



## **Advancements in Underwater and Surface Robotic Vehicles: Applications, Designs, and Future Directions**

Guest Editors:

**Prof. Dr. Sergio Dominguez**

Centre for Automation and  
Robotics UPM-CSIC, 28500  
Madrid, Spain

**Prof. Dr. Claudio Rossi**

Centre for Automation and  
Robotics UPM-CSIC, 28500  
Madrid, Spain

Deadline for manuscript  
submissions:

**closed (20 April 2024)**

### **Message from the Guest Editors**

Unmanned Underwater Vehicles (UUV) and Unmanned Surface Vehicles (USV) have been at the forefront of robotics research in recent years. Addressing enduring challenges, such as energy efficiency, renewable energy harvesting, and integrating advanced electric power plants, including hydrogen-based propulsion, is paramount. Autonomy, perception, and environmental awareness remain significant obstacles that must be overcome to achieve ubiquitous use across civil and military applications.

Moreover, emerging vehicle configurations have recently gained attention, for instance, the Aerodynamically Alleviated Marine Vehicles (AAMV), including Wing-In-Ground (WIG) vessels and Surface-Effect-Ships (SES). These configurations present complex hydrodynamic and aerodynamic behaviours, requiring further research to enable autonomous operation.

This Special Issue addresses these topics, emphasising real-world applications of these vehicles and showcasing their capabilities through rigorous field testing.





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](https://twitter.com/Applsci)