

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

Guest Editors:

Prof. Dr. Songtao Lv

School of Traffic and
Transportation Engineering,
Changsha University of Science
and Technology, Changsha
410114, China

Dr. Xinghai Peng

National Engineering Research
Center of Highway Maintenance
Technology, Changsha University
of Science and Technology,
Changsha 410114, China

Deadline for manuscript
submissions:

30 August 2024

Message from the Guest Editors

Dear Colleagues,

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.

Prof. Dr. Songtao Lv

Dr. Xinghai Peng



Editor-in-Chief

Prof. Dr. David Arditi

Construction Engineering and
Management Program,
Department of Civil,
Architectural, and Environmental
Engineering, Illinois Institute of
Technology, 3201 South
Dearborn Street, Chicago, IL
60616, USA

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

Journal Rank: JCR - Q2 (*Engineering, Civil*) / CiteScore - Q1 (*Architecture*)

Contact Us

Buildings Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/buildings
buildings@mdpi.com
[X@Buildings_MDPI](https://twitter.com/Buildings_MDPI)