



**IBPSA**

**International Building Performance Simulation Association**

**2015 ELECTION  
CANDIDATES FOR AFFILIATE DIRECTOR**

Each IBPSA Affiliate nominates a candidate for an Affiliate Director seat on the Board of Directors. Affiliate Director seats are not contested positions but candidates must be approved by member vote. Half of the Affiliate Directors are approved each year and serve for 2 year terms.

**Raul Ajmat (Argentina)**

**Quentin Jackson (Australasia)**

**Nathan Mendes (Brazil)**

**Da Yan (China)**

**Etienne Wurtz (France)**

**Jyotirmay Mathur (India)**

**Vincenzo Corrado (Italy)**

**Yoshiyuki Shimoda (Japan)**

**Jose Luis Jaspeado-Escalona (Mexico)**

**Wim Plokker (Netherlands + Flanders)**

**Naghman Khan (Pakistan)**

**Guilherme Carrilho da Graça (Portugal)**

**Nick Kelly (Scotland)**

**Gerhard Zweifel (Switzerland)**

## **Raul Ajmat (Argentina)**

Adjunct Professor, University of Tucuman, San Miguel de Tucuman, ARGENTINA

MSc - Visual Environment and Efficient illumination, De Montfort University, Leicester, UK

PhD Daylight modelling, De Montfort University

### **Experience**

I have served as a member of IBPSA Affiliate Committee since 2012. Within IBPSA Argentina I served as a member of the Executive Committee (Academic Coordinator) during 2013. I am currently Vice President since 2014. Previously I served within the national solar association (ASADES) in the Building Simulation area as a member of the Scientific Committee since 2010, member of the Organizing Committee in 2006 and member of the Executive Committee in 1999. Since 2013 I have been the Vice Director of the Doctorate courses in Visual Environment and Efficient Illumination, and from 2006 to 2010 I was Coordinator of the Graduate Department of the Faculty of Architecture and Urban Planning-University of Tucumán. This year I am coordinating the Organizing Committee for a national Symposium "Light in museums and the care of heritage" which will be held in my city in October.

### **Achievements and Contributions**

I have been a Professor in Building Services – School of Architecture, National University of La Rioja (2008-2011); Researcher at the Institute for Research in Light and Vision Environment CONICET -UNT since 2011; Research project manager (Director) for a study: "Impact Study for the urban configuration about climatic parameters in La Rioja City. Guidelines for a sustainable planning", funded by the University Research Council, La Rioja University (2009-2010); and Research project manager (Director) for a study: "Radiation effects and environmental conditions on display and preservation of heritage museum", funded by the University Research Council University of Tucuman (2014-2016). I developed training Courses delivered as RETScreen trainer in Universities (Buenos Aires, La Rioja, Tucuman) and in National Energy Meetings (Santiago del Estero , Salta). I have supervised PhD theses: 4 submitted, 4 in progress. Since 2014 we created the annual IBPSA regional conference (in association with Brazil and Chile affiliates) where all our members can present their simulation production. Now I am delivering courses for Architecture and Engineering PhD and Msc programmes in different universities (U of Cordoba, U of Litoral, U of Northeast, National Tech Univ, U of Tucuman, U Santa Maria in Valparaiso, Chile)

### **Aspirations**

- To promote the association (particularly in developing countries)
- To contribute amongst practitioners to enhance building performance simulation techniques.
- To promote regional IBPSA events.

**See other nominees**

## **Quentin Jackson (Australasia)**

Associate, Aurecon, Brisbane, Australia

Bachelor of Building Science, Master of Building Science, Victoria University of Wellington, New Zealand

### **Positions held**

I have been the Membership and Web Site Coordinator of IBPSA Australasia since 2003 and I am currently the Secretary and Affiliate Representative. I have presented papers in Building Simulation Conferences. I have been a member of ASHRAE since 2005 and a member of GBCA (Green Building Council Australia) Brisbane State Industry Group since 2012.

### **Achievements**

I have been part of the Expert Reference Panel - Green Building Council of Australia since 2013. I was part of NABERS New Zealand Technical Advisory Group (2012), Advisory Group for the GBCA Green Star Communities Tool (2011), and Category Author for the Australian Green Infrastructure Council Infrastructure Sustainability Rating Tool (2011). I was a member of the technical working groups for the Green Star New Zealand Education and Industrial Energy Calculation Guide (2009) and for the Green Star New Zealand Interiors and Industrial 2009 rating tools, member of the technical advisory committee for the revision of NZS:4218 Thermal Insulation – Housing and Small Buildings (2009), Build 360, Sustainability Toolkit for the Ministry for the Environment (2009) and a member of the technical advisory group for the Green Star New Zealand Office Design Version 1 rating tool (2007). From 2005 to 2009 I was a Course Co-ordinator & Guest Lecturer in the Bachelor of Building Science program at the School of Architecture, Victoria University of Wellington.

### **Contributions and Aspirations**

Past Contributions:

- Active participation in IBPSA since 2003 including website and membership management.

### **Aspirations to enhance IBPSA**

- Improving the dissemination of lessons learned from the experienced simulators to ne up and coming simulators.
- Sharing knowledge across country and company borders.
- Enhancing the design of sustainable building with simulation.

**See other candidates**

## **Nathan Mendes (Brazil)**

Director of Graduate Studies, Pontifical Catholic University of Parana (PUCPR), Curitiba, Brazil

Eng – Mechanical Engineer, Federal University of Uberlandia, Minas Gerais, Brazil

M.Sc. Thermal Sciences, Federal University of Uberlandia

PhD – Mechanical Engineering, Federal University of Santa Catarina, Brazil

### **Experience**

I was the IBPSA Brazilian representative from 2010 to 2013. I was IBPSA Brazil President from 2003 to 2007 and Vice President from 2001 to 2003 and IBPSA Brazil board member (adviser) from 2015 to 2017. I was a Keynote Speaker as well as Organizing Committee member of BS2001 and I was a Scientific Committee member of BS2013 Conference.

I was part of the organizer of IEA Annex 55 meeting (2013) and IEA Annex 41 meeting (2007), both in Brazil, Organizing Member of The Brazilian Meeting on Thermal Sciences (ENCIT) in 2006, President of the South Brazilian Meeting on HVAC Systems (Mercofrio) in 2004 and President of the National Meeting on Comfort in the Built Environment (ENCAC) in 2003.

### **Achievements**

I completed my PhD in Mechanical Engineering at the Federal University of Santa Catarina, Brazil. I am currently Professor and Director of Graduate Studies at the Pontifical Catholic University of Paraná (PUCPR), Brazil. I received the Young Scientist Award of the Brazilian Research Council (CNPq) in 2002 and am a member of the editorial boards of Journal of Building Physics and Journal of Building Performance Simulation. I have patents, registered computer programs, more than 170 papers in proceedings and 40 in journals, reviewed more than 10 journals and have participated in the International Energy Agency Annexes 41 (2004-2008), 55 (2009-2013) and 60 (2013-2017). My work emphasises on energy, heat and moisture transfer in porous building elements, modeling and experimental analysis of HVAC systems and energy efficiency of building systems.

I have been working on the development of mathematical models and computer tools for simulation of building physics related phenomena since mid-nineties (Umidus, Domus, HVAC-LST, ViewFactor, Psicrometria, Climus, Solum). I have also been working on the development of a remote learning platform for training of building simulators ([www.domus.pucpr.br](http://www.domus.pucpr.br)).

### **Aspirations for IBPSA**

Large dissemination of building simulation and conducting research for the improvement of simulation tools, educational products and formation of high level simulators.

**See other candidates**

## **Da Yan**

Associate Professor, School of Architecture, Tsinghua University, Beijing, PR. China

PhD – HVAC, Tsinghua University

### **Experience**

I was the Vice Chair of IBPSA-China conferences in 2011 and 2013 and Chief secretary of Building Simulation Conference in 2007. I am the Operation Agent of IEA ANNEX 66 of occupant behaviour simulation and definition from 2014 to 2017.

### **Achievements**

I am an Associate Professor of Architecture of Tsinghua University in Beijing. My research focuses on building simulation technology, energy strategy and code compliance, and the influence of human behaviour in building energy consumption. I have led the development of building simulation tool DeST for 14 years. DeST has been widely used in China for building design optimization. Based on my contribution in occupant behaviour simulation, I am acting as the Operation Agent of IEA ANNEX 66 for occupant behaviour simulation and definition.

I have acted as the Chief Secretary of IBPSA building simulation conference and have been working quite actively in IBPSA China. I was also the Vice Chair of IBPSA-China conferences in 2011 and 2013.

### **Aspirations for IBPSA**

To bring simulation into real applications.

**See other candidates**

## **Etienne Wurtz (France)**

Research Director, CEA, France

Aggregation, Ecole normale supérieure de Cachan

Doctor, Ecole nationale des ponts et chaussées Paris

Habilitation (Professor), University of La Rochelle

### **Experience**

I have been the President of IBPSA France since 2008 and a member of IBPSA Conference Committee since 2013. I was also the Conference Chair of BS2013, Chambéry, and IBPSA France Conference Chair in 2012. Since 2010 I have served as AICVF Award Board member.

### **Achievements**

My activities concern building energy efficiency. I am working as CEA research director in the National Institute of Solar Institute located in Chambéry. My research consists of studying the impact of solar solutions on a house or a building and includes:

- Passive solar systems (location and orientation of walls and windows)
- Active thermal solar systems for domestic hot water, heating, cooling systems and air conditioning
- Thermal inertia and specific storage systems
- Building integrated photovoltaic systems

The main objective of my research is to realize a simulation platform which is able to describe zero energy buildings behaviour and validate these numerical tools with experimental plants. I have also been teaching Bachelor and Master students in architecture and energy engineering in energetic building and plant simulation at UdK Berlin since 2007.

### **Aspirations for IBPSA**

My objective is to continue what I have tried to do until now in the association.

**See other candidates**

## **Jyotirmay Mathur (India)**

Professor in Mechanical Engineering, Malaviya National Institute of Technology Jaipur, India

Bachelor of Engineering, MBM Engineering College, Jodhpur, India

Master of Technology, Indian Institute of Technology, New Delhi

PhD – Energy Systems, University of Essen, Germany

### **Experience and Contributions**

I have been involved with IBPSA-India since its inception, initially as Founder Board Member and then Executive Member of the Board. I have been participating in IBPSA conferences. I was organising Chair of IBPSA India's Annual Conference at Jaipur in the year 2012. I have also been involved with teaching of energy simulation through classroom teaching at Institute as well as through organising more than 60 training programs for professionals on Building Energy Simulation in India with other colleagues. Since BS13, I have been engaged with the Scientific Committee of BS15 as its Chair.

### **Aspirations for IBPSA**

I wish to serve the society through spreading its outreach especially in developing countries, and in enhancing level of utilisation of simulation in practice of designing building systems.

**See other candidates**

## Vincenzo Corrado (Italy)

Associate Professor, Civil Engineer, Department of Energy, Politecnico di Torino, Turin, Italy  
MSc Civil Eng – Building energy systems, Politecnico di Torino

### Experience

I have been a member of the Board of Directors (as IBPSA-Italy Representative) and President of IBPSA Italy since 2011. I am a member of the Scientific Committees and of the Organizing Committee of BSA 2015 in Bolzano and served the same at BSA 2013 where I was also the Editor of the Conference Proceedings. I was a member of the International Scientific Committees of BS2013 in Chambéry and BS2011 in Sydney. I participated in BSO14 in London, BS2013, BS2011, BS2009 in Glasgow as well as BS2007 in Beijing.

I have been a member of the Steering Council and of the Executive Board of AiCARR (Italian Society of Air Conditioning, Heating, Refrigeration) since 2014 and President of the Foundation of the Order of Engineers of the province of Torino since 2009.

### Achievements

I am an Italian delegate of CEN/TC 89 (Thermal performance of buildings) and ISO/TC 163/SC2 (Thermal performance and energy use in the built environment - Calculation methods). I coordinated several European and national projects concerning the development and application of simulation models for buildings energy performance assessment. I participated in IEA Annexes 10 (System Simulation), 17 (BEMS), 25 (Real Time Simulation of HVAC Systems for Building Optimisation, Fault Detection and Diagnosis) and 53 (Total Energy Use in Buildings). I am the Director of the specializing master in "Sustainable buildings and energy efficiency" of Politecnico di Torino and responsible of the course "Numerical modeling and standards" (2011 - 2014). I am also a teacher of the AiCARR Education/IBPSA-Italy course on Building Dynamic Energy Simulation (2014).

Some significant results of research experience:

- implementation of the simplified procedure of building cooling energy need assessment, based on the monthly quasi-steady state model, through a new formulation of the dynamic parameters.
- proposal of a new methodology for identifying the cost-optimal energy levels for the Italian building stock, development of a software for energy assessment and cost optimization, and its application to reference buildings.

### Aspirations for IBPSA

My aspirations to enhance IBPSA:

- contribute to the harmonisation of BPS and the diffusion of the concept of overall building performance.
- increase the number of members from the professional field
- increase the number of young people in the IBPSA commissions
- spread training activities in the different countries through the proposal of curricula endorsed by IBPSA and didactic material available to all members.

**See other candidates**



## **Yoshiyuki Shimoda (Japan)**

Division of Sustainable Energy and Environment, Graduate School of Engineering, Osaka University, Suita, Osaka, Japan  
Bachelor, Master of Engineering, Doctor of Engineering – Environmental Engineering, Osaka University

### **Experience**

I have been IBPSA Board member as the representative of IBPSA Japan since 2012. I have been Vice President of IBPSA Japan since 2013 and was President of IBPSA Japan in 2007-2009. I also served as a member of the Scientific Committee of Building Simulation Conferences from 2005 to 2011.

I was the Convener of the 2005 World Sustainable Building Conference, Expert Reviewer, Working Group III's contribution to the Fourth Assessment Report of IPCC (2005-2006) and the Fifth Assessment Report of IPCC (2012-2013). I am also participating IEA-EBC Annex 63 "Implementation of Energy Strategies in Communities". (2014-)

### **Achievements**

I have been working at Osaka University from 1990. My research field is urban energy system. Related to building simulation, I have been developing the city-scale energy end-use forecasting models for residential and non-residential sector. In addition I have been studying modelling and commissioning of heat source plant in DHC system and building HVAC system.

### **Aspirations for IBPSA**

I have been contributing to the field of urban scale energy end use modelling in the building sector. I will make an effort to encourage more Japanese and Asian researchers and practitioners to participate IBPSA activities such as BS conferences, Asim (IBPSA-Asia) conferences, submission to Journal of Building Performance Simulation, etc.

**See other candidates**

## **Jose Luis Jaspeado-Escalona (Mexico)**

Head of Department of Architecture, Universidad de las Americas Puebla, Cholula, Mexico

Bachelor of Architecture, Universidad de las Americas Puebla

Master in Architectural Design, Architectural Association in London, London, UK

PhD – Natural Lighting, Universitat Politècnica de Catalunya, Barcelona, Spain

My service to the International Building Performance Simulation Association relies on my concern for constructing more sustainable buildings, especially the ones located in warm countries such as Mexico by using a powerful tool like computational simulation.

In my PhD studies as well as in the department I lead, both the indoor environment and energy efficiency are the most important topics related to the design and construction of buildings. Other subjects such as the functionality and universal access are important too.

In this context, simulations tools have a wide scope concerning the development of more programs that address indoor overheating, humidity, counter the use of fossil-based energy, among others -- issues typically confronting buildings located in the tropical zones such as Mexico and in other regions that are members of IBPSA.

I pledge to establish networks with all the members of the IBPSA Board (especially the ones with their major concern is the related to building cooling) in order to spread the use of simulation tools in the design of buildings located in warm conditions to achieve proper indoor comfort and energy saving.

As to my background, I have been working on sustainable building and urban projects in Mexico, Colombia, and Spain -- always focusing on the design through computational simulation.

**See other candidates**

## **Wim Plokker (Netherlands + Flanders)**

Research Manager, Vabi Software BV, Delft, Netherlands

MSc – heat and mass transfer, Delft University of Applied Physics, Delft, Netherlands

### **Position held**

I have been the Affiliate Director of IBPSA NVL since 2003, was a Treasurer of IBPSA NVL in 2002-2008, President in 2008-2012, and have been a Member At Large/Affiliate Director since 2012. I was the Treasurer of BS2003 in Eindhoven.

### **Achievements**

In 1987 my first job at TNO Institute of Applied Physics was to develop a building simulation program. This program developed over time and is for a long time defacto standard for overheating risk assessment in the Netherlands (one of the few countries in which overheating risk assessment is done for almost every building).

I was involved in several EU framework research projects such as COMBINE, WIS and INTUBE.

In 2002 I shifted jobs from TNO to VABI (a software company bringing building simulation to the Dutch practice). As a research manager I give training on building simulation for Vabi users and one or two times a year I serve as a guest lecture at the Technical University of Eindhoven.

### **Contributions and Aspirations**

My aspiration is to bring building performance simulation to common practice so that as many people as possible can benefit from good performance at a reasonable cost.

**See other candidates**

## **Naghman Khan (Pakistan)**

Lahore, Pakistan

BSc – Physics, University College London, UK

MSc – Energy, University College London

PhD – Sustainable Energy, University of Nottingham, UK

I have been involved in the Building Simulation industry for over seven years now. My post-doctorate research was a comparison of whole building simulation tools and prior to this my Doctoral research had a heavy simulation component. I have been attending IBPSA events in the UK and abroad for many years including SimBuild in New York. I am a founding member of the UK CIBSE Building Simulation Group and have served as Group Secretary for many years. I am also a co-author of the new CIBSE Application Manual 11 (AM11) on Building Energy & Environmental Modelling due to be published in 2015.

I have taught building simulation in several Universities including The Department of Architecture & Built Environment, University of Nottingham UK and Government College University, Lahore, Pakistan and Beaconhouse National University, Lahore, Pakistan.

I have also worked industry for several years, using building simulation for sustainable building design including HVAC design and sizing, daylighting strategies, renewables assessments and feasibility studies and thermal performance analysis of buildings. I have also worked on national and international BREEAM and LEED projects.

I believe my varied experiences to date qualify me to serve as affiliate Director and I have passionately initiated capacity building and awareness in Pakistan to the field of building performance simulation.

**See other candidates**

## **Guilherme Carrilho da Graça (Portugal)**

Assistant Professor, University of Lisbon, Lisbon, Portugal

BSc – Physics, Technical University of Lisbon, Lisbon, Portugal

MSc – Building Technology, Massachusetts Institute of Technology, Cambridge, Massachusetts, USA

PhD – Engineering Physics, University of California at San Diego, San Diego, California, USA

I am an Assistant Professor in Building Energy Systems (DEGGE, since 2010) in the University of Lisbon and owner of NaturalWorks Consultants. I have over twenty publications in building energy analysis, natural ventilation design and thermal simulation. My main area of expertise is building energy simulation and natural ventilation design.

Since 2002, I have worked in high performance building design and simulation in the US (San Francisco Federal Building, New York Times Building), Brazil, Mozambique, Italy, France and Portugal. At the University of Lisbon I am currently advising five PhD students (including three students in the MIT Portugal Program). At NaturalWorks, I lead a team of eight engineers working in HVAC and building integrated renewable energy systems design. I am an expert in HVAC (Portuguese Professional Engineers Association) and a BREEAM International Qualified Assessor.

**See other candidates**

## Nick Kelly (Scotland)

Senior Lecturer and Associate Director ESRU, University of Strathclyde, Glasgow, Scotland

BEng Hons – Environmental Eng, University of Strathclyde, Glasgow, Scotland

Msc, PhD – Energy and environment, University of Strathclyde

### Position held

I am Chair of IBPSA-Scotland Steering Group. In 2009 I was the Chair of BS2009 Scientific Committee and member of BS2013 Scientific Committee. I was also a member of the Scientific Committee of BSO2013 and BSO2014.

I was the Conference Chair of Microgen II, Glasgow (2011), part of the Management Group Microgen III, Naples (2013) and Management Group IEA ECBCS Annex 54 (2009-2013), was a UK Representative IEA HIA Task 18 (2005-2007), and Subtask B Leader IEA ECBCS Annex 42 (2004-2008).

### Achievements

I have had 20+ year's research experience in energy and buildings. I am a member of ESRU, developer of the ESP-r building simulation tool and have specialist knowledge of electrical power flow modelling and modelling of microgeneration. I am an author of 70+ peer-reviewed research publications, Conference Chair Microgen II and Scientific Chair BS 09, Subtask Leader IEA ECBCS Annex 42 & IEA HIA Task 18 and held RCUK Fellowship in Building Energy Usage 2005-2009. I have delivered 5 Knowledge Transfer Programmes developing simulation capabilities in industrial organisations and I am a regular consultant to industry. I have been a PhD Supervisor and I deliver classes in low-energy buildings, energy modelling, electrical power systems and renewable energy systems.

### Contributions and Aspirations

I aim to re-establish IBPSA-Scotland as a vibrant grouping, collaborating with academic and industry colleagues. I will also seek to develop a closer links with IBPSA-England and Ireland.

Key objectives:

- develop membership, especially young researchers and practitioners;
- run series of targeted events in 2015 & build towards a conference; and
- develop IBPSA-Scotland's Web presence with access to back catalogue of building simulation material.

Key contributions to building simulation along with ESRU colleagues include:

- developing the first integrated power flow solver for building simulation;
- developing prototype mould growth analysis tool and simulation-based controller; and
- developing integrated, validated models of microgeneration technologies.

**See other candidates**

## Gerhard Zweifel (Switzerland)

Senior Lecturer, Lucerne University of Applied Sciences and Arts, Horw, Switzerland

MSc – Mechanical eng, ETH Zürich

### Experience

In 1984-1996 I was a researcher at EMPA, Dübendorf in the field of building and systems simulation, participated and contributed to several international projects (IEA ECBCS Annex 10, Annex 21, IEA SHC Task 22) and taught Mechanical Engineering Students at ETH. Since 1995 I have taught and worked in R&D at Lucerne University of Applied Sciences and Arts, been teaching building services engineering bachelor classes in basics of building simulation, supervisor of numerous bachelor theses and advisor of master students in BS. I conduct research in national and international projects (IEA SHC Task 18, 34, IEA ECBCS Annex 50). I spent sabbaticals at LBNL, Berkeley in 1990-91 and at Olof Granlund OY, Helsinki and EQUA Simulation AB, Stockholm in 2010.

I have been a member of ASHRAE since 1991. I was the co-founder and have been president of the Swiss research network "brenet – building and renewable energies network of technology" since 2001, and president of the sectorial standards committee "Energy and Building Services", Swiss Association of Engineers and Architects (SIA) since 2010.

### Achievements

I was the Co-founder and president IBPSA-CH (2005-2012). I was IBPSA-CH Affiliate representative (2005-2012). Since 2012 I have been IBPSA-CH board member. I was the organizer of the national energy research conference "Statusseminar" in Zürich in 2014, 2012 and 2010, also co-organizing the IBPSA session in 2014. I was a reviewer and contributor at BS2013, Bausim 2012, BS2011, BS2009 and 2007. I was coaching MSc Student and Student Competition 2011 Award winner Johannes Maderspacher. In 2009 I organized the 1<sup>st</sup> Swiss 1st Swiss Building and Urban Simulation Conference. I was a contributor at BS2003, BS2001 and BS1995.

I initiated the use of and distributed building simulation tools in Switzerland (DOE-2, IDA-ICE). Many students carried the knowledge out to industry and still will do.

### Aspirations for IBPSA

I will continue to enhance master student programs and strengthen the simulation track. I want IBPSA-CH to be an active and attractive affiliate of IBPSA, well represented in the international organisation.

**See other candidates**