



## World Renewable Energy Congress 2023 (WREC2023)—Towards Net Zero Buildings

Guest Editors:

**Prof. Dr. Chin Haw Lim**

Solar Energy Research Institute,  
Universiti Kebangsaan Malaysia,  
Bangi 43600, Selangor, Malaysia

**Dr. Hasila Jarimi**

Solar Energy Research Institute,  
Universiti Kebangsaan Malaysia,  
Bangi 43600, Selangor, Malaysia

**Dr. Puvaneswaran  
Chelvanathan**

Solar Energy Research Institute  
(SERI), Universiti Kebangsaan  
Malaysia, Bangi 43600, Selangor,  
Malaysia

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### Message from the Guest Editors

In recent years, a plethora of new emerging green building technologies are being investigated and adapted worldwide. However, not all technologies are well grasped in terms of its suitability to various climatic conditions. Moreover, with the current rise in global warming and its impact to the overall well-being of the planet, now is the time whereby these technologies, especially passive and low energy architecture are put to efficient use. With the aforesaid aim this Special Issue aims to cover recent trends and the latest research advances in the field of Bioclimatic Architecture, Decarbonizing Cities & Regions, Passive & Low Energy Architecture, Construction & Design, Smart Cities & Smart Grids, Zero Carbon Urban Design, Thermal Comfort, Energy Audit in Building, Building Energy Management, Building Integrated Photovoltaic System (BIPV).

In particular, topics include, but are not limited to, the following:

- Green Buildings
- Low Carbon Buildings
- Green Materials for Construction
- Smart Energy Cities
- Indoor Environment Quality (IEQ)
- Renewable Energy Technologies





## 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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