

Research on Performance of Pavement Concrete

Guest Editors:

Prof. Dr. Mang Tia

Engineering School of
Sustainable Infrastructure &
Environment, University of
Florida, Gainesville, FL 32611,
USA

Prof. Dr. Fazil Najafi

Engineering School of
Sustainable Infrastructure &
Environment, University of
Florida, Gainesville, FL 32611,
USA

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Message from the Guest Editors

The world is facing severe climate change, including extreme heat and severe flooding, adversely affecting our roadway system. Concrete pavements have been shown from research findings to be much more resilient to extreme heat and severe flooding compared with asphalt pavements.

This Special Issue will present findings of research on the performances of pavement concretes affected by various pertinent concrete properties, such as the coefficient of thermal expansion, elastic modulus, drying shrinkage, and thermal conductivity. The dissemination of this important knowledge will help us to design optimum pavement concrete for use in resilient concrete pavements in the context of severe global climate change.

We look forward to receiving your contributions to this Special Issue. Research areas may include (but are not limited to) the following:

- Resilient concrete pavement under severe flooding;
- Resilient concrete pavement under extreme heat;
- Field evaluation of concrete pavement;
- Laboratory testing of pavement concrete;
- Modeling of behavior of concrete pavement under severe weather;
- Accelerated testing of concrete pavement;
- Durability of pavement concrete.



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.

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Buildings Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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