Special Issue

Investigation on Different Properties of Bitumen and Asphalt Mixtures Using Advanced Techniques

Message from the Guest Editors

Asphalt pavement is exposed to various factors such as traffic load, water, light, heat, ice, and snow. Over time, the viscoelastic-plastic properties of bitumen can be affected, leading to a decline in its service life and functionality. Our goal is to explore advanced techniques that can reveal the material and structural characteristics of asphalt mixtures under complex conditions and enhance their resistance. This Special Issue invites original research articles and reviews on the following topics:

- Multi-scale analysis of bitumen and asphalt mixtures
- Smart/multifunctional asphalt mixtures
- Numerical simulation
- Advanced testing technology for bitumen and asphalt mixtures
- Failure mechanism of asphalt and asphalt mixture
- Service performance of recycled asphalt pavement

We look forward to receiving your contributions.

Guest Editors

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About the Journal

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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