Special Issue

Progress in LiDAR Technologies and Applications

Message from the Guest Editors

Lidar sensors are rapidly expanding their capabilities due to advances in components, systems, new measurement methodologies, and the implementation of computer vision techniques for point cloud processing, including data fusion and deep learning networks. This Special Issue aims to provide an up-to-date, broad view of applications and methods expanding the capabilities of lidar sensing in the real world. From innovative uses where lidar was uncommon (e.g. construction, railway, autonomous vehicles) to improved processing techniques based on AI and data fusion, we present an overview of lidar's expansion across various industries. Novel hardware and software approaches for Time-of-Flight (TOF), amplitude-modulated (AMCW), and frequency-modulated (FMCW) lidar sensors are particularly encouraged. Topics include point cloud processing using neural networks, constructing digital twins with lidar and data fusion, or radiometric models advancing lidar techniques (e.g. bad weather, scattering media, underwater). All submissions should highlight progress in real-world lidar applications.

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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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