



IBPSA

International Building Performance Simulation Association

**2015 ELECTION
CANDIDATES FOR AT-LARGE DIRECTOR**

Five (5) At-Large Directors to be elected for 2 year terms from the following list of candidates:

Dru Crawley

Andrea Gasparella

Christina Hopfe

Roberto Lamberts

Lori McElroy

Veronica Soebarto

Michael Wetter

Dru Crawley

Bentley Fellow/Director, Building Performance, Bentley Systems Inc., Washington, DC, USA

BArch – Architecture, University of Tennessee

PhD – Mechanical Engineering, University of Strathclyde, Glasgow, Scotland

Experience

At-Large Director, IBPSA board since 1998, IBPSA Regional Affiliate Development Committee Chair since 2006, and IBPSA Board Secretary 2006-2010. Elevated to IBPSA Fellow in 2013.

Treasurer and Board At-Large Director, IBPSA USA since 2013 and member of the Organizing Committee (responsible for incorporating IBPSA-USA in Virginia). Treasurer and Member of the Organizing Committee of Building Simulation 2017, San Francisco, USA; Member, Scientific Executive Committee, Building Simulation 2015, Hyderabad, India; Member, Organizing Committee, ASHRAE/IBPSA-USA Building Simulation 2014, Atlanta, Georgia, USA; Member, Scientific Committees of all Building Simulation Conferences since 1993; Member, Scientific Committees, eSim Conferences since 2002. Invited Keynote Speaker at ASHRAE/IBPSA-USA Building Simulation 2014, Atlanta, Georgia, at ASIM 2012, Shanghai, China, at eSim 2008, Quebec and eSim 2002, Montreal, Canada.

ASHRAE Fellow since 2009. Since 1986 have served on many ASHRAE Technical, Standards, and Standing Committees. Affiliate Member of CIBSE since 1984, Member of American Institute of Architects since 1982, served on the US Green Building Council's LEED Energy and Atmosphere TAG (2013 to 2016, 2007 to 2009) and Research Committee (2006 to 2009). Member of Editorial Advisory Board, Journal of Building Performance Simulation (since 2008), Building Research and Information (since 2000) and Building Services Engineering Research and Technology Journals (2004 – 2010).

Achievements

Since university, building simulation has been a key thread throughout my career. While consulting after my undergraduate degree, simulation was our key tool to determine how to lower energy use in a range of new and existing building projects. My PhD research focused on Building Performance Simulation as a Tool for Policymaking.

Building simulation was also central to buildings research and standards work at a USDOE national laboratory. Finally, while at USDOE I supported the development of building simulation – DOE-2, OpenStudio, Energy-10, and BLAST among others. I initiated and lead development of EnergyPlus for 15 years.

Promoted building performance simulation throughout career – for example, founded and supported the Building Energy Tools Directory at DOE for 15 year and co-authored a neutral climatic data format (EPW) and made climatic data widely available (EPW read by 20 simulation programs. Recently co-founded Climate.OneBuilding.org, a high quality climatic data web site for simulation users.

On the IBPSA board, have worked to grow IBPSA through new regional affiliates. Since 2006, IBPSA has had substantial growth -- 28 regional affiliates representing 38 countries and 5000 members (Compared to 2006 with 15 affiliates and 2000 members).

Aspirations for IBPSA

I believe that IBPSA still has much growth ahead, there are many simulation practitioners around the world that do not know of IBPSA or its resources that can make their work more productive. We must build IBPSA beyond the traditional core of building energy simulation to embrace other building simulation disciplines – lighting, acoustics, and even building design and construction simulation.

See other candidates

Andrea Gasparella

Associate Professor, Vice Dean for Teaching, Faculty of Science and Technology, Free University of Bozen-Bolzano, Bozen-Bolzano, Italy

MS – Industrial Engineering, University of Padua, Padua, Italy

PhD – Energetics, University of Padua.

Experience

I am a Founding Member of IBPSA Italy. I have been Member of the Scientific and Organization Committee of BSA2013 and BSA2015 of IBPSA Italy, both hosted by the Free University of Bozen-Bolzano, as well as Member of the National Scientific Committee of IBPC 2015 to be held in Turin, Italy. I have served as at large director for a 1-year mandate.

Achievements

I have conducted research, at the University of Padua (1997 – 2010), and then at the Free University of Bolzano, in desiccant applications for industrial, agriculture and residential buildings' air conditioning and ventilation. The research has progressively been focusing on the use of BPS to analyse/optimize contrasting energy and non-energy performance (energy for heating, cooling, lighting, thermal and visual comfort) considering different contexts (offices, schools, new vs existing buildings, heating vs cooling dominated climates). I have produced more than 200 publications, 40 on indexed scientific journals. I have developed courses on numerical methods and building simulation for university students and practitioners.

Consistently with the past, I would put my efforts in fostering current trends in building simulation, such as combining field/lab measurements and building simulation to extend the application range (novel modelling measurement integrated approach, novel applications to enhance performance in design, operation and renovation phases) or considering integrated performance and multi-objective optimization (from the occupants' perspective – behaviour, comfort, costs – to the indoor and outdoor environment).

Aspirations for IBPSA

I would like to keep contributing to the life and initiatives of the Association. In particular I trust in the international collaboration, first of all between national affiliates, through regional conferences and joint workshops, and then between academic research and practice, to increase practitioners and students' interest and awareness through specific initiatives (IBPSA awards for best practices in design with building performance simulation, BPS courses and schools, student exchanges and internships, etc.).

See other candidates

Christina Hopfe

Senior Lecturer in Sustainable Building Design and Programme Director Low Carbon Building Design and Modelling, Loughborough University, Building Energy Research Group (BERG), Loughborough, Leicestershire/ UK

Deputy Director Royal Academy of Engineering Centre of Excellence in Sustainable Building Design

Dipl Ing. – Civil Engineering, Technical University of Darmstadt, Germany

PhD – Building Physics, TU/e (Technical University Eindhoven, Netherlands)

MSc - Learning and Teaching in Higher Education, Cardiff University

Experience

Since 2011 I have been the Editor-in-Chief of IBPSA Newsletter and Member of IBPSA Communications Committee. I am also a member of IBPSA England, and I am currently Board Member of IBPSA England as well as eNews Editor of IBPSA England. I have served as the Scientific Committee Member of Building Simulation conferences since 2011 and of BSO Conferences since 2012. In 2013 I became a Certified Passivhaus Designer (CEPHD) while in 2011 I became Fellow of the Higher Education Academy (FHEA).

Achievements

I am a Senior Lecturer in Sustainable Building Design at Loughborough University, England. In my role at Loughborough I am also the Programme Leader for Low Carbon Building Design and Modelling. My expertise covers areas, such as: uncertainty and sensitivity analysis, decision support techniques in the design process also under the consideration of uncertainties and new techniques in the optimization of buildings (multi-objective optimization techniques, metamodels) in building performance simulation. I have been teaching modules in building performance simulation and low carbon design/ modelling the past 7 years and have supervised four PhD students in the field of energy simulation. I am currently supervising five PhD students conducting research in the BPS domain.

I have published numerous papers on topics related to BPS and have just published my first book '*The Passivhaus Designer's Manual – a technical guide to low and zero energy buildings*'. My work on uncertainty analysis in BPS for design support has been widely cited. I have also co-edited a special edition of IBPSA Journal of Building Performance Simulation on the combined treatment of heat and moisture transfer.

Aspirations for IBPSA

In my capacity as Editor-in Chief of IBPSA News and as an At-Large Director during the past year, I have gained a broad understanding of the workings of IBPSA and its affiliates. I am prepared to continue serving IBPSA through an active engagement on its Board of Directors.

See other candidates

Roberto Lamberts

Professor, Federal University of Santa Catarina, Florianopolis, Brazil

Civil Eng. – Federal University of Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil

MSc – Buildings, Federal University of Rio Grande do Sul

PhD, Civil Engineering, University of Leeds, Leeds UK

My first contact with IBPSA was during BS 99 in Kyoto. In 2001 I have coordinated a Brazilian group that organized BS 2001. Since then I have continued to attend BS conferences and to serve IBPSA as a member of the Conference Committee. In Brazil I helped to create IBPSA Brazil in 2001 and served on the board for many years.

IBPSA has grown tremendously and now is very active in more than 28 countries.

I think IBPSA has strong responsibilities towards the improvement of the quality of building performance simulation worldwide and I propose to work towards a better integration in Latin America and to improve the work on teaching materials to be made available to the international community.

See other candidates

Lori McElroy

Head of Sustainability, Architecture and Design Scotland, Glasgow, Scotland

BSc – Environmental Engineering, University of Strathclyde

Master of Art – Design Philosophy, Glasgow School of Art

PhD - Simulation Knowledge Transfer, University of Strathclyde

Experience

I have been IBPSA Vice President since February 2015, was IBPSA Secretary from 2010 - 2015 and Board Member of IBPSA since 2007 and also served as the Chair of Awards Committee (2007 – 2012) and was IBPSA Scotland Affiliate Representative from 2001 until 2014. I was Co-Chair of BS2009 held in Glasgow, and have served as Session Chair at all Building Simulation conferences since 1999. I have authored and co-authored numerous papers presented at Building Simulation conferences since 1997. Since 2004 I have also regularly served as Reviewer for Building and Environment and Journal of Building Performance Simulation.

I have been Committee Member of CIBSE Scotland, was Chair of CIBSE Scotland (2003 – 2005) and was awarded MBE (Member of the Order of the British Empire) for my contribution to sustainability in the built environment and made an Honorary Fellow of the Royal Incorporation of Architects in Scotland, both in 2012.

Achievements

Main activity has been exploring the benefits of an interdisciplinary approach to design based on simulation. A key driver for this work is the need to raise aspirations while managing expectations at all levels. From early 1980s I have pursued the use of simulation in practice, initially as a practitioner in major design projects, then as principal investigator in European and UK funded research projects embedding simulation in practice: e.g. the acclaimed UK Government funded Energy Design Advice Scheme, and the Scottish Government and ERDF funded Scottish Energy Systems Group (IBPSA Scotland). I have published extensively on sustainability issues in building design and received a PhD from Strathclyde for work on Embedding Simulation in Design Practice.

I have assisted with the embedding of simulation in practice through two significant projects: (1) Energy Design Advice Scheme (1987 -1998) – provision of simulation support to 650 companies (~1200 construction projects) resulting in energy cost savings of £17m p.a. (£172m and 285,000 tonnes of displaced CO2 cumulatively to 2008); and (2) Scottish Energy Systems Group (1999 -2004) – embedding simulation in design practice resulting in ~£1,358m in savings (2,250,000 tonnes CO2) between 1999 and 2008, creating 71 simulation-related jobs and work practice changes within 30 organisations and sales of software that directly benefitted companies, amounted to 53 licences valued at £950,000.

Aspirations for IBPSA

My aspiration is to champion the embedding and practical application of simulation in the design process in construction companies.

See other candidates

Veronica Soebarto

Associate Professor and Associate Research Head, University of Adelaide, Adelaide, Australia

B.Arch.Eng. – Architecture, University of Indonesia

M.Arch – Architecture, Energy, and Buildings, Texas A&M University, College Station, Texas, USA

PhD -- Architecture, Monitoring, and Simulation, Texas A&M University

Relevant experience and achievements

I am the first female recipient of IBPSA Outstanding Young Contributor Award (in 1997). The award was based on my PhD research to develop a methodology to calibrate hourly energy simulation with measured data. This research was subsequently used as one of the references in International Performance Measurement And Verification Protocol (DOE, 2002). Since 1995 I have presented papers at Building Simulation Conferences and published numerous conference papers and journal articles in the area related to building performance simulation and its application. One of my journal articles, written with Terry Williamson, “Multi-criteria Assessment of Building Performance: Theory and Implementation” (Building & Environment) receives more than 100 citations to date. While at Texas A&M University, with Larry Degelman, I co-developed ENER-WIN, the user-interface for an hourly whole-building energy simulation program, and published a number of papers on this work.

I have been teaching and conducting research in building performance simulation within the architecture, architectural science and architectural engineering disciplines for around 20 years. Despite mainly working within the architecture field where building performance simulation is not necessarily at the core of this discipline, I am one of the very few people in Australasia who teach building performance simulation at a tertiary level to engineering and architecture students. I have also supervised numerous students (at Honours and PhD levels) whose research involves using building performance simulation.

Contributions

In the professional arena, I was instrumental in “activating” IBPSA Australasia in the late 1998 which had been previously dormant. I became the convener of IBPSA Australasia and IBPSA Australasia representative to the IBPSA (World) Board since 1999. In 2006 I held the first IBPSA Australasia regional conference and remain active in the association to the present time. In 2007 I started to serve as a member of the IBPSA World Public Relations Committee, then became the Editor-in-Chief of IBPSA News in 2009 and Chair of the IBPSA World Communications Committee since 2011. I have been a member of the Scientific Committee of a number of Building Simulation conferences, the Chair of the Executive Scientific Committee of Building Simulation 2011 Conference in Sydney, member of the Executive Scientific Committee of Building Simulation conferences in 2013 and 2015, and member of the Editorial Board of Journal of Building Performance Simulation.

Aspirations

As someone with an architecture background, my main aspiration is to work with other IBPSA Directors and relevant members to bring building performance simulation closer to the architecture profession, through initiating/fostering communication, becoming one of the ‘agents’ to bridge the gap between building performance simulation and architecture, and providing insights from the architecture profession to IBPSA in developing training/education material. I would also like to see that building performance simulation becomes one of the key knowledge and skills that architecture and architectural/building engineering students and graduates must possess, and I would like to contribute my thinking to achieving this goal through my role as an IBPSA Director.

[See other candidates](#)

Michael Wetter

Staff Computational Scientist, Deputy Group Leader, Simulation Research Group, Lawrence Berkeley National Laboratory, Berkeley, California, USA

BS – Building technologies, University of Applied Sciences, Luzern, Switzerland
PhD – Mechanical Engineering, University of California at Berkeley

Experience

I have been Treasurer and Member of Board of Directors of IBPSA since 2010. I have also served as Member of Board of Directors, IBPSA USA from 2006 to 2014, President of IBPSA USA (2010 – 2012), and Vice President of IBPSA USA (2008 – 2010). I have been Member of the Scientific Committee of Building Simulation Conferences since 2009, Member of Scientific Committee of SimBuild Conferences since 2010, Co-Chair of the Scientific Committee of SimBuild 2008 and Co-Chair of Scientific Committee of Building Simulation 2017.

Since 2002 I have been member of ASHRAE, member of Modelica Association since 2008 and am currently member of Board of Directors, North America Modelica Users' Group.

Achievements

At LBNL I am developing the Modelica Buildings library for building energy and control systems, the prototype development of a new computing engine for EnergyPlus, the Building Controls Virtual Test Bed software, co-simulation tools based on the Functional Mockup Interface (FMI) standard and the GenOpt optimization program. I am the co-operating agent of the IEA EBC Annex 60 that develops open-source new generation computational tools based on Modelica and FMI for building and community energy systems. I am a recipient of the Outstanding Young Contributor Award of IBPSA and the Treasurer and a Fellow of IBPSA.

Aspirations for IBPSA

Since 2010, I have been Treasurer of IBPSA World and serve on its Board of Directors. In this position, my aspiration is to move IBPSA to a financial and organizational state where it can transition from a volunteer to a semi-professional organization as needed to remain the key organization in building simulation.

I have been on the board of IBPSA USA from 2006 to 2014, serving as Vice President and President, initiated moving IBPSA USA to a more professional organization which has now paid staff and that advanced to regularly holding energy modelling workshops and co-developed with ASHRAE the Energy Modeller certification.

See other candidates