# Special Issue

## Machine Learning and Remote Sensing for Improved Autonomous Driving

### Message from the Guest Editors

Autonomous driving stands at the forefront of the transformative technologies poised to revolutionize transportation safety, efficiency, and sustainability. However, despite significant advancements, critical challenges persist in perception, decision-making, and real-time adaptability across diverse and dynamic environments. Remote sensing technologies—such as automotive radar, LiDAR, hyperspectral imaging, and high-resolution satellite/airborne systems—have emerged as pivotal tools, offering complementary spatial, temporal, and spectral data to augment traditional onboard sensors (e.g., cameras).

This Special Issue aligns with Remote Sensing' s focus on innovative methodologies for sensing observation and data analytics. It seeks to bridge ML advancements and remote sensing applications to advance AVs' perception, localization, and decision-making frameworks. Submissions should emphasize cutting-edge algorithms, novel sensor integration, and real-world validation, ensuring relevance in urban, rural, and mixed environments.

### Guest Editors

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Dr. Peng Chen

Dr. Bihan Wen

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### Deadline for manuscript submissions

28 September 2025


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### Message from the Editor-in-Chief

*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.

### Editor-in-Chief

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