

Special Issue

Advanced Sensing Systems for Building Inspection, Visualization and Assessment

Message from the Guest Editors

This Special Issue focuses on innovative sensing technologies and intelligent systems for building condition assessment, defect detection, and heritage preservation. We invite contributions on multi-modal sensor integration (visible, thermal, LiDAR, hyperspectral, etc.), AI-enhanced analysis, digital twin visualization, and automated inspection frameworks that advance building maintenance practices and smart city infrastructure development. Core research areas and topics include, but are not limited to, the following:

- **Automated inspection platforms** (UAV swarms, robotic systems, mobile mapping system);
- **Multi-modal building sensing** (Visible/thermal/ LiDAR/ hyperspectral imaging);
- **AI-driven defect detection** (deep learning for crack, moisture, material degradation detection);
- **3D reconstruction and digital twins** for building modeling and envelope assessment;
- **Real-time monitoring systems** for ageing infrastructure;
- **Heritage building preservation** through advanced imaging;
- **Energy performance assessment** via façade thermal analysis;
- **Non-destructive testing technologies** (ground-penetrating radar, acoustics, vibration sensors).

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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