



## Advanced Machine Learning and Scene Understanding in Images and Data

Guest Editors:

**Prof. Dr. Pietro Zanuttigh**

Multimedia Technology and  
Telecommunications Lab,  
University of Padova, 35131  
Padova PD, Italy

**Dr. Stefano Ghidoni**

Department of Information  
Engineering, IAS-Lab (Intelligent  
Autonomous Systems Lab),  
University of Padova, 35131  
Padova PD, Italy

Deadline for manuscript  
submissions:

**closed (20 March 2023)**

### Message from the Guest Editors

Scene understanding from visual data is a key tool for many applications, including autonomous driving, robotic motion and path planning, industrial automation, and video surveillance. The recent introduction of deep learning techniques has fostered an impressive improvement in performance for approaches dealing with such very challenging tasks. This Special Issue welcomes novel research works presenting effective strategies for scene understanding from both images and 3D data. Possible applications include segmentation, semantic analysis, detection or recognition of objects and people, and many others. Papers focusing on novel segmentation strategies together with machine learning techniques for semantic segmentation and, more generally, scene understanding from visual data are welcome. Covered topics also include techniques exploiting 3D information for the aforementioned applications, both in the form of depth data and of point clouds. Finally, possible submissions also include approaches for solving the critical issue of acquiring training data, including transfer learning, reinforcement learning, domain adaption, and incremental learning strategies for scene understanding.





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

## Contact Us

---

Applied Sciences Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[appls@mdpi.com](mailto:appls@mdpi.com)  
[X@Appls](#)