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# Advances in Autonomous Underwater Robotics Based on Machine Learning

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# **Message from the Guest Editors**

In recent years, the use of autonomous or semiautonomous robots to perform underwater missions has grown rapidly. Tasks such as submersed infrastructure inspection, the monitoring of underwater plants and algae meadows or general sub-sea mapping strongly benefit from underwater robotics.

Increasing robots' autonomy is tightly related to the use of artificial intelligence techniques. Among them, machine learning in general and deep learning in particular have shown great potential, though still few applications exist which are specifically targeted to underwater robotics.

The purpose of this Special Issue is to publish innovative research and application-oriented works related to underwater and marine robotics uses of machine learning in particular.

- Marine and underwater sensor processing using machine learning and deep learning:
- Marine and underwater localization/SLAM using machine learning and deep learning:
- Marine and underwater navigation using machine learning and deep learning:

Papers investigating other artificial intelligence fields not necessarily related to machine or deep learning can also be taken into consideration.











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## **Message from the Editor-in-Chief**

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