

Conference papers published in 2018

Flexible Nullenergiegebäude und Quartiere - Potentiale für Gebäudeenergiesysteme, Bauphysik und Baukonstruktionen. Tobias Weiss. 24-26 January 2018. Proceedings of BauZ conference Vienna/Austria

Heat Flexibility as a Function of the Outdoor Climate: A Study of Danish Dwellings. Rongling Li, Yunran Chen, Carsten Rode. COBEE2018, 5-9 February 2018, Australia.
<http://www.cobee2018.net/assets/pdf/p/049.pdf>

Calibration of a high-resolution dynamic model for detailed investigation of the energy flexibility of a zero emission residential building. Clauß J., Vogler-Finck P.J.C., Georges L. Cold Climate HVAC, 12-15 March 2018, Kiruna, Sweden.
<https://paxmongolicadotorg.files.wordpress.com/2018/03/2234.pdf>

Inverse model identification of the thermal dynamics of a Norwegian zero emission house. Vogler-Finck P.J.C., Clauß J., Georges L., Sartori I., Wisniewski R. Cold Climate HVAC, 12-15 March 2018, Kiruna, Sweden.
<https://paxmongolicadotorg.files.wordpress.com/2018/03/1221.pdf>

The role of energy flexibility for a low carbon energy system: Large-scale versus small-scale measures. Ruth Fulterer, Anna-Maria Fulterer, Armin Knotzer. STS - Critical Issues in Science, Technology and Society Studies conference. 3 May 2018 Graz/Austria
<https://conference.aau.at/event/137/picture/93.pdf>

Representation of daily profiles of building energy flexibility. T. Péan, B. Torres, J. Salom and J. Ortiz. eSim 2018, 9-10 May 2018, Montreal. Presented.

Aggregation of Energy Flexibility of Commercial Buildings. Anjukan Kathirgamanathan, Killian Murphy, Mattia De Rosa, Eleni Mangina, and Donal P Finn. eSim 2018, 9-10 May 2018, Montreal. Presented

Potential of building thermal mass for energy flexibility in residential buildings: a sensitivity analysis. Kun Zhang and Michaël Kummert. eSim 2018, 9-10 May 2018, Montreal. Presented

Energy flexibility analysis for photovoltaic solar system with battery. Behzad Barzegar, Kun Zhang and Michaël Kummert. eSim 2018, 9-10 May 2018, Montreal. Presented

Experimental study on the control strategies of DC power supply and storage in buildings. Fulin Wang, Zeyu Sun and Rui Yan. Set 2018, August 21-23, 2018, Wuhan, China

Energetische Flexibilität durch Nutzung der thermischen Gebäudemasse. Monika Hall, Caroline Hoffmann, Achim Geissler. 6.-7. September 2018, Status-Seminar, Zürich.

Quantifying Thermal Flexibility of Multi-Family and Office Buildings. Caroline Hoffmann, Monika Hall, Achim Geissler. Building Simulation and Optimization 2018, 11-12. September 2018, Cambridge. <https://irf.fhnw.ch/bitstream/handle/11654/26562/Session%203A-2-Hoffmann-Quantifying%20thermal%20flexibility%20of%20multi-family%20buildings%20and%20office%20buildings.pdf?sequence=1>

Opportunities and barriers for asset managers integrating energy flexibility. Erwin Mlecnik. ISEC 2018, 4-5 October 2018, Graz, Austria.

Characterisation of the flexibility potential from space heating in French residential buildings. J. Le Dréau and J. Meulemans. 7th International Building Physics Conference (IBPC 2018), Syracuse, NY (USA), 23–26 September 2018. <http://ibpc2018.org/>

Digitalization and facility management: Energy flexibility of existing buildings. Susanne Metzger et al. International Facility Management 2018. 18. November 2018, Wien, Austria. Paper accepted.

Conference papers published in 2017

A Business Ecosystem Driven Market Analysis: The Bright Green Building Market Potential. Zheng Ma et al. 2017 IEEE Technology & Engineering Management Conference. Santa Clara, CA, USA, June 7-9, 2017. [http://findresearcher.sdu.dk/portal/en/publications/a-business-ecosystem-driven-market-analysis-the-bright-green-building-market-potential\(816c836f-46e2-4848-9387-3b2f2f439b03\).html](http://findresearcher.sdu.dk/portal/en/publications/a-business-ecosystem-driven-market-analysis-the-bright-green-building-market-potential(816c836f-46e2-4848-9387-3b2f2f439b03).html)

The Energy Flexibility in the commercial buildings: from the business ecosystem perspective. Zheng Ma et al. 14th International Conference on the European Energy Market – EEM 2017. Dresden, Germany, June 6-9, 2017. [http://findresearcher.sdu.dk/portal/en/publications/energy-flexibility-in-retail-buildings-from-a-business-ecosystem-perspective\(6ac704a7-8a4f-4bb6-9959-5ae6b09a981b\).html](http://findresearcher.sdu.dk/portal/en/publications/energy-flexibility-in-retail-buildings-from-a-business-ecosystem-perspective(6ac704a7-8a4f-4bb6-9959-5ae6b09a981b).html)

Optimal design of the battery capacity for buildings' direct current power distribution and electricity storage system. Ao Li and Fulin Wang. SET 2017 Bologna, The 16th International Conference on Sustainable Energy Technologies

Urban Energy System Simulation using the Functional Mock-up Interface. Markus Schumacher et al. IBPSA Building Simulation Conference 2017, San Francisco, USA, August 7-9, 2017. http://www.ibpsa.org/proceedings/BS2017/BS2017_704.pdf

Flexibility Quantification for Building Energy Systems with Heat Pumps. Sebastian Stinner, Kristian Huchtemann, Dirk Müller. IBPSA Building Simulation Conference 2017, San Francisco, USA, August 7-9, 2017. http://www.ibpsa.org/proceedings/BS2017/BS2017_245.pdf

Control strategies for building energy systems to unlock demand side flexibility – A review. John Clauß, Christian Finck, Pierre Vogler-Finck, Paul Beagon. IBPSA Building Simulation Conference 2017, San Francisco, USA, August 7-9, 2017. http://www.ibpsa.org/proceedings/BS2017/BS2017_462.pdf

Implementing Occupant Behaviour in the Simulation of Building Energy Performance and Energy Flexibility: Development of Co-Simulation Framework and Case Study. Rongling Li et al. IBPSA Building Simulation Conference 2017, San Francisco, USA, August 7-9, 2017. <http://www.forskningsdatabasen.dk/en/catalog/2373519112>

Performance Maps For The Control Of Thermal Energy Storage.
Christian Finck et al.
IBPSA Building Simulation Conference 2017, San Francisco, USA, August 7-9, 2017.
http://www.ibpsa.org/proceedings/BS2017/BS2017_238.pdf

Numerical Analysis of the Influence of Thermal Mass, Phase Change Materials and Furniture/Indoor Content on Building Energy Flexibility. H. Johra, P. Heiselberg, J. Le Dreau.
IBPSA Building Simulation Conference 2017, San Francisco, USA, August 7-9, 2017.
http://www.ibpsa.org/proceedings/BS2017/BS2017_012.pdf

Different balancing methods for Net Zero Energy Buildings - Impact of time steps, grid interaction and weighting factors.
Monika Hall and Achim Geissler.
CISBAT 2017 International Conference – Future Buildings & Districts – Energy Efficiency from Nano to Urban Scale, 6-8 September 2017, Lausanne, Switzerland.
<https://doi.org/10.1016/j.egypro.2017.07.422>

PVopti – hourly based energy balance for building design.
Bastian Burger and Monika Hall.
CISBAT 2017 International Conference – Future Buildings & Districts – Energy Efficiency from Nano to Urban Scale,
6-8 September 2017, Lausanne, Switzerland.
<https://doi.org/10.1016/j.egypro.2017.07.394>

Potential and optimization of a price-based control strategy for improving energy flexibility in Mediterranean buildings.
Thibault Péan, Jaume Salom and Joana Ortiz (2017).
CISBAT 2017 International Conference – Future Buildings & Districts – Energy Efficiency from Nano to Urban Scale,
CISBAT 2017 6-8 September 2017, Lausanne, Switzerland.
<http://www.sciencedirect.com/science/article/pii/S1876610217328904>

The impact of different energy balancing methods on Net Zero Energy Buildings.
Monika Hall and Achim Geissler.
Advanced Building Skins Conference, 2-3 October 2017, Bern, Switzerland.
https://irf.fhnw.ch/bitstream/handle/11654/25548/Proceedings%20Advanced%20Building%20Skins%202017_Hall_Geissler_1052_1060.pdf?sequence=1

Energieflexible Nullenergiegebäude und Quartiere - Potentiale für Gebäudeenergiesysteme, Bauphysik und Baukonstruktionen. Tobias Weiss. 23/24 November 2017. Proceedings of E-Nova 2017 conference, Pinkafeld/Austria

Conference papers published in 2016

IEA EBC Annex 67 Energy Flexible Buildings.
Søren Østergaard Jensen, Anna Marszal-Pomianowska.
CLIMA 2016, Aalborg, May 22-25, 2016.
http://vbn.aau.dk/files/233817779/paper_325.pdf

Operational Load Shaping of Office Buildings Connected to Thermal Energy Storage Using Dynamic

Programming.

Christian Finck, Rongling Li, Wim Zeiler.

CLIMA 2016, Aalborg, May 22-25, 2016.

https://pure.tue.nl/ws/files/52255755/CLIMA2016_TUE_Finck_Operational_load_shaping_of_office_buildings_connected_to_thermal_energy_storage_using_dynamic_programming.pdf

Goodbye Passive House, Hello Energy Flexible Building?

Erwin Mlecnik.

PLEA 2016 - 32th International Conference on Passive and Low Energy Architecture. Los Angeles, USA, July 11-13, 2016.

<https://repository.tudelft.nl/islandora/object/uuid%3A0e009e81-a339-42f7-afea-e7c3b27a2a9f>

Development of a design tool to calculate the grid interaction of buildings (in German).

Hall M., Burger B., Geissler A. Brenet 19.

Status-Seminar. Zürich, Switzerland, September 8-9, 2016

https://irf.fhnw.ch/bitstream/handle/11654/23355/OP-III-2-3_020_Hall-et-al._PlanungstoolNetzinteraktion-von-Gebaeuden.pdf?sequence=1

Comparison of the future residual load in fifteen countries and requirements to grid-supportive building operation.

Konstantin Klein, Sven Killinger, David Fischer, Christoph Streuling, Jaume Salom, Eduard Cubi.

Eurosun 2016, Palma de Mallorca, Spain, October 11-14, 2016.

www.researchgate.net/publication/309148474 Comparison of the future residual load in fifteen countries and requirements to grid-supportive building operation

Market Opportunities and Barriers for Smart Buildings.

Zheng Ma, Adrian Badi, Bo Nørregaard Jørgensen.

IEEE Green Energy and Systems Conference (IGESC 2016). Long Beach, California, November 7, 2016.

<http://ieeexplore.ieee.org/document/7790078/>

Conference papers published in 2015

A literature review of methodologies used to assess the energy flexibility of buildings.

Rui Amaral Lopes, Adriana Chambel, João Neves, Daniel Aelenei, João Martins.

SHC 2015, International Conference on Solar Heating and Cooling for Buildings and Industry.

Istanbul, Turkey, December 2-4, 2015.

www.sciencedirect.com/science/article/pii/S1876610216303745

Posters

Energieflexible Gebäude - Potenziale verschiedener Gebäudetypen und Einflussfaktoren.

Tobias Weiß, Anna Fulterer and Armin Knotzer.

Smart Energy Systems Week, May 15-19, 2017. Graz, Austria.

http://www.seswa.at/docs/poster/Poster_Weiss.pdf