

THE HOT AIR DIFFUSER

Chapter Newsletter

SEPTEMBER 2013

Volume 20 Issue 1



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PRESIDENT'S MESSAGE

Hi everyone,

I'm really looking forward to getting the 2013-2014 ASHRAE season kicked off. Russ Pratt, our Chapter Technology Transfer Chair (CTTC,) is putting together some very interesting tours, speakers, and useful technical information for us in the upcoming months. Our first meeting next week on September 11th will be held at the BSU College of Business and Economics Building and will feature a tour of the facility.

I want to thank Cory Law and everyone that helped with putting together an outstanding, first class CRC last month here in Boise. We had White Water Rafting, Golf, the Blue and Orange Crush Party, several social get-togethers and yes, we even took care of some Regional business, training and a technical session was thrown in. The feedback we received from the national and regional executives was very positive and the general comments from the attendees were "Boise is Clean and has a fun downtown". It is GREAT to live in Boise!

The Board of Governors met last week and we are working together to make this a great year. I appreciate the time and energy they continually put in to keeping the Chapter going. We are all busy and these people still find time to make sure the Chapter is functioning for you. Thank you everyone on the Board!

My goal this year is to increase the activity of the younger engineers and students in our area and to make the Idaho ASHRAE chapter a valued asset to the engineering community. I welcome ideas from anyone that would help with achieving these goals. ASHRAE has a lot to offer all of us; we need to find a way to keep it useful, effective and fun. I'm looking forward to seeing everyone at the meetings.

Thanks,
Dennis Fox, President – Idaho ASHRAE Chapter

CHAPTER MEETING

This month's chapter meeting will be a tour of the new Micron College of Business and Economics Building on the BSU campus. We will be meeting in the Imagination Lab, room 2302 (above the Skaggs Lecture Hall, southeast corner). Go to: <http://cobe.boisestate.edu/wp-content/blogs.dir/1/files/2012/08/MBEB-Floor-Maps.pdf> for floor plans of the building.

"The College of Business and Economics in the Micron Business and Economics Building is a western gateway to campus at University Drive and Capitol Boulevard. Rising four stories, the 118,890 square-foot-building emphasizes student learning, business-relevant research and community collaboration. It incorporates cutting-edge technology and is designed to adapt easily and cost-effectively as new technologies emerge."

Please note the location change for this month's meeting:

- **When: WEDNESDAY, September 11, 2013 (Noon-1:00PM)**
- **Where: BSU COBE Building—room 2302**
- **2360 West University Drive—Boise, ID**
- **Please RSVP at www.idahoashrae.com**

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HISTORY LESSON

Five Years Ago

The chapter president was Jeff Fulcher. The meeting was held on September 12, 2008, at the Idaho Power Building. Mark Dart, Intermountain Industrial Pumps, gave a presentation on inline multistage pumps and how they are used in a Booster Paq system.

Ten Years Ago

The chapter president was Matthew May. The meeting was held on September 12, 2003, at the Double Tree Riverside. Tom Paladino, P.E., gave a presentation on green buildings and the integrated process involved in the design of high performance buildings.

Twenty Years Ago

The chapter president was Roger Albers. The meeting was held on September 10, 1993, at Edwards Restaurant. Jon Mason presented a video tape of the first 20 years of activities in ASHRAE Society.

Twenty Five Years Ago

The chapter president was Pat House. The meeting was held on Friday, September 9, 1988, at the Kings Table Restaurant. Ms Bobbie Patterson, Executive Director of the Boise Convention and Visitors Bureau, spoke on area development and efforts to build a downtown convention center.

NEWS FROM THE NATIONAL CHAPTER

New Publication Provides Design, Construction, Operation of Underfloor Air Distribution Systems

ATLANTA – With use of underfloor air distribution (UFAD) systems increasing in commercial and institutional buildings in North America, ASHRAE has published a new comprehensive guide on their design, construction and operation.

The newly published “UFAD Guide: Design, Construction and Operation of Underfloor Air Distribution (UFAD) Systems” incorporates updated results from laboratory and field experiments. Also included are simulation studies, manufacturers’ literature, design experiences from practicing engineers, and other relevant guidelines from users of UFAD. For those in the construction, building commissioning and operations and maintenance industries, this design guide provides a wealth of information on an emerging technology, all while keeping in mind the typical flow of decision making.

“There are many advantages to UFAD that make it an attractive building system solution,” James Megerson, lead author and a member of ASHRAE’s technical resource group on underfloor air distribution. “It truly integrates the heating and air conditioning system with the entire building by utilizing common building materials as the air delivery means. The raised access floor allows accessibility to other building system infrastructure, such as power and data cabling, to facilitate easier space reconfiguration. Due to the lower system operating pressures and potential to expand economizer operation, the system has the potential to use much lower energy than ducted systems.”

The use of UFAD is increasing in North America as a solution to space conditioning concerns. The design guide provides assistance in the planning, construction and operation of UFAD systems, while carefully detailing the major differences between UFAD and more traditional forms of space conditioning.

The cost of “UFAD Guide: Design, Construction and Operation of Underfloor Air Distribution (UFAD) Systems” is \$99 (\$89, ASHRAE members). To order, contact ASHRAE Customer Contact Center at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 678-539-2129, or visit www.ashrae.org/bookstore.

Outstanding Achievements Recognized at ASHRAE’s Annual Conference

DENVER—One hundred nineteen people are being recognized by ASHRAE for their contributions to the Society and the building industry at the Society’s 2013 Annual Conference held here June 22-26.

The Andrew T. Boggs Service Award recognizes past recipients of the Distinguished Service Award for continuing unselfish, dedicated and distinguished service to the Society. It is awarded posthumously to Presidential Member Richard Charles, P.E., Fellow ASHRAE, Life Member.

The Exceptional Service Award recognizes Distinguished Award recipients who have continued to serve the Society faithfully and with exemplary effort. Fourteen recipients were recognized:

- Zahid Ayub, Ph.D., P.E., Fellow ASHRAE, president, Isotherm, Arlington, Texas.
- Presidential Member Lee Burgett, P.E., Fellow ASHRAE, consultant, The Trane Co., La Crosse, Wis.
- Dale Carter, Fellow ASHRAE, Life Member, president and CEO, DEC Engineering, Vancouver, B.C., Canada
- Raymond Cohen, Ph.D., P.E., Fellow ASHRAE, Life Member, is retired and lives in Valparaiso, Ind.
- Drury Crawley, Ph.D., P.E., Fellow ASHRAE, ASHRAE-Certified Building Energy Modeling Professional, director, building performance, Bentley Systems, Washington, D.C.
- K. William “Bill” Dean, P.Eng., manager, National Research Council of Canada, Saskatoon, Saskatchewan, Canada
- Mohammad Hosni, Ph.D., Fellow ASHRAE, professor and Frankenhoff chair of engineering, department of mechanical and nuclear engineering, Kansas State University, Manhattan
- Yunho Hwang, Ph.D., research associate professor and associate director of the Center for Environmental Energy Engineering, University of Maryland, College Park, Md.
- Ben Leppard Jr., P.E., principal and director of mechanical engineering, Leppard Johnson & Associates, Tucker, Ga.
- George Menzies, P.Eng. Life Member, is retired and lives in Hamilton, Ontario, Canada
- Presidential Member Richard Rooley, F.R.Eng., Fellow ASHRAE, Life Member, ASHRAE-Certified Operations and Performance Management Professional, owner, Rooley, Consultants, Stoke Poges, Bucks, United Kingdom
- Alberto Sanchez, P.E., Fellow ASHRAE, Life Member, vice president, Global Sanchez, Tampa, Fla.
- Sitaraman Chandra Sekhar, Ph.D., C.P.Eng., Fellow ASHRAE, associate professor and program director, building performance and sustainability, National University of Singapore

- James Vallort, senior vice president, ESD, Chicago, Ill.

The Distinguished Service Award salutes members of any grade for giving freely of their time and talent to the Society. The following 61 members were selected:

- Douglass Abramson is retired and lives in Chapin, S.C.
- Bruce Anderson, vice president of marketing, CES Group, Eden Prairie, Minn.
- Joseph Anderson, P.E., principal, Anderson Engineering, Germantown, Tenn.
- David Arnold, Ph.D., FREng, Fellow ASHRAE, Life Member, is partner, Troup Bywaters & Anders Consulting Engineers, Reading, United Kingdom
- George Austin Jr., P.E., ASHRAE-Certified High-Performance Building Design, Building Energy Assessment, Building Energy Modeling, Commissioning Process Management, Operations and Performance Management and Healthcare Facility Design Professional, principal, Shultz Engineering Group, Charlotte, N.C.
- Ronald Bailey, P.E., president, Bailey Engineering Corporation, Jupiter, Fla.
- Dieter Bartel, energy specialist, Manitoba Hydro, Winnipeg, Manitoba, Canada
- Richard Bowman, owner, Mechanical Concepts, Wichita, Kan.
- Donald Brundage, P.E., codes and standards principal, marketing research, Southern Company, Atlanta, Ga.
- Paul Cabot, administrator, national fuel gas code, American Gas Association, Washington, D.C.
- Cynthia Callaway, P.E., senior mechanical engineer/project manager, P2S Engineering, Long Beach, Calif.
- John Carter, senior associate, CPP, Fort Collins, Colo.
- Richard Cawley, P.E., Fellow ASHRAE, Life Member, is retired and lives in Tyler, Texas
- Mark Case, P.E., president, ETC Group, Salt Lake City, Utah
- David Conover, senior technical advisor, Pacific Northwest National Laboratory, Great Falls, Va.
- Hugh Crowther, P. Eng., executive vice president-product management and technology, Price Mechanical Industrial, Dundas, Ontario, Canada
- Charles Culp, Ph.D., P.E., Fellow ASHRAE, ASHRAE-Certified High-Performance Building Design Professional, professor, department of architecture, Texas A&M University, College Station, Texas
- Charlie Curlin Jr., P.E., principal, Shultz Engineering Group, Charlotte, N.C.
- Daniel Dettmers, associate researcher, Industrial Refrigeration Consortium, University of Madison, Wis.
- James Escamilla, P.E., president/CEO, Bryce & Associates, Kalamazoo Mich.
- Kevin Fallin, P.E., president, Whitman, Requardt and Associates, Fairfax, Va.
- Energy-Efficient Economy (ACEEE), Washington, D.C.

- Donald Fenton, Ph.D., P.E., professor and department head, mechanical engineering department, Kansas State University, Manhattan
- Thomas A. Gilbertson, P.E., Fellow ASHRAE, Life Member, president, Thomas A. Gilbertson & Associates, Moraga, Calif.
- Krishnan Gowri, Ph.D., senior research engineer, Pacific Northwest National Laboratory, Richland, Wash.
- Gerald Groff, Fellow ASHRAE, Life Member, principal, Groff Associates, Cazenovia, N.Y.
- Traci Hanegan, P.E., ASHRAE-Certified Healthcare Facility Design Professional, principal mechanical engineer, Coffman Engineers, Spokane, Wash.
- Lucas Hyman, P.E., president, Goss Engineering, Corona, Calif.
- Nadar "Jay" Jayaraman, P.Eng., is special projects manager, Enbridge, Ottawa, Ontario, Canada.
- John Kuempel Jr., P.E., vice president, DeBra-Kuempel, Cincinnati, Ohio
- Hal Levin, Fellow ASHRAE, research architect, Building Ecology Research Group, Santa Cruz, Calif.
- Robert Linder, P.E., senior project manager, Karges-Faulconbridge, St. Paul, Minn.
- Lawrence Markel, Fellow ASHRAE, is principal, SRA International, Knoxville, Tenn.
- Kevin Marple, president, Benz Air Engineering Co., Portland, Ore.
- Norm Maxwell, P.E., Life Member, is president, Environmental Air Quality, Great Neck, N.Y.
- Michael McDermott, project manager, Grumman Butkus Associates, Evanston, Ill.
- Robert McDowall, P.Eng., Life Member, retired and lives in Winnipeg, Manitoba, Canada
- Tim McGinn, P.Eng., ASHRAE-Certified High-Performance Building Design Professional, principal, DIALOG, Calgary, Alberta, Canada
- Mark Modera, Ph.D., P.E., Fellow ASHRAE, professor, director, Western Cooling Efficiency Center, University of California, Davis
- Philip Naughton, P.E., corporate energy manager, Applied Materials, Austin, Texas
- Bruce Nelson, P.E., president, Colmac Coil Manufacturing, Colville, Wash.
- John Nix II, senior engineer, Florida Power and Light Company, Miami, Fla.
- David Olson, P.E., president, Integrated Mechanical Systems, Niwot, Colo.
- Chee Sheng Ow, Ph.D., P.Eng., Fellow ASHRAE, professor, Universiti Teknologi MARA, Selangor, Malaysia
- David Rasmussen, is Canadian sales representative, Airdex Corporation, Barrie, Ontario, Canada
- John Rieke, P.E., is senior mechanical engineer, SAIC, St. Paul, Minn.
- Harvey M. Sachs, Ph.D., senior fellow, American Council for an Energy-Efficient Economy (ACEEE), Washington, D.C.

- Lawrence Schoen, P.E., Fellow ASHRAE, president and principal engineer, Schoen Engineering, Columbia, Md.
- Randy Schrecengost, P.E., ASHRAE-Certified Building Energy Assessment Professional, project manager/senior mechanical engineer, Stanley Consultants, Austin, Texas
- Michael Sherber, P.E., ASHRAE-Certified High-Performance Building Design Professional, executive vice president, The Firma Group, Avon, Conn
- Donald Siller, P.E., Life Member, president, Siller & Associates, O'Fallon, Mo.
- Steven Szymurski is retired and lives in Ft. Lauderdale, Fla.
- T. Minh Tran, P.E., is managing director—utility operations, construction, Piedmont Natural Gas, Charlotte, N.C.
- Alan Veeck, vice president, MVA, and executive director, National Air Filtration Association, Virginia Beach, Va.
- Saul Villanueva, P.E., is principal mechanical engineer, Mechanical Applications Consultants, San Jose, Calif.
- Timothy Wentz, P.E., Fellow ASHRAE, ASHRAE-Certified High Performance Building Design Professional, associate professor of construction management, University of Nebraska, Lincoln, Neb.
- Theresa Weston, Ph.D., research fellow, DuPont Building Innovations, Richmond, Va.
- Brandt Williams, P.E., president, Engineered Systems Design, Duncan, S.C.
- Lee D. Woods, Life Member is being recognized posthumously
- J. Richard Wright, P.E., Fellow ASHRAE, Life Member, is retired and lives in Cookeville, Tenn.
- David P. Yuill, P.E., graduate research assistant, Purdue University, West Lafayette, Ind.
- Jack Zarour, senior mechanical engineer, Genentech, a Member of the Roche Group, South San Francisco, Calif.

The Distinguished 50-Year Member Award is given to persons who have been a member of the Society for 50 years and have performed outstanding service to the Society. The following 13 members are receiving this award:

- Arthur Bennett, P.E., Fellow ASHRAE, Life Member, is retired and lives in Athens, Ga.
- Walter Bishop, P.E., Fellow ASHRAE, Life Member, is retired and lives in Sunnyside, N.Y.
- Laurence Brink, Life Member, is being recognized posthumously
- Floyd "Les" Brown, P.E., Fellow ASHRAE, Life Member, is retired and lives in Charleston, Ill.
- Ronald Caffrey, Life Member, partner, BSC Partners Consultants, Saint Petersburg, Fla.
- Waller Clements, P.E., Life Member, owner, Clements Consulting, Evansville, Ind.

- Thomas A. Gilbertson, P.E., Fellow ASHRAE, Life Member, president, Thomas A. Gilbertson & Associates, Moraga, Calif.
- Donald Glaser, P.E., Fellow ASHRAE, Life Member, is retired and lives in Fort Myers, Fla.
- Robert Jones, P.E., Fellow ASHRAE, Life Member, is retired and lives in Winchester, Va.
- James McFall, P.E., Fellow ASHRAE, Life Member, senior consultant, MKK Consulting Engineers, Greenwood Village, Colo.
- James Newman, Life Member, ASHRAE-Certified Operations and Performance Management Professional and Building Energy Assessment Professional, owner, managing partner, Newman Consulting Group, Bloomfield Hills, Mich.
- Verle Williams, P.E., Fellow ASHRAE, Life Member, ASHRAE-Certified Commissioning Process Management Professional, president, Utility Services Unlimited, San Diego, Calif.
- James Woods, Ph.D., P.E., Fellow ASHRAE, Life Member, independent consultant, Charlottesville, Va.

The Journal Paper Award honors the best paper or article published in ASHRAE Journal. John Murphy receives the award for his article, his article, "Total Energy Wheel Control in a Dedicated Outdoor Air (OA) System," Murphy is an applications engineer, Trane Co., La Crosse, Wis.

Shanshan Cai, Lorenzo Cremaschi, Ph.D., Afshin Ghajar, Ph.D., P.E., and Kasey Worthington receive a Poster Presentation Award for "Measurements of Pipe Insulation Thermal Conductivity at Below Ambient Temperature Part 1: Experimental Methodology and Dry Tests." The award is given to peer-reviewed technical papers with the best visual and technical information presented at Society meetings. Cai is a Ph.D. student, Mechanical and Aerospace Engineering, Oklahoma State University, Stillwater, Okla.; Cremaschi is an associate professor, Oklahoma State University, Stillwater, Okla.; Ghajar is regents professor, John Brammer Endowed professor and director of graduate studies, School of Mechanical and Aerospace Engineering, Oklahoma State University, Stillwater, Okla.; Worthington is project engineer, AAON Inc., Jenks, Okla.

John Bryant, Ph.D., P.E.; Dennis O'Neal, Ph.D., P.E., Fellow ASHRAE; and Michael Davis, Ph.D., are the recipients of the Crosby Field Award. Their paper, "Modeling the Performance of ECM and SCR Parallel Fan-Powered Terminal Units in Single-Duct VAV Systems," was judged to be the best paper presented before the Society in 2012. The Crosby Field Award is named for Presidential Member Crosby Field, whose ideas and hard work helped shape the industry. They also receive two Technical Paper Awards, which recognize the authors of the best papers presented at Society meetings: one for the aforementioned paper and one for

"Modeling the Performance of ECM and SCR Series Fan-Powered Terminal Units in Single-Duct VAV Systems." Bryant is associate professor, Mechanical Engineering Program, Texas A&M University at Qatar, Doha, Qatar; O'Neal is dean, School of Engineering and Computer Science, Baylor University, Waco, Texas; Davis is director of laboratories, New York University Abu Dhabi, Abu Dhabi, United Arab Emirates.

Daniel Gibbs is the recipient of the Willis H. Carrier Award, which is given to an ASHRAE member 32 years of age or younger for presenting an outstanding paper at a Society meeting, for his paper "Measurements of Flat Oval Diverging Flow Fittings Loss Coefficients." Gibbs is a mechanical engineer, Barge, Waggoner, Sumner and Cannon, Nashville, Tenn.

The following papers were selected to receive Technical Paper Awards, which recognize the authors of the best papers presented at Society meetings.

- Stephen Idem, Ph.D., and Ananth Nalla and receive an award for "Laboratory Testing of Saddle-Tap Tees to Determine Loss Coefficient." Idem is a professor, Tennessee Technological University, Cookeville, Tenn.; Nalla is current product engineers, Cummins Filtration, Soughton, Wis.
- Farhad Memarzadeh, Ph.D., P.E., receives an award for "Literature Review of the Effect of Temperature and Humidity on Viruses." Memarzadeh is director, Division of Technical Resources, National Institutes of Health, Bethesda, Md.

The Lincoln Bouillon Award recognizes a member who performs the most outstanding work in increasing the membership of the Society during the course of the year. The recipient is George Waters Sr., branch manager, sales engineer, R.L. Stone Co., Buffalo, N.Y. The Dan Mills Technical Award recognizes a Chapter Technology Transfer Committee (CTTC) chair who excels in meeting CTTC goals in technical, energy and government activities. The recipient is Mike Fullerton, P.E., ASHRAE-Certified Healthcare Facility Design Professional, is project manager/principal, TME Inc., Little Rock, Ark. Fullerton is also receiving the Chapter Program Star Award, which recognizes excellence in chapter program endeavors.

The William J. Collins Jr. RP Award is given to the chapter research promotion chair who excels in all activities supporting the research promotion campaign, including raising funds and promoting research at the chapter level. The recipient is Christopher "Mike" Donovan, ASHRAE-Certified High-Performance Building Professional, Houston, Texas.

Alexander Weiss, P.E. is the recipient of the Society's Lou Flagg Historical Award, which recognizes an individual for preparing the most outstanding historical presentation related to HVAC&R. The award is named in recognition of Presidential Member Lou Flagg, who

promoted an interest in history at the chapter and Society levels. Weiss is a professional engineer, Brooklyn, N.Y.

The Standards Achievement Award recognizes significant and exceptional service in the area of standards leadership and technical contribution. The recipient is Martha VanGeem, P.E, self-employed principal engineer, Mount Prospect, Ill.

The Student Activities Achievement Award recognizes a Chapter Student Activities chair for service related to the goals and growth of student activities at all levels. The recipient is Ather Siddiqui, chief executive, Environmental Engineering Centre, Islamabad, Pakistan.

Stefano Schiavon, Ph.D., P.E., assistant professor of architecture, Center for the Built Environment, Department of Architecture, University of California Berkeley, is the recipient of the Ralph G. Nevins Physiology and Human Environment Award, which is given to a researcher under the age of 40 for significant accomplishments in the study of bioenvironmental engineering and its effect on human comfort and health.

Lawrence "Larry" J. Schoen, P.E., Fellow ASHRAE, of the National Capitol Chapter is the recipient of the Environmental Health Award, which recognizes excellence in volunteer service focused on environmental health issues. Schoen is president and principal engineer, Schoen Engineering Inc., Columbia, Md.

Ricardo Da Silva Lima, Ph.D., is the recipient of the Homer Addams Award, which honors a graduate student who has been engaged in an ASHRAE research project. The Homer Addams Award is intended to encourage graduate student research. Lima lives in Versoix, Switzerland.

ASHRAE Launches Online Discussion Platform

DENVER – Looking to exchange information with your peers about your latest project? Then visit the new online ASHRAExCHANGE discussion platform.

Through ASHRAExCHANGE, the Society is providing both ASHRAE members and others in the industry with an online platform for real-time discussion and information exchange for design, construction, operation and support of the built environment.

The platform, at www.ASHRAExCHANGE.org, was launched at ASHRAE's 2013 Annual Conference being held here June 22-26.

"Many ASHRAE members felt there was a need for a place where both ASHRAE members and non-members alike can freely and openly exchange

information focused on the built environment,” Spencer Morasch, incoming chair of ASHRAE’s Electronic Communications Committee. “The information exchange is informal and takes place in real time. So if you have a question at 3 a.m. on a Tuesday night, you can post that on the ASHRAExCHANGE, and chances are, have a reply posted back to you within 24 hours!”

The platform provides a place for users to post and generate discussion on either a general or specific topic. With thousands of ASHRAE members and non-members checking the ASHRAExCHANGE 24/7, the hope is the online discussions will generate plenty of thoughts and comments from many knowledgeable people, according to Morasch.

Anyone with access to the Internet can view posts, comments and messages on the ASHRAExCHANGE at any time. No registration is necessary, and neither is the need for special software, as everything is web-based.

Users who want to become active participants and be able to post both initial messages and responses to posts are required to register.

To ensure that the online discussions are professional and in good taste, volunteer moderators are on duty to ensure proper use of the ASHRAExCHANGE. Since discussions and posts are informal and being made in real time, it is not possible to check the technical accuracy of information posted. It is expected that the ASHRAExCHANGE will be “self correcting,” if there are any technical errors posted, someone will post a correction as a reply.

“However, no one should use any information posted on the ASHRAExCHANGE as the basis of a design,” Morasch said. “The intention is to help get participants pointed in the right direction or open the thought processes.”

ASHRAE Installs New Officers, Directors

DENVER – ASHRAE has installed new officers and directors for 2013-14 at its Annual Meeting held here June 22-26.

The new president is William P. “Bill” Bahnfleth, Ph.D., P.E., Fellow ASHRAE, ASME Fellow, a professor of Architectural Engineering and director of the Indoor Environment Center at The Pennsylvania State University, University Park, Pa.

As ASHRAE’s president, Bahnfleth chairs the Society’s Board of Directors and Executive Committee. Bahnfleth’s Presidential Theme, “Shaping the Next,” focuses on embracing our responsibility to “Our World” – fellow humans and the earth, to make buildings safe,

healthy, productive, comfortable environments in harmony with nature. To do this, he believes we must develop “Ourselves” – the human resource of the professional community, and transform “Our Work” – what we do, how we do it, and who we do it with, by becoming more global in outlook, broader in scope, and more collaborative in approach.

Bahnfleth is the son of ASHRAE Presidential Member Donald R. Bahnfleth, Fellow ASHRAE, Life Member, who served as president in 1985-86. This marks the first father/son presidency in ASHRAE’s history.

Other officers installed for a one-year term are:

- President-Elect: Thomas H. Phoenix, P.E., Fellow ASHRAE, ASHRAE-Certified Building Energy Assessment and Building Energy Modeling Professional, principal and vice president, Moser Mayer Phoenix Associates, Greensboro, N.C.
- Treasurer: T. David Underwood, P.Eng., Fellow ASHRAE, Life Member, ASHRAE-Certified Commissioning Process Management Professional, Oakville, Ontario, Canada
- Vice President: Daniel C. Pettway, senior project manager, Hobbs and Associates, Norfolk, Va.
- Vice President: Thomas E. Werkema, Knoxville, Tenn.
- Vice President: Darryl K. Boyce, P.Eng., Fellow ASHRAE, assistant vice president (Facilities Management and Planning), Carleton University, Ottawa, Ontario, Canada
- Vice President: Bjarne W. Olesen, Ph.D., Fellow ASHRAE, Life Member, professor, Technical University of Denmark, Kongens Lyngby, Denmark. He is head of the Centre for Indoor Environment and Energy at the Department of Civil Engineering.

ASHRAE installed the following directors to serve a three-year term from 2013-2016:

- Region IV Director and Regional Chair: M. Ginger Scoggins, P.E., president, Engineered Designs, Cary, N.C.
- Region V Director and Regional Chair: Richard A. Zbin, ASHRAE-Certified Healthcare Facility Design Professional, associate/senior designer, Tec Inc. Engineering and Design, Eastlake, Ohio.
- Region VI Director and Regional Chair: Mark F. Miller, business development engineer, Mestek Inc. – Airtherm Division, Oregon, Wis.
- Region XII Director and Regional Chair: Jennifer A. Isenbeck, P.E., ASHRAE-Certified Commissioning Process Management Professional, facility engineer/manager, University of Tampa, Tampa, Fla.
- Region XIII Director and Regional Chair: Edward K.C. Tsui, managing director, Intelligent Technologies Ltd., Hong Kong
- Director-at-Large: K. William “Bill” Dean, P.E., facilities manager, National Research Council of Canada, Saskatoon, Saskatchewan, Canada

- Director-at-Large: Julia A. Keen, Ph.D., P.E., ASHRAE-Certified High Performance Building Design Professional, associate professor, Architectural Engineering and Construction Science, Kansas State University, Manhattan, Kan.
- Director-at-Large: Ben A. Leppard, P.E., principal, Leppard Johnson and Associates, Tucker, Ga.

Enhanced Indoor Air Quality Encouraged Through Free Download of IAQ Guide

ATLANTA – To promote good indoor air quality (IAQ) in buildings, ASHRAE is making available for free a guide for achieving enhanced IAQ.

The Indoor Air Quality Guide: Best Practices for Design, Construction and Commissioning provides strategies to achieve good IAQ using proven technologies and without significantly increasing costs.

First published in 2009, the guide is the result of collaboration between ASHRAE, the American Institute of Architects, the Building Owners and Managers Association International, the Sheet Metal and Air Conditioning Contractors' National Association and the U.S. Green Building Council with funding provided by the U.S. Environmental Protection Agency.

The guide can be downloaded for free at www.ashrae.org/FreeIAQGuidance.

The free download is being offered in support of the presidential theme of 2013-14 ASHRAE President William P. "Bill" Bahnfleth, Ph.D., P.E., Fellow ASHRAE, ASME Fellow. His theme, "Shaping the Next," focuses, in part, on making buildings safe, healthy, productive, comfortable environments in harmony with nature.

"As we move forward in shaping the next generation of buildings and systems, good indoor air quality must be a central focus of our efforts," Bahnfleth said. "The health and comfort of buildings occupants is too important to leave IAQ as an after-thought in design, construction and operation. By making this publication available to the industry, we are providing guidance to help ensure the use of best practices for good IAQ, allowing all of us to enjoy the benefits of a better indoor environment cost-effectively."

The book describes 40 strategies for achieving critical IAQ objectives related to moisture management, ventilation, filtration and air cleaning and source control. It also highlights how design and construction teams can work together to ensure good IAQ strategies are incorporated from initial design through project completion.

The book also contains

- Hundreds of internal and external links to resources for the design, construction, and commissioning of buildings with excellent indoor air quality
- Access to an incredible variety of in-depth information by topic to help you design, construct and operate buildings using best practices for indoor air quality
- Best practices for all aspects of IAQ building design, commissioning and construction, including design for maintainability
- Tools and material for demonstrating the value of IAQ to clients

High Attendance, Free Resources for Professionals Highlight of ASHRAE Annual Conference

ATLANTA – ASHRAE wrapped up its Annual Conference with record breaking attendance and some major announcements, including the launch of a new online discussion platform, a milestone related to the Advanced Energy Design Guides (AEDGs) and a free download of its IAQ Guide.

The Conference, held June 22-26, in Denver, Colo., saw the highest attendance numbers for an Annual Conference in over a decade, with close to 1,900 attendees.

During the Opening Plenary, ASHRAE kicked off the Conference by launching the ASHRAExCHANGE, an online discussion platform that allows users to post and generate discussion on either a general or specific topic. With thousands of ASHRAE members and non-members, the hope is the online discussions will generate plenty of thoughts and comments from many knowledgeable people. More information can be found at www.ASHRAExCHANGE.org.

ASHRAE also announced that the half million mark was recently reached in AEDG downloads. The guides are a series of publications designed to provide recommendations for achieving energy savings when compared with the minimum code requirements of ANSI/ASHRAE/IESNA Standard 90.1. The guides can be downloaded at www.ashrae.org/freeaedg.

Additionally, the Society offered free download of "Indoor Air Quality Guide: Best Practices for Design, Construction and Commissioning," designed for architects, design engineers, contractors, commissioning agents and all other professionals concerned with indoor air quality. The Guide supports the theme of ASHRAE's newly appointed president's theme which focuses on making buildings safe and healthy for occupants. Free downloads are available at www.ashrae.org/FreeIAQGuidance.

William P. "Bill" Bahnfleth, Ph.D., P.E., Fellow ASHRAE, ASME Fellow, took office as the Society's 2013-2014 president. His theme for the year, Shaping the Next, focuses on embracing our responsibility to "Our World" – fellow humans and the earth, to make buildings safe, healthy, productive, comfortable environments in harmony with nature. To do this, he believes we must develop "Ourselves" – the human resource of the professional community, and transform "Our Work" – what we do, how we do it, and who we do it with, by becoming more global in outlook, broader in scope, and more collaborative in approach.

The Conference's Technical Plenary and new track keynote addresses ranked high in attendance, addressing trends in data center design, the National Renewable Energy Laboratory's research facility and program and the future of sustainable energy. Individual top-attended sessions in the technical program were Energy Modeling vs. Actual Building Energy Consumption; Benchmarking and Improving Commercial Building Energy Performance; Advancements in BIM Interoperability Solutions to Aid in Integrated Project Delivery; Chilled Water Systems; Real Operating Cost Savings from Retro-Commissioning; Sky High Efficient Case Studies; Water Side Economizers; Laboratory Retrofits Case Studies; and a panel discussion on "VRF Myth Busters."

Also offered were two Professional Development Seminars and five Short Courses from the ASHRAE Learning Institute. The most popular courses were the new Short Course "Optimization of HVAC&R Systems and Their Components;" the "Advanced High-Performance Building Design" Short Course; and "The Commissioning Process in New and Existing Buildings" Professional Development Seminar.

Among the top selling publications were "Data Center Essentials: Guidance on Energy—Efficient Design and Energy;" "HVAC Design Manual for Hospitals and Clinics, 2nd edition;" "District Cooling Guide;" "UFAD Guide: Design, Construction and Operation of Underfloor Air Distribution Systems;" "Procedures for Commercial Building Energy Audits, 2nd edition;" and Standard 62.2-2013, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings.

ASHRAE's 2014 Winter Conference takes place in New York, New York, Jan. 18-22. Held in conjunction with the 2014 Winter Conference is the AHR Exposition, Jan. 21-23, 2014.

Advanced Energy Design Guides Hit Half-Million Circulation Mark

ATLANTA – Since being introduced eight years ago to encourage energy efficient design in a range of building types, the Advanced Energy Design Guide series from

ASHRAE and partnering organizations has hit the half-million circulation mark.

More than 500,000 copies of the books have been downloaded or purchased since first published in 2005. In 2008, ASHRAE began making the Advanced Energy Design Guide (AEDG) series available for free download at www.ashrae.org/freeaedg.

The books provide 30% and 50% energy savings when compared with the minimum code requirements of ANSI/ASHRAE/IESNA Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings.

The series was developed by a committee representing a diverse group of energy professionals drawn from ASHRAE, the American Institute of Architects (AIA), the Illuminating Engineering Society (IES), the United States Green Building Council (USGBC) and the Department of Energy (DOE).

ASHRAE Fellow Don Colliver has overseen the development of the series since it began in 2003. He called for development of the series during his year as president of ASHRAE. During that time, he noted that ASHRAE had found "that a single document such as a code cannot effectively be used for multiple objectives," and proposed simplification and increased usability by creating a suite of documents related to energy efficiency.

"This is truly a dream come true resulting from a challenge issued during my ASHRAE presidential theme address in June 2002. I knew I wasn't smart enough to do it but I knew that the team of people with whom I was associated would be able to get it accomplished – and they did!," Colliver said, jokingly.

Reflecting on the milestone as he rolls off the steering committee as chair, a position he's held since 2003, Colliver shared the five things he loves most about the series. Here are the remaining four – with the realization of his challenge being one.

- "It is a coordinated, team effort of four major organizations representing over 300,000 building professionals.
- Each of the documents has been written by some of the most knowledgeable professionals in the industry. There is tremendous wealth of knowledge and wisdom amongst the project team members writing each document and they have been generous in sharing their time and knowledge to produce these documents with a 'can-do' attitude.
- While there may have been considerable debates and a lot of learning going on, all of the project team members treated each other as equals, respected the opinions of the others and eventually made integrated design decisions. It is a great example of what can be done when design silos are replaced by integrated design mixing bowls.

- There has been a uniformly great positive response from those who have read and used the documents. It's so rewarding to hear, 'It's great that we now have something that gives us insight and examples on how to design and construct buildings which make us better stewards and provide better products rather than just specifying the bare minimums'."

The 50% series includes books for large hospitals; medium to big box retail buildings; small to medium office buildings; and K-12 school buildings. The 30% series books targeting small office buildings; small retail buildings; K-12 school buildings; small warehouses and self-storage buildings; highway lodging; and small hospitals and healthcare facilities.

ASHRAE Awards First Innovative Research Grants

ATLANTA – ASHRAE has awarded projects at Purdue University and Oklahoma State University with its newly created research grant, which provides funding for research having the potential to significantly advance the state-of-the-art in HVAC&R.

The ASHRAE Innovative Research Grant carries a base grant of \$50,000 per year for two years, with an additional \$25,000 available in the third year if matched by an industrial contributor.

"Our goal with the new grant is to encourage more out-of-the-box research to complement the research proposed and guided now by ASHRAE technical committees," T. Agami Reddi, chair of ASHRAE's Research Administration Committee, said. "We see it as providing seed money to encourage 'blue sky research' that may otherwise not be funded initially through other means."

Recipients are Lorenzo Cremaschi, Ph.D., associate professor, School of Mechanical and Aerospace Engineering, Oklahoma State University; and William Hutzler, P.E., professor, Mechanical Engineering Technology Department, Purdue University.

Cremaschi's project, "Smart Nanolubricants for HVAC&R Systems," focuses on nanoparticles with purposely different conductivity, size and shape. The research will advance the understanding of the interactions of the nanoparticles with refrigerant and lubricant flow boiling at the nano- and micro-scale levels, for which no previous studies exist.

"This research opens a new frontier for nanotechnology applied to air conditioning and refrigeration systems," he said. "Driven by higher energy efficiency targets, there is critical need of major heat transfer enhancements in heat exchangers and nanolubricants, which are defined as nanoparticles suspended in high-

viscosity suspensions, have the potential to address such need in a cost-neutral manner for both new and retrofitting residential air conditioning applications."

Hutzler's project, "Biowall Research," will evaluate a biowall, which integrates plants with the return air of a residential or light commercial HVAC system to remove CO2 and volatile organic compounds. Americans spend 90-95 percent of their time indoors where levels of pollutants may run 2 to 5 times, and occasionally more than 100 times, higher than outdoor levels, according to Hutzler. Many of these pollutants cause adverse health reactions in building occupants, which can contribute to lower worker productivity and increased sick leave.

Traditional methods of indoor pollutant control in sealed buildings typically use some form of dilution ventilation using outdoor air. The outdoor air must be heated or cooled to meet indoor temperature and humidity requirements and represents a major thermal load of a building.

"This research will demonstrate and evaluate a novel biofiltration system that improves indoor air quality and has the potential for decreasing overall energy use by," he said.

ASHRAE Grant-in-Aid Explores Building Occupants, Comfort and Energy Use

ATLANTA – The question of how much energy occupants expend in offices and how that impacts their personal comfort is being explored through a grant from ASHRAE.

Better tools for quantifying the comfort and behavior of building occupants as an integral part of the building design and operation processes will be developed by Jared Langevin, Drexel University, through his project, Human Behavior and Low Energy Architecture: Linking Environmental Adaptation, Personal Comfort and Energy Use in the Built Environment.

Langevin is one of 21 students who will receive a grant through ASHRAE Graduate Student Grant-In-Aid Award Program, which is designed to encourage students to continue their education in preparation for service in the HVAC&R industry. The grants, totaling \$210,000, are awarded to full-time graduate students of ASHRAE-related technologies.

"In recent years, it has been suggested that discrepancies between actual and expected energy use in office buildings can be attributed to a single source of uncertainty: the building occupant," Langevin said. "While traditional design-stage engineering calculations for office

buildings have assumed occupants contribute no more than an added heat gain, in practice real office employees interact with and adapt to their surrounding environments in much more deliberate and meaningful ways. Many studies have demonstrated that this interaction has important effects on energy use.”

He notes there are currently no comprehensive tools that architects and engineers can use early in the design process to weigh various scenarios of occupant behavior against key aspects of office building design and expected comfort, productivity and energy use outcomes. As a result, building designers are typically left in the dark about how real people might use and perceive their spaces and must achieve energy efficient conditioning strategies in spite of the uncertainties surrounding occupant behavior, he said. Instead they could be embracing these uncertainties themselves as an opportunity for saving energy and improving indoor air quality.

The project will involve constructing a general framework for linking occupant behavior simulation with whole building energy simulation programs, such that behavior, comfort, and productivity outcomes can be directly evaluated alongside possible energy use impacts in building design and operation. Langevin also will develop an office occupant behavior simulation routine that generates individual and group-level behavior patterns and integrate this routine into the general simulation framework. He will package outputs from the integrated behavior-energy simulation tool in a way that can be understood by both architects and engineers.

Grant recipients are:

- Rohit Andhare, University Maryland, Experimental Heat Transfer and Pressure Drop Characteristics of a Novel Solution Heat Exchanger for Absorption Cooling
- Martinus Arie, University of Maryland, Numerical Modeling and Optimization of Manifold-Microchannel Heat Exchanger for HVAC Applications
- Rodrigo Barraza, University of Wisconsin-Madison, Thermal-Fluid Behavior of Mixed Refrigerants for Cryogenic Applications
- Jie Cai, Purdue University, Inverse Modeling of Building Envelope and HVAC Systems to Enable Control and Retrofit Analysis
- Ying-Chieh Chan, Purdue University, Analysis and Optimization of Intelligent and Multi-functional Facades for Building Perimeter Zones
- Chun Chen, Purdue University, Modeling Person-to-Person Contaminant Transport in a Mechanical Ventilation Space
- Justin DeBlois, University of Pittsburgh, Informing Energy Efficient Occupant Behavior with Real Time Building Energy Modeling

- Dhruv Hoysall, Georgia Institute of Technology, Characterization of Heat and Mass Transfer Mechanism in Convective Ammonia-water Absorption at the Micro-scales
- Yang-Seon Kim, Pennsylvania State University, Occupants Number and Behavior can have Large Effects of Building Energy Use
- Jared Langevin, Drexel University, Human Behavior & Low Energy Architecture Linking Environmental Adaptation, Personal Comfort and Energy Use in the Built Environment; also receives the Grant-In-Aid Life Member Club grant designation given to the highest top-rated applicants and supported by a financial contribution from the club.
- Jared Levy, University of Maryland, Next Generation, Ultra-Efficient, Micro-structured Thin Film Heat Exchangers for Low Delta T Energy Recovery
- Yirui Liang, University of Texas-Austin, The Efficiency of HVAC Filters in Reducing Semi Volatile Organic Compounds in Indoor Environment; also receives the Grant-In-Aid Life Member Club grant designation given to the highest top-rated applicants and supported by a financial contribution from the club.
- Dusan Licina, National University of Singapore, Impact of Human Convective Boundary Layer on Inhaled Air Quality and Its Protective Role Under Different Ventilation Strategies
- Malcolm MacDonald, Georgia Institute of Technology, Heat Transfer and Pressure Drop Condensation of Pure and Multi Component Hydrocarbons Mixtures
- Kristen Markham, University of Texas-Austin, Assessing the Performance of Buildings Due to Extreme Weather and Climate Change
- Samantha Perkarscik, University of Kansas, Air-Side Economizer Low-Limits Effect on Energy and Thermal Comfort
- Aakash Rai, Purdue University, Developing Risk Paradigm for VOCs and Particles from Ozone Reactions in Aircraft Cabin
- Shane Riley, University of Texas, Demand Optimized Protocol for Photo-Voltaic System Orientation
- Ryan Tanner, University of Colorado-Boulder, Stochastic Control Optimization of Mixed-Mode Buildings
- Yu Xue, Tianjin University, Inverse Design Theory of Aircraft Cabin Environment with Genetic Algorithm and Adjoint Method
- Nicholas Zibin, Concordia University, Calibrating a Building Energy Model on a Component Level Using a Bottom-up Based Methodology



ASHRAE Announces New High Performance Buildings Conference

ATLANTA—ASHRAE has announced its next High Performance Buildings Conference will take place April 7-8, 2014, Hyatt Fisherman's Wharf, San Francisco, Calif.

Building upon the 2012 High Performance Buildings Conference and 2009 Net-Zero Energy Conference, the Conference seeks to advance the industry's efforts to accomplish a true high-performance built environment.

"The 2014 HPB Conference provides a unique opportunity for dialog among attendees to facilitate understanding of current indoor environmental quality and energy saving efforts and to share best practices for achieving high-performance buildings," Kent Peterson, Conference chair, said.

The conference topics provide a comprehensive overview of high performance building design with a focus on strategies in several areas, Peterson said. New subject areas include water efficiency, building occupant behavior, new building technologies and indoor environmental quality. In addition, there is increased emphasis on lighting/daylighting and the building envelope.

A case study-type poster session on "Measured Performance" and "Modeled Performance" is presented.

The conference format will include invited speakers as well as a call for presenters and a call for posters, which will be announced in the fall. Additional information can be found at www.hpbmagazine.org/hpb2014.

Attendees will be able to realize the synergy required between indoor environmental quality and energy savings through advanced HPB design through the conference as well as network with other HPB professionals, Peterson said.

The conference is being presented by ASHRAE's High Performing Buildings magazine, the industry's premier source for measured performance of practices and technologies to promote better buildings.

ASHRAE Announces 2013-14 Conference Lineup

ATLANTA—Mark your calendars now because ASHRAE's conference schedule for 2013-2014 is wide-spread in both dates and global reach.

ASHRAE conferences present the latest developments in the industry and fundamental tried and true practices. Topics range from high performance buildings to buildings that have combustion with low-grade fuels.

Oct. 15-18, ASHRAE IAQ 2013: Environmental Health in Low Energy Buildings, Vancouver, British Columbia, Canada

Jan. 18-22, 2014, ASHRAE Winter Conference; Jan. 20-23, AHR Expo, New York, New York

Feb. 24-26, 2014, First International Conference on Energy and Indoor Environment for Hot Climates, Doha, Qatar

April 7-8, 2014, High Performance Buildings Conference, San Francisco, Calif.

April 24-25, 2014, Efficient, High Performance Buildings for Developing Economies, Manila, Philippines

June 28-July 2, 2014, ASHRAE Annual Conference, Seattle, Wash.

September 10-12, 2014, ASHRAE/IBPSA-USA Building Simulation Conference, Atlanta, Ga.

The conferences feature peer-reviewed papers, presentations with hands-on information presented in a non-commercial format, Professional Development Hours and networking opportunities.

ASHRAE IAQ 2013 in October 2013 reviews the state of knowledge on the balance between environmental health and energy efficiency in the pursuit of low energy buildings and covers a range of topics: residential and commercial buildings, new construction and retrofit, active and passive approaches, design and operation. What better city than New York for ASHRAE to host a **Winter Conference** in January 2014 with a Technical Program focused on buildings? The Conference has a building-oriented theme with papers and presentations related to building information systems; environmental health; international design; HVAC&R applications and systems; and, of course, tall building performance.

The First International Conference on Energy and Indoor Environment for Hot Climates in February 2014 tackles energy and indoor environmental quality issues in humid and arid hot climates, providing a forum for discussion of the latest research and developments. Building upon its 2012 High Performance Buildings Conference and 2009 Net Zero Conference, the **High Performance Buildings Conference** in April 2014 seeks to advance the industry's efforts to accomplish a true high-performance built environment. The tracks include building performance modeling, envelope strategies, lighting/daylighting strategies, indoor environmental quality strategies, building occupant behavior, market value, new building technologies and case studies and lessons learned.

The design, construction and operation of energy efficient, high performance buildings in developing economies have been identified by the building industry and policymakers as key areas where technology, standards and investments are needed. The Efficient, High Performance Buildings for Developing Economies Conference in April 2014 will address a number of themes on this topic.

The 2014 ASHRAE Annual Conference takes place in Seattle, Wash., June 2014. The Conference addresses broad topics in the application of technology to practice, specific applications in ground source heat pumps, operations and maintenance and indoor environmental quality as well as new reports on research taking place worldwide.

Finally, ASHRAE and IBPSA-USA have created a new jointly co-sponsored Building Simulation Conference taking place in September 2014 that encompasses the ASHRAE Energy Modeling and IBPSA-USA SimBuild Conferences. The conference is a first for the industry and focuses on "BIM, BEM and SIM – Integrated Building Design and Modeling," addressing building information modeling, building energy modeling and building simulation.

High-Performing Buildings: Energy Efficiency and Indoor Air Quality Must Go Hand in Hand

ATLANTA – Finding the balance between environmental health and energy efficiency in the pursuit of low energy buildings is examined in a paper at the upcoming ASHRAE IAQ 2013, setting the tone for discussion for the entire conference.

"Neglecting indoor air quality while pursuing other goals can result in building environments that negatively impact the health, comfort and productivity of occupants and therefore defeat the overall goal of building design, including reduced costs," Kevin Teichman, a senior science advisor at the U.S. Environment Protection Agency, said. "While building design is key to achieving a high-performing building, it is critically important to follow these good intentions through construction, commissioning, operation and maintenance. Only in this way will high-performing buildings actually perform as designed."

Teichman's papers are among 80 conference papers and extended abstracts being presented at IAQ 2013, Environmental Health in Low-Energy Buildings, which takes place Oct. 15-18, 2013, in Vancouver, British Columbia, Canada. This conference is the 17th in the ASHRAE IAQ conference series and is co-organized by ISIAQ.

Registration is now open for the conference. To register and for complete conference information, visit www.ASHRAE.org/IAQ2013. An early bird rate expires Aug. 31 but advanced registration is open through Sept. 30, 2013.

Teichman's paper, "Indoor Air Quality in High-Performing Building Case Studies: A Wealth of Intent, A Dearth of Data," examines the role of indoor air quality in high performing buildings, focusing on case studies in ASHRAE's High Performing Buildings magazine. The paper was co-authored by Andrew Persily and conference co-chair Steve Emmerich, mechanical engineers at the National Institute of Standards and Technology.

A panel discussion on the topic also is planned.

"While progress has been made in achieving sustainable, high-performance buildings, it is noteworthy that many discussions of green, high-performing and certainly net-zero energy buildings tend to focus on energy consumption," Teichman said. "Energy is critically important, but is only one aspect of performance and should not be pursued to the neglect of the others."

The conference seeks to describe the current state-of-understanding of the relationship of IEQ in high-performance buildings.

"There are not a lot of data on IEQ in high performance buildings, but this conference will bring the collective knowledge of the industry together to set a benchmark, if you will, on where we are and how we should move forward," Hal Levin, conference co-chair, said. "It will be important in identifying critical gaps in our knowledge and potential priorities for future ASHRAE research, standards and guidelines."

The state of knowledge will be summarized in written "topic overviews" to be included in the Conference proceedings publication. These overviews may include comments on papers in the sessions; provide supplemental information; summarize the state of the art; include suggestions for high-priority research, as well as identify areas that are well researched; or include recommendations to ASHRAE about implementation of energy conservation and IEQ design activities, Levin said.

The Conference features papers and presentations in nine tracks, which include

- Environmental Health in Low-Energy Buildings
- Moisture and Health
- Sources and Chemistry
- Indoor Environmental Quality Factor Interactions
- Residential Buildings
- Commercial and Institutional Buildings

- Air Cleaning and Filtration
- Microorganisms and Infection
- Tools (models, measurements and more)

Plenary Lectures are given by four distinguished international authorities:

- William Bahnfleth, Ph.D., P.E., Fellow ASHRAE, ASME Fellow, Pennsylvania State University, 2013–14 ASHRAE president, “Are We Putting Enough Energy into Making Buildings Healthy?”
- Richard Corsi, Ph.D., P.E. University of Texas, Austin, Indoor Air 2011 president, “Building Energy and Reactivity”
- Mark J. Mendell, Ph.D., Lawrence Berkeley National Laboratory and California Department of Public Health, “Do We Know Much about Low Energy Buildings and Health?”
- Pawel Wargocki, Ph.D., Danish Technical University, ISIAQ president, “What Can Europe Teach Us?”

ASHRAE/IBPSA-USA Building Simulation Conference Announced

ATLANTA –ASHRAE and IBPSA-USA have announced a joint conference that merges the IBPSA-USA SimBuild and ASHRAE Energy Modeling Conferences.

The joint conference, entitled 2014 ASHRAE/IBPSA-USA Building Simulation Conference, Sept. 10-12, 2014, Atlanta, Ga., currently has a call for papers.

“This conference is a first for the industry, and we’re excited about the benefits it can bring to the building energy analysis and performance simulation community,” Dennis Knight, Conference chair, said. The conference seeks to improve the industry’s ability to accurately model building performance.

Modelers, software developers, owners and researchers will address the practices of energy modeling and building performance simulation using existing simulation tools, software development, and future simulation research and applications.

The conference is focusing on “BIM, BEM and SIM – Integrated Building Design and Modeling,” addressing building information modeling, building energy modeling and building simulation.

“The most pressing need facing modelers is transferring data between tools, and this conference seeks to provide answers through the conference content and by bringing together practitioners, software developers and the research community,” Knight said.

Currently, organizers are seeking papers on topics addressing the integration and interoperability of analytic modeling tools (BEM and SIM) with physical modeling tools (BIM). In addition, papers are sought describing workarounds, case studies, how to’s, challenges, barriers and cloud based solutions.

Topics include:

- Energy efficiency
- HVAC component modeling
- Urban scale modeling
- HVAC load analysis
- Lighting and daylighting
- Computational fluid dynamics
- Data exchange and interoperability
- Energy auditing
- Life cycle cost and economic analysis
- Model calibration and validation
- Combined use of multiple tools
- Co-simulation
- Optimization
- Model and algorithm advances
- Moisture
- Weather data

Abstracts (400 or less words in length) are due Nov. 4, 2013. If accepted, papers are due March 3, 2014. The conference papers will be a maximum of 8 pages in length.

ASHRAE, founded in 1894, is an international organization of some 50,000 persons. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.

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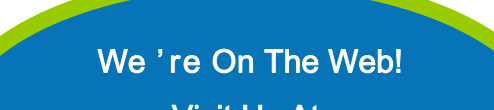
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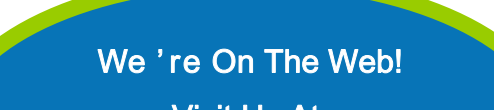
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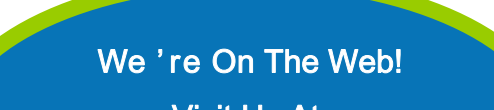
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