

# BUILDING ENERGY PERFORMANCE AND OCCUPANT BEHAVIOR

INTERNATIONAL SYMPOSIUM

&

2<sup>ND</sup> EXPERT MEETING OF  
IEA EBC ANNEX 66



## Announcement

Energy related occupant behavior in buildings, for example adjusting thermostats for comfort, switching lights, and moving between spaces has a significant impact on real energy use and indoor environmental quality. Therefore, it is a key issue for building design optimization, energy diagnosis, performance evaluation, and building energy simulation. However, the influence of occupant behavior is under-estimated or over-simplified in the design, construction, operation, and retrofit of buildings.

The IEA EBC Annex 66 aims to set up a standard occupant behavior definition platform, and establish a quantitative simulation methodology to model occupant behavior in buildings. This will result in a better understanding of the influence of occupant behavior on building energy use and the indoor environment.

### Registration

International Symposium	
Daytime (excl. banquet):	120 €
Banquet	30 €
2 <sup>nd</sup> Expert Meeting of IEA EBC Annex 66	
Daytime (2 days) and Evening Dinner at 1 <sup>st</sup> day)	50 €
Symposium and Annex Meeting	180 €
For registration and further information, please visit	
	<a href="http://annex66.org/KarlsruheMeeting">http://annex66.org/KarlsruheMeeting</a>



AUGUST 3 -5 2015  
KARLSRUHE, GERMANY

# Program

## International Symposium

### Venue

Gartensaal, Karlsruhe Palace  
(Schloss Karlsruhe)

### Date:

Monday, August 3 2015

### Program

09:30 Start registration

### Welcome

10:00 Welcome and Introduction  
Andreas Wagner, Karl-Friedrich  
Ziegahn (Karlsruhe Institute of  
Technology)

### Session 1 Occupant behavior from an engineering perspective

10:15 Keynote 1: From total energy use in buildings to occupant behavior  
Bjarne Olesen (Technical University of Denmark)

10:45 Rebound effects in residential apartment buildings after refurbishment  
Dirk Müller (RWTH Aachen University)

11:05 Simulation of pedestrian behavior with the Social Force Model  
Tobias Kretz (PTV Group)

11:25 Coffee break

### Session 2 Occupant behavior from a psychological/sociological perspective

11:45 Keynote 2: Promoting behavior change of occupants  
Ellen van der Werff (University of Groningen)

12:15 Insights into occupants' satisfaction at workplaces: method and results from field studies  
Karin Schakib-Ekbatan (IREES)

12:35 Inferring cognitive states from behavioral data: Examples from driving simulation studies  
Gerhard Rinkenauer (IfADO)

12:55 Lunch break

### Session 3 Occupant behavior from an industry perspective

14:00 Keynote 3: Building Automation as a key to manage occupant demand and energy performance  
Dirk John (ABB AG)

14:30 Detecting energy in-efficiency – an effective and smart approach  
Giel van Giersbergen (Cofely)

14:50 Technological implementation of occupant behavior in energy efficiency solutions for buildings  
Janis Anders (Kieback & Peter)

15:10 Coffee break

### PhD Session

15:30 8 x 5' presentations with short panel comments and discussion  
Call open until end of June - please contact [marcel.schweiker@kit.edu](mailto:marcel.schweiker@kit.edu) for further information

17:00 End of symposium

~19:00 Banquet

## 2<sup>nd</sup> Expert Meeting IEA EBC Annex 66

### Venue

Faculty of Architecture, (Karlsruhe Institute of Technology)

### Date

Tuesday, August 4 - Wednesday, August 5

### Program

10:00 - 17:00 General discussions and sub-task sessions.

Dinner and evening event on Tuesday.