

## Special Issue

# Machine Learning Applications in Unmanned Aerial Vehicles and Drones

### Message from the Guest Editors

This Special Issue focuses on the integration of machine learning techniques in unmanned aerial vehicles (UAVs) and drone systems, emphasizing innovative research, practical applications, and emerging trends. As UAVs and drones continue to play a crucial role in sectors such as surveillance, agriculture, delivery, infrastructure inspection, and environmental monitoring, machine learning enables autonomy, real-time decision-making, and intelligent behavior in dynamic environments. We invite high-quality contributions that explore machine learning applications in object and obstacle detection, flight control, route optimization, and swarm coordination. Special attention will be given to the use of onboard sensors, such as cameras, light detection and ranging (LiDAR), radio detection and ranging (radar), global positioning system (GPS), and inertial measurement units (IMUs), to enhance navigation, environment mapping, and situational awareness. The Special Issue aims to showcase both theoretical advancements and practical implementations of machine learning in UAV systems, particularly those with real-world validation.

### Guest Editors

Dr. Djedjiga Gigi Belfadel

Electrical Engineering, Fairfield University, Fairfield, CT 06824, USA

Dr. David A. Haessig

Robotics-In-Flight LLC, Montville, NJ 07045, USA

### Deadline for manuscript submissions

15 November 2025



## Electronics

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.6  
CiteScore 6.1



[mdpi.com/si/237150](https://mdpi.com/si/237150)

*Electronics*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[electronics@mdpi.com](mailto:electronics@mdpi.com)

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





# Electronics

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.6  
CiteScore 6.1



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



## 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 guest-edited 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), CAPus /  
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).