

Special Issue

Advances in Sensors for Sustainable Infrastructure: Inspection, Monitoring, and Maintenance

Message from the Guest Editors

As global infrastructure ages and the demand for sustainable development intensifies, innovative sensor technologies are emerging as critical tools to ensure the safety, resilience, and environmental efficiency of built environments. This Special Issue, "Advances in Sensors for Sustainable Infrastructure: Inspection, Monitoring, and Maintenance", seeks to highlight cutting-edge research and practical applications of sensor-based solutions addressing the challenges of modern infrastructure systems. By focusing on inspection, real-time monitoring, and lifecycle maintenance, this collection aims to bridge the gap between technological innovation and sustainable new construction with existing infrastructure practices. The topics to be covered include, but are not limited to, the following:

- Advanced sensor methods for inspecting bridges and infrastructure;
- Real-time monitoring of construction processes;
- Practices for monitoring decarbonization in construction, reducing the embodied carbon in materials;
- Machine learning for predictive maintenance and risk assessment;
- Robotics and automation in infrastructure maintenance.

Guest Editors

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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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