# Special Issue

# Advanced Technologies in Foundations Engineering and Construction Materials

### Message from the Guest Editors

In recent years, we have been confronted with challenges in building construction technologies which are quite different from standard practice. These are mainly related to the possible reconstruction or revitalization of old buildings in industrial zones with the use of a high percentage of recycled materials, as well as an evaluation of old structures and their foundations due to certain limitations. This means that testing and surveying are more complicated in areas of existing buildings and that engineers must improve upon standard construction practises on the green yards. Therefore, advanced technologies and new construction materials have been introduced to solve this issue. The first section of research outputs collected in this Special Issue will focus on works related to piling, injection, and special foundation technologies where the design, realization, and testing of geotechnical structures should be combined into one procedure. The second one will focus on new materials and structures for pavement design, the design of resilient and parking zones, antivibration layers, and subbase layers using innovative materials such as reinforced foamed. concrete.

#### **Guest Editors**

Prof. Dr. Marian Drusa

Dr. Jaroslaw Rybak

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# Deadline for manuscript submissions

closed (31 May 2024)



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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.

#### **Editor-in-Chief**

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.9 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).