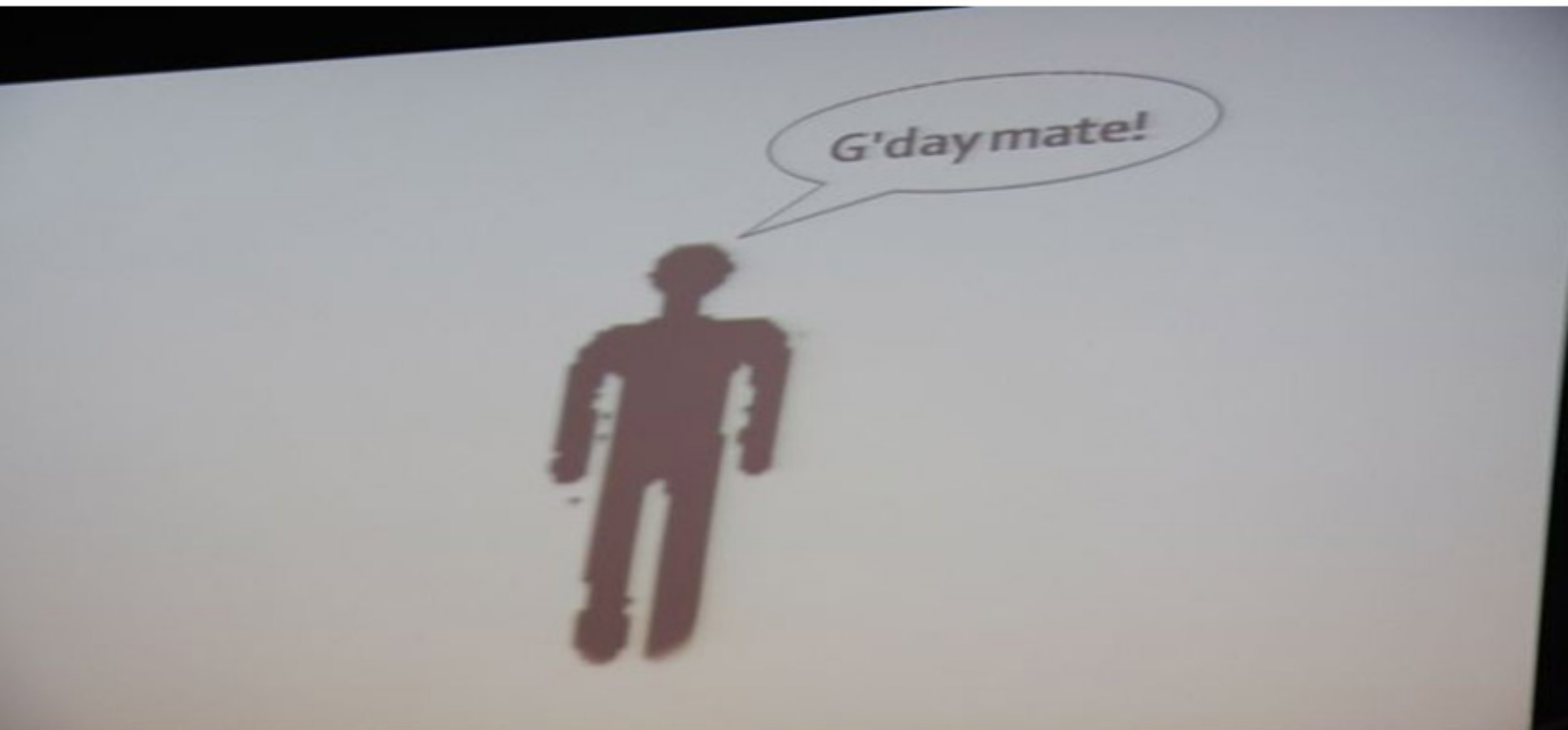




# *ibpsa*NEWS

volume 22 number 1 [www.ibpsa.org](http://www.ibpsa.org)

Apr 2012



## GLOBAL COMMUNITY NEWS

## INTERVIEWS

## PUBLICATIONS

from IBPSA Canada, Chile, Egypt, England, Germany, Nordic and USA+England (jointly)

with Professor Joe Clarke, one of IBPSA's first Fellows, and the recipient of the 2011 Outstanding Young Contributor Award, Kristina Orehounig

two new books and a Virtual Special Issue of JBPS



# Contents

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|   |           |
|---|-----------|
| <b>President's message</b>  | <b>3</b>  |
| <b>BS2011</b>   | <b>5</b>  |
| Notes from BS2011   | 5         |
| And the winners are ...   | 9         |
| <b>Journal of Building Performance Simulation news</b>                      | <b>10</b> |
| <b>Interview with Joe Clarke</b>  | <b>13</b> |
| <b>Book announcements</b>   | <b>16</b> |
| <b>Interview with Kristina Orehounig</b>                                    | <b>18</b> |
| <b>Forthcoming events</b>   | <b>20</b> |
| Calendar  | 20        |
| eSim 2012: IBPSA Canada's 7th biennial conference                           | 21        |
| Healthy Buildings 2012  | 22        |
| SimBuild 2012: IBPSA USA's 5th biennial conference                          | 23        |
| BSO12: First IBPSA England conference on Building Simulation & Optimization | 24        |
| ASim 2012: IBPSA-China, IBPSA-Japan and IBPSA-Korea joint conference        | 25        |
| CLIMA 2013: 11th REHVA World Congress                                       | 26        |
| <b>News from IBPSA affiliates</b>   | <b>27</b> |
| IBPSA-Canada  | 27        |
| IBPSA-Chile   | 29        |
| IBPSA-Egypt   | 29        |
| IBPSA-England   | 32        |
| IBPSA-Germany   | 33        |
| IBPSA-Nordic  | 33        |
| IBPSA-USA and IBPSA-England   | 34        |
| <b>IBPSA Announcements</b>  | <b>36</b> |
| Building Simulation 2015: Call for Proposals                                | 36        |
| 2011 IBPSA Fellows  | 38        |
| IBPSA Fellow nominations due on 1 June                                      | 40        |
| <b>About IBPSA</b>  | <b>41</b> |
| Affiliates  | 41        |
| Committee chairs & contacts   | 42        |



The International Building Performance Simulation Association exists to advance and promote the science of building performance simulation in order to improve the design, construction, operation and maintenance of new and existing buildings worldwide.

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# President's message

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Dear IBPSA colleagues and friends,

I think those of you who made the trip to Sydney last November will agree that Building Simulation 2011 was a huge success. By any measure — be it number of delegates, papers, or countries represented — the 12th conference of IBPSA was the largest ever gathering of building simulation researchers and practitioners. On behalf of IBPSA I would like to extend once again a huge thank you to IBPSA-Australasia, the conference organizing and scientific committees, as well as IBPSA's conference committee for all their efforts to make this event such a success.

Although the Sydney conference is still fresh in our minds, work is already underway to organize Building Simulation 2013, which will be hosted by IBPSA-France in Chambéry; expect to see the call for abstracts within the next few months. It takes many years to plan and execute a successful conference, which is why this newsletter includes a call for proposals for hosting Building Simulation 2015; interested affiliates and organizations are encouraged to assemble their bids in the near future.

While we are on the topic of conferences, you should be aware that many of IBPSA's regional affiliates organize excellent events that are open to all with an interest in building performance simulation. Although these are smaller than the biennial international conferences, they tend to be focused, present high-quality emerging work, and offer excellent networking opportunities. I encourage you to attend one of more of the conferences that will be held in the coming months, such as BauSIM (Germany), SimBuild (USA), Building Simulation and Optimization (UK), and eSim (Canada).

IBPSA continues to expand the organization in regions with both mature and emerging building performance simulation expertise and infrastructure. Five new affiliates — IBPSA-Italy, IBPSA-Nordic, IBPSA-Chile, IBPSA-Ireland, and IBPSA-Egypt — have been approved during the past eight months. IBPSA's 26 affiliates now represent more than 4 200 people in 35 countries, and these numbers will grow in the near future.

IBPSA's official journal — the Journal of Building Performance Simulation (JBPS) — continues to flourish. The JBPS is now in its fifth year of publication and recently received the very positive news that it has been included in Thomson Reuter's databases, including the Science Citation Index (SCI). As for many authors inclusion in the SCI and the associated Impact Factor are important considerations, it is expected that this news will bring forth greater development in the JBPS. Even before this news was received, the number of issues and pages per year were expanded to accommodate the amount of high-quality material that makes it through the journal's rigorous peer-review process.

### *President's message*

Finally, I would like to bring your attention to an important initiative to recognize members who have attained distinction in the field of building performance simulation. The first cohort of IBPSA Fellows was honoured at the conference in Sydney and the organization is now seeking nominations for future Fellows, as detailed in this newsletter.

I look forward to seeing you at one of the upcoming building simulation conferences. Happy simulating to all.

A handwritten signature in blue ink, reading "Ian Beausoleil-Morrison". The signature is fluid and cursive, with the last name being more prominent and stylized.

Ian Beausoleil-Morrison



# Notes from BS2011

## Building Simulation 2011: Driving Better Design Through Simulation

Christina J Hopfe and Veronica Soebarto with photographs from Phil Wilkinson and Cathy Bannister

The 12th International Building Performance Simulation Association (IBPSA) Conference and Exhibition was successfully held at the Novotel Sydney, Brighton Beach Hotel, from November 14-16 2011. Situated directly opposite the beach the venue had spectacular views across Botany Bay and several delegates were seen indulging in a pre-conference swim each morning.

The conference was co-hosted by IBPSA Australasia and the Australian Institute of Refrigeration, Air-conditioning and Heating (AIRAH), Australia's professional body for the HVAC industry. This collaboration provided an excellent forum for exchange of ideas and information between simulation researchers, designers of systems and applications, mechanical and electrical engineers, and government legislators responsible for designing and enacting building codes.

An opening reception was held at the Hotel on 13 November whilst on the final evening (16th November) the conference delegates were invited on board Starship Sydney, Australia's largest and most contemporary glass cruise boat, giving delegates stunning panoramic views of Sydney harbour. The cruise ended spectacularly with an unexpected — and even by co-hosts and organizer of the conference unplanned — fireworks display.

The theme of the BS2011 Conference was *Driving Better Design Through Simulation*. In total, 450 delegates from 36 countries attended the conference and papers were presented in seven parallel sessions with one poster session per day over the three days.

All papers submitted to BS2011 were double blind-reviewed. Unlike previous BS conferences, papers that were conditionally accepted were further re-reviewed/assessed in order to ensure that the standard of the final submissions was of a very high quality. Also, the format of the paper presentation (oral or poster) was left to the author's discretion instead of being decided by the Scientific Committee as had been the case of previous BS conferences. This means that the presentation format was not an indicator of the quality of the paper.

In the end, there were 363 research papers and 29 application papers that were accepted for presentation at the conference, thus the total number of papers included in the Conference Proceedings is 392. A summary is presented in **Figure 1**, overleaf.

**Figure 2**, also overleaf, shows the breakdown of the final papers based on the different paper topics in BS 2011. It can be seen that there were more papers in "new advances in building



Opening reception ↑ and didgeridoo player Colin McCormack during the reception ↓



Conference opening in the Brighton Beach Hotel ↑ and opening speech by IBPSA Australasia President and Chair of BS2011, Paul Bannister ↓



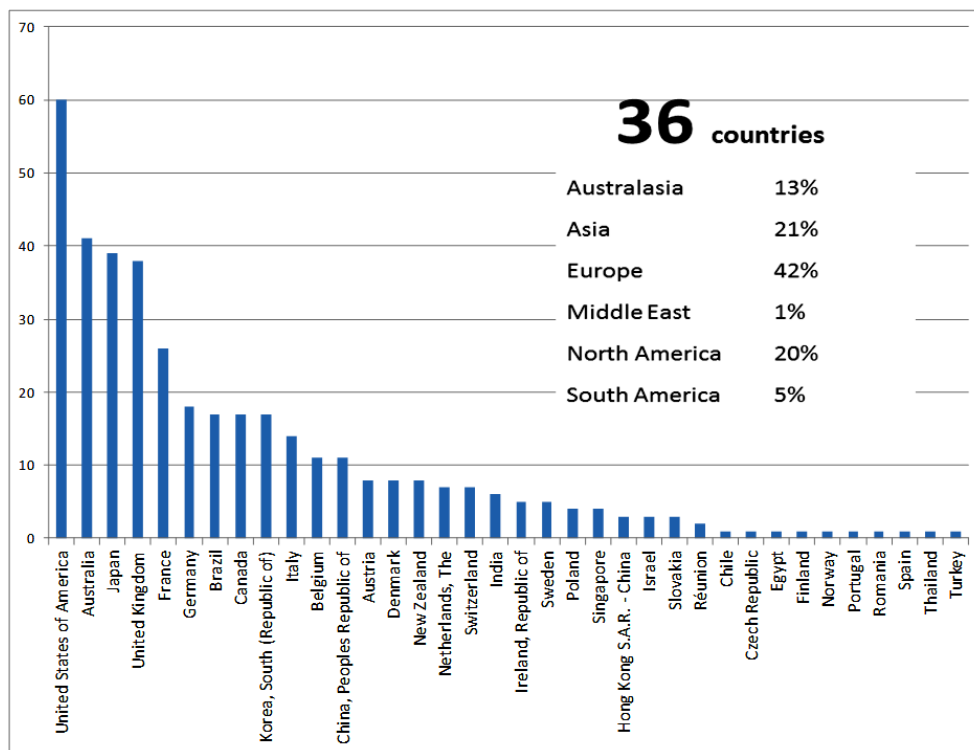


Figure 1: Country of origin of authors of accepted full papers at BS 2011

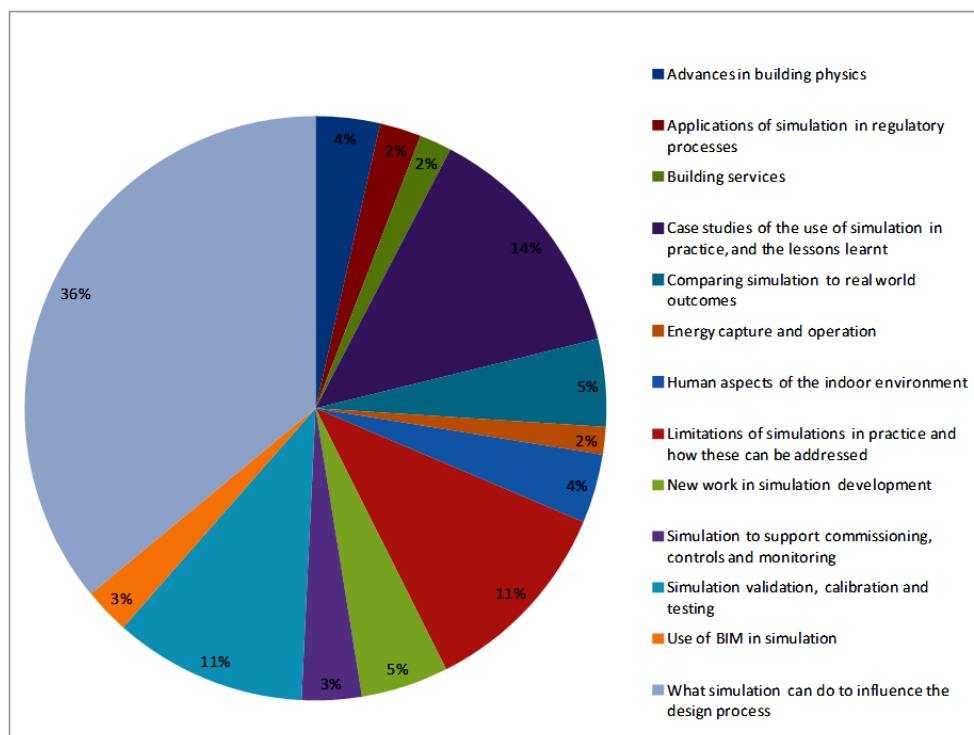


Figure 2: Breakdown of final papers by topic at BS 2011

performance simulation including BIM”, and in “application of building performance simulation in design processes” as well as case study papers in BS2011, but fewer papers addressing categories such as building services, controls, and building physics compared to previous years.

The conference was opened with a keynote speech by John Mitchell under the title “BIM and Building Simulation”. This focused on appreciating the impact of IT on the whole construction industry both locally and globally, while articulating and implementing the business process changes organisations must make to exploit these new technologies. John elaborated the challenges to an industry which is increasingly adopting Building Information Modelling (BIM).

The second keynote was delivered by Ellen Franconi LEED AP, BEMP. Dr Franconi discussed the 2011 Building Energy Modelling (BEM) Innovation Summit with BS 2011 attendees in order to share a North American perspective on the industry’s concerns and paths for solutions. Visit [www.bs2011.org.au/index.html](http://www.bs2011.org.au/index.html) to revisit Ellen’s keynote presentation.

The final keynote speech on day 3 of the conference was given by Professor Ardeshir Mahdavi on “The human dimension of building performance simulation”. Ardeshir reported that it should be our intention not only “to approach a deeper understanding and appreciation of the human dimension of building performance simulation, but also to encourage further creative developments in building performance simulation tools and practices that are sensitive and responsive to (both tool and building) users’ characteristics, needs, and requirements.”

He highlighted that knowledge about the “people factor”, people’s behaviour and presence in buildings, is still rather limited and underpinned his hypothesis in discussing possible approaches to the representation of occupants actions and behaviour relating to input information to building performance simulation.

Visit [www.ibpsa.org/m\\_bs2011.asp](http://www.ibpsa.org/m_bs2011.asp) to read all keynote papers.

On each of the three conference days, a workshop was held during the lunch breaks, starting on the first day with Design Builder, followed by IES-VE on day 2 and AECOSim (an energy simulator that incorporates EnergyPlus V6.0) on day 3. There were also four evening workshops: on Monday, 14th November, (1) a forum session from the ESPr community and (2) an education & training (IBPSA USA) workshop, and on Tuesday, 15th November, on (1) DCCEE (Australia’s Department of Climate Change and Energy Efficiency) - harmonisation of modelling protocols and (2) Building energy modelling (BEM) led by the Rocky Mountain Institute (RMI).

Towards the end of the conference, Ian Beausoleil-Morrison, the president of IBPSA, officially announced that IBPSA France and the Institut National d’Energie Solaire (INES) would host Building Simulation 2013. This was followed by a brief presentation from the IBPSA-France Representative Etienne Wurtz from INES.

BS 2011 has left us all deeply impressed by the overwhelming volume of high quality presentations, workshops, and posters as well as by a host of memorable social events.



Three keynote speakers: John Mitchell  
↑, Ellen Franconi ↓, and Ardeshir  
Mahdavi ↓↓



#### Scenes from the conference ...

Scientific Committee Chair Veronica Soebarto receives award from IBPSA president Ian Beausoleil-Morrison ↓ and Etienne Wurtz - IBPSA France ↓↓





However, “Driving Better Design Through Simulation” has once again opened new issues and challenges for the forthcoming IBPSA Building Simulation 2013 needing to be discussed and debated further.

Visit [www.bs2011.org.au/BS2011\\_survey.pdf](http://www.bs2011.org.au/BS2011_survey.pdf) to see the survey conducted at the end of IBPSA 2011. This document provides feedback from the Building Simulation conference held in Sydney on the 14th to 16th November 2011. Of the 471 who paid their conference fees 450 attended the conference, of which 128 completed the feedback form resulting in a 28% response rate.

Photographs taken during the conference by conference staff can be found at [www.flickr.com/photos/buildingsimulation2011/](http://www.flickr.com/photos/buildingsimulation2011/). All papers from Building Simulation 2011 are now available online at [www.ibpsa.org/m\\_bs2011.asp](http://www.ibpsa.org/m_bs2011.asp).

#### More scenes from the conference ...



← Charles “Chip” Barnaby, Wim Plokker and Lori McElroy; Ruchi Chaudhary →



← Outstanding Young Contributor recipient Kristina Orehoung with Ian Beausoleil-Morrison; Student Travel Award recipient Qian Jin with Lori McElroy →



← Phil Wilkinson (AIRAH) and Conference Co-ordinator Georgina Johnson receive an award from Ian Beausoleil-Morrison; Student Modelling Competition Award recipient Johannes Maderspacher with PC Thomas and Malcolm Cook →



↙ Jeff Spitler announcing the first IBPSA Fellowship; Joe Clarke receives his Fellowship from IBPSA President Ian Beausoleil-Morrison  
↓; Philip Haves receives his IBPSA Fellowship from Ian Beausoleil-Morrison ↘



## And the winners are ...

**Every two years IBPSA presents several awards to acknowledge achievements in, and contributions to, building simulation. The latest awards were presented during BS 2011.**

### **IBPSA Award for Distinguished Service to Building Simulation**

Tom Maver, Research Professor at the Mackintosh School of Architecture, Glasgow School of Art and Emeritus Professor at the University of Strathclyde

### **IBPSA Outstanding Young Contributor Award**

Kristina Orehounig, Vienna University of Technology

### **Best papers Awards**

#### **1 BS2011 AWARD FOR BEST RESEARCH PAPER (2 awards)**

Nathaniel L. Jones and Donald P. Greenberg, for the paper *Fast computation of incident solar radiation from preliminary to final building design*

Robert Hitchcock and Justin Wong, for the paper *Transforming IFC Architectural View BIMs for Energy Simulation: 2011*

#### **2 BS2011 AWARD FOR BEST APPLICATION PAPER**

Nicholas Landreth, Kevin Wing Kan Yee and Scott Wilson, for the paper *Assessing the effectiveness of building simulation to regulate residential water consumption and greenhouse gas emissions in New South Wales, Australia*

#### **3 BS2011 AWARD FOR BEST STUDENT PAPER**

Yuming Sun, Yeonsook Heo, Huizhi Xie, Matthias Tan, Jeff Wu, and Godfried Augenbroe, for the paper *Uncertainty Quantification of Microclimate Variables in Building Energy Simulation*

#### **4 BS2011 AWARD FOR BEST RESEARCH PAPER (AUSTRALASIA)**

Samuel R. West, Ying Guo, X. Rosalind Wang, and Josh Wall, for the paper *Automated Fault Detection and Diagnosis of HVAC subsystems using Statistical Machine Learning*

#### **5 BS2011 AWARD FOR BEST APPLICATION PAPER (AUSTRALASIA)**

Geoffrey Hamish Osborne, for the paper *The Contribution of Simulation to the Building Tuning Process for 2 Victoria Avenue*

#### **6 AIRAH AWARD FOR BEST AUSTRALIAN STUDENT PAPER**

Aileen Marie Egan, for the paper *Air tightness of Australian offices buildings: reality versus typical assumptions used in energy performance simulation*

Certificates were awarded to the authors of the winning papers, and the recipient of the AIRAH award also received prize money donated by AIRAH.

# Journal of Building Performance Simulation

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## **JBPS listed in SCI Expanded**

*Ian Beausoleil-Morrison & Jan Hensen, Co-Editors*

We are delighted to announce that IBPSA's Journal of Building Performance Simulation is now included in Thomson Reuter's databases, including the Science Citation Index Expanded. This marks an important milestone in the Journal's development and reflects the growing recognition and prominence of the Journal within its field. Thomson Reuters apply a rigorous selection process for journals included in the Science Citation Index Expanded, and index only a selection of journals that are currently published. The Journal will receive its first Impact Factor in Thomson Reuters June 2012 release of the 2011 Journal Citation Report®. The Journal Citation Reports® (JCR®) are annual reports produced by Thomson Reuters which allow the evaluation and comparison of journals based on citation data.

## **Best paper prize**

IBPSA and the Journal of Building Performance Simulation are delighted to announce that the best paper prize for 2010/2011 has been awarded to Darren Robinson and Frederic Haldi for their paper titled 'Adaptive actions on shading devices in response to local visual stimuli'. The paper can be read and accessed for free by visiting [www.tandfonline.com/doi/abs/10.1080/19401490903580759](http://www.tandfonline.com/doi/abs/10.1080/19401490903580759).

## **Virtual Special Issue: Building Simulation**

A special online-only issue of JBPS featuring 8 papers on a variety of applications of building simulation is available to subscribers at [www.tandfonline.com/TBPS](http://www.tandfonline.com/TBPS). The contents are listed in the flyer overleaf, which also includes an order form for new subscriptions.

Please note that the free access period mentioned on the flyer has ended; unfortunately, details of the special issue were not available in time to be published in *ibpsaNEWS* vol 21 no 2, last year.





# Journal of Building Performance Simulation

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read  
online\*

## Virtual Special Issue: Building Simulation

**Co-simulation of building energy and control systems with the Building Controls Virtual Test Bed**

*Michael Wetter*

**Thermal zoning and interzonal airflow in the design and simulation of solar houses: a sensitivity analysis**

*William O'Brien, Andreas Athienitis & Ted Kesik*

**An investigation of optimal control of passive building thermal storage with real time pricing**

*Erik M. Greensfelder, Gregor P. Henze & Clemens Felsmann*

**Black-box models for fault detection and performance monitoring of buildings**

*Dirk Jacob, Sebastian Dietz, Susanne Komhard, Christian Neumann & Sebastian Herkel*

**Whole building energy simulation and energy saving potential analysis of a large public building**

*Yiqun Pan, Mingming Zuo & Gang Wu*

**District-scale simulation for multi-purpose evaluation of urban energy systems**

*Yohei Yamaguchi & Yoshiyuki Shimoda*

**Total utility demand prediction system for dwellings based on stochastic processes of actual inhabitants**

*Jun Tanimoto & Aya Hagishima*

**Application of computational fluid dynamics in building performance simulation for the outdoor environment: an overview**

*Bert Blocken, Ted Stathopoulos, Jan Carmeliet & Jan L.M. Hensen*

### AIMS & SCOPE

The wide scope of the **Journal of Building Performance Simulation** embraces research, technology and tool development related to building performance modelling and simulation, as well as their applications to design, operation and management of the built environment. This includes modelling and simulation aspects of building performance in relation to other research areas such as building physics, environmental engineering, mechanical engineering, control engineering, facility management, architecture, ergonomics, psychology, physiology, computational engineering, information technology and education.

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# Interview with Joe Clarke

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Christina J Hopfe, Editor-in-Chief of *ibpsaNEWS*, interviews one of IBPSA's first Fellows, Joe Clarke.



*The IBPSA board elected the first six IBPSA Fellows at Building Simulation 2011 in Sydney, all judged to have attained "distinction in the field of building performance simulation, or in the allied arts or sciences, or in teaching of major courses in said arts and sciences (...) and have been active in the field for at least ten (10) years".*

*One of the first Fellows is Joe Clarke, Professor of Energy Systems in the Department of Mechanical Engineering at the University of Strathclyde in Glasgow. Joe delivers courses on Energy Systems and Environmental Engineering topics and pursues his research interests in the Energy Systems Research Unit, which he founded in 1987.*

## A long commitment to IBPSA ...

*Christina Hopfe (CJH): Joe, you have been a Founding Member and Board Member, of IBPSA 1989-2004, and an active member of IBPSA for more than 20 years. In 1999 you received the IBPSA Distinguished Service Award, and now 12 years later you have been elected as one of the first IBPSA fellows, as a member who has attained distinction in the fields relating to building performance simulation. In light of your long standing commitment to this field what gives you the ongoing enthusiasm to remain so actively involved in IBPSA? And what does it mean to you to become one of the first IBPSA Fellows?*

Joe Clarke (JC): I doubt that I am especially worthy of these awards. I say this for two reasons: first, my contributions were possible only because I was able to build upon the work of others who had established the foundations of our field; second, many of my contributions have resulted from team working with many essential inputs from others. Of course, I am truly honoured by the awards: there is no better accolade than the one that comes from your peers. As to my enthusiasm, I believe that the technology IBPSA represents can ultimately make an amazing contribution to society when it reaches the stage where there is no apparent time delay between the description of design intent and feedback on performance: real-time virtual design if you will; now that's a goal worth enthusing over.

*CJH: How did you initially get to be involved in IBPSA 20 years ago?*

JC: I was a participant in IEA Annex One in the late 1970s, which involved the inter-comparison of the then extant programs when used in whole building simulation mode. This led to an invitation from Professor Art Rosenfeld to undertake a sabbatical at Lawrence Berkeley Laboratory to discuss international developments in the field. The outcome was the notion of an Energy Kernel System to enable the sharing of accredited models by program developers and agreement that

***"I was a participant in IEA Annex One in the late 1970s, which involved the inter-comparison of the then extant [building simulation] programs"***

an international body was needed to represent and nurture developments in the field. The first conference of the new organisation, called ABESS (Association for Building Energy Simulation Software), if memory serves me well, took place in Seattle in 1985. On returning to the UK I established, with others, BEPAC (Building Environmental Performance Analysis Club), which later evolved into the UK regional affiliates of IBPSA that we have today.

### Research interests and writing

*CJH: Could you tell us what attracts you to focus your work and research in the area of building simulation, and specifically on the development and further research on ESP-r, as opposed to, say, looking into different tools for different performance aspects?*

JC: I undertook my PhD in the 1970s under the tutelage of Professor Tom Maver (recipient of the 2011 IBPSA Distinguished Service Award), who had just founded a research group, ABACUS (Architecture and Building Aids, Computer Unit Strathclyde), to explore the possibility of creating software tools for the assessment of building cost and performance at the design stage, including the analysis of need, the synthesis of solutions and the appraisal of alternatives. My work addressed the energy/environment aspects of buildings and, initially, I attempted to integrate different calculation methods that were prevalent at that time: for summer overheating avoidance (admittance method), for heat loss determination (environmental temperature method), for optimum start control (Dufton's method), for natural lighting assessment (split flux method), for condensation risk mitigation (Fick's method) and so on. I soon realised that this eclectic approach was unlikely to succeed and my personal breakthrough came when I 'discovered' simulation and the prospect of establishing a model that could address building performance in a detailed and fully integrated manner.

*CJH: In 2001, you published Energy Simulation in Building Design, which remains one of the most important reference books in the area of BPS. Would you like to tell us what motivated you to write this book?*

*Do you think that now after the recent publication of Jan Hensen's and Roberto Lamberts' book Building Performance Simulation for Design and Operation we have sufficient resources or references in this area?*

JC: Actually, I published the first edition of my book in 1985 as a 'labour of love' following on from my conversion to simulation during my PhD years. I was also aware that the books of the time were either too generalist (e.g. heat transfer) or too specialist (e.g. air conditioning systems design) and recognised the

***"Does our field have enough books?  
Absolutely not! There will always be a  
need to reframe past offerings, to add new  
knowledge, and to confront new frontiers"***

need for an offering that treated one of society's most complex systems – the building – in an integrated manner. The reviews of the time were not particularly good because the book was seen as being too technical and of little interest to practitioners. Does our field have enough books?

Absolutely not! There will always be a need to reframe past offerings, to add new knowledge, and to confront new frontiers – such as building simulation's role in future smart grids.

### The future for building simulation and IBPSA

*CJH: In your view what (specific) area(s) in building performance simulation still need(s) much further research? Are you planning to write another book to address any of these topic(s)?*

JC: There are many aspects of building simulation that require further improvement. The simplified techniques that persist in contemporary programs need to be replaced by more realistic models. The underlying building information model needs to be extended to include missing technical domains (CFD, renewable energy

systems, moisture flow, control etc.) and encompass performance parameters so that simulation outputs may be standardised. User interfaces need to be harmonised and endowed with procedures that address the ‘how’ of model building. The link with CAD needs to be consolidated so that information relating to life cycle behaviour automatically flows from users’ efforts to represent their design hypothesis. Solvers need to be evolved to deliver the computational speed-ups that will be required to embed simulation within the design process. New approaches to simulation management in practice are needed to assure model quality, to co-ordinate multi-discipline working, to direct performance assessments and to translate simulation outcomes to design changes. There are many more. As to another book, I have recently started planning a 3rd Edition of *Energy Simulation in Building Design* in which I will attempt to broaden its scope and give greater attention to application issues.

*CJH: What do you tell your students are the most important aspects of building performance simulation?*

JC: That a simulation program is only acceptable if it preserves the three fundamental aspects of all buildings: they are dynamic in that different parts evolve at different rates, they are non-linear in that the defining parameters depend on the variables of state, and they are systemic in that different parts perform different functions that must be reconciled. The consequences of these properties are that the model equations will be non-trivial, solvers will need to iterate and the interactions between domains will need to be explicitly represented. We have some way to go before such functionality is commonplace.

*CJH: What would you like to see happen in the future for the building simulation area in general? What is your personal wish list for the ideal simulation tool?*

JC: We must continue to extend the capabilities of building simulation to allow the routine testing of virtual prototypes in terms of criteria relating to life cycle performance, environmental impact and cost – and at any scale, from a single component to whole communities with smart energy management and supply. This goal would be assisted if IBPSA were to pioneer a handbook of agreed models and solvers and encourage the task sharing development of Open Source programs. There is also a major role for IBPSA in establishing training and certification programmes for future practitioners who wish to adopt a computational approach to design.

***“We must continue to extend the capabilities of building simulation to allow the routine testing of virtual prototypes”***

*CJH: Ok, finally, in your personal opinion, do you think a united IBPSA UK, comprising England, Scotland, Northern Ireland and Wales is possible or even desirable?*

JC: Desirable? Definitely; only then can IBPSA evolve in the UK as a benevolent force alongside the likes of CIBSE and RIBA to develop the professional services that will be required in future. Possible? Yes; but only if we can collectively perceive the long term possibilities and put aside the many vested interests that derive from the unhelpful aspects of academic competition and commercial protectionism.

*CJH: Thank you very much for giving us your time and insights.*



## Building Performance Simulation for Design and Operation

Jan L.M. Hensen and Roberto Lamberts

Effective building performance simulation can reduce the environmental impact of the built environment, improve indoor quality and productivity, and facilitate future innovation and technological progress in construction. It draws on many disciplines, including physics, mathematics, material science, biophysics and human behavioural, environmental and computational sciences. The discipline itself is continuously evolving and maturing, and improvements in model robustness and fidelity are constantly being made. This has sparked a new agenda focusing on the effectiveness of simulation in building life-cycle processes.

*Building Performance Simulation for Design and Operation* begins with an introduction to the concepts of performance indicators and targets, followed by a discussion on the role of building simulation in performance-based building design and operation. This sets the ground for in-depth discussion of performance prediction for energy demand, indoor environmental quality (including thermal, visual, indoor air quality and moisture phenomena), HVAC and renewable system performance, urban level modelling, building operational optimization and automation.

Produced in cooperation with the International Building Performance Simulation Association (IBPSA), and featuring contributions from fourteen internationally recognised experts in this field, this book provides a unique and comprehensive overview of building performance simulation for the complete building life-cycle from conception to demolition. It is primarily intended for advanced students in building services engineering, and in architectural, environmental or mechanical engineering; and will be useful for building and systems designers and operators.

### Selected Table of Contents

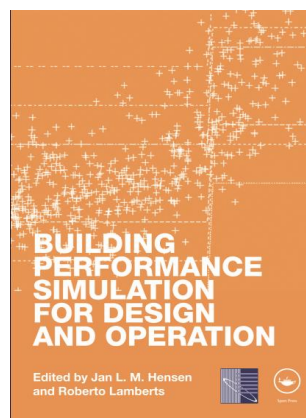
1. The Role of Simulation in Performance Based Building 2. Weather Data for Building Performance Simulation 3. People in Building Performance Simulation 4. Thermal Load and Energy Performance Prediction 5. Ventilation Performance Prediction 6. Indoor Thermal Quality Performance Prediction 7. Room Acoustics Performance Prediction 8. Daylight Performance Predictions 9. Moisture Phenomena in Whole Building Performance Prediction 10. HVAC Systems Performance Prediction 11. Micro-cogeneration System Performance Prediction 12. Building Simulation for Practical Operational Optimization 13. Building Simulation in Building Automation Systems 14. Integrated Resource Flow Modelling of the Urban Built Environment 15. Building Simulation for Policy Support 16. A View on Future Building System Modelling and Simulation

January 2011 | 536pp | Hb: 978-0-415-47414-6 | £65.00

### About the Authors

**Jan L. M. Hensen** (Ph.D. & M.S., Eindhoven University of Technology) has his background in building physics and mechanical engineering. His professional interest is performance-based design in the interdisciplinary area of building physics, indoor environment and building systems. His teaching and research focuses on the development and application of computational building performance modelling and simulation for high performance.

**Roberto Lamberts** is a Professor in Construction at the Department of Civil Engineering of the Federal University of Santa Catarina, Brazil. He is also currently a board member of the IBPSA, Vice-President of the Brazilian Session and Counsellor of the Brazilian Council for Sustainable Buildings.



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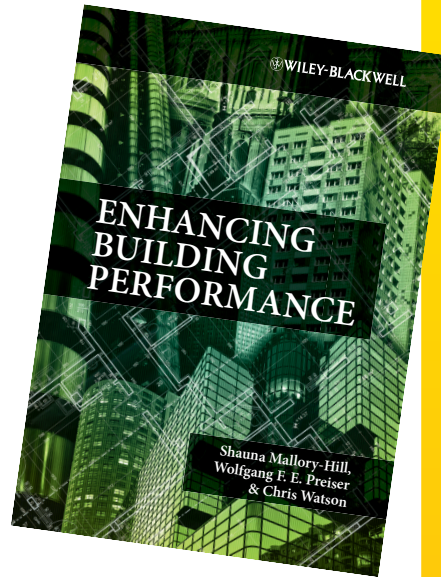
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Shauna Mallory-Hill, Wolfgang F. E. Preiser and Christopher G. Watson

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# Interview with Kristina Orehounig

Christina J Hopfe, Editor-in-Chief of *ibpsaNEWS*, interviews the recipient of IBPSA's 2011 Outstanding Young Contributor Award.

*Christina Hopfe (CJH): Kristina, you received this year's IBPSA Outstanding Young Contributor Award. Would you mind sharing with us a little bit about your background- your previous education, area of expertise, and the focus of your current research?*

Kristina Orehounig (KO): Very early in my studies of Architecture I had focused on Building Physics and Building Performance Simulation. Following graduation I continued to work as a research assistant on several research projects in the area of building performance simulation, passive cooling strategies, and traditional architecture. My research efforts, especially my master and PhD theses, were awarded the Austrian Building Award, the Ressel prize, and other awards from the commerce chamber of Vienna. In the last couple of years, the institute where I am now working participated in several "train-the-trainer" workshops in India and Turkey, where I had the opportunity to teach building performance simulation to faculty members of leading architectural and engineering colleges. Currently I'm working as an assistant professor teaching thermal building performance simulation and visual and acoustical building performance at the Vienna University of Technology. My research interests include building performance simulation, passive cooling strategies in building design and operation, thermal comfort, micro climatic modelling and the urban heat island effect, and energy optimization of buildings.



Kristina Orehounig accepting her Award from BPSA President Ian Beausoleil-Morrison

*CJH: Reading through the list of previous elected IBPSA award winners, it reads more or less as the 'Who's Who' list of IBPSA. How does it make you feel to receive this prestigious award?*

KO: I very much appreciate being chosen to receive such an important international award so early in my career. Therefore, I would like to take this opportunity to thank my PhD advisor, Professor Ardeshir Mahdavi, who supported and nominated me for this award.

*CJH: In IBPSA's 2011 conference you had a number of research papers dedicated to predicting future climate and its impact on future building thermal performance and energy use. Could you comment on this area of research and how you see it evolving?*

KO: The department where I am currently working is very much involved in research regarding climate change effects on buildings, buildings micro-climate and the urban heat island effect. We were recently involved in

a research effort which considered an actual urban development project in the city of Vienna. The goal was to look at future microclimatic changes and their potential ramifications for the thermal performance of the projected buildings in 50 years. The results clearly showed that in future, heating loads will not be so much the problem, but cooling loads will significantly increase. In continental climates such as Austria active cooling is currently not required, but should this change due to the projected warming trend, a dramatic increase in energy demand has to be expected. This will then also increase anthropogenic heat emissions in the immediate micro-environment of buildings, and hence contribute to the urban heat island effect. The conclusion for me is that research on climate change and the phenomena of urban heat island will become a major issue and has to be addressed both now, and also in the future.

*CJH: Finally, can you share with us what your plans are for the future? For example are you intending to continue researching in the same area, or branch out into another area, commence teaching, etc.?*

KO: My current goals are to continue working in the area of building physics and continue with my academic career (involving teaching and research). Furthermore, I would like to improve my knowledge and skills in the area of energy efficient buildings, micro climatic modelling and the coupling of simulation models with different resolution.

*CJH: Thank you, Kristina.*

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# Forthcoming events

| Date(s)              | Event  | Information   |
|----------------------|--|---|
| <b>2012</b>          |  |   |
| 02-03 May 2012       | <b>eSim 2012</b><br>Halifax, Nova Scotia, Canada   | <a href="http://www.esim.ca">www.esim.ca</a>  |
| 28-31 May 2012       | <b>5th International Building Physics Conference</b><br>Kyoto, Japan   | <a href="http://rcpt.kyoto-bauc.or.jp/IBPC2012/">http://rcpt.kyoto-bauc.or.jp/IBPC2012/</a>   |
| 23-27 June 2012      | <b>ASHRAE Annual Conference</b><br>San Antonio, Texas, USA   | <a href="http://ashraem.confex.com/ashraem/s12/cfp.cgi">http://ashraem.confex.com/ashraem/s12/cfp.cgi</a>   |
| 01-05 July 2012      | <b>iEMSs: 6th International Congress on Environmental Modelling and Software</b><br>Leipzig, Germany   | <a href="http://www.iemss.org/sites/iemss2012/index.html">www.iemss.org/sites/iemss2012/index.html</a>  |
| 08-12 July 2012      | <b>Healthy Buildings 2012</b><br>Brisbane, Australia   | <a href="http://hb2012.org">http://hb2012.org</a>   |
| 01-03 August 2012    | <b>SimBuild 2012</b><br>Madison, Wisconsin, USA  | <a href="http://www.ibpsa.us/simbuild2012">www.ibpsa.us/simbuild2012</a>  |
| 01-04 August 2012    | <b>COBEE: 2nd International Conference on Building Energy and Environment</b><br>Boulder, Colorado, USA  | <a href="http://www.colorado.edu/cobee2012">www.colorado.edu/cobee2012</a>  |
| 27-29 August 2012    | <b>12th International Conference on Design &amp; Decision Support Systems in Architecture and Urban Planning</b><br>Eindhoven, The Netherlands | <a href="http://2012.ddss.nl">http://2012.ddss.nl</a>   |
| 05-07 September 2012 | <b>ECO-Architecture 2012: Harmonisation between Architecture and Nature</b><br>Kos, Greece   | <a href="http://www.wessex.ac.uk/12-conferences/eco-architecture-2012.html">www.wessex.ac.uk/12-conferences/eco-architecture-2012.html</a>  |
| 10-11 September 2012 | <b>BSO12: Building Simulation &amp; Optimization</b><br>Loughborough, UK   | <a href="http://www.bso12.org">www.bso12.org</a>  |
| 19-21 September 2012 | <b>BauSIM 2012: 4th German-Austrian IBPSA Conference</b><br>Berlin, Germany  | <a href="http://bausim2012.ibpsa-germany.org/eng/index.php">http://bausim2012.ibpsa-germany.org/eng/index.php</a>   |
| 02-05 October 2012   | <b>MSC 2012: IEEE Multi-Conference on Systems and Control</b><br>Dubrovnik, Croatia  | <a href="http://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=19521">www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=19521</a>        |
| 07-09 November 2012  | <b>28th International PLEA Conference</b><br>Lima, Peru  | <a href="http://www.plea2012.pe">www.plea2012.pe</a>  |
| 25-27 November 2012  | <b>ASim 2012: IBPSA-China, IBPSA-Japan and IBPSA-Korea joint conference</b><br>Shanghai, China   | <a href="http://asim2012.tongji.edu.cn">http://asim2012.tongji.edu.cn</a>   |
| 10-13 December 2012  | <b>CDC 2012: IEEE Annual Conference on Decision and Control</b><br>Maui, Hawaii, USA   | <a href="http://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=16706">http://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=16706</a> |

*Note that the dates in this calendar may, but do not necessarily, include pre and/or post-conference workshop days*

| 2013                  |  |   |
|-----------------------|--|---|
| 26-30 January 2013    | <b>ASHRAE 2013 Winter Conference</b><br>Dallas, Texas, USA   | <a href="http://ashraem.confex.com/ashraem/w13/cfp.cgi">http://ashraem.confex.com/ashraem/w13/cfp.cgi</a> |
| 16-19 June 2013       | <b>CLIMA 2013: REHVA World Congress</b><br>Prague, Czech Republic  | <a href="http://www.clima2013.org">www.clima2013.org</a>  |
| 22-26 June 2013       | <b>ASHRAE Annual Conference</b><br>Denver, Colorado, USA   | <a href="http://www.ashrae.org">www.ashrae.org</a>  |
| 25-30 August 2013     | <b>Building Simulation 2013</b><br>Chambery, France  | <a href="http://bs2013.ibpsa.fr">http://bs2013.ibpsa.fr</a>   |
| 22-27 September 2013  | <b>Greensys 2013: New Technologies for Environment Control, Energy-saving &amp; Crop Production in Greenhouse and Plant Factory</b><br>Jeju, South Korea | <a href="http://www.ishs.org/news/?p=1608">http://www.ishs.org/news/?p=1608</a>                           |
| 2014                  |  |   |
| 18-22 January 2014    | <b>ASHRAE 2014 Winter Conference</b><br>New York, USA  | <a href="http://www.ashrae.org">www.ashrae.org</a>  |
| 28 June -02 July 2014 | <b>ASHRAE Annual Conference</b><br>Seattle, Washington, USA  | <a href="http://www.ashrae.org">www.ashrae.org</a>  |

**02-03 May 2012**  
**Halifax, Nova Scotia,**  
**Canada**  
[www.esim.ca](http://www.esim.ca)



## eSim 2012: IBPSA Canada's 7th biennial conference

IBPSA-Canada's biennial conference, eSim, brings together professionals, academics and students interested in advances in building performance simulation and its applications. The 2012 conference is being hosted by Dalhousie University ([www.dal.ca](http://www.dal.ca)), in collaboration with Natural Resources Canada ([www.nrcan.gc.ca](http://www.nrcan.gc.ca)), in the beautiful port city of Halifax on 2 and 3 May 2012. There will be additional workshops on the day before and the day after the conference.

The main conference venue is the historic Pier 21 Museum on the downtown Halifax Harbour waterfront ([www.pier21.ca](http://www.pier21.ca)). The large-windowed conference rooms boast magnificent view of George's Island, a national historic site. The banquet will be based on traditional Atlantic foods and there will be ferry trips to technical tours of the Centre for the Built Environment ([www.nsc.ca/about\\_nsc/cbe/](http://www.nsc.ca/about_nsc/cbe/)). Most activities can be reached via a stroll down the waterfront boardwalk.

The conference themes will be:

- Recent developments for modelling the physical processes relevant to building performance (thermal, air flow, moisture, lighting)
- Methods and algorithms for modelling conventional and innovative building systems (including envelope, lighting, controls, HVAC, renewable energy and distributed generation systems)



- Methods for modelling and characterizing whole building performance, including interactions between systems within the building, and interactions between the building and its surrounding neighbourhood and community
- Methods for modelling and characterizing occupant comfort and well-being (including thermal comfort, acoustic performance, air-quality, ventilation & lighting)
- Building simulation software development and approaches to quality control
- Use of building simulation tools in building design, optimisation, code compliance and incentive programs
- Use of building simulation tools in stock- and sector-modelling studies at neighbourhood, community, municipal and national scales
- Moving simulation into practice—case studies of innovative simulation approaches
- Validation of building simulation software
- User interface and software interoperability issues
- Architectural and engineering data visualisation and animation



There is more information about eSim 2012 in News from Affiliates, on [page 27](#). Please visit the website at [www.eSim.ca](http://www.eSim.ca) to register, and (for Canadian students only) to apply for student travel sponsorship from IBPSA-Canada.

**08-12 July 2012**  
**Brisbane, Australia**  
<http://hb2012.org>

## Healthy Buildings 2012

Since their inception in 1988, the Healthy Buildings conferences have been held in various locations throughout Europe, North America and Asia. Healthy Buildings 2012 will be the first held in the Southern Hemisphere. It is being hosted by the Queensland University of Technology (QUT), which is home to one of the largest academic programs focused on air quality, and in particular indoor air quality, in Australia, the International Laboratory for Air Quality and Health (ILAQH). The ILAQH is a member of the Faculty of Science and Technology (FaST) and the Institute of Health and Biomedical Innovation (IHBI) at QUT, which are the key entities hosting the conference.

The venue is the Brisbane Convention & Exhibition Centre, which is located in the heart of the city of Brisbane, with ample accommodation options, a good climate - pleasant, dry and sunny in July, with an average day time maximum temperature of 21°C (70°F) - and numerous opportunities for recreational activities nearby. The conference will offer a social program with a truly Australian spirit, which would enable plenty of opportunities for interaction between the participants, while at the same time allowing for enjoyment of the subtropical ambience of outdoor Brisbane.

The proposed topics for plenary presentations are:

- Climate change, sustainable development, energy efficiency and IEQ
- Healthy building issues related to modern materials and chemicals used in buildings





- Healthy building issues related to rapid urbanization in communities in both developed and developing countries
- IEQ in developing countries
- Healthy building issues related to spread of respiratory diseases (infectious disease transmission and control)

and those for workshops/symposia/fora are:

- Particles
- Air change measurements
- Procedures for certification of indoor environment in buildings
- Residential ventilation and indoor air quality
- How to get from present research to future actions – from science to practice
- Medical science and practice (i.e. health problems related to buildings)
- Solving old problems, preventing emerging risks
- Effects of extreme weather events (connected or not with climate change)
- IEQ of schools
- Hot topics

For more information about the conference, paper submission, and the city of Brisbane, please visit the conference web site at <http://hb2012.org>.

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**01-03 August 2012**

**Madison, Wisconsin,**

**USA**

[www.ibpsa.us/  
simbuild2012/](http://www.ibpsa.us/simbuild2012/)



## **SimBuild 2012: IBSPA USA's 5th biennial conference**

IBPSA-USA will hold its national conference on building simulation from August 1 - August 3, 2012 in Madison, Wisconsin. The fifth in a series of biennial conferences, its aim is to improve the design and operation of buildings through advances in the modeling and simulation of building performance. The meeting is open to all, world-wide. The conference will be held at The Madison Concourse Hotel in downtown Madison.

We look forward to welcoming you to Madison!

### **Key Dates**

30-31 July: Pre-conference workshops  
01-03 August: SimBuild 2012 conference

Further information will be published on the conference website, [www.ibpsa.us/simbuild2012/](http://www.ibpsa.us/simbuild2012/), as it becomes available.

**10-11 September  
2012**

**Loughborough, UK**  
[www.bso12.org](http://www.bso12.org)

**BSO12: First IBPSA England conference on Building Simulation and Optimization**

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**BSO12.ORG** **10-11 September 2012**  
Loughborough University  
United Kingdom

**5 December 2011** Submission of abstracts  
**16 January 2012** Notification of abstract acceptance  
**19 March 2012** Submission of papers  
**30 April 2012** Notification of paper acceptance

**Conference chairs** Malcolm Cook & Monjur Mourshed  
**Scientific committee chair** Jonathan Wright  
**Conference secretariat** Chris Carter & Pamela Allen

**IBPSA-ENGLAND**  
**CIBSE**  
**Loughborough University**

IBPSA England is an affiliate of the International Building Performance Simulation Association  
The conference is hosted by the School of Civil and Building Engineering, Loughborough University  
For communications, please visit <http://www.bso12.org/>  
Poster designed by Monjur Mourshed and printed by the Design and Print Services, Loughborough University

**27-29 November  
2012**  
Shanghai, China  
<http://asim2012.tongji.edu.cn>

## ASim 2012: IBPSA-China, IBPSA-Japan and IBPSA-Korea joint conference on Simulation for Real Performance



### Invitation

We sincerely invite you to attend the 1<sup>st</sup> Asia conference of International Building Performance Simulation Association. This biennial conference will provide a platform for professionals, designers, engineers and students exchanging ideas, knowledge and information about building performance simulation. The meeting will have keynote speeches, technical sessions and workshops discussing all aspects of building simulation around the theme of "Simulation for Real Performance". We are looking forward to seeing you in Shanghai!

### Call for Abstract

Authors should submit abstracts (300~400 words) via online webpage <http://asim2012.tongji.edu.cn>.

Selected papers will be recommended to two prestigious journals: (1) Building Simulation: An International Journal; (2) Journal of Building Performance Simulation.

### Conference Topics

- Simulation and real performance
- Simulation in design practice
- Simulation for regulation/code compliance and certification
- Simulation for commissioning, controls and monitoring
- Software/interface development, test and validation
- Case studies of building simulation application
- Advanced building simulation

**Scientific chair: Prof. Yingxin ZHU**

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### Important Dates

- April 1st Online abstract submission opens
- May 13th Abstract submission deadline
- June 3rd Abstract acceptance notification
- July 15th Draft paper submission deadline
- September 16th Paper acceptance notification

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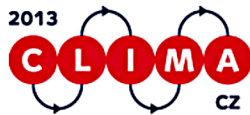
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Chair : Yiqun PAN [yiqunpan@tongji.edu.cn](mailto:yiqunpan@tongji.edu.cn)

Conference secretary : Naiping GAO [gaonaiping@tongji.edu.cn](mailto:gaonaiping@tongji.edu.cn)

**16-19 June 2013**  
Prague, Czech  
Republic  
[www.clima2013.org](http://www.clima2013.org)



## **CLIMA 2013: 11th REHVA World Congress and 8th International Conference on IAQVEC**

The theme of this year's CLIMA 2013 is **Energy efficient, smart and healthy buildings**. Topics will include:

- Energy Efficient Heating, Cooling and Ventilation of Buildings
- Renewable and High-Efficient Energy Sources
- Advanced Heating, Cooling, Ventilation and Air- Conditioning Systems for Buildings
- Energy Efficient Domestic Hot Water Supply Systems
- Sanitary Systems
- Advanced Technologies for Building Acoustics
- Artificial and Day Lighting
- Technologies for Intelligent Buildings
- Quality of Indoor Environment
- Building Certification Schemes
- Integrated Building Design
- Commissioning and Facility Management
- HVAC Best Practice Examples
- Directive on Energy Performance of Buildings Implementation
- Zero Energy Buildings
- HVAC in Historic Buildings
- Fire Safety of Buildings

The deadline for submission of abstracts is **30 June 2012**.

Further information about the conference, registration and the venue (Prague Congress Centre, near the city centre with a panoramic view of Prague Castle) is available on the CLIMA 2013 website, [www.clima2013.org](http://www.clima2013.org).

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# News from IBPSA affiliates

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IBPSA affiliates are asked to submit a report to the IBPSA Board each year to keep Board members informed about their activities and membership. These are too detailed to include in *ibpsaNEWS*, so affiliates have been asked to make their latest annual report available through their web sites, and this section includes only selected, recent news. Other news from affiliates may be available from their websites; the URLs for these are available on the IBPSA Central web site at [www.ibpsa.org/m\\_affiliates.asp](http://www.ibpsa.org/m_affiliates.asp).

## IBPSA-Canada

*Dr. Lukas Swan and Prof. Richard Kroeker, Dalhousie University Faculties of Engineering and Architecture*

### eSim 2012



This year's eSim Building Simulation Conference will be held in Halifax, Nova Scotia on 01-04 May 2012, with workshops on the days pre- and post- the conference. Hosted by Dalhousie University in collaboration with Natural Resources Canada, eSim 2012 features an exciting slate of speakers, social events, workshops, and tours, and will bring together professionals, academics and students interested in building performance simulation and its applications.

The main conference venue is the historic Pier 21 Immigration Museum located at the downtown Halifax Harbour waterfront. The large conference rooms and welcome area boast magnificent views of George's Island, a national historic site. The building was the gateway to Canada for one million immigrants between 1928 and 1971, and served as the departure point for 500,000 Canadian Military personnel during the Second World War. Today, the Canadian Museum of Immigration at Pier 21 is Atlantic Canada's only national museum.

The major technical themes are building performance modeling, innovative technology control methods, simulations tools, and approaches to quality control, including all aspects of building simulation ranging from the simulators themselves to results of unique and innovative models. Coverage includes modeling physical processes (energy, occupant comfort, daylighting, etc), control methods, community energy systems, building simulator tools, use of tools with building code/incentive programs, and performance visualization/validation.


We have received well over 50 research papers, forming a full two days of parallel technical sessions; a detailed schedule is available under Conference Information at <http://esim.ca>. We invite you to explore our new website which contains all the information <http://esim.ca>.

To register, please visit <https://wagtools3.dal.ca/eSim-SNEBRN/register.php> as soon as possible.


## Schedule and workshop overviews

|           | Apr 30 (Mon)           | May 1 (Tue)              |                              | May 2 (Wed) | May 3 (Thu) | May 4 (Fri)       |                        |
|-----------|------------------------|--------------------------|------------------------------|-------------|-------------|-------------------|------------------------|
| Morning   | SNEBRN Network Meeting | Building Energy Modeling | Net-Zero Energy House Design | Conference  |             | CanQUEST / eQUEST | ESP-r: Airflow         |
| Afternoon |                        |                          | Geothermal Boreholes         |             |             |                   | ESP-r: Code Management |
|           |                        |                          | Whole Building Simulation    |             |             |                   |                        |


  




BEMBook  
International Building Performance Simulation Association




Net Zero Energy House Design




GEO-ENERGY VAULT



eQUEST CanQUEST



Community Energy



ESP-r Simulator

## Keynote addresses

- Christoph Reinhart, an Associate Professor of Building Technology in Architecture at MIT who has built design tools such as DIVA-for-Rhino and Daysim, will speak on *Building Performance Simulation – From Evaluating Performance To Suggesting New Forms*.
- Mark Riley, who was the S&T Director of the Sustainable Buildings and Communities Group within CanmetENERGY and now consults on projects related to sustainable housing, buildings and communities, will speak on *Housing for a Changing World: A Sustainable Housing Technology Roadmap for Canada*.

## Other features of eSim 2012

- A technical tour of the NSCC Centre for the Built Environment (LEED Silver)
- Social events at the Seaport Farmers Market (LEED Platinum) and banquet at the historic Waterfront Warehouse.
- Half and full-day workshops on modeling and simulation, communities, and certification tools.
- Reduced rate accommodation at the Westin Hotel, within 10 minutes' walk of all events.

## Partners and sponsors



More information about all these is available on the conference website.

We hope you will join us for the 2012 eSim Building Simulation Conference on 1-4 May!



## IBPSA-Chile - new affiliate

IBPSA-Chile held its first meeting in October 2011, a two-day seminar in Santiago de Chile, Chile's capital city. During the event, the participants drafted by-laws for the new association and elected a five-person Board of directors: President Dr José Guerra Ramirez (Universidad Católica del Norte), Vice-President Dr Waldo Bustamante Gómez (Pontificia Universidad Católica de Chile), Treasurer Dr Claudio Carrasco Alduanate (Universidad de Valparaíso), Secretary Dr Virginia Vásquez Fierro (Universidad Austral) and Executive Coordinator Dr Massimo Palme (Universidad Católica del Norte). In addition to their formal duties, they will help cement IBPSA-Chile's affiliations with universities across the country.



The technical sessions included an invited address from IBPSA-Brazil's Martin Ordenes, with the title *Energy Certification Policy in Brazil*.

## IBPSA-Egypt - new affiliate

**EGYPTIAN SOCIETY FOR ENERGY IN BUILDINGS AND ENVIRONMENTAL DESIGN RESEARCH**

**المجتمع المصري لبحوث الطاقة في المباني والتصميم البيئي - بيئي**



**IBPSA**

**International Building Performance Simulation Association**

**.....EEER-IBPSA EGYPT.....**

*Dr Arch. Mohammad Fahmy, IBPSA-Egypt President*

50% of Egypt's electrical energy demand arises in residential, commercial and governmental buildings, and future construction cannot continue to consider accommodation alone, without regard to sustainability.

Thermal comfort, carbon emissions and energy consumption need to become central factors in the thinking of architects and urban planners: they should routinely be considering the coupling between climate, the indoor environment and energy use in a range of climate change scenarios as they develop the buildings and cities of the future.

The Egyptian Society for Energy in Buildings and Environmental Design Research (EEER) has been established to address this challenge, drawing on ideas from Professor Abdel-Monteleb Mohamed Aly (a former Head of the Department of Architecture at Sana'a University, and now at Asyut University), Professor Morad Abdel-

Kader (a former vice president of Ain-Shams University), Dr Mohammad Fahmy (now in the Architectural Department of the Military Technical College), Dr Shady Attia and others. EEER is a voluntary effort by interested and experienced researchers in the various fields related to the built environment. It aims to bring together architects, planners, urban planners and other qualified specialists involved in the built environment, to increase awareness of the importance of designing an energy efficient built environment, and to establish a micro-climatic basis for urban planning and design in both the present and future climates.

EEER's application to become IBPSA's affiliate in Egypt was unanimously approved by the IBPSA Board in March, alongside another new affiliate, IBPSA-Ireland. Their accession means that IBPSA now has 26 affiliates worldwide, representing more than 35 countries and more than 4200 members. EEER/IBPSA-Egypt already has about 30 registered members, and more than 300 people subscribe to its email list.

EEER has ambitious plans, including educational events, workshops, an online newsletter, and various other publishing projects. In the future, it also hopes to develop its workshops and Newsletter into a full conference. The Society intends to use its web site as its main communication channel, and it has applied successfully for an ISSN (no. 20909659) to protect its contents and its rights. More information about this can be found at <http://eeer-society.wikispaces.com/Introduction>.

The most notable of the publishing projects are EER-Pedia and EER-Journal:

- EEER-Pedia will be a collaborative, pan-Egyptian effort to develop an online library database of publications related to building energy and the built environment. The aim is to include all significant publications related to the Egyptian and other arid built environments and make them more widely known and accessible, targeting both experts and people who are unfamiliar with building energy and building environment topics.
- The EEER-Journal project aims to produce an open-access *Journal of Sustainable Building and Environment* (JSBE), which will also be free of submission charges. The Journal and its submission, review and publication systems are still under development. JSBE will publish original papers and review articles on research, technology, and tool development related to building science and human interaction with the built environment, research on measures of sustainability, and their application to the design and operation of buildings. The scope of the journal includes but is not limited to:
  - Environmental performance of buildings and urban spaces
  - Computer models, techniques and equipment to design and assess energy-efficient built environments
  - Design goals for thermal comfort, air quality, acoustic comfort, and visual comfort in and around buildings
  - Integration of international knowledge with Egyptian social and cultural traditions for building design and operation
  - Philosophy and policies of building architectural and urban planning research.
  - Education for the building design professions.
  - The implications of climate change for buildings and built environment design
  - Implications for the Egyptian code for saving energy in buildings.
  - Passive strategies and applications in single buildings and entire urban communities.
  - Renewable and bio-energy systems.
  - Environmental management for domestic water, waste and municipalities
  - Technologies, paradigms, and strategies for the sustainable development of new and existing communities in Egypt

The members of the EEER/IBPSA-Egypt Board are:

**Honorary Chairman of EEER-Society & IBPSA-Egypt**

Professor Morad Abdel-Kader

Professor of Architecture Design & Environmental Control, Department of Architecture Engineering

Former Vice President of Ain Shams University

Member codes committee of the National Housing & Building Research Centre

Member scientific committee of the Supreme Council of Universities in Egypt

**EEER Manager, newsletter editor, web developer and President of IBPSA-Egypt**

Dr Arch Mohammad Fahmy Abdel-Aleem

Lecturer in Passive Architecture & Built Environment

Department of Architecture, Military Technical College, Cairo, Egypt

**EEER Vice-Manager, networking and Vice-President of IBPSA-Egypt**

Dr Shady Attia

Catholic University, Louvain, Belgium and Department of Architecture, Fine Arts College, Cairo, Egypt

**EEER Treasurer, membership officer and IBPSA-Egypt board member**

Professor Ayman Mahmoud

Professor of Landscape Architecture & Environmental Planning, Department of Architecture, Faculty of Engineering, Cairo University, Egypt

**EEER Newsletter vice-editor and IBPSA-Egypt board member**

Assistant Professor Marwa Dabaieh

Department of Architecture & Built Environment, Division of Architecture Conservation & Restoration, Lund University, Sweden.

**EEER Education, Conferences and IBPSA-Egypt board member**

Dr Arch Amr Gira

Lecturer of Architecture & Environmental Control, Department of Architecture, Military Technical College, Cairo, Egypt

**EEER Secretary and IBPSA-Egypt board member**

Arch. Noha El-Mahmoudy

Senior Architect

## IBPSA-England

### Computational Fluid Dynamics in Simulation for the Built Environment, 20 June 2012

This year's IBPSA-England summer research seminar at the Department of Civil, Environmental & Geomatic Engineering, University College London, will bring together researchers from academia and industry to showcase the latest research using computational fluid dynamics (CFD) simulation for modelling applications relating to the Built Environment. This includes indoor environmental modelling and modelling of the outdoor street environment.

CFD is often used for predicting indoor air quality and temperature distribution inside buildings, especially in cases where natural ventilation is being tested. The common modelling challenges encountered are: accurate specification of boundary conditions; selection of appropriate turbulence model and convergence control.

CFD is increasingly being used to model the wind environment around buildings, wind-driven rain on building facades, heat transfer through external building surfaces and air pollutant dispersion around buildings. However, CFD simulation of complex outdoor environments presents a significant modelling challenge, and much improvement is necessary before CFD models are able to successfully represent observations made in wind tunnel experiments and outdoor measurements. Even an apparently simple CFD simulation of an empty street canyon in an atmospheric boundary layer brings with it significant challenges.

The aim of this seminar is to look at possible solutions to these modelling challenges via a range of case study presentations.

To submit an abstract for presentation, please contact Liora Malki-Epshtein at [l.malki-epshtein@ucl.ac.uk](mailto:l.malki-epshtein@ucl.ac.uk). Registration details are not yet available.

### Building Simulation and Optimization 2012, 10-11 September 2012

Preparations for the first IBPSA-England national conference on Building Simulation and Optimization (BSO) at Loughborough University in September 2012 are now well under way. The scientific committee received over 140 abstracts drawn from both academics and practising engineers. The abstract topics span the three conference themes: new performance models and simulation methods; procedures for optimizing design and operation; and real-world case studies.

The conference is being held at the Henry Ford College at Loughborough University, a high profile venue with state-of-the-art conference and exhibition facilities with break-out space and novelty attractions. It is anticipated that the two-day conference will comprise up to three parallel sessions with keynotes from leading academics and practitioners to open and close the conference.

The conference dinner will be held at the National Space Centre in Leicester with a drinks reception sponsored by Taylor and Francis, publishers of IBPSA's *International Journal of Building Performance Simulation*. The evening includes entry into the exhibition and one of the 360° space theatre shows!

In addition to Taylor and Francis we are grateful to our sponsors Integrated Environmental Solutions (IES), DSSR Consulting Engineers, Buro Happold and CHAM.

For further details or to speak to us about sponsorship, please see the conference flyer on **page 24** of this *ibpsaNEWS* and visit the conference website [www.bso12.org](http://www.bso12.org), or contact one of the conference chairs, Malcolm Cook at [Malcolm.Cook@lboro.ac.uk](mailto:Malcolm.Cook@lboro.ac.uk) or Monjur Mourshed at [M.M.Mourshed@lboro.ac.uk](mailto:M.M.Mourshed@lboro.ac.uk).

## IBPSA-Germany

## BauSIM 2012

### BauSIM 2012: 4th German-Austrian IBPSA Conference

IBPSA-Germany's fourth local biennial conference will be held in Berlin, Germany from September 19 to 21, 2012 at The Berlin University of the Arts, bringing together practitioners, researchers and developers working in the field of building performance simulation and related applications. The main theme of the conference is **Building Performance Simulation on Different Scales: from Building Components, Rooms and Buildings up to District Energy Systems**.

The key dates are:

- 30 April: Deadline for submitting abstracts
- 31 May: Deadline for submitting full papers
- 15 June: Deadline for submitting improved full papers

A number of selected contributions will be published in a scientific journal.

For more information visit website <http://bausim2012.ibpsa-germany.org/eng/index.php>

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## IBPSA-Nordic

### Nordic PhD-Seminar on Net Zero Energy Building Strategies, Systems and Technologies, 8-9 December 2011

Per Kvols Heiselberg of Aalborg University held a PhD seminar on Net Zero Energy Building Supplies in December, in collaboration with IBPSA-Nordic. The topics covered were:

- Cost effective solutions for NetZEB buildings
- Refurbishment of the Existing Building Stock
- NetZEB Building Energy Efficiency
- Optimal building integrated renewable energy systems
- Indoor Environmental Quality

The presentations from the event are now available at [www.zeb.aau.dk/Arrangementer/Arrangement//faelles-nordisk-phd-seminar.cid50800](http://www.zeb.aau.dk/Arrangementer/Arrangement//faelles-nordisk-phd-seminar.cid50800).

### Equa-Finland and IBPSA-Nordic Seminar, 9 February 2012

Equa Simulation Finland Oy organized an introductory seminar in Innopoli II Espoo, Finland on 9 February 2012 in collaboration with IBPSA-Nordic. The topics covered in the seminar were:

- IBPSA-Nordic, a forum for exchange of knowledge about building performance simulation in the Nordic countries (Ala Hasan, Aalto University)
- A free simulation tool (IDA-ESBO) (Kai Sirén, Aalto University)
- Developments in IDA ICE for the new Finnish Building Code 2012 (Mika Vuolle, Equa-Finland).





### BSim training course, 28-30 August 2012

A 2+1 day training course for BSim users will take place on 28-29 August and 30 August 2012 at Copenhagen University College of Engineering, Denmark. The two first days (course K1202) are for achieving basic skills, while the third day (course K1203) is intended for those who have participated in the two first days or who already have knowledge about using BSim. More information (in Danish) and enrolment at [www.danvak.dk/index.php?option=com\\_kurser&Itemid=96](http://www.danvak.dk/index.php?option=com_kurser&Itemid=96)

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## IBPSA-USA and IBPSA-England

*Pieter De Wilde and Malcolm Cook (IBPSA-England)*

### Education and Training Discussion Forum at BS2011, 14 November 2011

Education and training in building performance simulation has regularly been a discussion topic for the IBPSA Board. As a way of moving this forward, IBPSA-USA and IBPSA-England convened an evening forum on the topic at BS2011. This was attended by about 40 delegates and lasted 2 hours — a testament to the level of importance IBPSA members attach to this. Attendees comprised a mixture of those interested in providing instruction and those seeking instruction.

The forum was introduced by Malcolm Cook (IBPSA-England) who also presented an engineer's view of simulation in education in the UK. Neveen Hamza (IBPSA-England) then presented an architect's view, followed by Michael Wetter (IBPSA-USA) who talked about the training materials being made available by IBPSA-USA. Christoph Reinhart (IBPSA-USA) presented his work on educational games, and Veronica Soebarto and PC Thomas of IBPSA-Australasia presented the architect's and the engineer's view points from their region. Rajan Rawal (IBPSA-India) explained that some progress is being made, with help from IBPSA-USA, on raising the level of building simulation knowledge. Overall, at postgraduate level, expertise seems to be acceptable, but below this point, knowledge is at a very basic level.

Paul Bannister (IBPSA-Australasia) made the case that it is critical to engage with those who work in current practice. Many of these are self-taught. There is a very wide range of standards, which needs to be addressed. He believes that it would be worthwhile exploring whether the material of IBPSA-USA could be translated to the Australian context, maybe with the help of AIRAH. Developing their own material is likely to be beyond the capacity of many affiliates. But there is an urgent need to ensure that those in practice: (1) understand what it is they are doing and (2) put the right number in the right cell!

***“it is critical to engage with those who work in current practice” – Paul Bannister***

***“People need more guidance on where realistic input parameters ought to lie.” – PC Thomas***

PC Thomas made the point that many commercial tools use default values that are extremely optimistic. As a consequence, many results are over-predicting performance. People need more guidance on where realistic input parameters ought to lie.

The difficulty of getting building simulation accepted within an architecture school was raised by a professor from Cornell university. The creative process needs to include simulation, but it needs to go deeper than just ‘numbers’ and ‘visuals’. Architects fear that simulation might end up making the process deterministic; they

need to be convinced this is not so before they are willing to buy into the technology. Some architecture students are really captivated by simulation, but lack the maths required to fully understand what is going on and thus to get the most from the discipline.

Veronica Soebarto explained that the Architecture School in Adelaide is teaching engineering students about building performance simulation rather than the other way round. Simulation is taught in the context of design, with students using simulation to help them design 'green buildings'. However, Veronica pointed out that we cannot expect architecture students to learn building performance simulation unless it is required by architects' accreditation bodies, and suggested we should put more effort into training practitioners. There is an urgent need to train those who are already out there in industry.

***"we cannot expect architecture students to learn building performance simulation unless it is required by the accreditation bodies" – Veronica Soebarto***

Michael Donn (IBPSA-Australasia) suggested that many countries do not have appropriate simulation courses. Often the HVAC engineer is trained in mechanical engineering (programmes studying pumps, fans, etc), with no training in building design or operation, let alone simulation of building or services performance. People with such basic training use ASHRAE and CIBSE manuals for equipment sizing, but acknowledge the market for simulation. They use tools without themselves believing the results, just for the purpose of accreditation/LEED points. By contrast, in Schools of Architecture, where often building performance simulation courses are offered, students are discouraged from integrating these skills into their design practice as design studio instructors do not accept the notion that simulation can be useful. In this situation the role for IBPSA is to educate in the principles, particularly those governing good practice with regard to quality assurance and reproducibility of results. Michael suggested for the greatest impact, examples of good modelling practice, and minimum quality assurance documentation could be developed by IBPSA and made available on Facebook and YouTube in an attempt to reach the widest audience possible. This should be backed up by resources on material properties, and other important input data required by simulation programs.

Neveen Hamza pointed out that the amount of technology (simulation programs, geometry generators, etc) now available is daunting. We need to strike a balance between how many tools students can usefully engage with and what we can get from each. She also suggested it would be beneficial to combine efforts with engineering practices who may be able to offer some of their case studies as material to enhance the educational experience.

***"... without doubt, there is an important role for IBPSA to play in the education and training of building performance simulation" – ed.***

In summary, Michael Wetter noted that the role for IBPSA might be a dual one: to develop material, but also to educate the experts. PC Thomas noted that we need to think deeper about why we use simulation: is it a tool to create better buildings, which use less energy, or is it just a load minimisation strategy for façades, failing to address other steps?

The forum demonstrated, without doubt, that there is an important role for IBPSA to play in the education and training of building performance simulation. This could be in shaping the agenda or delivering the agenda.

The key messages from the forum were discussed at the IBPSA board meeting immediately after BS2011. Malcolm Cook offered to develop a proposal for how IBPSA can respond to this evident need for education and training.

If anyone has any comments about the content of this article or has suggestions for how IBPSA should respond, please drop an email to [Malcolm.cook@lboro.ac.uk](mailto:Malcolm.cook@lboro.ac.uk).



# Building Simulation 2015: Call for Proposals

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The board of IBPSA is pleased to issue the following call for proposals from parties interested in hosting Building Simulation 2015. A complete proposal should be sent to the Conference Location Coordinator, Jeff Spitler ([spitler@okstate.edu](mailto:spitler@okstate.edu)), no later than June 15, 2012. Discussions with Jeff of potential proposals prior to the due date are strongly encouraged. The proposal should address the following items:

- proposed venue
- dates
- details of conference secretariat
- details of rooms for plenary sessions, parallel sessions and posters
- availability of free Wifi connections for participants
- organization time line
- detailed budget in local currency and in US dollars
- discussion of possibilities for sponsorship
- details of the conference presentation schedule (e.g. number of parallel and plenary sessions), publication of proceedings etc.
- details of accommodation, including costs, for delegates and students
- social events
- options for pre and post conference tours, software demos and courses
- options for program for accompanying persons
- plans for organization of an IBPSA Regional Affiliate Organization, if applicable
- involvement of existing or planned IBPSA Regional Affiliate(s)
- experience of organizing committee with IBPSA and with organizing similar conferences

To assist your decision there are several documents available from Jeff:

- The IBPSA Regionalization Guide (also available at [www.ibpsa.org/IBPSA-Regionalization-Guide.doc](http://www.ibpsa.org/IBPSA-Regionalization-Guide.doc)) describes IBPSA's regionalization plans: we schedule all of the Building Simulation conferences in regions with existing affiliates or regions that are starting a new affiliate organization. In a region currently without an affiliate, we will only consider holding the conference there if a regional affiliate organization will be in place by the time of the conference.
- Final reports for the Building Simulation '03, '05, '07, and '09 conferences, which include details of organization, finances (e.g. planned budget and actual expenses), post-conference surveys and other information useful to organizers of future Building Simulation.
- A document on sponsorship contains suggestions regarding the exposure and benefits of Building Simulation sponsors.

- A recent memorandum of understanding serves as an example for the contract which will be agreed between IBPSA and the organizers of Building Simulation '15.
- A budget template.

Please request these by email to Jeff Spitler.

Proposals will be evaluated using the following criteria:

- Attractiveness and accessibility of location – is this location likely to attract delegates from around the world? (10%)
- Affordability of venue – is the combination of registration fee and accommodation costs likely to not be a hurdle to potential delegates? (In this respect, a range of accommodation types including student dorms or the like is a benefit.) (10%)
- Quality of conference plan and facilities – are the facilities and conference plan conducive to a well-run conference? (10%)
- Likelihood of financial success – will the conference financial plan likely lead to breaking even (at least.)? A financial plan that does not rely on unconfirmed sponsorships to break even is strongly preferred. (30%)
- Support of IBPSA goals – will choosing this proposal help draw new members into IBPSA (in new regions) or support membership in existing regions? (10%)
- Diversity of location - is this location sufficiently distant from recent conferences? (10%)
- Regional participation – is the proposal well-supported by volunteer effort from the regional affiliate and/or nearby regional affiliates? (10%)
- Experience of members of the organizing committee with IBPSA and with organizing IBPSA affiliate conferences or conferences similar to Building Simulation. (10%)

The final decision regarding the location of Building Simulation 2015 resides with the IBPSA Board of Directors and will be made following a thorough evaluation of all submitted proposals.

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## 2011 IBPSA Fellows

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*Jeffrey D. Spitler*

Many engineering, scientific, and architecture societies have a grade of membership entitled “Fellow” that recognizes members who have attained distinction in their field and made substantial contributions to the related arts and sciences. The IBPSA board established the grade of Fellow several years ago. This was followed by a call for nominations, and in due time, nominations were submitted with careful justification, and were then approved by the board, culminating in the elevation of six members to the grade of Fellow last year. We are pleased to introduce the inaugural class of IBPSA Fellows.



Joe Clarke

There can be very few researchers in the field of building performance simulation who have not heard of **Prof. Joe Clarke**, ESP-r, and ESRU. Joe’s commitment to building energy research and modeling has resulted in the continued development of ESP-r for over three decades. The modeling capabilities of ESP-r have led to its use both as a research tool and in design practice. The Energy Systems Research Unit at Strathclyde University was started by Joe and has acted as a focal point for conducting funded research, energy consultancy, and the supervision of PhD students. Joe has published widely, and is an internationally recognized leader in the field of building energy simulation.



Philip Haves

**Philip Haves** has sustained an excellent record in Building Simulation research and has made significant contributions to IBPSA at national and international levels over many years. His research in low energy buildings and control systems was established more than thirty years ago and has grown through appointments at a number of universities and the Lawrence Berkeley National Laboratory in the USA, where he currently serves as Leader of both the Commercial Building Systems Group and the Building Simulation Research Group. He has served as a board member of IBPSA (1994-2004) and President of IBPSA-USA (2004-2006) and as scientific committee member of a number of Building Simulation conferences.



Curt Pedersen

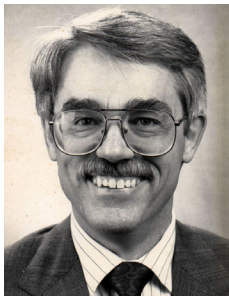
**Curt Pedersen**, Professor Emeritus in Mechanical Engineering at the University of Illinois at Urbana-Champaign, has long been a leader in the building simulation field. He has been integrally involved in development of both the BLAST and EnergyPlus programs. He directed the BLAST Support Office at the University of Illinois at Urbana-Champaign from 1983 until 1998, and then directed the EnergyPlus development efforts there. He has directed numerous research projects that resulted in both fundamental new knowledge of building physics and new models and methods for building simulation programs. As a professor, he introduced many graduate students to the field of building simulation; seven former PhD students are now professors carrying on the work.





Per Sahlin

**Per Sahlin**, while at the Royal Institute of Technology in Stockholm, then at a private company, EQUA, spearheaded the development and deployment of equation-based modeling languages in the field of building energy simulation. He developed the Neutral Model Format language, a language that has been used to generate simulation models for different simulation programs, including TRNSYS, SPARK, and IDA. Per also co-initiated the development of the Modelica language, which is now well positioned to become the de-facto standard for modeling of engineered systems. The NMF language and Modelica now form a basis of the IDA simulation programs for buildings and for train and car tunnels.



Edward Sowell

**Edward Sowell**, Professor Emeritus of Mechanical Engineering at California State University, was one of the leading pioneers to develop building energy simulation models in the United States. Dr. Sowell is an ASHRAE Fellow and was one of the founders of IBPSA in 1986. He served as the first President of IBPSA from 1986 to 1992, and later as the Treasurer of IBPSA from 1993 onward. He has also served as the Chair of ASHRAE Technical Committee TC 4.7 – Energy Calculations, and served on ASHRAE's Research Advisory Panel. Professor Sowell published numerous journal articles and pioneering software, such as the LIGHTS, PSYCHART and SPARK software.



George Walton

Over a long career, first at the US Army Construction Engineering Research Lab, then at the National Bureau of Standards / National Institute of Science and Technology, **George Walton** developed many of the algorithms still in use today for simulation of building heat transfer and airflow. He developed significant portions of the building heat transfer portion of the BLAST program and was the principal developer of the TARP and CONTAM programs, as well as other programs used for simulating aspects of building performance. In addition, his work in simulating radiation heat transfer in buildings is used well beyond the building performance simulation area.

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# IBPSA Fellow nominations due June 1

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*J.D. Spitler*

After recognizing six members with the grade of Fellow in 2011, the International Building Performance Simulation Association is pleased to call for nominations. This new membership grade will recognize individuals who have made outstanding contributions to the field of building performance simulation.

“A member who has attained distinction in the field of building performance simulation, or in the allied arts or sciences, or in teaching of major courses in said arts and sciences, or who by way of research, simulation code development, original work, or application of building simulation on projects of a significant scope, has made substantial contribution to said arts and sciences, and has been active in the field for at least ten (10) years is eligible for election to the grade of Fellow by the Board of Directors.”

At present, the IBPSA board plans to elect new Fellows on a two-year cycle, culminating with recognition at the biennial Building Simulation conferences. Nominations for the 2013 class of Fellows are due June 1, 2012. Nominations may be made by IBPSA members other than the nominee. The application package will include details of the nominee's qualifications, a CV, supporting letters, and other relevant materials. The details of the nominee's qualifications shall include summaries of accomplishments in one or more of the following categories: industrial leadership, research, simulation code development, application of building simulation on projects of significant scope, educational leadership, and significant technical contributions to the allied arts and sciences. The application form and instructions are available at [www.ibpsa.org/m\\_membership.asp](http://www.ibpsa.org/m_membership.asp).

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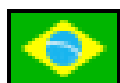
# IBPSA affiliates

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URLS for IBPSA affiliates' websites and email addresses for their contact persons are available on the IBPSA Central web site at [www.ibpsa.org/m\\_affiliates.asp](http://www.ibpsa.org/m_affiliates.asp).



**IBPSA Australasia**  
contact: Paul Bannister



**IBPSA Brazil**  
contact: Nathan Mendes



**IBPSA Canada**  
contact: Stephen Kemp



**IBPSA Chile**  
contact: José Guerra Ramirez



**IBPSA China**  
contact: Da Yan



**IBPSA Czech Republic**  
contact: Martin Bartak



**IBPSA Danube**  
contact: Marja Todorović



**IBPSA Egypt**  
contact: Mohammad Fahmy



**IBPSA England**  
contact: Malcolm Cook



**IBPSA France**  
contact: Etienne Wurtz



**IBPSA Germany**  
contact: Christoph van Treeck



**IBPSA India**  
contact: Rajan Rawal



**IBPSA Ireland**  
contact: Marcus Keane



**IBPSA Italy**  
contact: Vincenzo Corrado



**IBPSA Japan**  
contact: Mitsuhiro Udagawa



**IBPSA Korea**  
contact: Kwang-Woo Kim



**IBPSA Netherlands + Flanders**  
contact: Wim Plokker



**IBPSA Nordic**  
contact: Ala Hasan



**IBPSA Poland**  
contact: Dariusz Heim



**IBPSA Scotland**  
contact: Lori McElroy



**IBPSA Slovakia**  
contact: Jozef Hraska



**IBPSA Spain**  
contact: David Garcia



**IBPSA Switzerland**  
contact: Gerhard Zweifel



**IBPSA Turkey**  
contact: Zerrin Yilmaz



**IBPSA UAE**  
contact: Khaled Al-Sallal



**IBPSA USA**  
contact: Charles "Chip" Barnaby

# IBPSA committee chairs & contacts

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## Regional Affiliate Development Committee

Dru Crawley

## Conferences Committee

Michel Bernier

## Membership Development Committee

Jonathan Wright

## Awards Committee

Lori McElroy

## Website committee

Christoph van Treeck

## IBPSA Fellows Committee

Jeff Spitler

## Publications Committee

Jan Hensen

## Public Relations Committee

Veronica Soebarto

## IBPSA News

Christina Hopfe, Editor-in-Chief

Marion Bartholomew, Editor

To submit Newsletter articles and announcements:

Christina Hopfe (Newsletter Editor-in-Chief)

Cardiff University, Wales, UK

Email: [hopfec@cardiff.ac.uk](mailto:hopfec@cardiff.ac.uk)

## IBPSA Corporate Address

148 Fanshaw Avenue

Ottawa, Ontario K1H 6C9

Canada

For additional information about IBPSA, please visit the Association's web site at [www.ibpsa.org](http://www.ibpsa.org). For information on joining, contact your nearest regional affiliate.

IBPSA's mailing list has been consolidated into another listserver known as BLDG-SIM, which is a mailing list for users of building energy simulation programs worldwide, including weather data and other software support resources. To **subscribe** to BLDG-SIM, to unsubscribe or to change your subscriber details, use the online forms at <http://lists.onebuilding.org/listinfo.cgi/bldg-sim-onebuilding.org>.

To post a message to all members, send email to [bldg-sim@lists.onebuilding.org](mailto:bldg-sim@lists.onebuilding.org).

The BLDG-SIM list is provided by GARD Analytics. If you have any questions, please contact the list owner Jason Glazer at [jglazer@gard.com](mailto:jglazer@gard.com) or +1 847 698 5686.

# CALL FOR PAPERS

## New to Taylor & Francis for 2008

# Journal of Building Performance Simulation

Official journal of the International Building Performance Simulation Association (IBPSA)

### EDITORS:

Ian Beausoleil-Morrison, Carleton University, Canada

Jan Hensen, Eindhoven University of Technology, The Netherlands

## Taylor & Francis would like to invite you to submit your article to *Journal of Building Performance Simulation*

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