

## Special Issue

# Application of Signal Processing and Communication Technologies in Urban Environment

### Message from the Guest Editors

Emerging applications in urban environments, such as smart cities, IoT networks, and autonomous transportation, are driving the increasing demand for seamless and efficient communication systems. However, the complex and dynamic nature of urban environments, characterized by high node density, mobility, interference, and real-time data requirements, poses significant challenges to traditional signal processing and communication systems. This special issue aims to present novel signal processing techniques and intelligent communication algorithms designed to address these new issues in urban environmental systems. The scope of the issue includes channel modeling and prediction, novel modulation waveform technologies, intelligent transceiver design, integrated sensing and communication, digital twin technologies, intelligent network planning, optimization of UAV/vehicle networks, and RIS-assisted communication. The purpose of this special issue is to present state-of-the-art solutions that enhance the performance, scalability, and sustainability of urban communication networks, contributing to the advancement of smart city infrastructures.

### Guest Editors

Dr. Hanxiao Yu

Dr. Aihua Wang

Dr. Xu Zhang

Dr. Jingxuan Huang

### Deadline for manuscript submissions

30 November 2025



## Sensors

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*Sensors*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[sensors@mdpi.com](mailto:sensors@mdpi.com)

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### Message from the Editor-in-Chief

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### Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

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