# Special Issue

# From Pixels to Perception: Machine Generation of HighQuality Vision and Multi-Modal Data

## Message from the Guest Editors

- Leveraging advanced machine learning and deep learning techniques to transform basic pixel information into high-quality visual content and multimodal data is current research topic of significant interest. This process primarily involves the generation and processing of images, where machines can extract meaningful features from low-level pixel data and then utilize these features for more complex perception tasks. Furthermore, by integrating audio and text information, rich multi-modal datasets can be generated.
- The goal of this Special Issue is to present the recent advances in machine learning/deep learning-based data generation techniques and their applications in intelligent systems. Authors are welcome to submit research papers, as well as literature reviews, related to image/video generation, and their applications in virtual reality and augmented reality, autonomous driving, film production, art and creative design, medical imaging, etc.

### **Guest Editors**

Dr. Hongping Gan

School of Software, Northwestern Polytechnical University (NPU), Xi'an 710129, China

Dr. Honggang Chen

College of Electronics and Information Engineering, Sichuan University, Chengdu 610065, China

## Deadline for manuscript submissions

closed (15 July 2025)



## **Electronics**

an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 6.1



mdpi.com/si/224987

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

mdpi.com/journal/electronics





## **Electronics**

an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 6.1



## **About the Journal**

## Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

### Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

## **Author Benefits**

## **High Visibility:**

indexed within Scopus, SCIE (Web of Science), CAPlus / SciFinder, Inspec, Ei Compendex and other databases.

### Journal Rank:

JCR - Q2 (Engineering, Electrical and Electronic) / CiteScore - Q1 (Electrical and Electronic Engineering)

## **Rapid Publication:**

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).

