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Employment

Research outputs

Towards feasible and credible building modelling reflecting the operational energy use and indoor environment – Nordic climate case study

Larsen, O. K., Hu, Y. & Pomianowski, M. Z., 15 Aug 2024, In: Energy and Buildings. 317, 114346.

Final Report: Integrated Solution – Double Skin Facade and Diffuse Ceiling Ventilation for School Renovation (I-DIFFER)

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Design Guide for I-DIFFER: The Double-Skin Facade Solution with Integrated Diffuse Ventilation

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E-DYCE - Dynamic approach to the dynamic energy certification of buildings

Larsen, O. K., Pomianowski, M. Z., Chiesa, G., Belias, E., d'EXAERDE, T. D. K., Florentzou, F., Fasano, F. & Grasso, P., 1 Dec 2023, In: Journal of Physics: Conference Series. 2600, 3, 032015.

Laser-Doppler Anemometry for detection of the velocity field in the ventilated, asymmetrically heated channel - a case study

Larsen, O. K., Zhang, C., Melgaard, S. P., Nikolaijsson, I. T., Liu, L. & Larsen, T. S., 2023, In: Journal of Physics: Conference Series. 2654, 1, 012091.

Totalværdimetode: En manual til anvendelse hos boligorganisationer

Larsen, O. K., Marszal-Pomianowska, A., Heiselberg, P. & Haugbølle, K., May 2021, Kbh.: Institut for Byggeri, By og Miljø (BUILD), Aalborg Universitet. 85 p. (BUILD Rapport; No. 2021:09).

Kvalificeret beslutningsgrundlag og dokumenteret værdi

Larsen, O. K. (Performer) & Sandersen, C. R. (Performer), 20 Apr 2021

Skab større værdi i renoveringerne

Larsen, O. K. (Performer), 2021

Computational performance prediction of Double-Skin Ventilated Facade

Larsen, O. K. & Liu, M., 2018, *Booklet 3.2 Building Performance Simulation and Characterisation of Adaptive Facades : Adaptive Facade Network*. Favoino, F., Loonen, R. C. G. M., Doya, M., Goia, F., Bedon, C. & Babich, F. (eds.). Delft: TU Delft Open Publishing, p. 89-93

Estimation Methodology for the Electricity Consumption with the Daylight- and Occupancy-Controlled Artificial Lighting
Larsen, O. K., Jensen, R. L., Strømberg, I. K. & Antonsen, T. N., 2017, In: Energy Procedia. 122, p. 733-738

Self-user guide: How to upload a resource to training material repository?

Larsen, O. K. & Heiselberg, P. K., 2017, Aalborg: Department of Civil Engineering, Aalborg University. 14 p. (DCE Technical Reports; No. 230).

Experimental performance investigation of glazing system combined with internal roller blinds

Larsen, O. K., Jensen, R. L., Iversen, T. D. & Hedegaard, J., 2016, *CLIMA 2016: proceedings of the 12th REHVA World Congress, 22-25 May 2016, Aalborg, Denmark*. Heiselberg, P. (ed.). Aalborg: Department of Civil Engineering, Aalborg University, Vol. 2. 9 p. 373

PROF-TRAC D.4.1 Overview and structure of available material

Larsen, O. K. & Heiselberg, P. K., 2016, Aalborg: Department of Civil Engineering, Aalborg University. 27 p. (DCE Technical reports; No. 218).

Ventilated window and glazed façades

Larsen, O. K. & Heiselberg, P. K., 2015, *Adaptive Facades Network: COST Action TU1403*. Luible, A., Overend, M., Aelenei, L., Knaack, U., Perino, M. & Wellershoff, F. (eds.). TU Delft Open Publishing, p. 80 1 p.

Experimental data and boundary conditions for a Double-Skin Facade building in external air curtain mode

Larsen, O. K., Heiselberg, P. & Jensen, R. L., 2014, Aalborg: Department of Civil Engineering, Aalborg University. 23 p. (DCE Technical Memorandum; No. 38).

Experimental data and boundary conditions for a Double - Skin Facade building in preheating mode

Larsen, O. K., Heiselberg, P. & Jensen, R. L., 2014, Aalborg: Department of Civil Engineering, Aalborg University. 23 p. (DCE Technical Memorandum; No. 40).

Experimental data and boundary conditions for a Double - Skin Facade building in transparent insulation mode

Larsen, O. K., Heiselberg, P. & Jensen, R. L., 2014, Aalborg: Department of Civil Engineering, Aalborg University. 23 p. (DCE Technical Memorandum; No. 39).

An Intelligent Window for Optimal Ventilation and Minimum Thermal Loss: D3.1 Report on Functional Requirements

Larsen, O. K. & Heiselberg, P., 2011, European Commission. 12 p.

An Intelligent Window for Optimal Ventilation and Minimum Thermal Loss: Ventilation Mechanism Prototype for Testing by AAU

Larsen, O. K. & Heiselberg, P., 2011, European Commission. 11 p.

An Intelligent Window for Optimal Ventilation and Minimum Thermal Loss: Report on Notional System Design, Calculation Methodology and Software-Based Design

Larsen, O. K., Heiselberg, P. & Liu, M., 2011, European Commission. 28 p.

An Intelligent Window for Optimal Ventilation and Minimum Thermal Loss: Prototype of Combined Solar Shading or Night Blind Element

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Investigation of Ventilation Strategies for the Day-Care Institutions

Larsen, O. K., Afshari, A. & Heiselberg, P., 2011, *Proceedings of the 9th Nordic Symposium on Building Physics: NSB 2011*. Vinha, J., Piironen, J. & Salminen, K. (eds.). Tampere, Finland: Tampere University Press, Vol. Volume 3. p. 1253-1260 8 p.

Investigation of Ventilation Strategies for the Day-Care Institutions

Larsen, O. K., Afshari, A. & Heiselberg, P., 2011, *Proceedings of the 9th Nordic Symposium on Building Physics: NSB 2011*. Tampere University Press, Vol. 3. 1 p.

An Empirical Validation of Building Simulation Software for Modelling of Double-Skin Facade (DSF)

Larsen, O. K., Heiselberg, P., Felsmann, C., Poirazis, H., Strachan, P. & Wijsman, A., 2009, *Building Simulation 2009 : University of Strathclyde, Glasgow, 27th-30th July: Proceedings of the 11th International Building Performance Simulation Association Conference*. Strachan, P. A., Kelly, N. J. & Kummert, M. (eds.). Energy Systems Research Unit : University of Strathclyde, 8 p.

BSim Models for 2 Case-studies of Naturally and Mechanically Ventilated Daycare Institutions: Project: Energibesparelser i børneinstitutioner ved valg af den optimale ventilationstekniske løsning tilpasset konkretesituationer

Larsen, O. K. & Heiselberg, P., 2009, Aalborg: Department of Civil Engineering, Aalborg University. 67 p. (DCE Technical reports; No. 67).

Results of User Satisfaction Surveys for 18 buildings, 3rd Draft: Technical Report Building AdVent - Work Package 3, Delivery D7

Larsen, O. K. & Heiselberg, P., 2009, Aalborg: Department of Civil Engineering, Aalborg University. 134 p. (DCE Technical reports; No. 65).

Synthesis Report on User Acceptability of Ventilation Technologies: 2nd Draft

Larsen, O. K. & Heiselberg, P., 2009, Aalborg: Department of Civil Engineering, Aalborg University. 58 p. (DCE Technical reports; No. 66).

Varmebehov og varmekonsum: Dobbelte Glasfacader

Kalyanova, O. & Heiselberg, P., 2009, *Varme Ståbi*[®]. Lauritsen, A. B. (ed.). 5 ed. København: Nyt Teknisk Forlag, p. 131-142 12 p.

BSim Modeler Report: Empirical Validation of Building Simulation Software : Technical Report IEA ECBCS Annex43/SHC Task 34 Validation of Building Energy Simulation Tools : Subtask E

Kalyanova, O. & Heiselberg, P., 2008, Aalborg: Department of Civil Engineering, Aalborg University. 17 p. (DCE Technical reports; No. 29).

Data Set for Empirical Validation of Double Skin Facade Model

Kalyanova, O., Jensen, R. L. & Heiselberg, P., 2008, *Proceedings of the 8th Symposium on Building Physics in the Nordic Countries: NSB2008, Nordic Symposium on Building Physics 2008*. Rode, C. (ed.). Technical University of Denmark (DTU), Vol. 1. p. 151-158 8 p. (BYGDTU Report; No. R-189).

Data Set for Empirical Validation of Double Skin Facade Model

Kalyanova, O., Jensen, R. L. & Heiselberg, P., 2008, *Book of abstracts: Nordic Symposium on Building Physics 2008 : Sunday 15 June 2008 - Friday 18 July 2008*. Technical University of Denmark (DTU), 1 p.

Data Set for Empirical Validation of Double Skin Facade Model

Kalyanova, O., Jensen, R. L. & Heiselberg, P., 2008, In: *Nordic Journal of Building Physics: Acta Physica Aedificiorum*. 4

Double-Skin Facade: Modelling and Experimental Investigations of Thermal Performance

Kalyanova, O., 2008, Aalborg: Department of Civil Engineering, Aalborg University. 212 p.

Empirical validation data sets for double skin facade models

Kalyanova, O., Jensen, R. L. & Heiselberg, P., 2008, *The First International Conference on Building Energy and Environment*. Liu, J., Zhang, T. & Zhai, Z. (eds.). Tianjin University and Dalian University of Technology, 8 p.

Empirical Validation Data Sets for Double Skin Façade Models

Kalyanova, O., Jensen, R. L. & Heiselberg, P., 2008, *The First International Conference on Building Energy and Environment: Abstracts*. Liu, J., Zhu, N. & Zhang, T. (eds.). Tianjin University and Dalian University of Technology, p. 344 1 p.

Empirical Validation of Building Simulation Software : Modeling of Double Facades: Final Report

Kalyanova, O. & Heiselberg, P., 2008, Aalborg: Department of Civil Engineering, Aalborg University. (DCE Technical reports; No. 27).

Experimental Set-up and Full-scale measurements in the 'Cube'

Kalyanova, O. & Heiselberg, P., 2008, Aalborg: Department of Civil Engineering, Aalborg University. 58 p. (DCE Technical reports; No. 34).

Final Empirical Test Case Specification: Test Case DSF100_e and DSF200_e IEA ECBCS Annex43/SHC Task 34 Validation of Building Energy Simulation Tools

Kalyanova, O. & Heiselberg, P., 2008, Aalborg: Department of Civil Engineering, Aalborg University. 45 p. (DCE Technical reports; No. 33).

BSim Modeler Report: Comparative Validation of Building Simulation Software

Kalyanova, O. & Heiselberg, P., 2007, Aalborg: Department of Civil Engineering, Aalborg University. 17 p. (DCE Technical reports; No. 25).

Comparative Test Case Specification

Kalyanova, O. & Heiselberg, P., 2007, Aalborg: Department of Civil Engineering, Aalborg University. 64 p. (DCE Technical reports; No. 28).

Comparative Validation of Building Simulation Software: Modeling of Double Facades : Final Report

Kalyanova, O. & Heiselberg, P., 2007, Aalborg: Department of Civil Engineering, Aalborg University. 241 p. (DCE Technical reports; No. 24).

Empirical Validation of Building Simulation Software: Modelling of Double Facades

Kalyanova, O. & Heiselberg, P., 2007, Aalborg: Department of Civil Engineering, Aalborg University. 141 p. (DCE Technical reports; No. 30).

Measurement of Air Flow Rate in a Naturally Ventilated Double Skin Facade

Kalyanova, O., Jensen, R. L. & Heiselberg, P., 2007, *Proceedings of Roomvent 2007: Helsinki 13-15 June 2007 : Abstract Book*. Seppänen, O. & Säteri, J. (eds.). FINVAC ry, p. 238 1 p.

Measurement of Air Flow Rate in a Naturally Ventilated Double Skin Facade

Kalyanova, O., Jensen, R. L. & Heiselberg, P., 2007, *Proceedings of Roomvent 2007: Helsinki 13-15 June 2007*. Seppänen, O. & Säteri, J. (eds.). FINVAC ry, 10 p.

Measuring Air Temperature in Glazed Ventilated Facades in the Presence of Direct Solar Radiation

Kalyanova, O., Zanghirella, F., Heiselberg, P., Perino, M. & Jensen, R. L., 2007, *Proceedings of Roomvent 2007*. Seppänen, O. & Säteri, J. (eds.). FINVAC ry, 10 p.

Measuring air temperature in glazed ventilated façades in the presence of direct solar radiation

Kalyanova, O., Zanghirella, F., Heiselberg, P., Perino, M. & Jensen, R. L., 2007, *Proceedings of Roomvent 2007: Helsinki 13-15 June 2007 : Abstract Book*. Seppänen, O. & Säteri, J. (eds.). FINVAC ry, p. 283 1 p.

The Cube

Kalyanova, O., 2007, In: VENTInet. 19, p. 4-5

A New Test Facility at the Center for Hybrid Ventilation

Kalyanova, O., 2006, In: VENTInet. 16, p. 1-2 2 p.

Comparative Test Case Specification: Test Cases DSF200_3 and DSF200_4 : IEA ECBCS Annex43/SHC Task 34 : Validation of Building Energy Simulation Tools

Kalyanova, O. & Heiselberg, P., 2006, Aalborg: Department of Civil Engineering, Aalborg University. 15 p. (DCE Technical reports; No. 5).

Empirical Test Case Specification: Test Case DSF200_e : IEA ECBCS Annex43/SHC Task 34 : Validation of Building Energy Simulation Tools

Kalyanova, O. & Heiselberg, P., 2006, Aalborg: Department of Civil Engineering, Aalborg University. 34 p. (DCE Technical reports; No. 6).

Klimaterning giver ny viden om ventilation: Ny forsøgsbygning ved Center for Hybrid Ventilation, Aalborg Universitet

Kalyanova, O. & Jensen, R. L., 2006, In: H V A C Magasinet. 42, 4, p. 50-51 2 p.

Ny forsøgsbygning ved Center for Hybrid Ventilation

Kalyanova, O. & Jensen, R. L., 2006, In: H V A C Magasinet. 4

Comparative Test Case Specification – Test Cases DSF100_2 and DSF400_3: Report for IEA ECBCS Annex 43/SHC Task 34 Validation of Building Energy Simulation Tools

Kalyanova, O. & Heiselberg, P. K., 2005, Aalborg: Institut for Bygningsteknik, Aalborg Universitet. 28 p. (Aalborg Universitet. Institut for Bygningsteknik. R; No. R0512).

Experiments with Fresh Air Inlet Devices

Larsen, O. K., 2005, In: VENTInet. 14, p. 7-8 2 p.

Literature Review of Double Skin Facades Modelling Approaches: Report for IEA ECBCS Annex 43/SHC Task 34 Validation of Building Energy Simulation Tools

Kalyanova, O., Poirazis, H. & Heiselberg, P. K., 2005, Institut for Bygningsteknik, Aalborg Universitet: Institut for Bygningsteknik, Aalborg Universitet. 34 p. (Uden navn; No. R0510).

Activities

E-DYCE - Dynamic approach to the dynamic energy certification of buildings

Larsen, O. K. (Lecturer)

13 Sept 2023 → 15 Sept 2023

Combining diffuse ceiling ventilation with double skin façade

Larsen, O. K. (Lecturer)

22 Jun 2023

Validating a Building Performance Simulation Model of a naturally ventilated Double Skin Facade

Larsen, O. K. (Lecturer)

12 Jun 2023 → 14 Jun 2023

Key E-DYCE project results

Larsen, O. K. (Lecturer) & Pomianowski, M. Z. (Lecturer)

24 May 2023

Bæredygtig Bygningsrenovering - Uddannelse

Larsen, O. K. (Lecturer)

29 Apr 2023

Skab større værdi i renoveringerne

Larsen, O. K. (Lecturer)

2021

REBUS Workshop – Demonstration af Totalværdi metode

Larsen, O. K. (Organizer), Marszal-Pomianowska, A. (Organizer) & Haugbølle, K. (Organizer)
10 Dec 2020

Hvad er den rette investering, når man skal renovere?

Larsen, O. K. (Lecturer)
7 Oct 2020

Totalværdi som parameter, når der skal vælges renoveringsstrategier

Larsen, O. K. (Lecturer)
7 Oct 2020

The 9th Nordic Symposium on Building Physics (NSB 2011)

Larsen, O. K. (Speaker)
29 May 2011 → 2 Jun 2011

Workshop on FULL SCALE TEST FACILITIES FOR EVALUATION of ENERGY/HYGROTHERMAL PERFORMANCES

Larsen, O. K. (Speaker)
30 Mar 2011 → 31 Mar 2011

Nordic Symposium on Building Physics

Larsen, O. K. (Speaker)
16 Jun 2008 → 18 Jun 2008

Nordic Symposium on Building Physics

Larsen, O. K. (Speaker)
16 Jun 2008 → 18 Jun 2008

Forskningens Dag : Institut for Byggeri og Anlæg

Larsen, O. K. (Speaker)
8 Jan 2008

The International Conference on Air Distribution in Rooms, Roomvent

Larsen, O. K. (Speaker)
13 Jun 2007 → 15 Jun 2007

The International Conference on Air Distribution in Rooms, Roomvent

Larsen, O. K. (Speaker)
13 Jun 2007 → 15 Jun 2007

Press/Media

Ph.d.

Larsen, O. K.
31/10/2008
1 item of Media coverage

Projects

Adaptive Facade Network

Larsen, O. K. (Project Participant), Heiselberg, P. K. (Project Participant) & Liu, M. (Project Participant)
28/10/2014 → 28/10/2018

Double-Skin Facade : Modelling and Experimental Investigations of Thermal Performance

Larsen, O. K. (Project Participant) & Heiselberg, P. K. (Project Manager)

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04/09/2008 → 04/09/2008

EDYCE: Energy Flexible Dynamic Building Certification

Pomianowski, M. Z. (Project Coordinator), Larsen, O. K. (Project Participant), Hu, Y. (Project Participant), Wittchen, K. B. (Project Participant), Pereira, D. H. L. E. (Project Participant) & Bock, A. R. (Project Manager)

01/09/2020 → 31/08/2023

Forbedring af indendørsmiljøet gennem diffus loftsventilation: Udvikling af et designkonfigurationsværktøj

Zhang, C. (PI) & Larsen, O. K. (PI)

01/01/2025 → 30/06/2026

IEA – SHC Task 34/ECBCS Annex 43: Testing and Validation of Building Energy Simulation Tools

Larsen, O. K. (Project Participant) & Heiselberg, P. K. (Project Participant)

<ingen navn>

02/01/2004 → 31/12/2007

Implementation of REBUS total value method in LCCbyg

Haugbølle, K. (PI), Larsen, O. K. (Project Manager), Heiselberg, P. K. (Project Licensee), Scheutz, P. (Project Participant), Mahdi, V. (Project Participant) & Marszal-Pomianowska, A. (Project Participant)

01/10/2018 → 31/12/2020

I-DIFFER: Integrated Solution - Double Skin Facade and Diffuse Ceiling Ventilation for School Renovation

Larsen, O. K. (PI), Zhang, C. (PI), Johra, H. (Project Applicant) & Hu, Y. (Project Participant)

01/02/2021 → 31/01/2024

REBUS - RENovating Buildings Sustainably

Pedersen, A. (Project Licensee), Heiselberg, P. K. (Project Manager), Larsen, T. S. (Project Participant), Jensen, R. L. (Project Participant), Larsen, O. K. (Project Participant), Rohde, L. (PI), Knudsen, H. N. (Project Participant), Mortensen, L. H. (Project Participant), Aggerholm, S. (Project Participant), Wittchen, K. B. (Project Participant), Wyke, S. (PI), Sørensen, C. G. (PI) & Kragh, J. (PI)

15/03/2016 → 14/03/2020

Udvikling af Integreerede Modeller for Multifunktionelle Facader

Heiselberg, P. K. (Project Participant) & Larsen, O. K. (Project Participant)

Danish Society of Heating, Ventilating, and Air-Conditioning Engineers

01/10/2004 → 30/09/2007