

Special Issue

Smart Sensors and Advanced Data Processing for Infrastructure Life Cycle Monitoring

Message from the Guest Editor

An infrastructure project starts with a design phase, followed by a construction phase, and ends with an operation phase. It must be noted that if the design has a strong impact on the life cycle of infrastructure, the construction method will define its genealogy, which will impact the behavior of the infrastructure under operation. To establish this genealogy, a comprehensive monitoring approach is crucial for long-term safety and reliability. Traditional methods often lack comprehensive, real-time data, but modern imaging systems, data acquisition devices, and analysis technologies provide detailed insights. This Special Issue focuses on the role of advanced monitoring systems and data processing techniques in both infrastructure construction and operation monitoring. In the construction phase, these technologies can be employed to track progress, identify potential risks, and optimize construction processes. **Keywords:**

- Infrastructure monitoring
- Wireless sensors Network
- Construction monitoring
- Infrastructure inspection
- Data processing techniques
- Artificial Intelligence
- Anomaly detection
- Predictive maintenance

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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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