Special Issue

Multi-Robot Systems for Environmental Monitoring and Intervention

Message from the Guest Editors

Dear colleagues, Multi-robot systems are valuable for real-time environmental monitoring, collecting data to understand ecological dynamics. They can detect changes and threats while intervening with operations. This Special Issue focuses on three types of robots:

(i) Unmanned Aerial Vehicles (UAVs) are ideal for remote areas. With appropriate sensors, they can monitor vast areas, track wildlife, map ecosystems, detect vegetation changes, and monitor air quality.

(ii) Unmanned Ground Vehicles (UGVs) are designed for land operations. They can survey landscapes, detect soil conditions, gather data on pollutants, and collect trash, especially in hazardous areas. They also support search-and-rescue missions.

(iii) Autonomous Underwater Vehicles (AUVs) can monitor and map underwater ecosystems, track marine life, and measure temperature, pH, and pollution levels. They can actively participate in environmental restoration and protection, such as removing plastics, transplanting coral, monitoring pipelines to prevent leaks and pollution.

The Special Issue invites original research papers on any aspect of multi-robot systems for environmental monitoring and engagement.

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Deadline for manuscript submissions

31 December 2025



Robotics

an Open Access Journal by MDPI

Impact Factor 3.3 CiteScore 7.7



mdpi.com/si/218112

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About the Journal

Message from the Editor-in-Chief

It is my great pleasure to welcome you to our open access journal, *Robotics*, which is dedicated to both the foundations of artificial intelligence, bio-mechanics and mechatronics, and the real-world applications of robotic perception, cognition and actions. The 21st century is the robotics century and intelligent robots will change our lifestyle forever. Let us work together toward the realization of intelligent robots step by step. It is great fun to create intelligent robots and imagine their practical applications. *Robotics* is now ready to serve you in the long journey towards such a goal.

Editor-in-Chief

Prof. Dr. Marco Ceccarelli

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