

Special Issue

Zero Energy Buildings: From Building Energy Simulation to Indoor Environment Monitoring

Message from the Guest Editors

Zero energy buildings (ZEBs) are not only a building design challenge, but also a matter of actual achievement, due to proper management. In fact, the fulfilment of ZEB targets can be greatly hampered by incidental factors such as occupants' actual behavior, HVAC (heating, ventilation and air-conditioning) system failures, inconvenient regulation of the HVAC system, etc. On the other hand, building energy design should be based on reliable assumptions. For this purpose, indoor environment monitoring is crucial. In fact, reliable building energy simulations are pivotal in the assessment of the best building envelope and HVAC system configuration by means of optimization procedures, mainly including financial and energy assessments. Hence, researchers, building management system (BMS) manufacturers, etc. are asked to develop calculation procedures, measurement devices and platforms, software, certification systems, building energy design and facility management guidelines aimed at reliably assessing the quality of ZEBs. This Special Issue is dedicated to covering all the activities that may improve the reliability of ZEB design and the achievement of ZEB targets.

Guest Editors

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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