

	Sunday, April 18 <sup>th</sup> , 2021  16.00 – 17:00 Annex 79 Meeting of Subtask Leaders
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Monday, April 19 <sup>th</sup> , 2021	<b>Annex 79 Meeting – Day 1</b>			
	12:45 Registration and log in			
	13:00 Welcome, introduction, roll call & adoption of the agenda			
	13:30 Overview and general information about Annex 79 by Operating Agents, Agenda for breakouts (4 slides from the STLs presented by the OAs)			
	14:00 Group Photo 😊 lunch break			
	14:15 Breakout sessions for presentations, discussions, further work plan, and planning of deliverables			
	<b>Subtask 1:</b>  (address of virtual meeting room)	<b>Subtask 2:</b>  (address of virtual meeting room)	<b>Subtask 3:</b>  (address of virtual meeting room)	<b>Subtask 4:</b>  (address of virtual meeting room)
	16:15 Coffee break			
	16:30 Panel discussion: <i>"What exactly is occupant-centric building design? – Different perspectives but common sense or domain-dependent approaches?"</i>			
	18:00 End of day 1, social time			

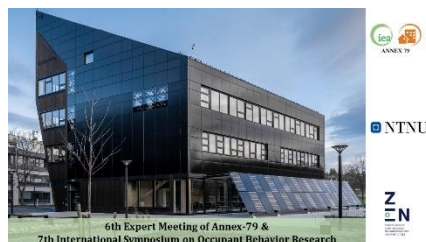
Tuesday, April 20 <sup>th</sup> , 2021	<b>Annex 79 Meeting – Day 2</b>			
	12:45 Registration and log in			
	13:00 Brief agenda for breakouts from STLs for each ST			
	13:10 Breakout sessions (continued)			
	<b>Subtask 1:</b>  (address of virtual meeting room)	<b>Subtask 2:</b>  (address of virtual meeting room)	<b>Subtask 3:</b>  (address of virtual meeting room)	<b>Subtask 4:</b>  (address of virtual meeting room)

	<b>15:10</b> Lunch break
	<b>15:30</b> Plenary session for cross-subtask activities
	<b>16:30</b> STs' summary presentations and discussion
	<b>17:30</b> Dissemination issues: seminars/workshops at conferences, special issues of journals, website, newsletters, outreach to other organisations
	<b>17:45</b> Introduction to next meeting, presented by host  Summary and closing remarks, Andreas Wagner and Liam O'Brien
	<b>18:00</b> End of Annex 79 meeting, social time

Wednesday, April 21 <sup>st</sup> 2021	<p><b>International Symposium on Occupant Behaviour</b></p> <p>13:00 – 18:00</p>
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**Please note: ALL TIMES ARE IN CEST!**

# IEA EBC Annex 79 “Occupant behavior-centric building design and operation” The 7<sup>th</sup> International Symposium on Occupant Behavior Research



April 21<sup>st</sup>, Trondheim, Norway

## PROGRAM DRAFT

*Due to the corona pandemic the entire event is arranged online  
Schedule is given in CEST time  
(7 minutes for presenting and 3 minutes for Q&A)*

### 13.00-14.00 Opening & Topic 1: Personalized Comfort and Building Controls

- 13.00-13.10 Welcome address
  - Operating agents and Hosts
- 13.10-13.20 Presentation of NTNU/SINTEF ZEB Laboratoriet building
  - Recorded virtual tour
- 13.20-13.30 The design process for achievement of an office living laboratory with a ZEB standard
  - Steinar Grynning, Berit Time; Norway
- 13.30-13.40 The ZEB Laboratory - a research tool for climate adapted zero emission buildings
  - Alessandro Nocente; Norway
- 13.40-13.50 T1: Design Specifications for Bidirectional Feedback on Indoor Environmental Quality
  - Angela Sanguinetti, Eli Alston-Stepnitz, Sarah Outcault; USA
- 13.50-14.00 *Short break*

### 14.00-15.00: Topic 1 & Topic 2: Modeling and simulation of occupant behavior based on big data

- 14.00-14.10 T1: SSO User Insight Toolbox – occupant- centric building design to enhance occupant comfort and health
  - Quan Jin, Holger Wallbaum; Sweden
- 14.10-14.20 T1: Three Theories of Occupant Smart-thermostat Override Behaviour
  - Kunind Sharma, Michael Kane; USA
- 14.20-14.30 T1: Shading control strategies based on performance indicators considering occupant comfort and energy consumption
  - Zhang Xinmin, Li Zhengrong, Yu Xuyun, Zhu Han, Li Canjun; China
- 14.30-14.40 T1: They're smart, but are they usable? An investigation into thermostat usability in Canadian homes
  - Ruth A.F. Tamas, Liam O'Brien, Mario Santana Quintero; Canada

- 14.40-14.50 T2: A Data mining framework for hourly DHW heat use prediction based on occupancy pattern: A case study in Norway
  - Lu Yan, Yuemin Ding, Natasa Nord; Norway
- 14.50-15.00 *Short break*

### **15.00-16.10: Topic 3: Human Building Interactions**

- 15.00-15.10 T2: Deriving Urban-scale Building Occupant Behavior Patterns through Big Data Analysis
  - Yapan Liu, Bing Dong; USA
- 15.10-15.20 T2: Shape-based clustering and temporal sequential-based forecast of occupancy in public buildings
  - Yuan Jin1, Da Yan; China
- 15.20-15.30 T3: Investigating inter-generational factors on behaviour and human building interaction
  - Gregory P. Sewell, Stephanie Gauthier, Patrick A.B. James, Sebastian Stein; UK
- 15.30-15.40 T3: Moving Beyond Thermal Comfort: Capturing Wellness-related Occupant Perceptions Related to Privacy, Movement and Airborne Disease Transmission
  - Clayton Miller; Singapore
- 15.40-15.50 T3: A systemic perspective on human inhabitation
  - Astrid Roetzel, Mark DeKay, Abdul-Manan Sadick, Akari Nakai Kidd; Australia, USA
- 15.50-16.10 *Break*

### **16.10-17.20: Topic 3 & Topic 4: Integrate occupant modeling into building design process & Topic 5: Occupant-centric building controls**

- 16.10-16.20 T3: How can change of the simulation scope from occupants' actions to occupants' reasons, change energy-related occupant behaviour simulations?
  - Jakub Dziedzic, Da Yan, Vojislav Novakovic; Norway, China
- 16.20-16.30 T4: Occupant-centric Key Performance Indicators to Inform Building Design and Operations
  - Han Li, Tianzhen Hong, Zhe Wang; USA
- 16.30-16.40 T4: A Critical Review: Building Performance Co-simulation with Occupant Thermal Comfort Behaviour and Beyond
  - Michael Kane, Maharshi P Pathak, Sugirdhalakshmi Ramaraj, Thomas Stesco; USA
- 16.40-16.50 T4: Incorporating people's behaviour in buildings requires new methods, conceptual frameworks, and Building Performance Simulation tools
  - Germán Molina, Michael Donn, Casimir MacGregor, Micael-Lee Johnstone; New Zealand
- 16.50-17.00 T5: HVAC Energy Savings and IEQ for Occupancy Sensing in Buildings
  - Meng Kong, Bing Dong, Rongpeng Zhang, and Zheng O'Neill; USA
- 17.00-17.10 T5: An ontology on occupants' conscious feedback in building - Zoom into reported Data
  - Ayse Tüzün, Isabel Mino, Romina Risetto, Andreas Wagner; Germany
- 17.10-17.20 *Short break*

### **17.20-18.30: Topic 6: Case studies of occupant-centric modelling, design, and operations & Topic 7: Other building occupant-related research**

- 17.20-17.30 T6: A Proposed Architecture for Longitudinal Studies of Home Thermal Comfort Perception and Behavior

- Emily Casavant, David Fannon, Michael Kane, Kunind Sharma, Misha Pavel; USA
- 17.30-17.40 T6: Building Operators and their Role in Occupant-centric Building Controls
  - Krissy Goversen, Ciana Winston, Michael Kane, Alison Brady; USA
- 17.40-17.50 T6: Empirical and computational assessment of lighting conditions in home offices
  - Ceren Sarikaya, Christiane Berger, Ulrich Pont, and Ardeshir Mahdavi; Austria
- 17.50-18.00 T6: Capturing occupant activities of daily living through sensor fusion: framework, modelling and applications
  - Masab K. Annaqeeb, Anooshmita Das, Jakub W. Dziedzic, Jens Hjort Schwee, Mikkel B. Kjærgaard, Vojislav Novakovic; Norway; Denmark
- 18.00-18.10 T7: Exploring cross-modal influences in occupants' perception and evaluation of indoor environments
  - Christiane Berger, Ardeshir Mahdavi; Austria
- 18.10-18.20 T7: Seeking Barriers to Comfort and Energy Efficiency on a University Campus
  - Julia K. Day, Shelby N. Ruiz; USA
- 18.20-18.30 *Closing*