Special Issue

Intelligence and Autonomy for Underwater Robotic Vehicles

Message from the Guest Editors

Autonomous underwater vehicles have a wide range of possible applications. These include inspection in confined spaces like pipelines, natural and artificial caves, the interior of complex artificial structures, as well as deep-sea or other extreme natural environments. In all such cases, the impossibility of using tethers and the lack of high-bandwidth and reliable wireless communications with human operators make autonomy and intelligence a key feature of the required systems. This includes the capability of understanding their surrounding, self-localization, and motion planning, as well as high-level task/mission planning and self-awareness. Topics of interest include but are not limited to the following:

- Autonomous underwater vehicles
- Guidance, navigation, and control
- Self-awareness
- Mission planning
- Path planning
- Underwater SLAM
- Underwater perception and sensor fusion
- Manipulation and grasping
- Near and wide range underwater communication systems
- Multi-robot systems
- Bio-inspired underwater robots

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Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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