

## Special Issue

# Advances on Smart Cities and Smart Buildings

### Message from the Guest Editors

In recent years, smart and green building management has become one of the main challenges for automation and building construction. In addition to the utilization of renewable energy resources, the necessity to ensure both high-level comfort and energy efficiency can be satisfied by adopting new suitable and intelligent building energy management systems (BEMSs) to be integrated in building automation control systems. In this context, the main challenge is to minimize energy consumption, guaranteeing a high level of indoor comfort conditions in buildings, which generally depends on three factors: thermal comfort, visual comfort, and air quality comfort. To this purpose, novel models, algorithms, and tools can be proposed to maximize the indoor life quality with the minimum energy consumption both via active “energy consuming” systems (e.g., HVAC) and passive strategies (e.g., natural ventilation).

- smart buildings
- building energy management system
- near-zero energy buildings (NZEB)
- smart grids
- intelligent power and energy systems
- smart urban environments
- intelligent transportation systems
- green mobility
- autonomous vehicles and smart cities

---

### Guest Editors

Dr. Michele Roccotelli

Department of Electrical and Information Engineering (DEI), Politecnico di Bari, Via Orabona, 4, 70125 Bari, Italy

Dr. Agostino Marcello Mangini

Department of Electrical and Information Engineering, Polytechnic University of Bari, Bari, Italy

---

### Deadline for manuscript submissions

closed (20 November 2021)



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/68794](https://mdpi.com/si/68794)

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

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





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



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



## 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.

---

### Editor-in-Chief

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

---

### 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), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )