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The journal of the International Building Performance Simulation Association



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The International Building Performance Simulation Association (IBPSA) 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

Greetings from Oklahoma! I'm writing this message on the first Monday of July. I'm just back from Honolulu, where IBPSA-USA held its bi-annual meeting. I spent several hours with one of my graduate students this afternoon, trying to finish up a paper for the eSim 2002 conference, which will be held in Montreal in September, and is sponsored by IBPSA-Canada. IBPSA-Australasia, IBPSA-Czech Republic, IBPSA-France and IBPSA-Netherlands + Flanders all have conferences scheduled for later this year. It appears that the IBPSA regionalization scheme, embarked upon six years ago, is a success! There is still more to be done, of course — existing regions have ample opportunities to make a bigger impact, and IBPSA still covers a relatively small part of the world.

The IBPSA Board, which will be meeting in Eindhoven this October, has just recently approved a series of changes to the by-laws. These changes, which will go out to the membership for approval, are aimed at fully implementing the regionalization scheme. Key changes include: representation of each regional affiliate on the IBPSA Board (this has been done informally in the past, as the number of affiliates has exceeded the number of available board seats under the current by-laws); formal incorporation of affiliate members as IBPSA members; minimal reporting requirements for regional affiliates (given the above two changes, it is necessary for IBPSA to know who the board representatives are, and who the members are), provisions for electronic voting, and procedures for both establishing new affiliates and, when necessary, terminating affiliate relationships. The new by-laws, when approved by the membership, will allow us to move forward.

IBPSA's key functions include promoting the exchange of building simulation information and development of a scientific base for building simulation research. While this is an ongoing activity, a substantial advance has been made with the proceedings of our conferences. Proceedings from Building Simulation '89, '91, '93 '95, '97, and '99 are all now on line at the IBPSA web site (www.ibpsa.org). Proceedings from the 1985 Building Energy Simulation Conference, organized prior to IBPSA, are also available. All together, there are 653 papers and over 5000 pages of proceedings online. The range of topics covered is vast: modeling methods from acoustics to zonal models, and programs from ADELINE to ZOOM.

We're looking forward to furthering the exchange of information at Building Simulation 2003, to be held in Eindhoven, 11-14 August 2003. (See: www.bs2003.tue.nl) The three-day format of past Building Simulation conferences has become too busy, so this conference will expand to three and a half days, with all of the beginning plenary sessions to be held on Monday afternoon. This will leave more time for technical sessions. Also, it will require fewer sessions in parallel — hopefully allowing participants to miss fewer sessions of interest. Please plan to submit your abstract by the 15th of September. I'll look forward to seeing you in Eindhoven!

Jeff Spitler, President, IBPSA



IBPSA Central contacts

Membership Services and Publications

IBPSA Central membership form

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Publications order form

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Newsletter submissions

To submit Newsletter articles and announcements, contact: Larry Degelman (Newsletter Chairman) Texas A&M University 2206 Quail Run College Station, TX 77845 USA Tel.: +1-979-696-2506 Fax: +1-979-696-2506 Email: larry@taz.tamu.edu

IBPSA Building Simulation conferences

For information about IBPSA Building Simulation conferences, contact: Jan Hensen (Vice Pres., Conf. Liaison) Eindhoven University of Technology Group FAGO - HG 10.80 P.O. Box 513 5600 MB Eindhoven The Netherlands Tel: +31 40 247 2988 Fax: +31 40 243 8595 Email: jahe@fago.bwk.tue.nl

IBPSA Website

For full information on how to order IBPSA's publications, or to look at Proceedings of past IBPSA Building Simulation conferences or past IBPSA Newsletters, please look on the IBPSA Website at: www.ibpsa.org.

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IBPSA Regional affiliates

For information on joining IBPSA, please contact your nearest regional affiliate. If there is no affiliate in your region, join IBPSA by using the Central membership form.

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IBPSA Central membership form

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(continued on next page)



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IBPSA Management Board

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Building Simulation 2003

11 - 14 August 2003 Building Simulation 2003 8th International Building Performance Simulation Association CONFERENCE + EXHIBITION Eindhoven,Netherlands



BS'03 website www.bs2003.tue.nl BS'03, the 8th biennial IBPSA conference, looks like maintaining its place as the premier international event in the field of building performance simulation. Organised jointly by IBPSA Netherlands + Flanders, the Technical University of Eindhoven (TU/e) and the Center for Building and Systems TNO, and supported by a distinguished roll of sponsors including ASHRAE and REHVA, it will take place in a vibrant modern city in the centre of Europe. IBPSA's conferences have gone from strength to strength and this promises to be the best yet, with a new, three-and-a-half day format and an exciting range of topics to address.

This article summarises the key facts about BS'03. You can find more and updated information about the conference and the venue, and online pre-registration forms, on the conference website at www.bs2003.tue.nl.

Topics

Conference topics will include:

- building physics including heat, air and moisture flow, heating and cooling loads, electric and day lighting, acoustics, smoke transport
- heating, ventilation and air-conditioning systems
- energy supply systems including renewable energy systems, thermal storage systems, district heating and cooling, combined heating and power systems
- human factors including health, productivity, thermal comfort, visual comfort, acoustical comfort, indoor air quality
- building services such as lighting systems, sound/vibration control systems, fire/smoke and emergency control systems, cold/hot water supply systems, sewerage systems
- advances and recent developments in modeling and simulation technology including coupling with CAD, product modeling, software interoperability, user interface issues, validation and calibration techniques.

All these may be addressed

- at different levels of resolution from urban scale to microscopic scale, and
- for different phases during the building life cycle, from early sketch design via detailed design to construction, commissioning, operation, control and maintenance of new and existing buildings worldwide.

Abstract deadline 15 September 2002!

Program



The Building Simulation 2003 conference will begin with a half-day session which includes keynote speeches by a world-renowned architect and a world-famed consulting engineer introducing the conference theme "Building simulation for better building design". The exhibition will take place on the same day.

The next three days will see presentations of many high quality papers, software demonstrations, and plenary sessions to discuss IBPSA and the conference theme. The conference will include several social events, an accompanying person program, and post-conference tours. Details will be published on the BS'03 website as they are finalised.

Venue

Eindhoven is a young dynamic city with a modern appearance offering a traditional Brabant welcome. Its youthful appearance belies the fact that Eindhoven is one of the oldest cities in the Netherlands. Eindhoven differs from ordinary towns in many ways. It is a town that has to be discovered to truly appreciate it: spaciously planned, internationally oriented, young and alive with activity.

The conference and exhibition will be held on the park-like campus of Technical University of Eindhoven (Technische Universiteit Eindhoven, TU/e) at the TU/e Conference Center. The campus is a short walking distance from downtown Eindhoven.

TU/e focuses on fundamental and strategic technological research relevant to industrial or other applications. It main aims are to strengthen the competitive position of trade and industry and to help solve social problems. TU/e holds a prominent position both nationally and internationally in the research fields of performance-based building design, and information and communication technology.

Papers

Only original papers related to the conference topics and not published elsewhere will be accepted. All accepted papers will be published in the conference proceedings. Detailed information about abstract and paper submission is available on the conference website.

Accepted papers will be presented in oral parallel sessions or in poster sessions. The presentation format will depend on author's preference, reviewer's recommendation, registration status and the opinion of the scientific executive committee.

Authors of accepted papers are encouraged to demonstrate software related to their paper.

Each registration entitles submission of a single paper. One extra paper per registration is allowed for an additional fee.

Proceedings and special issues

Proceedings will be available printed and on CD-ROM. The registration fee includes only one form of the proceedings. Authors of selected papers will be invited to submit expanded papers for publication in special issues of prestigious academic journals.

Calendar

Abstract due	15 September 2002
Acceptance notification	15 November 2002
Manuscript due	15 February 2003
Review result	15 April 2003
Final manuscript due	15 May 2003
Final acceptance notification	31 May 2003
Early registration	15 June 2003
BS2003 Conference & Exhibition	11-14 August 2003

Fees

Early registration (before 15 June 2003)	EUR 280
Late registration (after 15 June 2003)	EUR 350
Full time students	EUR 125
Accompanying persons	EUR 100
First day only participation	EUR 100
Additional paper	EUR 100

IBPSA members will receive a discount (details to be announced on the BS'03 web site). The registration fee includes conference attendance, proceedings, lunches, breaks, banquet and welcome party. The accompanying persons' registration fee excludes conference attendance and proceedings.

Organising and scientific committees

Organising: Jan Hensen (Conference Convenor, TU/e), Coby Damsma (TU/e), Jan Diepens (TU/e), Ery Djunaedy (TU/e), Wim Maassen (TNO), Wim Plokker (VABI), Jan Romer (ECN), Paul Rutten (TU/e), Jos van Schijndel (TU/e), Harrie Smulders (TU/e).

Scientific: Godfried Augenbroe (USA, Chair), Jan Hensen (Netherlands, Co-Chair), Joe Clarke (Scotland), Roberto Lamberts (Brazil), Jeff Spitler (USA), Terry Williamson (Australia), Harunori Yoshida (Japan) and over 150 international reviewers.

Contact details

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Other forthcoming events

Calendar

Date		Event	Venue
2002			
September	6	Design Analysis Interface (DAI) Initiative	Washington, USA
September	12-13	eSim 2002	Montreal, Canada
September	30-1 Oct	Scientific applications using RADIANCE	Fribourg, Switzerland
October	17-18	IBPSA-France national conference	Paris, France
October	18	IBPSA-Netherlands+Flanders national conference	Antwerp, Netherlands
November	1	IBPSA-Australasia annual seminar	Deakin University
November	6-8	Construction vizualisation and animation symposium	London, UK
November	7	Building and Environmental Technology Simulation '02	Prague, Czech Republic
December	16-18	System Simulation in Buildings	Liège, Belgium
2003			
April	28	Indoor air quality in museums and historic properties	Norwich, UK

6 September 2002 Washington DC, USA http:// dcom.arch.gatech.edu/dai/



Design Analysis Interface (DAI) Initiative

Georgia Institute of Technology, Carnegie-Mellon University, University of Pennsylvania

During the past year researchers from Georgia Institute of Technology, Carnegie-Mellon University and University of Pennsylvania have been working on a DOE-funded project aimed at a new generation of interfaces between building design and analysis. A first prototype has been developed concentrating on energy analysis using EnergyPlus. The key feature of the interface is that it is process-centric, driven by user-defined analysis scenarios. The final products will be able to deal with structured and unstructured information, allow 'constructive' user interaction during the mapping process, and incorporate existing models such as the IFC for the 'automatic' parts of the interface.

At the workshop the research team intends to present the results to an audience of design analysis tool developers, tool users (consultants) and people working on building product models (e.g. from the IAI-IFC, STEP and BLIS communities). The workshop will be used to gather feedback on the first prototype, establish ties with potential collaborators and define follow-up efforts. Participants will receive a copy of the final report of the concluded first phase of the research.

If you would like to attend please email **eterdewilde@arch.gatech.edu** or **fried.augenbroe@arch.gatech.edu** for the final program and directions to the venue, Lawrence Berkeley National Laboratory Washington Office, Washington DC.

Preliminary program:

10:30 -	-11:00	Introduction to the DAI-Initiative
11:00 -	11:45	Presentation and demonstration of the DAI-Interface
11:45 -	- 12:30	Enabling technologies: conceptual modeling, XML, interfaces to
		simulation engines
12:30 -	- 1:30	lunch (will be provided)
1:30 -	- 2:30	Future developments (workshop style)
2:30 -	- 3:30	Joint efforts and Discussion

Further details of the workshop will be posted on the DAI web site at http://dcom.arch.gatech.edu/dai/ as they become available.

The research team:

Georgia Tech:Fried Augenbroe, Chuck Eastman, Pieter de Wilde, HyeunJun MoonCarnegie Mellon University:Ardeshir Mahdavi, Rohini BrahmeUniversity of Pennsylvania:Ali Malkawi, Ruchi Chaudhury (University of Michigan)

12-13 September 2002 Montreal, Canada www.esim.ca



eSim 2002: the Canadian conference on building energy simulation IBPSA-Canada

IBPSA-Canada is organizing eSim 2002, the Canadian conference dedicated to building simulation. The conference will be held in Montreal, Canada at the Centre for Building Studies of Concordia University. IBPSA-Canada expect 75-100 participants from the architectural, engineering, university, energy utility, consulting, and government R&D communities. Further information is available from www.esim.ca.

58 abstracts have been accepted on a wide range of themes:

- Recent developments for modelling the physical processes relevant to buildings (thermal, air flow, moisture, lighting)
- Algorithms for modelling conventional and innovative HVAC systems
- Modelling whole-building performance, including integrated resource management, renewable energy and combined heat, cool and power generation
- Building simulation software development and quality control
- Use of building simulation tools in code compliance and incentive programmes
- Moving simulation into practice: case studies of innovative simulation approaches
- Validation of building simulation software
- User interface and software interoperability issues
- Data visualization and animation
- Optimization approaches in building design

There will be demonstrations of building simulation software as well as presentations.

Papers presented at the conference will be peer-reviewed and published in the conference proceedings, which will be available permanently on the IBPSA-Canada web site.

30 Sept - 1 October 2002 Fribourg, Switzerland www.eif.ch/~compag/rw

Scientific Applications Using RADIANCE University of Applied Sciences of Fribourg

Greg Ward and Raphael Compagnon have organized this workshop to provide researchers with an opportunity to present their work with Radiance, and to share ideas and solutions with other workshop participants. The programme already includes over 20 twenty minute talks, each of which will be followed by 10-15 minutes of open discussion. Further contributions are welcome up to the submission deadline of 31 August 2002. The final programme will be published in September. No printed proceedings will be produced, but a CD-ROM will be distributed to attendees that will include electronic materials submitted by the speakers and edited by the organizers. Registration forms are available from www.eif.ch/~compag/rw.

The current list of themes and titles includes:

Introduction	
 Radiance 3.4 and Open Source Development 	Greg Ward
Daylighting Studies	
 A radiance application in daylighting analysis 	Giulio Antonutto
 Daylighting analysis 	Annalisa Simonella
Lighting Analysis	
 Architectural Visualization: Radiance in Production 	Jack de Valpine
 Simulating daylight redirection systems 	Georg Mischler
 Radiance use in Australiasia: an Engineers experience 	Haico Schepers
Lighting Analysis	
 Architectural Visualization: Radiance in Production 	Jack de Valpine
Applications in a Teaching Context	
■ IRAD: a simple automated simulation program to study da	ylighting in
rectangular room without knowing much about RADIAN	CE Raphael Compagnon
 Using RADIANCE for teaching lighting simulation on a Mas 	sters course Axel Jacobs
 RADIANCE as an educational tool in an architecture school 	Aris Tsangrassoulis
Extensions, User-interface, and CAD Links	
■ A C4D/Radiance converter which is usable on MacOSX	Jean Brange
The RADIANCE Photon Map	Roland Schregle
The Holodeck Interactive Ray Cache	Greg Ward
 Radiance developments at Fraunhofer ISE 	Jan Wienold
Special Materials (BRDF BTDF, etc.)	
 Material modelling 	Peter Apian-Bennewitz
High Dynamic Range Images	-
 Post Processing of Radiance Images: Virtual Lighting Laboratory 	oratory Mehlika Inanici
 Perception of High Dynamic Range Scenes 	Patrick Ledda
Creating Lightmaps from HDR using Radiance	Bernhard Spanlang
The Photophile Browser for HDR Images	Greg Ward
Special Applications	0
 Very Realistic Graphics for Archaeological Site Reconstruct 	ctions Alan Chalmers
PPF: a tool to study solar irradiation and illuminance in tow	ns Raphael Compagnon

• Art and design visualization using Radiance atelier Iebele Abel

The deadline both for registering and for submitting final titles, abstracts and any materials speakers wish to include on the workshop CD-ROM is 31 August. At a minimum, the organizers we would like to have a copy of each speaker's presentation in PowerPoint, PDF, or (preferably) HTML format, and a short biography with contact information. Test scenes, images, and/or software which can be included on the CD would also be most welcome. It may not be possible to include material received after 31 August because of the time needed to assemble and duplicate CDs.

Fees:	Speakers	CHF 200
	Other attendees	CHF 255
	Student discount	CHF -105
	(approx. 1.5 CHF per Euro)	

The fee includes coffee breaks, lunches, possibly a dinner, and the workshop CD. Rooms can be reserved for participants at rates specified on the hotel registration form.

17-18 October 2002 Paris, France www.ibpsa-france.org

Méthodes, modèles et simulation des bâtiments IBPSA-France

IBPSA-France is holding its third national, French language conference in Paris in October.

Conference themes include:

- takeup of simulation tools among design professionals
- testing and validation of models and design tools
- the use of multimedia tools and networks to improve access to scientific and technical information
- development of models and design tools
- sharing of software components
- the environmental quality of buildings, simulation and sustainable development, and modelling and regulation.

Fees:	Members of IBPSA-France	EUR 300
	Non-members	EUR 400
	Students	EUR 120

Registration forms and full details of the conference programme and other arrangements are available on IBPSA-France's web site at www.ibpsa-france.org.

18 October 2002 Antwerp, Netherlands www.bwk.tue.nl/fago/ibpsa/

IBPSA-Netherlands+Flanders national conference IBPSA-Netherlands+Flanders

We understand that IBPSA-Netherlands+Flanders plans to hold a conference in Antwerp on 18 October. No further information was available at the time of going to press. Look out for information when it becomes available on the IBPSA-Netherlands+Flanders web site www.bwk.tue.nl/fago/ibpsa/. 1 November 2002 Deakin University, Australia www.arch.adelaide.edu.au/ ~ibpsa/

IBPSA-Australasia annual building simulation seminar IBPSA-Australasia

IBPSA-Australasia will hold its annual one-day seminar at Deakin University, Warrnambool on 1 November, immediately before the ANZASCA (Australia and New Zealand Architectural Science Association) Conference on 1-4 November. This year's topics include the use of simulation tools for industry, the role of simulation in building rating schemes, simulating reality, and simulation and teaching. Contact Veronica Soebarto on veronica@arch.adelaide.edu.au for more information.

6-8 November 2002 London, UK www.serenade.org.uk



Construction Visualization and Animation Symposium 3rd International Conference on Decision Making in Urban and Civil Engineering (DMinUCE)

DMinUCE addresses decision making throughout the life cycle of civil and building projects and provides an opportunity for researchers and practitioners from a range of disciplines to exchange ideas and experiences.

This year's theme is the use of 3D architectural models rendered with finish detail to visualize the design of a building, typically in marketing, in the design process, or to aid communication between the designer and client. The programme will include a range of topics including digital rendering techniques, color theory in construction illustrations, walkthroughs, lighting and materials, marketing, and imagery for process assemblies.

The symposium will be held at the University of London in Russell Square, London. Further information is available from the DMinUCE web site at www.serenade.org.uk.

7 November 2002 Prague, Czech Republic www.svn.cz/eebw/html/ simulace-e.htm or http://tzb2.fsv.cvut.cz/ibpsa/



Building and Environmental Technology Simulation 2002 IBPSA-Czech Republic

IBPSA-Czech Republic is holding its 2nd national conference in the Congress Centre in Prague on 7 November. It will be the biggest simulation event in central Europe this year, and a key part of an "Energy Efficiency Business Week" which also includes an exhibition, trade and business meetings, company presentations, information services, special coverage in the local media, a press conference and a range of social activities.

More than 40 papers are expected on topics including:

- computer modelling of building energy performance
- optimisation of building energy systems operation
- non standard building components
- the use of computer simulation for renewable energy systems design
- modelling the indoor environment
- CFD for buildings and HVAC systems.

More detailed and updated information is available from www.svn.cz/eebw/html/ simulace-e.htm or http://tzb2.fsv.cvut.cz/ibpsa/.

16-18 December 2002 Liège, Belgium http://ltd27.meca.ulg.ac.be/ssb/



6th International conference on System Simulation in Buildings

This 6th SSB conference, like its five predecessors, is being organized in close cooperation with the International Energy Agency group on "Energy Conservation in Building and Community Systems" (IEA-ECBCS) and the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE). Highlights will include the presentation of final results from the IEA-ECBCS Annex 34 on "Practical Applications of Fault Detection and Diagnosis Techniques in Real Buildings" and of information about the new Annex 40 "Commissioning".

Priority topics include:

- modeling of HVAC components
- system simulation methods and tools
- application to commissioning
- application to energy management and to maintenance

Indoor Air Quality in Museums and Historic Properties

• application to retrofit

University of East Anglia

The official conference language is English.

Abstracts of the papers will be available on the web at http://ltd27.meca.ulg.ac.be/ ssb/ before the conference. A CD-ROM with the papers will be forwarded to registrated participants before the conference. All papers, along with questions and comments that are generated at the presentation, will be included in a CD-ROM sent to all participants after the conference. A printed version will be also available on request.

23-28 April 2003 Norwich, UK www.uea.ac.uk/~e620/ IA02003.htm

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The organizers hope to draw additional interest from people concerned with potential damage to items within historic properties. There will be four main themes: Dust and Particles, Deposition of Gases to Indoor Surfaces, Air Quality Issues in Cultural Environments, and the use of the IMPACT (Innovative

This will be the fifth annual conference in a series on Indoor Air Pollution in cultural environments. It will follow the format of its predecessors at Glasgow, Amsterdam, Oxford and Copenhagen, but with a special focus on risks to objects on open display.

Modelling of Museum Pollution And Conservation Thresholds) model developed in an EC-funded research project to help museums control of damaging gaseous pollutants. The final deadline for submission of titles and abstracts is 30 November 2002.

The delegate fee of £65 (rising to £75 after 31 January 2003) includes an evening boat trip around Norwich and all tea/coffee breaks, but not accommodation or meals. Affordable accommodation may be available on campus for delegates who book early.

Further information and forms for registering interest online are available at www.uea.ac.uk/~e620/IAQ2003.htm; alternatively, contact iaq2003@uea.ac.uk.

Announcements

LNBL seek buildings to include in a study of low energy cooling

Robert Marcial, President of the Golden Gate Chapter of ASHRAE

Researchers at Lawrence Berkeley National Laboratory are seeking buildings to include in a study of low energy cooling, sponsored by the California Energy Commission. There are two parts to the project:

- 1 We will be performing case studies of five buildings using different types of low energy cooling systems. Four have already been chosen. We are looking for a fifth representative case that uses displacement ventilation. The case studies will document the design intent, and analyze the building performance using 12 months of remotely collected energy data. The key findings for each case study will be a published in a brochure.
- 2 We will be offering free design assistance using current CEC/PIER-funded design tools for at least three buildings currently in design. This could include assistance with cooling system selection and design, development of a building/ equipment monitoring plan, and performance assessment by LBNL's Building Technologies Group.

Candidate buildings will include one or more of the following:

- Displacement ventilation
- Natural ventilation
- Radiant cooling using slabs or panels (air- or water-coupled)
- Direct and/or indirect evaporative cooling
- Water-side "free" cooling.

Please contact Judy Hemmings 510-486-5154 jdhemmings@lbl.gov or Philip Haves 510-486-6512 phaves@lbl.gov with any suggestions you may have for candidate buildings

Job Opportunity

Mark Webb, Director of Business Development, Abacus Engineered Systems

Abacus Engineered Systems, Inc. is a full-service mechanical/electrical design engineering and construction services firm which specializes in energy design/build projects (ESCO projects). We are a Seattle-based firm with offices in Portland, Boston, Saratoga Springs, NY, and Harrisburg, PA. For more information on Abacus, please visit www.abacus-engr.com.

We have an immediate opening in our Harrisburg office for a highly-motivated individual with the following qualifications:

- Degree in Mechanical Engineering
- 3 to 7 years of HVAC design experience
- P.E. is a bonus
- Experience with DOE2 modeling (VisualDOE, eQUEST or equivalent) large/ complex buildings and systems

Compensation is approximately \$60,000 to \$80,000 depending on experience and qualifications.

Harrisburg is within 2 hours of Philadelphia, Baltimore, and Washington, D.C.

If you are interested in this opening, please send a resume and contact information to:

Mark Webb, P.E. Director of Business Development (Northeast Region) Abacus Engineered Systems, Inc. 4431 North Front Street, Suite 100 Harrisburg, PA 17110-1709

Email: maw@abacus-engr.com

Tel (office): 717-232-8182 x27 Tel (mobile): 717-571-6028 Fax: 1-866-741-2973 (toll free within the USA)

News from Affiliates

IBPSA-Australasia

More details on page 11	IBPSA-Australasia is holding its annual national building simulation seminar at Deakin University, Warrnambool, Australia on 1 November 2002.
	IBPSA-Canada
More details on page 11	IBPSA-Canada is holding <i>eSim 2002</i> , the Canadian conference dedicated to building simulation, in Montreal, Canada on 12-13 September 2002.
	IBPSA-Czech Republic
More details on page 14	IBPSA-Czech Republic is holding its 2 nd National conference, Building and Environmental Technology Simulation 2002 , in the Congress Centre in Prague on 7 November. The conference will be a key part of an "Energy Efficiency Business Week".
	IBPSA-France

More details on page 13 IBPSA-France is holding its third national conference, *Méthodes, modèles et simulation des bâtiments*, in Paris on 17-18 October 2002. The official language will be French.

IBPSA-Japan

Yasuo Utsumi, Vice Chairperson IBPSA-Japan

IBPSA-Japan's membership continues to grow rapidly, from 51 in 2001 to 66 today.

Fifty three people attended our second meeting on 21 June 2002 in Tokyo. We held our annual conference, dealing mainly with administrative issues, in the morning, and a seminar on 'The Present Status of the Building Environment Simulation Tool in Japan' in the afternoon. Twelve papers were presented, and these have since been published as 'Technical Papers of Annual Meeting of IBPSA-Japan/2002'. This is IBPSA-Japan's first official publication. The meeting was very successful: the quality of the papers was high, and the discussion very fruitful.

We have updated our web site at www.ne.jp/asahi/ibpsa/japan/new/index.html. We have published our first newsletter, and plan to publish further issues twice a year.

IBPSA-Netherlands+Flanders

More details on pages 13 and 7 IBPSA Netherlands+Flanders is organizing a conference in Antwerp on 18 October 2002 (see page 13) and will be hosting IBPSA's biennial international conference, *Building Simulation 2003*, at Eindhoven on 11-14 August 2003 (see page 7).

IBPSA-Scotland

Joe Clarke, University of Strathclyde, UK

IBPSA-Scotland has recently received funding for its Supported Technology Deployment Programme, which offers design companies free training, hardware and software at no cost. This will support 2-5 people full-time for the next 3 years.

IBPSA-USA

Chip Barnaby, Wrightsoft Corp., Treasurer IBPSA and IBPSA-USA

More than 40 IBPSA-USA members met in Atlantic City on 12 January 2002 in our now-traditional dinner meeting format. A pre-dinner software demo session featured about seven developers showing their latest work. After dinner, Chip Barnaby conducted a short business meeting, and the event concluded with a slide-illustrated talk by Les Norford (Massachusetts Institute of Technology) on "Studies of Buildings in the Lands of Borsch, Curry and Tofu". Les reported on his work on applying building science and simulation to various projects in Russia, Pakistan, and China.

It was announced at the meeting that IBPSA-USA has joined the many other regions which charge no annual membership fee. Not surprisingly, membership jumped to more than 100. This new roster was the basis for the election of the 2002 - 2003 board of directors, conducted in February. The new officers and board members are:

President	Les Norford
Vice-President	Phil Haves
Secretary	Rick Strand
Treasurer and IBPSA affiliate rep	Chip Barnaby
Member	Jeff Spitler
Member	Curt Pedersen

Another meeting held in Honolulu on 20 June was attended by about 25 members. Predinner discussion focused on local and regional activities that could promote building simulation to the broader design community. After dinner, Mike Holmes of Ove Arup & Partners, London, presented "From Jurassic Park to the Garden of Eden", a review of creative uses of building simulation to meet the needs of a consulting engineering practice in a wide variety of design projects.

The next IBPSA-USA meeting is scheduled for 25 January 2003, in Chicago.

Software news

ESP-r becomes Open Source

Joe Clarke, ESRU, University of Strathclyde, UK

ESRU is pleased to announce that the ESP-r system is now available to all under an Open Source licence. The system is available for download from www.esru.strath.ac.uk. This web site also contains publications, training material and case studies relating to the system as well as information on other ESRU products and services.

While ESP-r has always been 'open' in the sense that the source code is made available, the hope is that the new licence arrangement will enable and encourage collaborative developments in the various areas covered by the system. These include all aspects of building performance simulation, including the underlying numerical methods and software engineering: air, moisture, light and electricity flow; heat transfer; HVAC and control; renewable energy components; comfort and indoor air quality; life cycle assessment; graphical interfaces; performance criteria; and so on.

Going Open Source is all about facilitating free access to the code in order to encourage collaborative developments. To help you get started, ESRU arranges introductory and advanced training courses and is able, through IBPSA-Scotland, to extend on-the-job support to companies wishing to explore the capabilities of integrated performance simulation within the real-time, real-scale context of design practice.

IDA Indoor Climate and Energy 3.0 released

Per Sahlin, EQUA Simulation AB



Read more about IDA and ICE at **www.equa.se/ice**. EQUA Simulation has released IDA Indoor Climate and Energy 3.0. New features include:

- 3D CAD: import geometry, walls, windows etc from the new IFC standard format
- a new single-zone wizard, IDA Room, making it easy to set up a single zone cooling or heating load case. IDA Room is also directly available over the web.
- new design-day climate data for most of Europe. Equa also provides hourly data on the web for most location across the globe.
- many new air handling units, and option of having several ahu's serving different zones
- directed operative temperatures: check out temperature asymmetry in any room
- many new components: a skylight model for modeling "overhead green houses", active chilled beams, floor heating etc
- automatic generation of Word reports containing both text and editable graphics.

Progress on user interfaces for EnergyPlus

Dru Crawley, DOE, USA



The most asked questions about EnergyPlus are 'Where is the interface?' and 'When will commercial interfaces be available?'.

Two free tools are now available to ease the pain of using EnergyPlus – although neither is a full user-friendly interface – from the The Deringer Group at www.deringergroup.com/Software/EPlusTools.htm:

- **EzPlus-Parm** is a standalone Windows tool intended primarily for EnergyPlus parametric analysis. It was designed to simplify the running of multiple parametric EnergyPlus simulations. EzPlus helps a user to organize and edit all needed files.
- DrawEzPlus is a 3-D geometry rendering tool which displays the 3-D geometry imbedded in an EnergyPlus file. The user can toggle between line and surface (fill) presentation modes, and can select to draw any mix of key building objects floor, walls, roof, windows, and attached and detached shading.

The Deringer Group also use EnergyPlus in on-line simulations, including the *EcoAdvisor* set of online training modules on sustainable buildings which contain a set of other, embedded, tools .

We are pleased to announce that we expect the first EnergyPlus user interface to be available later this summer. Two interface developers have posted information on their web sites:

- Taylor Systems Engineering (www.tse-inc.net/epi.htm) plans to have a residential building interface in Summer 2002 and a non-residential interface by late Summer 2002.
- Energy Coding (www.designbuilder.co.uk) is developing a full featured building design tool called DesignBuilder that will include energy modeling using EnergyPlus. They tell us that a fully functional beta version may be available in September – but a very preliminary test version of DesignBuilder is already available for download.

Five other organizations tell us that they plan to develop user interfaces over the next year or so, but no specific dates are yet available. We will announce the availability of user interfaces and tools as they become available on the EnergyPlus web site at http://simulationresearch.lbl.gov/EP/ep_main.html.

Case study

Energy savings assessment for the Robert E Johnson State Office building in Austin, Texas

Keith Sylvester, Assistant Professor Suwon Song, Research Assistant Jeff Haberl, Associate Professor, and Dan Turner, Director, Energy Systems Laboratory, all at Texas A&M University, USA

Abstract

US businesses and institutions spend an estimated \$175 billion per year on energy. Of that, the fraction under performance contracts and energy service agreements is currently growing, aided by cheaper monitoring technology and integration with EMCS systems. Energy simulation programs are used both for estimating potential savings and to help verify savings from retrofits actually installed. The potential accuracy afforded by today's energy simulation programs is high. Yet the reliability of the results is often compromised by a lack of certainty that the simulations reflect actual conditions. Although there is little documentation on current methods to verify energy savings in buildings, the International Performance Measurement and Verification Protocol (IPMVP), developed by the Department of Energy (DOE), provides best practice techniques available for verifying results of energy efficiency, water efficiency, and renewable energy projects. This paper presents a method for verifying the energy savings of a newly constructed building using a baseline simulation model calibrated to the measured whole-building energy consumption to determine the independent and combined effect of the stated efficient components installed in the building. The results show that the energy savings resulting from the new design reduced energy use by 46% when compared to similar state office buildings.

Overview

Supplementing tedious manual energy calculations, computers have been used to predict heating, ventilating, and air-conditioning (HVAC) loads. More importantly, simulation models have also been compared and adjusted to match metered energy data since the early 1970s (Ayers and Stamper 1995; Kusuda 1999).

To guide the development of energy simulations, ASHRAE Guideline 14P and the International Performance Measurement and Verification Protocol (IPMVP) have been developed (IPMVP, 1997; IPMVP, 2001). While Guideline 14 defines protocols for measurement of energy and demand savings for energy conservation retrofits at technical level, the IPMVP establishes a general framework and terminology to assist buyers and sellers of metering and verification (M&V) services. Although some studies have been conducted to provide guidance when evaluating the energy performance of new building (Anon, 1980; Stein and Eley, 2000), to date no consensus guidelines have been published to guide comparisons of measured and simulated data. Thus, the objective of this study is to determine the energy savings in the newly constructed Robert E Johnson State Office building and to bring clarity to the use of metered and measured data.

Case study

The Robert E Johnson State Office building is a 5-story, 303,389 square foot office building for state legislative support staff, such as House Committees, Legislative Council, State Auditor, the Legislative Reference Library, the Senate Print Shop and the Sunset Commission.

Overall the building is divided into three sections with divisions created by a ground level breezeway and vehicular access area. Upper floors extend above these areas. The building's northern facade is approximately 14 degrees west of north, which exposes it to direct sunlight during the afternoon hours. It is also important to note that the building contains over 50% glazing in the façade consisting of two types of glazing and that deciduous trees line a significant portion of the south façade up to the 3rd level.

To analyze the sustainability of the Robert E Johnson Building, interviews and data gathering procedures were conducted to develop and calibrate the energy simulation. This study:

- 1 analyzed the monthly utility bills over 9 months (Reedy, et al, 1995),
- 2 created a calibrated energy simulation matched to the whole-building energy consumption (Bou-Saada and Haberl, 1994),
- 3 compared the annual energy consumption of the Robert E Johnson building with selected state buildings in the LoanSTAR database (Turner et al, 1992) and
- 4 isolated the energy use of the stated efficient components of the building.

Specific tasks included:

Task #1	Simulate the as-built building and assume the inclusion of all energy
	conservation measures (ECMs)
Task #2	Calibrate the as-built simulation to the measured data
Task #3	Compare the Robert E Johnson State Office Building with similar state
	office buildings
Task #5	Identify the ECMs installed within the building that can be simulated,
	and
Task #6	Modify calibrated as-built simulation to exclude individual ECMs for a
	disaggregated effect and to exclude all simulated ECMs representing the
	base case building.

Energy conservation design measures

Despite the many building systems and components that are considered energy efficient or conserving, many of them are not quantifiable without extensive simulation effort and sub-metering of the operational building system. As a result, it is important to warn researchers to take caution when setting ambitious goals that also have short timelines. For this research, the following energy conserving measures were studied (Eley and Tathagat. 1998):

- 1 HVAC air handling system
- 2 efficient chillers
- 3 T-8 fluorescent lamps for lighting
- 4 motion sensors for lighting control, and
- 5 low-E window glazing.

In addition to the above list ECMs many other features exits within the building but were not factored in the savings calculations. They are:

- 1 low NOX boiler
- 2 daylighting sensors
- 3 enthalpy heat recovery
- 4 low head pumping, dual path HVAC system
- 5 run-around coil on
- preconditioning units6 light shelves



Figure 1: Draw BDL view of the DOE-2 simulation model

- 7 the building's shape
- 8 a high albedo roof, tree shading
- 9 static pressure supply and return differences
- 10 air foil HVAC fans
- 11 dual path economizer
- 12 chiller operation
- 13 condenser tower operation, and
- 14 heating system operation.

A review of the mechanical equipment indicated that the building contained high efficiency centrifugal chillers, an oversized cooling tower, and two 20 horsepower pumps used to circulate water through the tower. Primary-secondary chilled water loops are used to distribute the chilled water to the building. Variable frequency drives are installed on the secondary loop. In addition, a low-NOX boiler and secondary flue is installed. For the majority of the conditioned area, the HVAC system is a dual duct system utilizing preconditioned outside air, containing run-a-round coil (before and after the preconditioning coil) controlled by an energy management system. VAV systems are used in all areas except the basement, which is primarily constant volume.

Data analysis

To determine the buildings sustainability, results of the calibrated simulation were first compared to similar buildings within the LoanSTAR database. Secondly, each selected energy conserving measure (ECM) was varied to determine an isolated effect for each condition and then combined to determine an aggregated effect that is considered to be the base-case building.

Comparison with similar buildings

Figure 2 compares the energy consumption of comparable buildings in Texas with the Robert E Johnson State Office building. Of importance to this research are columns 11-the John H Reagan building, 12 - the Insurance building, 13 - Archives building, 14 - WB Travis building, 15 - LB Johnson building, 16 - Price Daniels building, 17- Tom C Clark building, 20 - Capitol building, 21 - Sam Houston building, 23 - James E Rudder building, 24 - Insurance Annex building, 25 - Central Services building, and 26 - Supreme Court building. The Robert E Johnson building, with a simulated annual energy intensity of 148.26 kBtu/sqft, compares well with the Supreme Court Building (Haberl, 2001).





Analysis of ECMs

In the final analysis, the calibrated model was used to create a base-case condition by removing all quantifiable energy efficient features of the building (Table 1).

Component	As-Built	Base Case	Variable
Glazing	low-E glass	single pane bronze	glass-type-code
HVAC	variable air volume	constant volume	min-cfm-ratio
Chiller	0.5 kW/ton	0.75kW/ton	elec-input-ratio
Lighting	T-8 lamps	T-12 lamps	lighting-W/sqf
Motion sensors	on	off	lighting schedule

Table 1. Quantifiable ECMs for as-built and base case

As indicated earlier in this paper, five energy conservation measures were analyzed to determine the base case conditions. Overall, two Low-E glazing types were simulated for the As-Built case and single pane bronze glazing was used for the base case condition. For the HVAC system, the system was varied between variable-air-volume (VAV) and constant volume. Based on performance data the As-built chiller performed at approximately 0.5 kW/ton while historical data from other sites indicate a standard performance of 0.75 kW/ton (Haberl et al., 1997).



Figure 3: Simulated building energy performance summary

The results show that the low-E glazing and the VAV system have the greatest impact on the energy savings of the building, with the VAV system having the greatest effect. In contrast, the sensors, lighting, and the chiller have a smaller effect, with sensors having the least. Overall, the base-case simulation shows a 182% increase (i.e. a 45% decrease in energy use) in the energy consumption of the building if the selected energy efficient systems were installed based on standard industry systems and practices (Figure 3). Note that 'Space heating' is the sum of electricity and natural gas for space heating and that 'Space cooling' is the electricity used for space cooling.

Summary

This research has shown that the energy savings of newly constructed energy-efficient buildings can be determined using an aggregated and disaggregated analysis. However, many questions still need to be answered such as which ECM's do we simulate, and the time and cost constraints to conduct such simulations.

Future studies must be guided by criteria that ensure the validity and reliability of such assessments. They are:

- 1 the building design criterion that includes the development of building features, process for communication between consultants, and material selection
- 2 the simulation criterion that includes the development of standards for conducting and reviewing the energy simulations, *and*
- 3 monitoring and verification criterion which includes the evaluation of the design strategies and the long-term analysis of owning and operating costs of the building to verify the predicted energy savings.

Acknowledgments

The Texas General Service Commission and the Texas State Energy Conservation Office in Austin, Texas provided support for this research. The author would like to especially thank Dennis Feary of the General Service Commission of Austin, Texas, and Pam Groce, and Felix Lopez of the State Energy Conservation Office.

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IBPSA Board business

Outcome of Board elections

Elections for membership of IBPSA's Board were held by email ballot in spring 2002, with invitations to vote issued on 17 March, 22 March and 5 May. Thirty-two responses were received, of which 1 was deemed invalid because of non-involvement in IBPSA. Seven nominees received 31 positive votes, with none opposed; one nomination received 29 positive votes, with 2 abstentions. No write-in votes were received. The successful candidates are:

President	Jeff Spitler (USA)
Vice-President	Jan Hensen (Netherlands)
Secretary	Karel Kabele (Czech Republic)
Treasurer	Charles Barnaby (USA)
Members at large:	

Members at large: Drury Crawley (USA) Terry Williamson (Australia) Godfired Augenbroe (USA) Phil Haves (USA)

Roger Pelletret remains on the Board as Immediate Past President by virtue of a by-law requirement; no vote was required.

Forthcoming by-law changes

In the past, IBPSA by-laws have permitted only 6 Affiliate members on the Board. The member from each Affiliate has been elected by that Affiliate. Now that there are more than 6 Affiliates, the Board has proposed changes to the by-laws to allow all Affiliates a voting member on the Board. This proposition was included in the Board ballot and approved, so the by-laws will be revised and the revised by-laws voted on in their entirety by the full membership. When these are approved, the Board will be expanded to include representatives from:

Australasia	Ireland
Brazil	Japan
Canada	Netherlands
Czech Republic	Scotland
France	Slovakia
Greece	USA

This edition of ibpsaNEWS was designed and produced by David Bartholomew Associates, U.K., marion.dba@btinternet.com © International Building Performance Simulation Association 2002

IBPSA Membership Information Sheet and Application:

The following information is for membership and orders for IBPSA proceedings. You may order directly from the forms below, or you can request by e-mail a hard copy of the request sheet. Conference proceedings are not part of the membership fee, though they are significantly discounted for members. We are not able to process credit card orders at this time.

IBPSA is comprised of International Regional Affiliates. If you are located within one of the affiliated regions listed on the IBPSA website at <u>http://www.ibpsa.org/regional.htm</u>, please contact the appropriate representative regarding membership in IBPSA. If you are not within any of the affiliated regions, you may join IBPSA central by using the attached form.

Members of the affiliate organization are automatically considered full members of IBPSA-Central. If you are joining IBPSA, please inquire as to the affiliate organization in your region. Additional affiliates may be forming soon.

The IBPSA Newsletter is published twice annually. It contains instructions on how to create an IBPSA affiliate in your region (start-up grants are available from IBPSA), as well as announcements for Building Simulation Conferences. All members of IBPSA's Regional Affiliations receive the newsletter.

TO LEARN MORE ABOUT IBPSA in general, look at the World Wide Web page at "http://www.ibpsa.org"

Thank you for your interest in IBPSA. Join to get more news from the Newsletter.

Jeff Haberl, IBPSA Publications jhaberl@esl.tamu.edu

IBPSA MEMBERSHIP INFORMATION

"The professional association devoted to improve the built environment through computer simulation and analysis"

Mission

The International Building Performance Simulation Association (IBPSA) was founded 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.

Goals:

Along with building designers, owners, operators and developers,

- * Identify problems with the built environment that may be solved by improved simulation tools and techniques
- * Identify the performance characteristics of buildings on which simulation should be focused
- * Identify building performance simulation R & D needs and transfer new developments to the user
- * Promote standardization of the building simulation industry

* Inform and educate its members and the public regarding the value and the state-of-the-art of building performance simulation.

Activities:

- * Biannual International Building Simulation Conference.
- * Resource publication on simulation tools (under development)
- * Newsletter announcing upcoming events and software tools.
- * Sponsorship of regional workshops and seminars on simulation.

MEMBERSHIP APPLICATION For IBPSA Central
Membership Classification Desired (check one): Effective date: Sept. through Aug.
Sustaining member US\$ 500/year An individual, company, or institution in related practice.
<u>Member</u> US\$ 75/year A graduate from a college or university, or a registered professional engineer or architect.
Student Member US\$ 25/year An individual who is a full-time student (Include copy of current enrollment i.d.).
Amount Enclosed: US\$
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BS'91	85 / 675	\$50	Nice, France	20-22 Aug. '91
BS'93	3 71 / 570	\$50	Adelaide, Aus.	16-18 Aug. '93
BS'95	5 81 / 717	\$50	Madison, WI (USA)	14-16 Aug. '95
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Proceedings of IBPSA's Building Simulation conferences as long as stocks last. Prices follow:

NOTE: Add 15% to all orders shipped within North America.

Add 15% to all orders shipped overseas via surface mail.

Add \$30 for 1st copy plus \$20 for each additional copy for shipping overseas via airmail. CD's are shipped at a flat rate of \$15 for first copy plus \$7 for each additional.

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International Building Performance Simulation Association The regionalization of IBPSA <u>To whom it may concern</u>

Dear Colleague:

You may be aware of the International Building Performance Simulation Association (IBPSA) which has existed since the late 80s to represent and promote the application of computer-based design and management techniques in the construction industry worldwide.

To further the goals of the organization, we have embarked on a regional development program by which we plan to stimulate the establishment of regionally based, autonomous organizations who are affiliated to IBPSA. In this way we hope to achieve the correct balance between the servicing of practitioner needs at the local level and the provision of information flow at the international level.

I am writing to you to ask whether you might be interested in exploring further the possibility of establishing an IBPSA affiliated organization in your part of the world. To help you reach a decision, there follows details on the regionalization proposal. A copy of IBPSA's Strategy Plan, IBPSA's By-Laws and more general information about IBPSA's activities, biannual Building Simulation conferences, etc. is available from its web site at: <u>http://www.ibpsa.org/</u>

IBPSA very much hopes that you will see merit in this idea and is looking forward to receiving your reply in the near future.

Yours sincerely

The IBPSA President

IBPSA Regionalization Guidelines

IBPSA's Mission

The International Building Performance Simulation Association (IBPSA) is a non-profit making organization that was first incorporated in January 1987. The Association's principal mission is to promote and advance the practice of building performance simulation in order to improve the energy and environmental performance of new and existing buildings worldwide.

IBPSA seeks to achieve its goals through the establishment of a range of products and services aimed at informing and equipping those who are involved in the construction industry and who seek to utilize computer-based tools to good effect. To this end, the **IBPSA Strategic Plan** identifies nine specific areas that encompass the organization's activities. These are:

- **1.** *Strategic Alliances* with professional organization such as the engineering and architectural societies. The intention is to engender a better understanding of the profession's requirements and the technology's potential.
- 2. *International Conference Series* to periodically collate and preserve those developments that comprise the current state-of-the-art.
- 3. *Technical Development Program* aimed at influencing the direction the technology of building simulation might take at any given point in time.
- 4. *Educational Initiatives* concerned with the teaching of building simulation in the higher education institutions and in the context of continuing professional development.
- **5.** *Harmonization Activities* in an attempt to regularize the application of the different modeling systems through the definition of standard methods for performance assessment and the provision of standard support data.
- 6. *Member Recruitment* aimed at extending the IBPSA products and services to those practitioners who can most benefit from the new technology.
- 7. *Products and Services* devised in response to the profession's evolving needs.
- 8. *Technology Transfer* concerned with the delivery of training in all aspects of computer-based performance assessment at all stages of the building life cycle.
- **9.** *Regional Development* to subject the foregoing activities to appropriate regional influences and enable their effective delivery.

This document addresses the last area concerned with regional development in order to more effectively address local needs and create a mechanism for an international exchange of know-how and best practice.

Rationale

IBPSA has achieved significant success at the international level - largely through its biannual conference program (Vancouver '89, Nice '91, Adelaide '93, Wisconsin '95 and Prague '97) and worldwide electronic mailing facility. IBPSA has also recognized the difficulties surrounding the development of products and services that are appropriate to the day-to-day needs of its members.

The underlying causes of these difficulties are twofold. Firstly, the geographical spread of IBPSA members is wide and gives rise to a requirement to cover disparate work practices, technologies and professional needs. Secondly, IBPSA's organizational structure is such that the coordination of activities at the local (regional) level is problematic. At the same time like-minded, but regional, organizations are making significant progress at the local level through their seminar, workshop, publications, training and software development activities.

If the construction industry were to be well supported in its attempts to harness effectively the emerging IT and simulation technologies then the establishment of regionally based support organizations was essential. Equally essential was the creation of a structure by which these organizations could affiliate in order to disseminate their know-how and promote their local best practice. Only in this way could the benefits of the new technology be understood and future standardization enabled. It was with the view of a network of autonomous regional organizations that IBPSA has turned to regionalization and is encouraging existing or newly formed groups to become IBPSA affiliates.

Structure and Operation

Under the existing structure, IBPSA affiliates are financially and administratively independent. In practice, this means that they raise and deploy their funds as long as these funds are under the control of elected officers and are used in pursuit of aims and objectives that are consistent with those of IBPSA. IBPSA-Central concentrates its resources on issues such as inter-region communication, international conferences and product standardization. In this way IBPSA complements and empowers the regional affiliates in their attempts to inform and support their members in the context of local design issues and concerns. The entire IBPSA network is represented by a 15-member Board comprised of an executive and regionally elected officers.

The following guidelines have been devised to assist with the establishment and operation of an IBPSA regional affiliate.

- Organizers of a new regional affiliate should prepare a brief proposal for the IBPSA Board of Directors. This should outline the proposed name, geographic territory, organizational structure and goals and objectives (if different from those included in the IBPSA charter statement). Affiliation depends only on the organization having a purpose and mission consistent with those of IBPSA. The Affiliate and IBPSA then enters into a specific agreement by defining their working relationship based on regional considerations prevalent at the time.
- 2. Regional affiliates may be named **"IBPSA <region>"** or they may use any other appropriate name. Their letterhead and other publicity material should indicate that they are "an affiliate of IBPSA".
- 3. For regions with limited financial resources, IBPSA can provide a limited amount of **matching start-up funds** (see below) to aid the initial set-up of the affiliated organization. A case for support should be submitted to the IBPSA Secretary for consideration by the Board. (See attached proposal guidelines.)
- 4. The financial structure of a regional affiliate is independent from IBPSA. This means that affiliates will retain all member dues or other funds raised by their activities.
- 5. IBPSA will provide affiliates with a list of operational guidelines (see attached by-laws), contact information for persons available to assist the local organizer and electronic images of the IBPSA logo.
- 6. The regional affiliate will provide membership data to IBPSA for use in mailing IBPSA materials.

- 7. Members of the regional affiliates will automatically be full members of IBPSA. Any given individual or organization will pay dues directly to IBPSA only if there is no regional affiliate operating in their area.
- 8. IBPSA will make newsletters and other IBPSA materials available to all members of the regional affiliates either in printed form or in downloadable electronic format from the IBPSA web page. This will be at no cost or at a nominal cost depending on the circumstances. Other services may be provided by IBPSA to the regional affiliates for a fee.

Start-up Proposal Guidelines:

It has been the IBPSA Board's policy to grant start-up funds to regions that are in need of matching funds to get the organization officially registered and/or to purchase initial office support equipment. The proposal should be submitted to the IBPSA board and should contain the following elements:

- 1. Name of Affiliate: i.e., IBPSA-<region>.
- 2. Geographic territory covered.
- 3. Organizational structure The IBPSA Charter is founded on a set of board- and memberapproved by-laws (see attached). Each Affiliate's organizational structure is therefore expected to adhere to the same or similar principles of operation.
- 4. Officers -- i.e., Specify the officers that will be constitute the board (e.g., Chairperson, secretary, treasurer, etc. see IBPSA by-laws)
- 5. List of goals and objectives Must be consistent with the mission statement and objectives of the IBPSA Charter.
- 6. Minutes of the first organizational meeting, indicating organizational business transacted.
- 7. List of initial members and their affiliations (can be those attending the first meeting).
- 8. Proposed activities of the affiliate.
- 9. Proposed amount of annual membership dues.
- 10. Breakdown of costs associated with set-up of the Affiliate organization.
- 11. Amount of matching funds provided by the Affiliate.
- 12. Amount of the requested support from IBPSA. *

^{*} Please note that IBPSA's policy is to provide start-up funds with the expectation that the Affiliate will return the granted amount once the region reaches financial stability. The Affiliate is therefore asked to return the funds on a voluntary basis, so other regions can be assisted in the same fashion.

Becoming an IBPSA Affiliated Organization

If you would like to become an affiliated organization then please write to the IBPSA Secretary at the address given at <u>http://www.ibpsa.org</u>. Alternatively, you may wish to discuss the matter further with one of the IBPSA office bearers or a representative of one of the existing affiliates whose addresses can also be found at <u>http://www.ibpsa.org</u>.