



## Uncertainty Learning for Video Systems in Open Environment

Guest Editors:

**Prof. Dr. Youxi Wu**

**Dr. Linhao Li**

**Prof. Dr. Liang Yang**

**Dr. Changqing Zhang**

Deadline for manuscript  
submissions:

**20 July 2024**

### Message from the Guest Editors

Video processing has been a frontier topic and an influential research direction in the field of machine computer vision. Most of the research focuses on the use of intelligent technology to analyze the content of video sequences without human intervention, to detect, identify and track suspicious targets in video scenes, and to analyze the behavior of targets and understand the meaning of image content. At present, the method of "deep learning+big data" has achieved excellent recognition performance, and even exceeded the human intelligence level in some tasks. Knowledge for these video tasks is well estimated and modelled when sufficient data and effective tools are combined. However, in an open environment, due to the uncontrollable quality and content of surveillance data, dynamic changes in categories and data distribution, small amounts of labeled data, noise interference and other reasons, the existing methods show obvious shortcomings in generalization, robustness, interpretability, self-adaptability and other aspects. Therefore, open environment intelligent video processing faces a series of new research problems and needs to explore new theories, models, and algorithms.





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)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
X@Applsci