



## Advanced Studies in Structure Materials

Guest Editors:

**Dr. Yang Li**

**Prof. Dr. Ruijun Wang**

**Dr. Yiping Luo**

**Dr. Xiaochun Lu**

**Dr. Li Li**

Deadline for manuscript  
submissions:

**1 May 2024**

### Message from the Guest Editors

Dear Colleagues,

Concrete, mortar and geo-materials are commonly used building materials for various hydraulic structures. As we all know, the operating conditions and working environment of hydraulic structures such as dams, spillways, weirs, culverts, and canals are very complex. During the operation period, they are not only affected by various loads in different ways but also subjected to natural factors such as abrasion, freeze-thaw, infiltration, carbonization, chemical erosion and so on in a relatively harsh environment. These environments are easy to cause the decay and aging of the physical and mechanical properties of the building materials, and even threatening the safe operation of hydraulic structures.

The main aim of this Special Issue "Advanced Studies in Structure Materials" in Buildings is to provide a platform for the discussion of the major research challenges and achievements in the development of novel hydraulic structures materials. We warmly invite authors to submit their papers for potential inclusion in this Special Issue on concrete, repair materials, mortar, sustainable materials and geo-materials in hydraulic structures.





an Open Access Journal by MDPI

## 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*  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

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

mdpi.com/journal/buildings  
buildings@mdpi.com  
@Buildings\_MDPI