

Special Issue

Sustainable Energy Saving Building Envelopes

Message from the Guest Editors

Designing sustainable energy-efficient buildings is the key to reducing the carbon footprint from the building sector, which typically contributes to at least 30–40% of carbon emissions in most countries. Building energy efficiency can be achieved by the use of highly efficient and intelligent smart systems. However, the first and critical area to be addressed is the building envelope. The best envelopes are those which produce the least carbon emissions during manufacturing and construction, have a long lifetime and reduce the energy and humidity transfer into the conditioned areas of the building while using optimal daylighting techniques. As such, the scope of this Special Issue focuses on novel developments in energy-efficient building envelopes such as (but not limited to)

- Low-e glass / electrochromic smart glass developments;
- Cool paints;
- Solar films for glass facades;
- Lightweight, low cost, good insulating materials;
- Phase change material embedment over roofs or facades;
- Green roofs and walls;
- BIPV facades, windows etc.;
- Novel shades and blind systems.

Guest Editors

Dr. Sivanand Somasundaram

1. Energy Research Institute, Nanyang Technological University, Singapore, Singapore
2. Sustainable Built Environment Group, CleanTech One, Singapore 637141, Singapore

Dr. Swapnil Dubey

Energy Research Institute at Nanyang Technological Institute (ERI@N), Singapore 637553, Singapore

Deadline for manuscript submissions

closed (26 March 2023)



Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



mdpi.com/si/72455

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

[mdpi.com/journal/
sustainability](https://mdpi.com/journal/sustainability)





Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



[mdpi.com/journal/
sustainability](https://mdpi.com/journal/sustainability)



About the Journal

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and Natural Resources, Ohio State University,
Columbus, OH 43210, USA

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1
(Geography, Planning and Development)