

Issue 10
January 2014

IBPSA-USA Newsletter



Meeting of the New York Chapter of IBPSA-USA.

Upcoming Events

IBPSA-USA Semi-Annual Meeting, New York, NY, Jan. 18, 2014
ASHRAE Winter Meeting, New York, NY, Jan. 19-22, 2014
ASHRAE/IBPSA-USA Building Simulation Conf., Sept. 10-12, 2014

About this Newsletter

The IBPSA-USA Newsletter will be published every 3 months to inform its membership about current and emerging events in building simulation. To submit articles, send email to newsletter@ibpsa.us

IBPSA-USA appoints executive director



IBPSA-USA's newly appointed Executive Director Mike Wilson brings to the organization over 15 years of business management

and consulting experience in both the private and non-profit sectors; focusing on strategic planning and program management. His clients have included local and state educational institutions, research foundations, the federal government and many Fortune 500 companies. Mike has also founded venture funded organizations focused on technology education in the for-profit and non-profit sectors. He is eager to bring his entrepreneurial experience and expertise to IBPSA-USA as it transitions from a volunteer managed organization. Mike and his wife Barbara live in Oakland, Ca., raising two teenage children. As a life-long musician you can often find Mike in his free time playing with his band in local venues. To learn more about Mike, visit him at www.linkedin.com/in/mikeewilson/.

2014 ASHRAE/IBPSA-USA Building Simulation Conference

September 10 - 12, 2014
Atlanta, GA

IBPSA-USA and ASHRAE are convening this conference to improve the industry's ability to accurately model building performance. The conference combines the IBPSA-USA SimBuild and ASHRAE Energy Modeling Conferences. 224 abstracts have been received and are under review. Non-refereed presentations are now being solicited and proposals for these are due February 10, 2014.

Training workshops and software demonstrations are planned, and student scholarships will be available.

See www.ashrae.org/Simulation2014

Announcement of IBPSA-USA NY meeting

IBPSA-USA will hold our winter meeting on Saturday, January 18th at 4:00 p.m. at the Stagecoach Tavern (former location of the Stage Deli for those that have visited the area before - easy walk from the ASHRAE hotels). 834 7th Avenue, NYC.

Our meeting is generously sponsored by [Autodesk](#) and [NYSERDA](#). The past few meetings have been very informative...please click the link above to learn more about the upcoming meeting.

The business meeting is expected to be as lively as ever and filled with updates on the industry and growth of the organization in many ways, and our dinner presentation titled Driving Project Performance Through Data and Analytics from David Fano and Alan Jackson of [case](#), a BIM consultancy from New York will be a great technical topic.

A new feature for this meeting is a member discount. Current IBPSA-USA members may enter a promotional code for \$10 off the registration cost. This code will be sent by email to all IBPSA-USA members.

Chapter update

North Texas Chapter Planned

A new IBPSA-USA chapter is coming to the Dallas/Fort Worth metro area. The Metroplex (as it is often known by locals) is now the fourth largest metropolitan area in the US and has many energy modeling practitioners. The chapter has 16 founding members and is starting monthly meetings in January 2014. Members of the new chapter will work to further the science (and often art!) of building energy performance simulation in the local design community and at their own places of business. Monthly meetings will offer opportunities for networking among practitioners and guests and allow members to share best practices and case studies for professional development. Anyone wishing to obtain further information on this new local chapter is welcome to contact Scott West at scott.west@jacobs.com.

Salt Lake City Chapter Planned

A group is working to form a new chapter in Salt Lake City. Those who are interested in participating should contact David Griffin at dgriffin@etcgrp.com.

New York Chapter

The New York chapter held a December 19 meeting at the office of SOM titled, "N++ v2014: Official commercial release of the latest GUI for EnergyPlus". The demo was followed by simulation community holiday drinks.

BEMBook training

The next workshop on Energy Modeling Best Practices and Applications will be held on January 21, 2014 in New York City.

Trainers will be Annie Marston and Erik Kolderup.

For more information see: <https://www.ashrae.org/education--certification/2014-new-york-winter-courses>.

BS2017 host site sought

The venue for IBPSA's biennial international conference Building Simulation 2015 was announced earlier this year to be in Hyderabad in India, following the highly successful conference this year in France.

IBPSA are currently seeking expressions of interest in hosting Building Simulation 2017. Details of the call for proposals can be found in the recent IBPSA newsletter (<http://www.ibpsa.org/Newsletter/IBPSANews-23-2.pdf>) on page 35.

A complete proposal should be sent to the Conference Committee chairman, Paul Strachan (p.a.strachan@strath.ac.uk), no later than February 14, 2014. Discussions with Paul of potential proposals prior to the due date are strongly encouraged.



BEMBook workshops

IBPSA-USA presents several workshops about Building Energy Modeling. These workshops cover modeling fundamentals, ASHRAE 90.1 performance rating, modeling best practices, modeling to inform design and measurement & verifications. Slides can be downloaded from http://www.bembook.ibpsa.us/index.php?title=Workshop_Downloads

The next workshop is as follows:

January 21, 2014, New York City
ASHRAE Winter Meeting

Instructors: Erik Kolderup and Annie Marston.

Registration: <https://www.ashrae.org/education--certification/2014-new-york-winter-courses>

For future workshops, visit http://www.bembook.ibpsa.us/index.php?title=Workshop_Plan_and_Status



IEA EBC Annex 66, Definition and Simulation of Occupant Behavior in Buildings, is officially launched

Energy related occupant behavior in buildings, for example adjusting thermostat for comfort, switching lights, opening/closing windows, pulling up/down window blinds, and moving between spaces, is a key issue for building design optimization, energy diagnosis, performance evaluation, and building energy simulation due to its significant impact on real energy use and indoor environmental quality in buildings. However the influence of occupant behavior is under-recognized or over-simplified in the design, construction, operation, and retrofit of buildings. Occupant behavior is complex, stochastic and multi-disciplinary (Figure 1). Having deep understanding of occupant behavior and being able to model and quantify its impact on use of building technologies and energy performance of buildings is crucial to design and operation of low energy buildings. Existing studies on occupant behavior, mainly from the perspective of sociology, lack in-depth quantitative analysis. There are over 20 groups all over the world studying occupant behavior individually. The occupant behavior models developed by different researchers are often inconsistent, with a lack of consensus in common language, in good experimental design and in modeling methodologies. Due to the complexity and the great district discrepancy of occupant behavior, it is prerequisite for researchers to work together to define and simulate occupant behavior in a consistent and standard way.

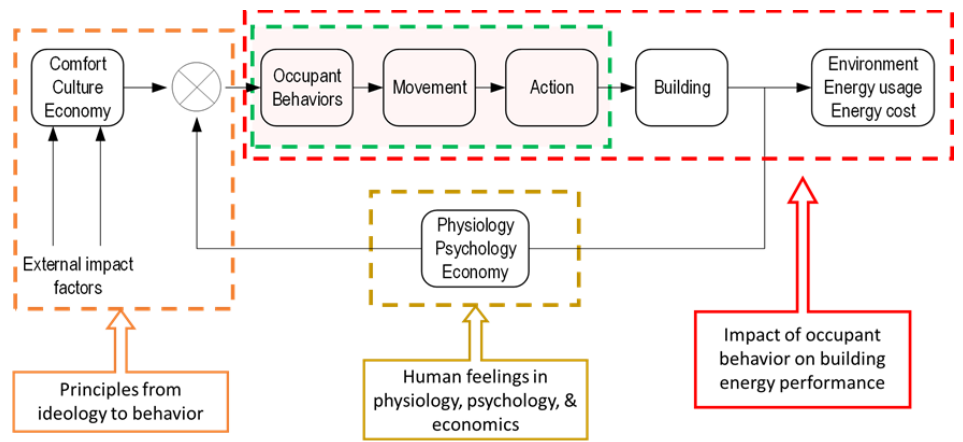


Figure 1: Relationship between occupants and buildings.

The Annex 66 project was approved unanimously at the 74th Executive Committee Meeting of the IEA Energy in Buildings and Communities Programme, held on 14th November 2013 in Dublin, Ireland. The Annex aims to set up a standard occupant behavior definition platform, establish a quantitative simulation methodology to model occupant behavior in buildings, and understand the influence of occupant behavior on building energy use and the indoor environment. The project has five subtasks:

1. Subtask A - Occupant movement and presence models. Simulating occupant movement and presence is fundamental for occupant behavior research. The main objective of the subtask is to provide a standard definition and simulation methodology to represent how an occupant presents in his/her office and moves between spaces.
2. Subtask B - Occupant action models in residential buildings. Occupant action behavior in residential buildings affects building performance significantly. This subtask aims to provide a standard description for occupant action behavior simulation,

systematic measurement approach, and modeling and validation methodology in residential buildings.

3. Subtask C - Occupant action models in commercial buildings. Some specific challenges of occupant behavior modeling exist in commercial buildings, where occupant behavior is of high spatial and functionality diversity. This subtask aims to provide a standard description for occupant action behavior simulation, systematic measurement approach, and modeling and validation methodology in commercial buildings.
4. Subtask D - Integration of occupant behavior definition and models with current building energy modeling programs. This subtask will bridge between Subtasks A-C and Subtask E, enable applications by researchers, practitioners, and policy makers and promote third-party software development and integration. A framework in XML schema and a software module with occupant behavior models will be the main outcome of this subtask.

5. Subtask E - Applications in building design and operations. This subtask will provide case studies to demonstrate applications of the new occupant behavior definition and models. The occupant behavior definition and models can be used by building designers, energy saving evaluators, building operators, and energy policy makers. Case studies will provide verification of the applicability of the developed definition and models by comparing the measured and the simulated results.

Currently 23 countries and regions and 56 organizations including universities, research institutes, software companies, design consultant companies, operation managers, and system control companies have confirmed great interests in participating in the project. Preparation phase started in November 2013 and will continue till October 2014. The Working phase plans to start in November 2014 and last for two years. The Reporting phase will be from November 2016 to April 2017.

Through Annex 66, we hope to provide scientific description and clear understanding of energy related occupant behavior in buildings, as well as research methodologies and simulation tools to bridge the gap between occupant behavior and the built environment (Figure 2), thus to assist building design, operation, and energy technologies evaluation through the close co-operation of researchers all over the world.



Figure 2: Annex 66 - bridging the gaps between occupant behavior and the built environment.

For further information please contact the operating agents or visit <http://www.annex66.org> .

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