

Special Issue

Urban Morphology, Urban Microclimate and Low-Carbon Built Environment

Message from the Guest Editors

Cities produce over 70% of global energy-related CO₂ emissions amid urbanization. Urban morphology shapes microclimates via energy balance, ventilation and radiation, further influencing building energy use, thermal comfort and carbon outputs. The integrated “form–microclimate–carbon” mechanism and spatial optimization strategies remain underexplored. This Special Issue combines urban climatology, architecture, planning and energy modeling. It seeks urban form solutions for heat mitigation, energy conservation, carbon reduction and climate resilience. Original papers, reviews and case studies are welcomed covering related interactions, responsive design, modelling tools, nature-based solutions, multi-scale analysis and low-carbon planning. Aiming at researchers, planners and policymakers, this issue fills existing research gaps with integrated, cross-scale and multi-region perspectives, offering practical support for low-carbon resilient cities.

Guest Editors

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Dr. Wen Zhang
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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

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