# THE HUMAN DIMENSION OF BUILDING ENERGY PERFORMANCE

VENICE (ITALY)

## ENDORSED BY

ASHRAE

REHVA 3E — Federation of European Heating, Ventilation and Air Conditioning Associations

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PRESSO IL MINISTERO DELLA GIUSTIZIA

Università Iuav di Venezia

## CALL FOR PAPERS

The human factor affects significantly the actual energy performance over the building life cycle. The incorporation of behavioral insights into the building design and operation is starting to be recognized as a key topic. Research efforts are therefore needed for fully integrating human dimensions in the building energy performance: data on occupant behavior have to be collected and properly elaborated; drivers and motivations have to be understood; indexes describing users comfort preferences and the impact on health and productivity have to be identified; new modeling approaches and tools need to be developed; design and operating strategies centered on occupants have to be defined. This paradigm shift, based on occupants more than on advanced systems and technologies to reduce energy costs, activates a virtuous process, where not only occupants can benefit from it but also building owners, building operators and energy managers, enhancing comfort conditions and productivity and making more cost effective and energy efficient the whole process.

The human dimension of the energy entails also facing important cultural and social issues which are still a barrier. Novel strategies and approaches that engender efficiency has to be implemented, through policies aimed at engaging and empowering people, at reducing social and gender inequalities, at fighting fuel poverty.

The conference brings together researchers, professionals and practitioners to present and discuss the latest research on this topic. On behalf of the Organizing Committee, we warmly invite you to join us in Venice.

*All papers will be presented in English*
*Simultaneous translation is NOT provided*

CA RR AiCARR 51st INTERNATIONAL CONFERENCE

FEBRUARY 20-22, 2019

# THE HUMAN DIMENSION OF BUILDING ENERGY **PERFORMANCE**

## CONSULTA INDUSTRIALE

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BlueBox • LG Life's Good
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Johnson Controls • MITSUBISHI ELECTRIC HYDRONICS & IT COOLING SYSTEMS S.p.A. CLIMAVENETA HITACHI Air conditioning solutions

## CONFERENCE TOPICS

### Occupant Data, comfort and satisfaction

Indoor environmental parameters (thermal, visual, aural, and olfactory comfort) in the context of energy-related occupant actions and preferences

Health, human performance and productivity in the built environment

Ergonomics of built environment, and design of flexibles paces

Demand based comfort, adaptive comfort

### Occupant-centric building operating strategies

Building automation systems, Internet of Things, BIM

Controls usability and O&M of building energy systems

Integration of advanced techniques and tools for HVAC system design and operation

Demand-response and smart technologies for high performing buildings Personalised comfort

### Occupant modelling and digital tools

Tracking and Data analysis (data mining, machine learning, artificial intelligence, statistical modelling)

Applications of occupant behaviour models in design, evaluation and operation optimization

Time-related factors, activity profiling and occupancy patterns

Building energy dynamic simulations, real time simulations

Simulated and actual energy consumption

### Policies and social implications related to occupants and energy consumption

Engagement, exploration and empowerment strategies

Occupants Inter-and Intra-Individual differences for reducing inequalities

Fuel poverty

## DEADLINES

- Deadline for abstracts submission **September 20, 2018**

- Abstracts acceptance notification **September 30, 2018**

- Submission of first round manuscripts **October 30, 2018**

- Completion of peer review **November 15, 2018**

- Final papers submission **December 30, 2018**

## CONGRESS RULES

- Interested authors should send an abstract of their proposed paper ( **1500 characters including spaces**) within September 20th 2018.
- Abstracts acceptance will be communicated within September 30th 2018
- Number of proposed topics: max 2
- Abstract sent via e-mail, fax etc. will not be accepted as well as those sent after the submittal deadline.
- Rules of the Conference for the Authors are published on AiCARR website
  *www.aicarr.org > menù Convegni > area relatori > regole congressuali*