



New Technologies for Asphalt Pavement Materials and Structures

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Message from the Guest Editors

Dear Colleagues,

The sustainability and high resilience of infrastructure are becoming increasingly important and, as a key component of infrastructure, asphalt pavements play a crucial role in achieving the goals of long service life and low-carbon recycling. With the wholesale construction of infrastructure and the advancement of construction technologies, many new technologies have emerged in the research and application of asphalt pavement materials and structures. The study of new technologies, such as functional modification, recycling, intelligent detection, numerical simulation, and low-carbon design, plays a crucial role in achieving the sustainable development of asphalt pavements. In this Special Issue, the latest applications of these technologies in asphalt pavements are discussed. The topics cover, but are not limited to:

- The functional modification of asphalt pavement materials;
- Recycling and the utilization of solid waste materials;
- Anti-skid detection and evaluation of asphalt pavements;
- The numerical simulation of asphalt pavements;
- The low-carbon design of asphalt pavement structures.





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Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

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