



Vision-Based SLAM Techniques for Mobile Robots

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Message from the Guest Editors

This Special Issue is aimed at publishing novel solutions in the field of vision-based SLAM. We focus our interest on manuscripts that thoroughly describe new vision-based SLAM algorithms that are able to produce accurate results in highly unstructured and dynamic environments. In addition, new methods that provide ways to efficiently process the visual stream and extract significant information from the scenario will be gladly received. Further, we seek to publish papers that would deepen knowledge of the different levels of semantic description of any map. Finally, we expect to receive original papers that delve into the applications of machine learning techniques to visual SLAM, including, for example, convolutional neural networks and/or deep neural networks that, for example, may add robustness to the data association processes involved.

State-of-the-art reviews that present a thorough overview of the existing techniques and methods inside the field of vision-based SLAM will also be considered for publication, provided that they are able to compare the presented solutions in a common and experimental ground using publicly available data.

