



Trends and Challenges in Communication Networks

Guest Editors:

**Prof. Dr. Inmaculada Ayala
Viñas**

ITIS Software, Universidad de
Málaga, 29010 Malaga, Spain

Dr. Laura Panizo

ITIS Software, Universidad de
Málaga, 29010 Malaga, Spain

Deadline for manuscript
submissions:

20 September 2024

Message from the Guest Editors

This Special Issue aims to explore current challenges and advancements in communication network technologies and applications. The topics of interest include, but are not limited to, the following:

Network Scalability: Novel approaches to efficiently handling the growing volume of data traffic.

Emerging Technologies: Research on next-generation wireless technologies (5G and beyond), Network Function Virtualization, Software-Defined Networking and in-network computing to address network challenges and enable new applications.

Network Modeling and Analysis: Development of new theoretical frameworks and techniques for modeling network behavior, performance evaluation or capacity planning.

Testing and Verification of Applications and Services: Innovative methodologies and tools for testing performance, reliability and security of communication network applications and services.

Network Applications and Services: Exploration of network slicing for diverse applications, the role of Artificial Intelligence and Machine Learning in network optimization and management and the advancement of network security protocols to combat evolving cyber threats.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Author Benefits

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

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

Contact Us

Applied Sciences Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/applsci
applsci@mdpi.com
[X@Applsci](#)