

THE HUMAN DIMENSION OF BUILDING ENERGY PERFORMANCE



ENDORSED BY



DEADLINES

Deadline for abstracts
submission
July 30, 2018

Abstracts acceptance
notification
September 15, 2018

Submission of first round
manuscripts
October 30, 2018

Completion of peer review
November 15, 2018

Final papers submission
December 30, 2018

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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.

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 flexible spaces
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

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