

# Special Issue

## Streamlining the Construction Process: The Power of AI in the Road-Building Industry

### Message from the Guest Editors

The goal of this Special Issue is to explore the potential of AI in streamlining the construction process in the road-building industry and provide insights into the latest advancements and challenges in this field. The issue invites experts and practitioners from academia, industry, and government organizations to share their knowledge and experience on the use of AI in enhancing the construction process, from planning and design to execution and monitoring. The topics covered in this issue include AI-powered road design and planning, automated construction processes, real-time monitoring and control, predictive maintenance, cost estimation, project management, big data analytics, IoT integration, case studies and best practices of AI implementation, the impact of AI on the construction industry and workforce, ethical considerations, emerging trends, and future directions. Additionally, the issue explores the potential of AI in road, airport, and railway maintenance, and the role of IoT in the construction and maintenance of roads, airports, and railways.

### Guest Editors

Dr. Ali Sadegh-Zadeh  
Dr. Saeed Shiry Ghidary  
Dr. Septavera Sharvia

### Deadline for manuscript submissions

closed (30 November 2023)



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