

Special Issue

Energy and Technical Building Systems - Scientific and Technological Advances

Message from the Guest Editors

Future buildings have not only to be energy efficient, but they need to be equipped with proper building automation and control systems' functionalities in order to be capable to respond to the needs of occupants and energy grids. These development paths, raised by the revised Energy Performance of Buildings Directives as a new smart readiness indicator, require one to focus more on occupant needs such as good indoor climate, easy operability, and the monitoring of buildings.

Another area to be tackled is energy flexibility, which is needed to make buildings responsive to price signals of electricity grids with increasing amounts of fluctuating renewable energy generation both installed in central grids and on building sites. This Special Issue follows ten domains of the smart readiness assessment scope, namely, the following:

- Heating;
- Domestic hot water;
- Cooling;
- Mechanical ventilation;
- Lighting;
- Dynamic building envelope;
- On-site energy generation;
- Demand side management;
- Electric vehicle charging;
- Monitoring and control.

Guest Editors

Prof. Dr. Jarek Kurnitski

1. nZEB Research Group, Tallinn University of Technology, Ehitajate tee 5, 19086 Tallinn, Estonia
2. Department of Civil Engineering, Aalto University, PO Box 12100 FI-00076 Aalto, 02150 Espoo, Finland

Dr. Andrea Ferrantelli

Department of Civil Engineering and Architecture, Tallinn University of Technology, 19086 Tallinn, Estonia

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Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Aerospace Engineering, University of Roma Sapienza, Via Eudossiana 18, 00184 Roma, Italy

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