Special Issue

Smart Management and Net-Zero Carbon Buildings

Message from the Guest Editor

Dear Colleagues: The building and construction sector shares a large proportion of global energy usage and accounts for approximate 40% of energy-related CO2 emissions. The development of low or net-zero energy buildings and smart energy management strategy can play a crucial role in reducing energy consumption and carbon emissions. However, rising integration of distributed energy resources can pose challenges for the reliability of grid operation. The building sector accounts for a large ratio of final energy usage and energy-related carbon emissions. Wide development of advanced metering infrastructure facilitates the interaction between the grid and buildings, exploring the energy flexibility in demand side. Predictive control and data-driven energy management strategies provide new chances to build while reducing the energy use or cost. For this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Smart control in special buildings for energy efficiency and indoor environment quality
- Conservation of buildings
- AI applications in building management
- Grid interactive buildings

Guest Editor

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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. *Sustainability* publishes original research articles, review 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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