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Special Issue Reprint

New Trends in Long-Life Road Infrastructures

Edited by: Jue Li, Junhui Peng, Junfeng Gao and Wensheng Wang

This Reprint presents recent advances in long-life road infrastructures, with a focus on materials, structures, monitoring technologies, design methods, and maintenance strategies. Road networks worldwide are facing increasing pressure from aging, heavy traffic, climate change, and the growing need for sustainable and resilient transportation systems. The contributions collected in this Reprint address these challenges through interdisciplinary research covering innovative pavement and subgrade materials, soil and rock stabilization, freeze thaw durability, slope safety, grout quality assessment, pavement mechanics, and infrastructure maintenance optimization.

The Reprint includes original research articles and review papers that reflect current developments in road engineering. Particular attention is given to sustainable materials, intelligent monitoring, data-driven risk analysis, numerical modeling, and performance prediction. Together, these studies provide scientific evidence and practical approaches for improving durability, extending service life, reducing maintenance costs, and enhancing the safety and resilience of road infrastructure systems. This Reprint is intended for researchers, engineers, infrastructure managers, and policy makers interested in the future development of durable and sustainable road networks.

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