

## Special Issue

# Modelling, Dimensioning and Optimization of 5G Communication Networks, Resources and Services

### Message from the Guest Editors

The objective of this special issue is to bring together the state-of-the-art research contributions that address challenges in contemporary networks design, dimensioning and optimization. The topics of primary interest include, but are not limited to:

- Analytical and simulation models of 5G communication networks
- Performance evaluation of 5G communication networks
- Planning of 5G networks and services
- Dimensioning of 5G communication network resources
- Optimization techniques for 5G communication network resources
- Resource management tools for 5G communication networks
- Optical backhauling in 5G networks
- BBU placement and management in 5G networks
- Energy efficient 5G networks
- 5G heterogeneous network deployment models
- Big Data-supported resource allocation in 5G networks
- Virtualization technologies in 5G networks
- Passive optical networks in 5G networks
- BBU optimization in 5G networks
- BBU-RRH deployment and strategies.
- BBU-RRH placement and optimization.

### Guest Editors

Prof. Dr. Ioannis Moscholios

Prof. Dr. Mariusz Głąbowski

Dr. Panagiotis Sarigiannidis

Prof. Dr. Michael D. Logothetis

### Deadline for manuscript submissions

2 September 2025



## Applied Sciences

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## About the Journal

### 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.

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### Editor-in-Chief

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