Special Issue

New Insight into Point Cloud Data Processing

Message from the Guest Editors

Compared to traditional methods, neural networks necessitate the utilization of multimodal data to construct enriched 3D point cloud datasets. Simultaneously, the difficulty in annotating 3D data calls for innovative approaches employing 2D information to supervise 3D network training or guide 3D information annotation. Moreover, 3D point cloud data processing, such as noise reduction, precise densification, registration, and uniformization, is crucial to optimize point cloud data for subsequent applications, including recognition, segmentation, semantic understanding, the construction of geometric models, etc. This Special Issue seeks to establish a collaborative platform for researchers to delve into and propose effective solutions for the following critical aspects: (1) strategies for leveraging multimodal data to build comprehensive 3D point cloud datasets to facilitate the robust analysis and training of 3D models; (2) novel methodologies leveraging 2D information to supervise the training of 3D networks or guide the annotation of 3D information; (3) innovative techniques to preprocess 3D point cloud data to optimize the quality and uniformity of point cloud data.

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Remote Sensing is now a prominent international journal of repute in the world of remote sensing and spatial sciences, as a pioneer and pathfinder in open access format. It has highly accomplished global remote sensing scientists on the editorial board and a dedicated team of associate editors. The journal emphasizes quality and novelty and has a rigorous peer-review process. It is now one of the top remote sensing journals with a significant Impact Factor, and a goal to become the best journal in remote sensing in the coming years. I strongly recommend *Remote Sensing* for your best research publications for a fast dissemination of your research.

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