

Special Issue

Advances in Buildings Life Cycle Assessment and Energy-Efficient Design

Message from the Guest Editors

Buildings account for a significant portion of global energy consumption and environmental impact. With the growing demand for energy efficiency and reduced environmental impact, the design and operation of sustainable buildings have become critical areas of research. Life Cycle Assessment (LCA) offers a comprehensive framework for evaluating the environmental impacts of products and processes throughout their entire life cycle. Applied to buildings, LCA assesses the environmental impacts at every stage—from material sourcing and construction to operation and the eventual building demolition or reuse. This Special Issue aims to explore innovative research that integrates LCA methodologies to improve the energy efficiency, carbon footprint, and overall environmental performance of buildings. Submissions that employ frameworks like Life Cycle Analysis, Life Cycle Costing, Circular Economy, and related approaches are especially welcome. Researchers are encouraged to submit studies that push the boundaries of current knowledge and offer new solutions to one of the most pressing global challenges: sustainable building practices.

Guest Editors

Dr. Yair Schwartz
Dr. Rahman Azari
Dr. Benjamin Sanchez

Deadline for manuscript submissions

closed (30 September 2025)



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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

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