

Special Issue

AI-Driven Computer Vision and Pattern Recognition: Challenges and Applications

Message from the Guest Editors

The integration of computer vision technologies into urban environments marks the dawn of a groundbreaking era in smart city innovation. By harnessing the power of advanced imaging and analytics, cities around the world are being transformed into more efficient, sustainable, and livable communities. This Special Issue is dedicated to exploring the cutting-edge applications of computer vision within the smart city paradigm, seeking to illuminate pioneering research, inventive methodologies, and groundbreaking technologies that are propelling urban innovation forward. Contributions are sought that push the boundaries of current knowledge and practice, including but not limited to:

- Advancements in computer vision algorithms for urban applications;
- Integration of computer vision in urban infrastructure management;
- Computer vision for urban environmental protection and sustainability;
- Enhancing urban safety and security with computer vision;
- Smart transportation systems powered by computer vision;
- Public space and crowd management solutions;
- Impact of computer vision on urban planning and governance.

Guest Editors

Prof. Dr. Heinz Dieter Fill

1. Department of Computer Science, Cornell University, Ithaca, NY 14853, USA

2. Department of Hydraulics and Sanitation, Technology Sector, Federal University of Paraná, Curitiba 81531-990, Brazil

Dr. Arianna D'Ulizia

National Research Council, Institute of Research on Population and Social Policies (CNR-IRPPS), 00185 Rome, Italy

Deadline for manuscript submissions

closed (20 November 2025)



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/197874

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

mdpi.com/journal/

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





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, Embase, CAPIus / SciFinder, and other databases.

Journal Rank:

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