



## INSIDE THIS ISSUE:

Officer / Committee List	2
Events Calendar	3
President Msg	4
Clambake Info	5
Job Postings	6
Membership Pro- motion Message	7
YEA Message	8
Student Activites Message	9
Student Member- ship Application	10
Bellenger Book Corner	12
ASHRAE Scholar- ships	14
Region I Officers Committee List	15
Society News	16
ASHRAE Courses	24
Green topia!	25

## ASHRAE Clambake Meeting info



**Topic:** Geothermal Heating & Cooling Advancement in Technologies  
(PDH Approved!)

**Presenter:** Tom Piekunka, PE

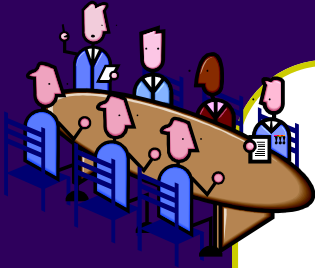
**When:** Monday September 9, 2013 at 5pm

**Where:** Burgundy Basin Inn, Pittsford, NY

**Cost:** \$25.00 plus \$6.00 per dozen clams (No limit, Pre-order  
as many dozen as you want)

Tickets must be purchased by **September 3rd**. No  
tickets will be sold at the door. **See clambake an-  
nouncement on page 5** of this issue for specifics on  
how to make your reservation.

**Reservations are Required**



## Chapter Officers

### President

Robert J. Wind, Jr. PE  
585-341-3172  
rwind@ibceng.com

### President Elect

Edward J. Burns  
585-739-7548 / 872-9172(fax)  
ejb@mechtechhvac.com

### Vice President/Tech

Christina Walter  
585-486-2148  
cmwalter@trane.com

### Secretary

Jeff Close, PE  
585-289-6816 / 218-0737(fax)  
jeff.close@pres-services.com

### Treasurer

William J. Clark  
585-303-0729  
william.clark@DayAutomation.com

## Committee Chairs

### CTTC / Programs

Jeff Wiedrick 585-232-5137 x354  
jwiedrick@bergmannpc.com

### CTTC / TEGA

Tom Burke  
amtburke@yahoo.com

### CTTC / Refrigeration

Michael Nohle 585-216-9016  
mikenohle@aol.com

### Historian

Lee Loomis 585-262-2870/262-4156(fax)  
leeloomis46@gmail.com

### Membership

Jake Hall 585-869-5125  
jhall@proairplus.com

### YEA

Matt Kremers 585-398-8018  
mkremers@mcsmms.com

## Board of Governors

Jim Browe (3)  
585-697-0836  
jbrowe@rfpeck.com

Beth Smith (3)  
585-272-0110  
bsmith@vpsupply.com

Eric Smith (2)  
585-381-3360  
esmith@turnerengineering.com

Paul Kenna, PE (2)  
585-295-3114  
Paul.Kenna@carrierenterprise.com

Scott Edwards (1)  
585-486-2156  
scott.edwards@trane.com

Mike Benedict (1)  
585-490-2661

### Student Activities

Chris Lukasiewicz 585-381-3360  
clukasiewicz@turnerengineering.com

### Newsletter Editor

Scott Edwards  
scott.edwards@trane.com

### Attendance & Reception

Timothy Duprey 585-205-0073  
dupreyt@ifsinc.net

### Building Simulation User's Group (BSUG)

Bill Bishop 585-325-6004  
wbishop@pathfinder-ea.com

### Research Promotion

Paul Kenna 585-295-3114  
Paul.Kenna@carrierenterprise.com

### Webmaster

Kevin Wind 585-263-1280  
kwind@rochester.rr.com

ASHRAE 2013-2014 Preliminary Meeting Schedule				
Date	Event	pdh / Theme	Location	Schedule
09/09/13	"Geothermal Heating & Cooling advancement in technologies Mr. Tom Piekunka, PE - Piekunka Systems, Inc.	Available	Burgundy Basin	5:00 PM
10/09/13	Renewable Energy in Hydronic Heating Ten Trends in Modern Hydronic Heating Mr. John Siegenthaler, PE Joint Meeting with ACCA Mr. Nick Gangemi - TBD	Pending	Burgundy Basin	6:00 PM
11/11/13	Current State of Data Center Industry and Overview of TC 9.9 ASHRAE Technical Committee for Datacom Facilities Formation of Standard 90.4 and how ASHRAE 90.1 Relates to Computer Rooms/Data Centers	Available	Mario's	12:00 PM
12/09/13	VRF "ASHRAE 15" - TBD Variable Refrigerant Flow Systems & ASHRAE 15	Available	Mario's	12:00 PM
01/13/14	NYS Building Department - Mr. Richard Thompson, Mr. Kumar Vijay Kumar NYS Code Updates and Changes NYS Energy Conservation Code/ NYS Mechanical Code		Mario's	12:00 PM
TBD	Annual ASHRAE Valentines Dinner Dance	---	Inn on Broadway	7:00 PM
02/10/14	Energy Efficiency Topic - TBD Joint Meeting with AEE	Available	Mario's	12:00 PM
03/10/14	Jerry M. Sipes, Ph.D., P.E. Fundamentals of Displacement Ventilation	Available	Mario's	12:00 PM
04/07/14	Refrigeration Tour Allied Frozen Foods in Brockport, NY		TBD	TBD
05/12/14	Annual ASHRAE Golf Outing and Picnic	---	Ravenwood Golf Club	9:30 AM Golf 4:30 - 8:00 Picnic

## Mission Statement

ASHRAE will advance the arts and sciences of heating, ventilation, air conditioning, refrigeration and related human factors to serve the evolving needs of the public and ASHRAE members.



Shaping Tomorrow's  
Built Environment Today

## Vision Statement

- will be the global leader in the arts and sciences of heating, ventilation, air conditioning and refrigeration.
- will be the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines.
- will be the primary provider of opportunity for professional growth, recognizing and adapting to changing demographics, and embracing diversity.

## President's Message

I'm pleased to announce that Sara Piekunka, a mechanical engineering technology student at Rochester Institute of Technology, was selected by the ASHRAE Scholarship Trustees at the Society's 2013 Annual Conference to receive the first ever Lynn G. Bellenger Engineering Technology Scholarship for the 2013-2014 academic year. The one-year \$3,000 scholarship is awarded based on a student's scholastic and leadership abilities, character, potential service to the HVAC&R profession, and financial need. We will be presenting the scholarship to Sara at the Clam bake this month. I would encourage everyone to attend and congratulate Sara on this accomplishment. Additional information about the Society's Scholarship Program & criteria is available at [www.ashrae.org/scholarships](http://www.ashrae.org/scholarships). See page 14 of this month's newsletter for more information on ASHRAE scholarships.

Our slate of meetings for the 2013-2014 chapter year is nearly complete. Thanks to Ed Burns, the current Rochester Chapter President Elect, for his efforts to make this a banner year for both Topics and Speakers. Please take a moment to review the schedule and I am sure you will agree.

Please check out the chapter website at [www.rochester.ashraechapters.org](http://www.rochester.ashraechapters.org) for information on upcoming chapter meetings, current officer list & contact info, current electronic newsletter and more!

*Rob Wind, PE, 2013-2014 President*

# ASHRAE CLAMBAKE



When: Monday, September 9, 2013  
 Where: Burgundy Basin Inn  
 1361 Marsh Road Pittsford NY 14534  
 Time: 5:00 P.M.  
 Cost: \$25.00 plus \$6.00 per dozen clams  
 (No Limit, Pre-Order as Many Dozen as You Want)



Tickets must be purchased by September 3rd. No tickets sold at the door.

Mr. Tom Piekunka, PE  
 Piekunka Systems, Inc.

"Geothermal Heating & Cooling advancement  
 in technologies"  
 PDH Approved

Tom is an IGSHPA accredited installer of GSHP's and a certified trainer. He will be presenting on the topic of GSHP systems. He will cover the various types of ground coupled heat exchangers and ground loops. He will talk about design aspects and considerations in designing GSHP systems and some recent changes in technology that is affecting current designs. He has been involved with hundreds of ground source heat pump systems.



Walnut Grove Pavilion - Burgundy Basin Inn

**Directions:**

Take 490E to Exit 27 Bushnell's Basin. Turn right onto Pittsford Victor Road / Route 96. Take 2<sup>nd</sup> right onto Marsh Road. Burgundy Basin is over canal bridge on left.

**Buffet Menu:** Sliced Beef BBQ on Bun, Chicken BBQ, Baked Beans, Salt Potatoes, Cole Slaw, Macaroni Salad, Southwest Bean Salad, Assorted Relishes, Coffee, Iced Tea, Beer, Soda

If you have questions contact Kacie at R.F. Peck at (585)697-0836 ext. 105 or e-mail to [khoffman@rfpeck.com](mailto:khoffman@rfpeck.com)

**Non-ASHRAE Members are Welcome!**

Cut Here

Make check out to Rochester Chapter of ASHRAE and mail with completed form to:  
 ASHRAE Clambake, Attn: Kacie, R.F. Peck Co., Inc. 889 Atlantic Avenue Rochester, NY 14609

Name: \_\_\_\_\_ ASHRAE Member Yes No  
 (Circle one)

Company: \_\_\_\_\_

Address (where tickets are to be sent): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Number of Buffet Tickets: \_\_\_\_\_ x \$25.00 = Total \$ \_\_\_\_\_

Number of Dozen Clams: \_\_\_\_\_ x \$6.00 = Total \$ \_\_\_\_\_

Total Check Amount: \$ \_\_\_\_\_

Reservations must be mailed in by September 3rd

# Job Postings & Help Wanted



This section of the newsletter is reserved for those firms wishing to advertise their desires to hire from the Chapters Membership.

If you are interested in utilizing this FREE service provided by the Rochester Chapter, please contact our Chapter President, Rob Wind (585.341.3172) or by email [rwind@ibceng.com](mailto:rwind@ibceng.com).

This service is available to ASHRAE members for any local firm in our industry looking for knowledgeable persons in the HVAC&R industry.

## CORNING

Corning is the world leader in specialty glass and ceramics, creating and manufacturing keystone components that enable high-technology systems.

We are in search of an HVAC design engineer/Facilities Engineer to oversee our expansion projects worldwide. In this role you will provide project leadership for heating, ventilating and air conditioning construction and capital projects on a domestic and international level. You will manage the development and implementation of HVAC technology to meet required regulations in accordance with the geographic location.

Requirements:

- BS Mechanical or Chemical Engineering, MS or MBA preferred
- Professional Engineering registration or PMI certification desired
- 5 to 15 years overall experience and 5 years in HVAC design

Please contact Pat Harper at [harperpa@corning.com](mailto:harperpa@corning.com) or if you wish, you can apply directly to:

[https://careers.corning.com/psp/PDPAHRPRER/CNG\\_MYCAREER\\_SITE/PDGLHRPRER/c/HRS\\_HRAM.HRS\\_CE.GBL?Page=HRS\\_CE\\_JOB\\_DTL&JobOpeningId=171647&SiteId=1&PostingSeq=1](https://careers.corning.com/psp/PDPAHRPRER/CNG_MYCAREER_SITE/PDGLHRPRER/c/HRS_HRAM.HRS_CE.GBL?Page=HRS_CE_JOB_DTL&JobOpeningId=171647&SiteId=1&PostingSeq=1)



*A talent for design—A sense for people*

### **Mechanical Drafter**

Turner Engineering is a multi-disciplined consulting engineering company based in East Rochester, NY. We provide HVAC, plumbing, fire protection, electrical, and communications engineering services for the construction industry. [www.TurnerEngineering.com](http://www.TurnerEngineering.com). We design the systems that make health care, institutional, commercial, educational, municipal, and mission-critical facilities efficient, comfortable, and safe.

We are a growing firm and require an entry level Mechanical Drafter. Ideal candidates must show ability to draft drawings with Microstation, AutoDesk and REVIT MEP (industry 3-D modeling). Responsibilities include, but are not limited to: design drafting of projects under the supervision of an Engineer. A detailed job description can be found at [www.turnerengineering.com](http://www.turnerengineering.com).

# Rochester Chapter

## Committee Chairs Updates

### Membership

#### ASHRAE Rochester Chapter- Membership Promotion

I hope that this newsletter finds everyone gearing up for an exciting start to the ASHRAE year. That being said, our chapter is currently at about 240 members and growing! This year there is a lot of focus on not only our new members, but also keeping the members that we currently have. So if you used to come to ASHRAE Chapter meetings and events, why not come to the Clambake- its great food, great people, and great information about our industry. If you are a regular, be thinking about who you might invite to help grow the circle of influence.

Also, I know there is a lot of "Social Media" to keep track of, but please take a few seconds to make sure that your profile is up to date at [www.ASHRAE.org](http://www.ASHRAE.org). Maybe you've changed jobs? email address? or would like to advance your membership (i.e. Associate Member to Member). Keeping this information current ensures that you get the most value out of ASHRAE.

There is also a lot of emphasis this year to attempt to do as much of our Membership Renewals and New Member Applications online to decrease the amount of paperwork for the Society and make the process "Greener." If you have any questions or need assistance with any Membership Issues, please let me know.

Thank you, and as always, thank you for your support for ASHRAE.

Sincerely,

Jake Hall

Membership Promotion Chair

## 2013-2014 Presidential Award of Excellence Summary

Chapter #	Chapter Name	Chapter Members	Member Promotion	Student Activities	Research Promotion	Chapter Technology Transfer	History	Chapter Operations	Chapter PAOE Totals
11	Rochester	239	0	0	0	0	0	0	0

# Young Engineers in ASHRAE



## ROCHESTER CHAPTER COMMITTEE REPORT 2013 August 23

### MISSION STATEMENT

The primary objective for the YEA Committee is to enhance our member benefits for young professional ASHRAE members by identifying activities and services focused on their needs.

*- National YEA Committee*

### YEA Social Hour: Date and location to be determined

Please consider joining us for casual networking with other young engineers. More information will be sent via email. If you would like to be added to the email list, contact Matt Kremers (mkremers@mcsmms.com).

### ASHRAE Leadership U for 2014 Winter Conference

#### Leadership U



***Four Leadership U Participants  
Dallas Winter Conference 2013***

Have you ever wondered what ASHRAE Officers do at the ASHRAE Winter & Annual Conferences? Here is your chance to find out! Through Leadership U (offered by the YEA Institute), a handful of YEA members are selected for each conference to be matched up with Society Officers and participate in all of their events and board meetings, including social activities. Leadership U not only allows you to experience a conference like an Officer, but it is also a great opportunity to network and form connections with those active in ASHRAE.

If selected to participate in Leadership U, the costs of attending the Conference (transportation, lodging and registration) will be covered by ASHRAE. In addition, those selected will document their experiences and share them with the YEA Committee, their chapter and their region.

*\*Applications for Leadership U for the ASHRAE 2014 Winter Conference in New York, NY will open in August 2013.\**

If you have any questions about Leadership U or the application process, please contact Rhiannon Loomis at [rloomis@ashrae.org](mailto:rloomis@ashrae.org) or 678-539-1178.



# Student Activities

## STUDENT ACTIVITIES



### Do you know the benefits of being an ASHRAE Student Member?

- **Monthly ASHRAE Journal** exploring issues such as indoor air quality, energy management, solar developments, and more.
- **ASHRAE Insights** monthly newspaper devoted to news and information about the Society at every level including news of special interest to students.
- **The HVAC&R Industry eNewsletter** for weekly industry news and information.
- **SmartStart Program** to ease into full membership dues over a three year period after graduation.
- **Opportunities** to participate in the Student Design Project Competition, Grants-in-Aid, Society and Local Scholarships, and Student Branch Activities.
- Access to **The Student Zone** web page which offers valuable career and educational resources.
- **ASHRAE Publication Discounts** at the ASHRAE Student Store including ASHRAE books, standards, reports, charts, and more.

### Do you know anyone that could benefit from being an ASHRAE Student Member?

- Join over 5,000 other students taking advantage of ASHRAE benefits today at <https://ashrae.org/membership--conferences/join-now>.

Visit the Student Zone at <https://ashrae.org/membership--conferences/student-zone> to learn about:

- Design Competition
- Scholarships and Grants
- New Faces of Engineering – College Edition
- K-12 Activities
- Membership Benefits and Meetings
- Educational Resources
- Student Activities
- Student News
- Student Branches
- ASHRAE's SmartStart Program



# ASHRAE Student Membership Application

## What You'll Get With Your ASHRAE Student Membership!

### What's "Cool" In ASHRAE

- ASHRAE promotes energy efficiency, savings and recovery
- ASHRAE reports on building controls, automation and integration
- ASHRAE focuses on green building issues and green technology
- ASHRAE maintains standards for indoor air quality
- ASHRAE promotes solar and other alternative energy sources
- ASHRAE offers certification programs, online learning opportunities and courses and seminars at ASHRAE Conferences

### How Can ASHRAE Help You?

- Provide access to new technology
- Offer professional development opportunities
- Create opportunities for networking
- Offer online continuing education programs and eLearning programs

### Student Member Benefits

- Access to members-only web pages
- Discounts on ASHRAE Handbooks
- Monthly ASHRAE Journal - print and digital
- HVAC&R Industry and Society Connections eNewsletters
- Complimentary ASHRAE Annual and Winter Conference registration (AHR Expo, Student Program, Technical Sessions)
- Virtual online HVAC&R resume posting, job and internship searching program

### ASHRAE Student Member Opportunities

- Society and chapter-level scholarships for both undergraduate and graduate engineering students
- Discounts for student members on select publications, go to [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) for more information
- Student Design Competition
- Networking with local ASHRAE Chapters
- Senior Undergraduate Project Grant Program
- At the student branch level, you'll enjoy meeting other students with similar interests - if your school hasn't yet started a student branch, take charge and contact a faculty member and ask for help on getting started!

You can continue your student membership after college with the ASHRAE SmartStart Program. After you graduate, you pay \$20 for the first year, \$50 for the second and the third years before advancing to regular member dues!

**Join ASHRAE students on Facebook  
Visit [www.ashrae.org/students](http://www.ashrae.org/students) to join!**



FIRST NAME:

LAST NAME:

DATE OF BIRTH (mm/dd/yyyy)

Current Mailing Address: (this will be where all correspondence will be sent unless otherwise specified)

Street Address: \_\_\_\_\_ Apt. # \_\_\_\_\_ City: \_\_\_\_\_

State/Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_ Country: \_\_\_\_\_

Email: \_\_\_\_\_ Alternate email: \_\_\_\_\_ Phone: \_\_\_\_\_

Permanant Mailing Address: (during the Summer Months and after graduation)

Check if Current Address is the same as Permanent Address

Street Address: \_\_\_\_\_ Apt. # \_\_\_\_\_ City: \_\_\_\_\_

State/Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_ Country: \_\_\_\_\_

Email: \_\_\_\_\_ Alternate email: \_\_\_\_\_ Phone: \_\_\_\_\_

ASHRAE protects contact information provided by its members and customers. To view ASHRAE's privacy policy visit [www.ashrae.org/privacy-policy](http://www.ashrae.org/privacy-policy).

All student applicants must have the name and member number of an ASHRAE member serving as their student sponsor. If your Student Branch Advisor is an active Associate or Full member, he/she can serve as your sponsor. If you need assistance locating a sponsor, please email [students@ashrae.org](mailto:students@ashrae.org) or call 678-539-1212. Also, you must list the name, phone and email address of your faculty advisor or course instructor.

Sponsor Name: \_\_\_\_\_ ASHRAE Member #: \_\_\_\_\_

Advisor/Instructor: \_\_\_\_\_ Phone: \_\_\_\_\_

Email: \_\_\_\_\_

To receive your subscription to the ASHRAE Journal, please answer the following questions by entering the appropriate codes in the spaces provided.

Which best describes your firm? \_\_\_\_\_

- 11. Consulting Engineering
- 12. Architect/Architectural & Eng Services
- 15. Design/Build
- 21. Contractor
- 26. Property Mgmt & Dev
- 31. Industrial Facility
- 41. Commercial Facility
- 42. Government, Healthcare, Education
- 43. Utility
- 51. Manufacturer/HVAC&R Equipment
- 61. Manufacturer's Representative
- 62. Sales Engineering
- 71. Wholesaler or Distributor
- 83. Library
- 84. Technical, Professional or Trade Association
- 86. Student \*\*\*
- 91. Other (Please Specify) \_\_\_\_\_

Which best describes your title? \_\_\_\_\_

- B. President
- C. Partner
- D. Associate
- E. Owner
- F. Vice President
- G. Vice President Eng, Chief Engineer
- K. Design Engineer
- L. Project/Application Engineer
- O. Facility Engineer/Manager
- P. Research/Development Engineer
- R. Sales Engineer, Sales
- S. Purchasing Agent
- T. Draftsperson
- U. Estimator
- W. Technician
- X. Instructor, Professor
- Y. Student \*\*\*
- Z. Librarian
- ZZ. Other (Please Specify) \_\_\_\_\_

ASHRAE Society Dues include \$6.00 for ASHRAE Journal. This amount is not deductible from Membership dues.

I would like to participate in the activities of the \_\_\_\_\_ ASHRAE Chapter.

School Name: \_\_\_\_\_

Street Address: \_\_\_\_\_ City \_\_\_\_\_ State: \_\_\_\_\_

Country: \_\_\_\_\_ Postal Code \_\_\_\_\_

Expected Graduation Date: \_\_\_\_\_

Full time:  Part time:  Degree: \_\_\_\_\_

\*Classification: Freshman  Sophomore  Junior  Senior  Masters/PhD.

ASHRAE Student Membership \$20.00 USD

ASHRAE Handbook - Fundamentals  IP  SI

(you will receive the most current edition of Fundamentals)

More than 900 pages of HVAC&R technical information and it includes the CD! (List Price \$195)

Student Member Price: \$49.00 USD \$ \_\_\_\_\_ USD

Total \$ \_\_\_\_\_ USD

\*Additional books are available at [ashrae.org/studentbookstore](http://ashrae.org/studentbookstore)

\*Please allow up to 30 days to receive new member packets. For U.S. book orders, allow 3-5 business days from processing. For international locations and Canada, allow 7-10 business days from processing.

\*\*Please complete the ENTIRE application to ensure accuracy. Incomplete applications will NOT be processed.\*\*

Method of payment:  VISA / Master Card  American Express  Diner's Club  Check or money order enclosed\*

Card Number: \_\_\_\_\_ Expiration Date \_\_\_\_\_ CW No: \_\_\_\_\_ Amount: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name (as it appears on card): \_\_\_\_\_

\*Checks will be accepted in U.S and Canadian funds. Credit Card payments will be accepted in U.S. funds only.

# Bellenger Book Corner

## WELCOME TO THE BELLENGER BOOK CORNER



Mrs. Lynn G. Bellenger was an avid reader and supporter of continuing education. She encouraged local firms to create internship opportunities for aspiring engineers in order for them to gain more experience.

Lynn had an extensive library collection of books ranging from introductory HVAC and hydronic systems to controls and energy efficiency manuals written by colleagues and friends that she had met through ASHRAE.

This section is dedicated in Lynn's honor to provide additional reading materials relevant to the ever-changing technology in the HVAC field. We hope this will be an especially valuable section for young engineers who are just starting their careers.

### IN THIS ISSUE: SPECIAL PROJECT ACTIVITIES:

[HTTPS://ASHRAE.ORG/STANDARDS-RESEARCH--TECHNOLOGY/SPECIAL--PROJECT-ACTIVITIES](https://ASHRAE.ORG/STANDARDS-RESEARCH-TECHNOLOGY/SPECIAL--PROJECT-ACTIVITIES)



### Indoor Air Quality Guide: Best Practices for Design, Construction, and Commissioning

(Published 2010)



### Performance Measurement Protocols for Commercial Buildings

(Published 2010)

If you know of a good manual that you would like to share with us, please send it to the newsletter editor Scott Edwards at [scott.edwards@trane.com](mailto:scott.edwards@trane.com). In order to keep with ASHRAE's goal of supporting continuing education without commercialization, we ask all reading materials recommended for this section be either ASHRAE sponsored or non-vendor specific.

The appearance of any technical data, editorial material or advertisement in ASHRAE.org or any of its electronic publications does not constitute endorsement, warranty or guarantee by ASHRAE of any product, service, process, procedure, design or the like. ASHRAE does not warrant that this information is free of errors and ASHRAE does not necessarily agree with any statement or opinion contained therein.

## Lynn G. Bellenger Engineering Technology Scholarship

ASHRAE has established a scholarship in memory of Presidential Member Lynn G. Bellenger.



Bellenger served as ASHRAE's president during 2010-2011 and was ASHRAE's first woman president in its 116 year history. Her presidential theme was *Modeling a Sustainable World*; she was a recognized expert in energy management, with a strong focus on the need for energy modeling to help create and refine more efficient buildings.

During her time as president, Bellenger promoted sustainable design, which according to her, "ignited a passion in people that is changing the world." The first ASHRAE Energy Modeling Conference was also held during her presidency.

Bellenger passed away in 2011. To honor her legacy, ASHRAE established the Lynn G. Bellenger Scholarship, which is being used to recognize women in engineering. Contributions to help fund the scholarship are being accepted at [www.ashrae.org/bellenger](http://www.ashrae.org/bellenger).



## Tips for ASHRAE Scholarship Applicants

### Make sure ...

- You meet all applicable criteria
- You read the application carefully and answer all questions completely and honestly.
- The application and all required documents are submitted or postmarked on or before the applicable deadline.
- Your application is NEAT, legible (typed or handwritten clearly), and proper English (correct grammar and spelling) is used when responding to essay questions.
- To take time to submit a brief, non-required introductory cover letter
- You are clear and thorough when stating goals and financial need.
- You contact the nearest ASHRAE chapter for an interview with the Student Activities Chair or other officer to learn more about the Society.
- You find out if your school hosts an ASHRAE student branch.
- You contact ASHRAE headquarters if you have any questions and to ensure your application has been completed and submitted properly.

More information on the scholarship and details on how to apply can be found at [www.ashrae.org/scholarships](http://www.ashrae.org/scholarships).

# ASHRAE Region I 2013-2014

## Executive Committee & Society Contacts

### DRC-Director & Regional Chair

Joseph L Furman  
Automated Logic  
16 Country Way  
Wallingford, CT 06492-5356  
w: (203) 678-2208  
joe.furman@automatedlogic.com

### RVC Research Promotion

Chris Phelan  
Thermco  
228 Scoles Ave  
Clifton, NJ 07012  
w: (973) 777-6700  
chrishphelan@thermcoreps.com

### RECC & Newsletter Judge

Kevin Gallen  
Gallen Engineering  
228 Arborlea Avenue  
Yardley, PA 19067  
w: (917) 428-6396 (mobile)  
kevin@gallenengineering.com

### ARC—Ass't Reg Chair & Treasurer

Heather L. Platt, P.E.  
SCMC, LLC.  
PO Box 1031  
Niagara Falls, NY 14304  
w: (716) 255-1462  
HPlatt@Seneca-SCMCLLC.com

### RVC Chapter Technology

Alexander Weiss, PE  
8 Bergan Beach Pl  
Brooklyn, NY 11234-5743  
w: (718) 251-1154  
weisseng@gmail.com

### Regional Representative

Garry N. Myers  
WSP Flack + Kurtz  
73 Bonnie Way  
Allendale, NJ 07401-1127  
w: (212) 951-2815  
Garry.myers@wspfk.com

### Nominating Committee Member

Russell J Stuber  
U&S Services, Inc.  
233 Fillmore Ave Suite 11  
Tonawanda, NY 14150-2316  
w: (716) 693-4490  
stuberr@usservicesinc.com

### RVC Student Activities

Ralph Draper  
31 Gebig Rd  
Nottingham, NH 03290-6107  
w: (603) 608-8600  
rwd@cisunix.unh.edu.com

### Regional Young Eng. in ASHRAE

Frank Rivera  
Mechanical Heating Supply  
476 Thompson Pl  
Bronx, NY 10455  
w: (718) 402-9765  
frivera@mechheat.com

### Nominating Committee Alternate

Darcy A Carbone  
Stebbins-Duffy, Inc.  
6 Damon Road  
Medford, MA 02155-2903  
w: (617) 957-2567  
dcarbone@stebbinsduffy.com

### Regional Chapter Programs Chair

Peter Oppelt  
R.F. Peck Co.  
191 Moorland Rd.  
Rochester, NY 14612-3421  
w: (585) 227-1720  
poppelt@rfpeck.com

### CRC 2013 General Chair

Tom Zoller, PE  
Trane-Burlington  
175 Leroy Rd  
Williston, VT 05495  
w: (802) 383-6444  
tzoller@trane.com

### RVC Membership Promotion

Steven Sill  
C & S Mechanical  
2930 State Route 104A  
Sterling, NY 13156-4253  
w: (718) 494-5133  
stevesill1966@hotmail.com

### Regional Refrigeration Chair

Mark Cambria, PE  
Fusion Systems Engineering  
PO Box 1522  
Clifton Park, NY 12065  
w: (518) 621-0533  
mcambria@fusionsystemseng.com

### Director of Member Services

Joyce Abrams  
ASHRAE  
1791 Tullie Circle, N.E.  
Atlanta, GA 30329  
w: (404) 636-8400  
jabrams@ashrae.org

### RVC Grassroots Gov't Affairs

Richard E Vehlow, PE  
NYS OGS BU1  
33rd Corning Tower  
Albany, NY 12242-0001  
w: (518) 474-2471  
rev1969@gmail.com

### Regional Historian

Alexander Weiss, PE  
8 Bergan Beach Pl  
Brooklyn, NY 11234-5743  
w: (718) 251-1154  
weisseng@gmail.com

### Director of Comm. & Publications

Jodi Scott  
ASHRAE  
1791 Tullie Circle, N.E.  
Atlanta, GA 30329  
w: (404) 636-8400  
jscott@ashrae.org

## ASHRAE Names New Distinguished Lecturers

ATLANTA – ASHRAE has named eight new Distinguished Lecturers who provide Society chapters with noted authorities and speak on relevant topics that impact the built environment industry.

This marks the 14<sup>th</sup> year of the Distinguished Lecturer Program, with over 1,600 lectures given since the program began in 1996. The total 77 Lecturers for the 2013-14 Society year represent 13 countries, including Argentina, Canada, Denmark, Egypt, Hong Kong, Lebanon, Malaysia, Mexico, Singapore, Taiwan, Thailand, United Kingdom and United States. These lecturers are available to present on 345 topics and speak a combined 10 languages. The new lecturers and their presentation topics are:

**Donald Beaty, P.E.**, Fellow ASHRAE, president, DLB Associates Consulting Engineers, Eatontown, N.J.—“Data Center Energy Efficiency;” “Case Studies: Implementing ASHRAE’s Allowable Ranges in Data Centers;” “Trends and Measurements for Data Center Optimization and Future-Proofing.”

**James Coogan, P.E.**, senior principal, Siemens Building Technologies, Buffalo Grove, Ill.—“Space Pressurization: Concept and Practice;” “Methodical Approach to Sustainability in Labs;” “Air Flow Controls at the Terminal Level;” “Feedback Systems in HVAC.”

**Marlene Linders**, president and CEO, Philders Group International, and executive director, The Linders Health Institute, Heathrow, Fla.—“Overview of Risk Management for Infection Control during Healthcare Construction;” “De-mystifying Healthcare: 3 Critical Keys in Doing Business with the American Healthcare System.”

**Bjarne Olesen, Ph.D.**, Fellow ASHRAE, Life Member, professor, International Centre for Indoor Environmental and Energy, Technical University of Denmark, Lyngby—“International Standards for the Indoor Environment—Where Are We and Do They Apply Worldwide?;” “Indoor Environment—Health-Comfort and Productivity;” “The European Approach to Decrease Energy Consumption in Buildings;” “Applications of Embedded Radiant Heating and Cooling in Buildings.”

**Douglas Reindl, Ph.D., P.E.**, Fellow ASHRAE, professor, Engineering Professional Development, University of Wisconsin-Madison—“An Introduction to Ammonia Refrigeration Systems;” “ASHRAE Standard 15-2010—A Review and Update;” “Refrigerant Safety—Inside and Outside the Machinery Room.”

**Roger Schmidt, Ph.D.**, IBM Fellow, IBM Corporation, Poughkeepsie, N.Y.—“Power/Cooling/Environmental Trends in Data Centers;” “Air and Liquid Cooled IT Equipment—Best Practices in the Data Center.”

**Gordon Sharp**, chairman and founder, Aircuity, Newton, Mass.—“Healthy, Airside Solutions to Significantly Reduce your Building’s Carbon Footprint;” “New Approaches to Slash Lab and Commercial Building Energy Use and Improve IEQ;” “Slashing Lab and Vivarium Building Energy Use by up to 50%;” “A Holistic Overview of Technologies and Strategies to Achieve Deep Energy Reductions in Laboratories;” “Building a Net Zero Lab in the United Arab Emirates: Mission Impossible?;” “Making Buildings Smarter to Maintain their Energy Efficiency Entitlement.”

**Donald Wulfinghoff, P.E.**, Life Member, president, Wulfinghoff Energy Services, Wheaton, Md.—“Optimized HVAC for the 21<sup>st</sup> Century;” “Ten Critical Criteria for Selecting Any Energy Project;”

For a complete listing of Distinguished Lecturers and detailed procedures on how to arrange a lecturer presentation, visit [www.ashrae.org/distinguishedlecturers](http://www.ashrae.org/distinguishedlecturers).



## 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 Hutzel, 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.”

Hutzel’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 CO<sub>2</sub> 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 Hutzel. 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.

***See Next Page for Grant recipients***

# ASHRAE Grant-in-Aid Explores Building Occupants, Comfort and Energy Use (continued)

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 Microscales
- 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 Building 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](http://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/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.  
*(continued on next page)*

# ASHRAE/IBPSA-USA Building Simulation Conference Announced

*(continued from previous page)*

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.

To submit an abstract or for more information, visit [www.ashrae.org/simulation2014](http://www.ashrae.org/simulation2014).

A call for presenters will be announced after the call for papers closes. Invited speakers and keynote speakers will be announced.

The conference will cover two-and-a half days and will be preceded by two days of training seminars and short courses.

"The goal of the conference is help make better decisions through the application of simulation and modeling over the entire building life cycle from the earliest concept through operation and maintenance," Knight said.

---

## ASHRAE Announces 2013-2014 Conference Lineup

ATLANTA—Mark your calendars now because ASHRAE's conference schedule for 2013-2014 is widespread 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
- 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.



# ASHRAE IAQ 2013

## Environmental Health in Low Energy Buildings

October 15–18, 2013

[www.ashrae.org/iaq2013](http://www.ashrae.org/iaq2013)



Renaissance Vancouver Hotel Harbourside | Vancouver, British Columbia, Canada

IAQ 2013 reviews the state of knowledge on the balance between environmental health and energy efficiency in the pursuit of low energy buildings.

The conference covers a broad range of topics including residential and commercial buildings, new construction and retrofit, active and passive approaches, design and operation.

IAQ 2013 will help define future design, education, policy and research directions to re-emphasize the importance of environmental health in buildings.



Some 145 conference papers and extended abstracts have been invited. Tracks are as follows:

- Track 1 - Environmental Health in Low Energy Buildings
- Track 2 - Moisture and Health
- Track 3 - Sources and Chemistry
- Track 4 - IEQ Factor Interactions
- Track 5 - Residential Buildings
- Track 6 - Commercial and Institutional Buildings
- Track 7 - Air Cleaning and Filtration
- Track 8 - Microorganisms and Infection
- Track 9 - Tools (models, measurements and more)

A complete listing of accepted conference papers and extended abstracts can be found at [www.ashrae.org/iaq2013](http://www.ashrae.org/iaq2013).

Plenary Lectures will be 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?”

Registration	Member	Non-member	Speaker
Early bird through Aug. 30.....	\$550 .....	\$600 .....	\$400
Regular fee through Sept. 30 .....	\$600 .....	\$650 .....	\$400
Onsite fee beginning Oct. 1.....	\$650 .....	\$700 .....	\$400

Conference proceedings and breaks, lunches and a reception included in registration fee.

**Co-organized by ISIAQ.**

IAQ2013 is the 17th in the ASHRAE IAQ conference series.

Surrounded by water on three sides and nestled alongside the Coast Mountain Range, Vancouver is the largest city in the province of British Columbia with over half a million residents and one of the mildest climates in Canada. Home to spectacular natural scenery and a bustling metropolitan core, Vancouver was Host City to the Olympic and Paralympic Winter Games in 2010.



[www.ashrae.org/iaq2013](http://www.ashrae.org/iaq2013)

# ASHRAE Announces Fall Online Courses

The 13 ASHRAE Learning Institute courses provide professional development through in-depth information that is timely, practical and targeted to provide engineers in consulting practices, facility management or supplier support with instruction on applying ASHRAE standards and employing new technologies essential for advanced building performance. The online courses allow attendees to learn from anywhere with an Internet connection. Course participants earn continuing education credits and qualify for Professional Development Hours for each course completed. Courses are instructor-led, drawing upon professional knowledge of leading practitioners. The courses are:

- Introduction to BACnet®, **Sept. 9**
- **NEW!** Troubleshooting Humidity Control Problems, **Sept. 11**
- Complying with Standard 90.1-2010: HVAC/Mechanical, **Sept. 30**
- Energy Management Best Practices (formerly Energy Management in New and Existing Buildings), **Oct. 2**
- High-Performance Building Design: Applications and Future Trends, **Oct. 9**
- Commissioning for High-Performance Buildings, **Oct. 16**
- Fundamental Requirements of Standard 62.1-2010, **Oct. 21**
- Air-to-Air Energy Recovery Fundamentals, **Oct. 23**
- Energy Efficiency in Data Centers, **Oct. 28**
- Air-to-Air Energy Recovery Applications: Best Practices, **Oct. 30**
- IAQ Best Practices for Design, Construction, and Commissioning, **Nov. 13**
- Energy Modeling: Best Practices and Applications: Parts 1 and 2, **Sept. 16**
- **NEW!** Commercial Building Energy Audits - Parts 1 and 2, **Nov. 4**

For registration costs and to register, visit [www.ashrae.org/onlinecourses](http://www.ashrae.org/onlinecourses). Site licenses are available to organizations that have five or more course participants. For more information, e-mail [edu@ashrae.org](mailto:edu@ashrae.org) or call 678-539-1146.



**green topia** thought leadership  
**FUTURES SUMMIT**  
a project of Friends of the Garden

presented by: **SWEETWATER**

SEPTEMBER 2013

**10 & 11**

EASTMAN BUSINESS PARK  
 ROCHESTER | NEW YORK

**REGISTRATION  
 OPEN!**

# Featured Presenters:

FOR MORE INFO ON EXHIBITING AT THE SUMMIT, PLEASE VISIT THE WEB SITE  
 OR CONTACT: PETE DEDUCK [Pete@deduck.net](mailto:Pete@deduck.net) or call 585-889-8337



## Spellbinding Talks by Remarkable People!

A CONTEMPORARY APPROACH TO SHARING KNOWLEDGE AND PRACTICES AMONG PEOPLE WHO ARE WORKING TOWARDS BUILDING SUSTAINABLE COMMUNITIES AND BUSINESSES.

## WHO SHOULD ATTEND?

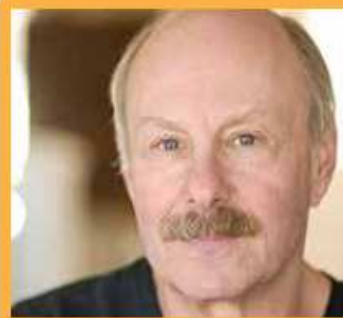
- Planners
- Elected & Government Officials
- Engineers
- Architects & Engineers
- Educators & Students

### SESSIONS WILL INCLUDE PRESENTATIONS ON:

- Social Responsibility & Justice
- Agriculture And Land Use
- Energy, Waste, Materials And Water Management
- Livable Communities & Urban Design/planning
- Climate Adaptation And Ecology

## FAST FORWARD to a BRIGHT FUTURE for Rochester and the Finger Lakes Region!

These people are creating change NOW through new visions, bold ideas and inventions, often leapfrogging the status quo and leading the way into a bright future. They'll share experience and knowledge, interacting directly with attendees in a relaxed but dynamic contemporary format.



**James Howard  
 Kunstler**



**Lt. Governor  
 Robert Duffy**



**Don  
 Edwards**



**Danny  
 Wegman**



**Sophie  
 Faris**

### PRICES:

- \$175** | Early Bird-Save \$50!
- \$225** | After 8/16/13
- \$99** | Single-Day Option
- \$50** | Student / Educator

### SIGN UP TODAY!

[GREENTOPIAFEST.COM/  
 FUTURES-SUMMIT](http://GREENTOPIAFEST.COM/FUTURES-SUMMIT)

### Sponsors:



The Harley School

