Special Issue

Innovations in Integrated Renewable Energy and Adaptive Building Envelopes

Message from the Guest Editors

Integrating renewable energy systems into buildings and developing adaptive building envelopes are two promising approaches for creating more sustainable, energy-efficient buildings. Recent years have seen exciting advances in technologies such as building-integrated photovoltaics, solar thermal systems, phase change materials, electrochromic windows and passive cooling techniques. This Special Issue seeks to publish cutting-edge research related to these technologies and their integration into high-performance buildings. The objective is to highlight current innovations and future opportunities at the intersection of integrated renewables and adaptive building envelopes. We aim to foster knowledge sharing to accelerate the development and adoption of these key technologies for sustainable buildings. Please consider submitting your latest research results and insights. We look forward to your contributions to this exciting and rapidly evolving field.

Guest Editors

Dr. Yelin Zhang

College of Pipeline and Civil Engineering, China University of Petroleum, Qingdao 266580, China

Prof. Dr. Haoshan Ren

School of Architecture, South China University of Technology, Guangzhou 510641, China

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Buildings
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
buildings@mdpi.com

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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

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

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