antenna and propagation**,** Localization**,** Wireless sensing.

Wireless Communications: Modulation and signal design, Channel coding, Multi-antenna systems,

Relay and cooperative communication, mmWave and THz communications.

Communication Theories: Information theory, Performance analysis, Optimization, Multi-user and multi-carrier communications.

Resource Management and Multiple Access: Radio resource management, Cross-layer design, Wireless AI, Cognitive radios, Multiple access techniques.

Signal Processing: Statistical signal processing, Interference management, Acoustic and optical signal processing, Detection and estimation.

Networks: Network protocols and architecture, Distributed systems, Social networking, Wireless and computer networks, Network operations and management, Measurements.

Security: Security, privacy, and authentication, Physical layer security, Network security, Game theory.

Computing: Edge and cloud computing, Mobile computing, Distributed systems, Wireless networked control.

Applications: Multimedia communications, Acoustic and underwater communications, Green and molecular communications, Satellite, WiFi, UAV, and optical communications, Experimental and prototype results.

This comprehensive scope ensures that our journal remains at the forefront of emerging technologies and provides a platform for researchers and practitioners to share their groundbreaking contributions.

For Authors, Reviewers and Editors

Preparing each edition of the Wireless and Networking Frontiers Journal is a collaborative effort that involves the dedication of authors, reviewers, and editorial board members. Our collective commitment to maintaining rigorous standards of quality, relevance, and originality sets this journal apart.

I emphasize the importance of fostering a supportive and constructive environment for authors. We strive to provide feedback that enhances the clarity, significance, and impact of each submitted manuscript. Our aim is not only to publish excellent research but also to contribute to the growth and development of the scientific community.

We encourage diversity in perspectives and methodologies, fostering an inclusive space where researchers from various backgrounds can come together to shape the future of wireless and networking technologies. The strength of our journal lies in the richness of ideas and the collaboration among experts from different domains.

Outlook

Looking ahead, my expectations for the Wireless and Networking Frontiers Journal are high. I anticipate that the journal will continue to serve as a beacon for researchers, providing a platform for the dissemination of groundbreaking research and fostering a community of collaboration and knowledge exchange.

I encourage researchers to submit their best work, pushing the boundaries of what is possible in wireless and networking technologies. As the journal evolves, we will explore new avenues such as special issues, invited articles from leading experts, and features that highlight the practical applications of research in real-world scenarios.

In conclusion, I extend my gratitude to the authors, reviewers, and editorial board members for their invaluable contributions to the Wireless and Networking Frontiers Journal. Together, we will navigate the frontiers of wireless and networking technologies, driving innovation, and shaping the future of communication systems.

Yonghui Li
Editor-in-Chief
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