Learning-Based Multi-Sensor Data Fusion for Mobile Robots

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Message from the Guest Editors

Traditional and unconventional sensors technologies are being continuously improved, as are processing algorithms. Despite this, autonomous robots' and vehicles' perceptions are still imperfect in degraded and unexpected situations.

Sensor fusion is the key to robust perception in most cases, to benefit from sweet spots of complementary modalities.

Machine learning is currently being applied to process data of any type with state-of-the-art results; one step further is to leverage the mix of modalities with artificial intelligence.

This Issue aims to encourage the publication of i) innovative methods applied to artificial intelligence-based data fusion to multi-sensor perception systems and ii) new interacting frameworks facilitating the integration of deep learning solutions and multi-sensor-based perception systems for autonomous robots.
Particular attention will be paid to contributions providing experimental validation of full-scale mobile robotic systems.

Special Issue

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Message from the Editor-in-Chief

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