



Energies

an Open Access Journal by MDPI

CiteScore: 7.3

Impact Factor: 3.2

Special Issue Reprint

Energy and Technical Building Systems - Scientific and Technological Advances

Edited by: Andrea Ferrantelli and Jarek Kurnitski

Future buildings require not only energy efficiency but also proper building automation and control system functionalities in order to respond to the needs of occupants and energy grids. These development paths require a focus on occupant needs such as good indoor climate, easy operability, and monitoring. Another area to be tackled is energy flexibility, which is needed to make buildings responsive to the price signals of electricity grids with increasing amounts of fluctuating renewable energy generation installed both in central grids and at building sites. This Special Issue is dedicated to HVAC systems, load shifting, indoor climate, and energy and ventilation performance analyses in buildings. All these topics are important for improving the energy performance of new and renovated buildings within the roadmap of low energy and nearly zero energy buildings. To improve energy performance and, at the same time, occupant comfort and wellbeing, new technical solutions are required. Occupancy patterns and recognition, intelligent building management, demand response and performance of heating, cooling and ventilation systems are some common keywords in the articles of this Special Issue contributing to future highly performing buildings with reliable operation.

