

## Special Issue

# Machine Learning for Object Detection and Scene Description in Images and Videos

### Message from the Guest Editors

Object detection and scene description are fundamental to advancing computer vision as a tool for automatically understanding the human environment. Recognizing and interpreting objects and scenes is critical for machines to understand and interact with the world. This understanding forms the basis for more complex tasks like image and video analysis, autonomous navigation, and interactive systems. These technologies have various applications across various industries, namely healthcare, robotics, automotive, security, etc. Object detection and scene description improve the interaction between humans and computers, making it more intuitive. Improving object detection and scene description models' accuracy, speed, and robustness remains crucial, driving innovation in machine learning algorithms and computational strategies. This Special Issue aims to present recent advances in object detection, semantic and instance segmentation, image captioning, visual question answering, scene modeling, object tracking, video summarizing, action recognition, and all other fields related to machine learning.

---

### Guest Editors

Dr. Marcin Iwanowski

Dr. Sungho Kim

Prof. Dr. Zhaoqing Pan

---

### Deadline for manuscript submissions

20 March 2026



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/200171](https://mdpi.com/si/200171)

*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/](https://mdpi.com/journal/)

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





# 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 )