

# Special Issue

## Key Enabling Technologies for Beyond 5G Networks

### Message from the Guest Editors

Machine learning and artificial intelligence technologies will impact the design of communication systems across all the layers of the communication architecture, operating both at the link and system level. New communication systems will constitute a framework for providing services thanks to new computing architectures and the intelligence that spreads across the network. In this case, the security should be provided at all levels for a network with embedded trust, also providing protection at the physical layer. This Special Issue aims at investigating emerging and future key technologies for wireless communication systems in the 5G-and-beyond era. Topics include but are not limited to:

- THz and visible light communications
- intelligent reflecting surfaces (IRS)
- cognitive and dynamic spectrum access
- machine learning and artificial intelligence for wireless communications system
- energy-efficient wireless communications and networking
- network softwarization and virtualization
- network security
- physical layer security
- zero-touch networks
- massive IoT communication

### Guest Editors

Dr. Dania Marabissi

Department of Information Engineering, University of Firenze, Via S. Marta 3, 50139 Firenze, Italy

Dr. Lorenzo Mucchi

Department of Information Engineering, University of Firenze, Via S. Marta 3, 50139 Firenze, Italy

### Deadline for manuscript submissions

closed (10 September 2024)



## Future Internet

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.6  
CiteScore 8.3



[mdpi.com/si/109470](https://mdpi.com/si/109470)

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

[mdpi.com/journal/  
futureinternet](https://mdpi.com/journal/futureinternet)





# Future Internet

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.6  
CiteScore 8.3



[mdpi.com/journal/  
futureinternet](https://mdpi.com/journal/futureinternet)



## About the Journal

### Message from the Editor-in-Chief

*Future Internet* is a fast-growing journal devoted to rapid publications of the latest results in the general areas of computer networking/communications and information systems, with a focus on the Internet of Things, big data and augmented intelligence, smart systems (in terms of technologies, architectures, and applications), network virtualization, edge/fog computing, and cybersecurity. Both theoretical and experimental papers are welcome. Every year, *Future Internet* also features Special Issues dedicated to specific topics within the journal's scope.

---

### Editor-in-Chief

Prof. Dr. Gianluigi Ferrari  
Department of Engineering and Architecture, University of Parma,  
Parco Area delle Scienze, 181/A, 43124 Parma, Italy

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, ESCI (Web of Science), Ei Compendex, dblp, Inspec, and other databases.

#### Journal Rank:

JCR - Q2 (Computer Science, Information Systems) /  
CiteScore - Q1 (Computer Networks and Communications)