



Digital Twinning of Energy and Thermal Systems for Urban Sustainability

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Message from the Guest Editors

Dear Colleagues,

By using control algorithms and machine learning to analyze historical load demand trends, the action taken in response to these recommendations will ensure sustainable performance improvements in buildings operating in the urban context.

This Special Issue "Digital Twinning of Energy and Thermal Systems for Urban Sustainability" welcome the following (but are not limited to) topics:

- i) The implementation of digital twin solutions to enhance buildings performance in built environments;
- ii) Modelling of renewable energy sources to meet the load demands of buildings;
- iii) Development of twin models of existing infrastructure and assets for predictive and preventive maintenance;
- iv) Initiative of digital twin residential, industrial or campus models for the optimization of resource generation to meet load demands;
- v) Use of Artificial Intelligence algorithm for energy efficiency and SMART control for the built environments;
- vi) Development of physics and AI hybrid models for built environments;
- vii) Prognosis and degradation prediction of grid and renewable assets.





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