

Special Issue

Smart Pavement Monitoring and Management: Leveraging Low-Cost Mobile Sensing, Crowdsourcing, and Machine Learning

Message from the Guest Editor

Recent advances in low-cost mobile sensing, crowdsourcing, and machine learning have created new opportunities to transform pavement monitoring and management practices. Sensors embedded in smartphones, vehicles, and connected devices enable continuous and large-scale data collection on pavement condition, while crowdsourcing frameworks allow agencies to leverage data from road users and fleets at unprecedented scale. Machine learning techniques provide powerful tools to extract meaningful information from these heterogeneous data sources, supporting automated distress detection, condition evaluation, performance prediction, and optimized maintenance planning. Together, these technologies form the foundation of smart, intelligent pavement systems aligned with broader digital infrastructure and smart city initiatives.

In this Special Issue, we solicit high-quality original research and review articles that address state-of-the-art methods, technologies, and applications related to smart pavement monitoring and management.

Guest Editor

Prof. Dr. Symeon Christodoulou

Department of Civil and Environmental Engineering, University of Cyprus, 1 Panepistimiou Avenue, Aglantzia, Nicosia 2109, Cyprus

Deadline for manuscript submissions

30 September 2026



Infrastructures

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CiteScore 6.0



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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
infrastructures@mdpi.com

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Editor-in-Chief

Dr. Pedro Arias-Sánchez

Applied Geotechnologies Group, Department of Natural Resources and Environmental Engineering, School of Mining Engineering, University of Vigo, 36310 Vigo, Spain

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