

## Performance-Based Design of Buildings

Guest Editors:

**Prof. Dr. Asimina  
Athanatopoulou-Kyriakou**

Institute of Structural Analysis  
and Dynamics of Structures,  
School of Civil Engineering,  
Aristotle University of  
Thessaloniki, GR54124  
Thessaloniki, Greece

**Dr. Konstantinos Kostinakis**

Laboratory of Structural Analysis  
& Dynamics of Structures, School  
of Civil Engineering, Aristotle  
University of Thessaloniki, 54124  
Thessaloniki, Greece

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### Message from the Guest Editors

Performance-based design is an approach to the design of structures that emphasizes achieving specific performance goals or objectives, rather than adhering to prescriptive codes or standards. The performance-based approach can be used whether the process is about existing or new structures. In recent decades, performance-based design has drawn considerable attention from researchers, since by using advanced simulation and modelling tools, engineers and designers can predict how a structure will perform under various conditions, such as wind, seismic activity, and fire, and optimize the design accordingly. This SI aims to illustrate the key issues encountered in the application of performance-based design for structures subjected to various loads. More specifically, the Special Issue will focus on, but is not limited to, recent developments, challenges and limitations, case studies, and design codes[...]

For further reading, please follow the link to the Special Issue Website at:

[https://www.mdpi.com/journal/buildings/special\\_issues/Performance\\_Based\\_Design](https://www.mdpi.com/journal/buildings/special_issues/Performance_Based_Design)



## 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

Tel: +41 61 683 77 34  
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