

## Special Issue

# LiDAR Technology for Autonomous Navigation and Mapping

### Message from the Guest Editors

Autonomous navigation and mapping has always been a prerequisite and essential foundation for autonomous systems, providing location and environmental information for decision making and vehicle operation. In recent years, LiDAR systems have demonstrated tremendous potential for enhancing perception capabilities in autonomous navigation and mapping tasks. Autonomous vehicles, ships, and drones, for instance, rely heavily on LiDAR for safe and efficient navigation, particularly in GNSS-denied and challenged environments such as indoors, underground, and in urban canyon areas. Furthermore, due to LiDAR's high ranging accuracy and its ability to provide detailed point cloud data, it offers significant advantages for mapping and environmental perception, laying the groundwork for subsequent tasks such as path planning and mission execution.

This Special Issue aims to explore innovative research on the application of LiDAR technology in autonomous navigation and mapping. Topics may involve positioning, detection, or mapping using LiDAR-based methods or multi-sensor fusion solutions in various environments, including indoors and in urban settings.

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### Guest Editors

Dr. Yiqing Yao

School of Instrument Science and Engineering, Southeast University, Nanjing 210096, China

Prof. Dr. Johnson Ihyeh Agbinya

School of Information Technology and Engineering, Melbourne Institute of Technology, 288 Latrobe Street, Melbourne, VIC 3000, Australia

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## Remote Sensing

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*Remote Sensing*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[remotesensing@mdpi.com](mailto:remotesensing@mdpi.com)

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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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Dr. Prasad S. Thenkabail

Senior Scientist (ST), U. S. Geological Survey (USGS), USGS Western Geographic Science Center (WGSC), 2255, N. Gemini Dr., Flagstaff, AZ 86001, USA

Prof. Dr. Dongdong Wang

Institute of Remote Sensing and Geographic Information Systems, Peking University, Beijing, China

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