



Advanced Machine Learning and AI Techniques for Winter Weather Traffic Modelling in Cold Region Highways

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Message from the Guest Editor

This Special Issue encompasses a broad range of topics related to winter weather traffic modeling in cold regions. The scope includes, but is not limited to, the following:

1. Predictive Models: Development and evaluation of machine learning models for predicting traffic flow, congestion, and travel times under winter weather conditions.
2. Real-time Traffic Management: AI application for real-time traffic monitoring, incident detection, and decision making during adverse weather events.
3. Weather-Integrated Traffic Data: Methods for integrating meteorological data with traffic data to enhance the accuracy and reliability of traffic models.
4. Safety Enhancements: AI-driven solutions for improving road safety, reducing accidents, and mitigating the impact of winter weather on highway users.
5. Case Studies: Practical examples and success stories of machine learning and AI applications in winter weather traffic management and modeling.
6. Comparative Analysis: Comparative studies of different machine learning techniques and their effectiveness in modeling winter weather traffic scenarios.





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