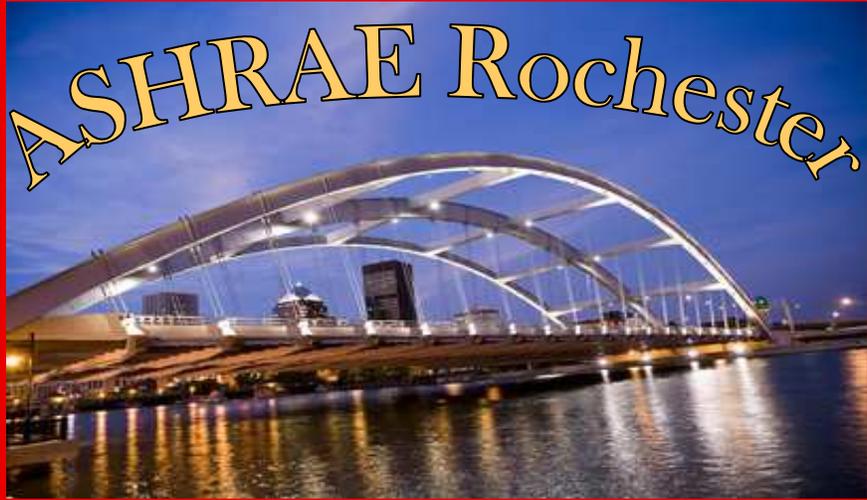


# ASHRAE Rochester



VOLUME 8, ISSUE 4

DECEMBER 5, 2013

## INSIDE THIS ISSUE:

Officer / Committee List	2
Events Calendar	3
President Msg	4
November Meet- ing Recap	5
Job Postings	6
Membership Pro- motion Message	7
YEA Message	7
Research Promo- tion Message	8
Student Activites Message	9
Student Member- ship Application	10
Valentines day Dinner Dance Info	12
Board of Gov. Meeting Minutes	15
Bellenger Book Corner	18
ASHRAE Scholar- ships	19
Local PDH Course	20
Winter Confer- ence Info	21
Society News	28



Earn an ASHRAE certification while at-  
tending ASHRAE's Winter Conference and  
AHR Expo

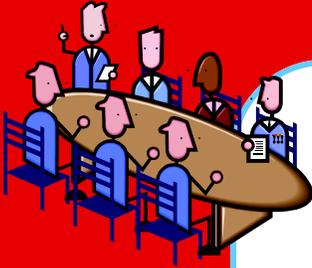
ASHRAE has certified more than 1,600 HVAC professionals. Are you eligible to join this elite group?

The world's largest HVAC&R event is coming to your backyard! The 2014 ASHRAE Winter Conference and AHR Expo in New York City will bring together more than 55,000 attendees from around the world. All six of ASHRAE's certification exams will be administered at the conference and show on **January 23, 2014**.

[Building Energy Assessment Professional \(BEAP\)](#)  
[Building Energy Modeling Professional \(BEMP\)](#)  
[Commissioning Process Management Professional \(CPMP\)](#)  
[Healthcare Facility Design Professional \(HFDP\)](#)  
[High-Performance Building Design Professional \(HBDP\)](#)  
[Operations & Performance Management Professional \(OPMP\)](#)

To participate in this exam administration, please submit an application by **January 3, 2014** for the program in which you're interested. There will be no on-site registration and seating is limited. For eligibility requirements and applications, go to [www.ashrae.org/NYCExams](http://www.ashrae.org/NYCExams).

An ASHRAE certification is a distinct honor held by top professionals in HVAC&R and allied fields and is recognized as a standard of excellence worldwide. Take advantage of the opportunity to earn an ASHRAE certification while you're attending ASHRAE's Winter Conference and AHR Expo.



## 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)  
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### Vice President/Tech

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

### Secretary

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### Treasurer

William J. Clark  
585-303-0729  
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## Committee Chairs

### CTTC / Programs

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

### CTTC / TEGA

Tom Burke  
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### CTTC / Refrigeration

Michael Nohle 585-216-9016  
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### Historian

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### Membership

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

### YEA

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## Board of Governors

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

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585-272-0110  
bsmith@vpsupply.com

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

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

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scott.edwards@trane.com

Mike Benedict (1)  
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dupreyt@ifsinc.net

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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 Meeting Schedule				
Date	Event	pdh / Theme	Location	Schedule
12/09/13	VRF "ASHRAE 15" Variable Refrigerant Flow Systems & ASHRAE 15 Mr.Marty Brinton, LG Commercial Air Conditioning	Available	Mario's	12:00 PM
01/13/14	NYS Building Department NYS Code Updates and Changes NYS Energy Conservation Code/ NYS Mechanical Code		Mario's	12:00 PM
02/07/14	Annual ASHRAE Valentines Dinner Dance	---	Colgate Rochester Crozer Divinity School	7:00 PM
02/10/14	Joint Meeting with AEE	Available	Mario's	12:00 PM
03/10/14	Jerry M. Stipes, Ph.D., P.E. Fundamentals of Displacement Ventilation	Available	Mario's	12:00 PM
04/07/14	Refrigeration Tour Wegmans East Ave. - CO2 Refrigeration System		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

Late last month, I had the opportunity to perform a scholarship interview with Brian Knisely, a University of Rochester student. He is applying for one of the ASHRAE scholarships and one of the requirements is for the applicant to interview with one of the officers of the local chapter. We wish Brian the best of luck in securing this scholarship, in his scholastic career, and beyond.

Jeff Ellis is the chairperson of the nominating committee this year. He is looking for some Rochester Chapter members to help out with this committee. If you are willing to help out, it is a light time commitment and would make Jeff's job a lot easier. The basic requirements are to suggest potential board members and then to confirm that they are interested. After the committee performs this duty, the nominees are voted on by the chapter as a whole.

Coinciding with this, if you feel that you or someone you know would make a good ASHRAE Rochester Chapter officer, please let Jeff Ellis know. Being an ASHRAE officer is a good resume builder; not just for you but for your company as well. If you are employed at a consulting firm, when your company is sending out qualifications, showing ASHRAE involvement is viewed very positively. If you are employed at a sales representative firm, you really can't beat having all of the consulting engineers knowing who you are and what you do.

Lastly, as this is the December newsletter, have a great holiday.

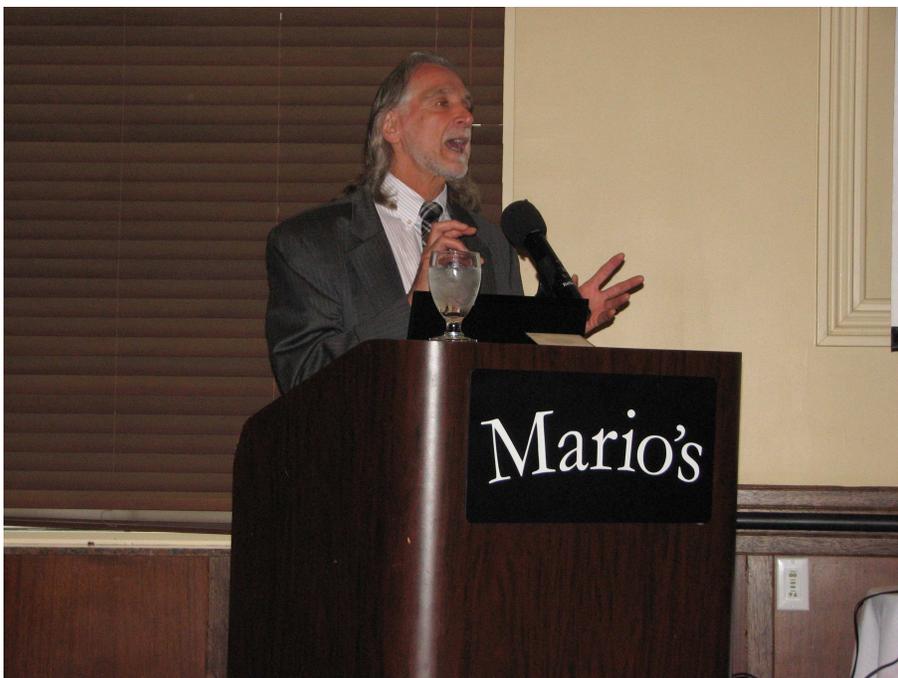
*Rob Wind, PE, 2013-2014 President*

## Data Center Design Topic comes to Rochester ASHRAE's November Meeting

The ASHRAE Rochester Chapter November lunch meeting was held at Mario's Restaurant on Monday November 11th, and the discussion was led by Nick Gangemi and the topic was "Current State of Data Center Industry and Overview of TC 9.9 ASHRAE Technical Committee for Datacom Facilities ". Nick gave a brief overview on the IT world, how ASHRAE 90.1 and Technical Committee TC9.9 can be applied, best design practices for today's Data Center, and how economizers (Air and water side) can be utilized.

December's Meeting will be Monday the 9th, also at Mario's, 12pm. The topic will be "Variable Refrigerant Flow and ASHRAE 15", hosted by Marty Brinton. 1.0 PDH credit will be available.

Since 2009, Mr. Brinton is a Senior Applications Engineer with LG Electronics where he supports LG's Commercial Air Conditioning field sales organization properly integrate VRF systems in commercial building design. He is a subject matter expert on data center air conditioning, air cleaning, and variable refrigerant flow. Past design experiences includes CFD analysis, cleanroom, mission critical facilities, and restaurant HVAC building pressurization systems. Mr. Brinton has designed utility systems, managed daily operations and the preventive maintenance program for a 1.2 msf electronics manufacturing facility.





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.



City of Rochester, NY  
Thomas S. Richards, Mayor

The City of Rochester ([www.cityofrochester.gov](http://www.cityofrochester.gov)) is seeking a highly qualified and motivated candidate for the position of Engineer Mechanical in the Department of Environmental Services' Bureau of Architecture & Engineering. The incumbent in this title will be responsible for the design, review, and approval of plans for new construction and alteration work, ensuring that the plans are in compliance with applicable building codes, conform with City standards, and address the City's needs.

The ideal candidate will be currently licensed as a Professional Engineer in the State of New York and have at least two (2) years of experience preparing construction contract documents and performing field administration to ensure compliance with contract documents.

All applications **MUST** be submitted on the City of Rochester's website [www.cityofrochester.gov/jobs](http://www.cityofrochester.gov/jobs) no later than November 1, 2013. The candidate chosen for this position will be required to establish and maintain City residency. If you have any questions regarding this employment opportunity with the City of Rochester, please feel free to contact Thomas Miller at (585) 428-7596.

## Like us on Facebook!

Visit our new Facebook page by searching for "ASHARE Rochester" on Facebook. Any ideas for additions or improvements email to Mark Kukla at [mark@airsystemsbalancing.com](mailto:mark@airsystemsbalancing.com). Keep up to date with current events and photos from recent meetings.

# Rochester Chapter

## Committee Chairs Updates

### Membership

#### ASHRAE Rochester Chapter- Membership Promotion

Just a quick reminder as we go into this holiday season, to please be checking your annual renewal date for membership. This year there is a lot of focus on membership retention and reducing the number of delinquent members that we have in chapter. We are doing a great job so don't forget to renew as we head into this busy season. Also, remember 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

### YEA (Young Engineers in ASHRAE)

#### YEA Group Learning 2013

YEA members ... we want your feedback! Please full out this survey so we can design this years' course to ensure the most relative content for you. <https://www.surveymonkey.com/s/QTC5CLM>.

Thank you, Matt Kremers

## 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	200	0	285	0	0	0	485

# Research Promotion

On behalf of ASHRAE and the Rochester Chapter, I would like to thank all donors for their generous support of ASHRAE Research during the 2012-13 campaign. ASHRAE Research benefits us all, from energy efficiency to indoor air quality to green solutions and more.

Thank you to everyone for your donations! We all win.

## 2012-13 Campaign

Golden Circle (\$10,000 - \$19,999)

**Gray Metal Products**

ASHRAE Associate (\$2,500 - \$4,999)

**ASHRAE Rochester Chapter**

Major Donor – Bronze (\$500-\$999)

**R L Kistler Inc.**

Major Donor – Antique (\$250-\$499)

**Mr. Richard Barrett**

**Genesee Heating**

**Mech Tech HVAC, Inc.**

**RF Peck Co.**

**Slater Equipment Company**

**SMACNA Rochester**

**Trane Matching Funds**

ASHRAE Supporters

**Casey Bernhard**

**James Ormond**

**Kevin Canaan**

**Mark Snyder**

**Robert Moyer**

**Robert Walton**

Company Honor Roll (\$150-\$249)

**Lynn G. Bellenger Memorial**

(Established by Pathfinder Engineers)

**Air Systems Balancing**

**Day Automation Systems**

**Erdman Anthony & Associates**

Individual Honor Roll (\$100-\$249)

**Charles White**

**Christina Walter**

**David Meyer**

**Ed Burns**

**Jim Browe**

**Jeff Bidell**

**Jeff Ellis**

**Jeff Close**

**Michelle Summerman**

**Paul Kenna**

**Pete Oppelt**

**Rich Morelle**

**Rob Wind**

**Tom Piekunka**

**Thanks Again for a Successful Year!**

**Paul Kenna, ASHRAE RP Chair**

# 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!**



**ASHRAE**  
STUDENT MEMBERSHIP APPLICATION

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.  
ASHRAE • 1791 TULLIE CIRCLE NE • ATLANTA, GA 30329-2305 • FAX: 678-539-2212

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: \_\_\_\_\_

Permanent 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.



You are cordially invited to the  
**57th Annual  
Valentine Dinner Dance**

Hosted by ASHRAE Rochester

Friday, February 7, 2014

Colgate Rochester Crozer Divinity School

1100 South Goodman Street

Rochester, New York

7:00pm Reception - Hors d'oeuvres & cocktails

8:00pm Dinner - As you select

9:15pm Dessert, Coffee and Dancing

**Menu Selections**

8 oz beef filet with burgundy reduction

Asian seared salmon

Chicken french

Wild mushroom roasted tomato pastry



For reservations, please mail or fax this registration form by January 31, 2014.

Make checks payable to Rochester Chapter ASHRAE and mail to

Jody McGarry

ABR Wholesalers, Inc.

510 North Goodman Street

Rochester, New York 14609

Phone (585) 482-3601 Fax (585) 482-6698

Name: \_\_\_\_\_ Beef · Chicken · Fish · Vegetarian

Name: \_\_\_\_\_ Beef · Chicken · Fish · Vegetarian

Number of people \_\_\_ x \$65\* per person = \$\_\_\_\_\_ (enclosed)

\*Special price of \$50 per person for members of the Y.E.A.



# ASHRAE

*Technology for a Better Environment*

November 18, 2013

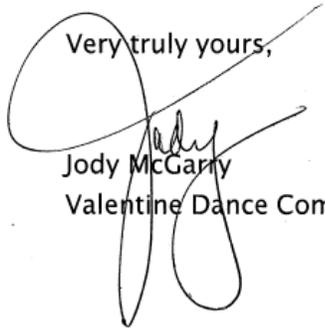
Dear ASHRAE Members,

On Friday, February 7, 2014, ASHRAE will be hosting its 57th Annual Valentine Dinner Dance at the Colgate Rochester Crozer Divinity School. ASHRAE is asking for your corporate support to donate \$325.00, billed to you as an advertising expense, to help defray the cost of this event. We know that it has been a challenging year, but your sponsorship will enable us to provide you with lively entertainment, a delicious meal, special desserts, and an evening with friends and colleagues you won't soon forget.

As always, we will be offering two complimentary dinners to corporate sponsors. Your sponsorship will be listed in the dinner program and dance flyers, as well as being listed in a full-page advertisement in the R.E.S monthly publication. You will certainly be recognized by your peers as an ASHRAE supporter.

An invoice is attached for your convenience. We thank you for your support and look forward to sharing this fantastic evening with you!

Very truly yours,



Jody McGarry

Valentine Dance Committee



# ASHRAE

Technology for a Better Environment

## Invoice

Advertising for February 2014 Promotion \$325

Please make check payable to: ROCHESTER CHAPTER ASHRAE and mail to:

Rochester Chapter ASHRAE  
c/o ABR Wholesalers, Inc.  
ATTN: Jody McGarry  
510 North Goodman Street  
Rochester, NY 14609

## Commitment

We would like to support the Rochester ASHRAE 2014 Promotion and agree to fulfill our commitment by March 1, 2014.

Company Name\_\_\_\_\_

Signed by\_\_\_\_\_

Date signed\_\_\_\_\_

Please return your check or commitment to ABR Wholesalers, Inc. Thank you.

***\*Don't forget...you will receive two complimentary dinners to attend our Valentine Dinner Dance!***

*American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.*

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AN INTERNATIONAL ORGANIZATION

# Board of Governors Meeting Minutes



## BOARD OF GOVERNORS MEETING MINUTES

Meeting Date: 11/6/2013

President	Robert Wind	X
President Elect/Program	Ed Burns	
Vice President-Tech Session	Christina Walter	X
Secretary	Jeff Close	
Treasurer	Bill Clark	X
Immediate Past President/CRC	Michelle Sommerman	
Board of Gov. (1)	Mike Benedict	
Board of Gov. (1)	Scott Edwards	X
Board of Gov. (2)	Eric Smith	X
Board of Gov. (2)	Paul Kenna	
Board of Gov. (3)	Jim Browe	
Board of Gov. (3)	Michelle Sommerman	
Attendance	Tim Duprey	
Historian	Lee Loomis	X
Membership Promotion	Jake Hall	
Newsletter Editor	Scott Edwards	X
Research Promotion	Paul Kenna	
Awards	Al Rodgers	
CTTC	Jeff Wiedrick	
Education	Bill Murray	
Publicity	Mark Kukla	
Web Site	Kevin Wind	
YEA Chair	Matt Kremers	X
Student Activities	Chris Lukasiewicz	
Nominating (2 <sup>nd</sup> Past President)	Jeff Ellis	X
Picnic/Golf Chair	Jim Browe	
Buyers Guide	Stephanie Dempsey	
Valentine's Dinner Dance	Jody M. McGarry	
Refrigeration	Mike Nohle	

# Board of Governors Meeting Minutes

**Roll Call:** The above noted individuals were present.

**Call to Order:** 7:35am

**Minutes:** BOG Meeting Minutes previously approved via e-mail.

- **Treasurer's Report:** Bill Clark
  - Treasurer's report was reviewed and approved
  - A request was made to have Tim Duprey to make a PayPal transfer
  - Taxes are complete. Frank Stein was used this year at a savings of \$600.
- **Program/Tech Session:** Ed Burns (not present) – no report.
- **Refrigeration:** Mike Nohle (not present) – no report.
- **Tech Awards:** Jeff Wiedrick (not present) – no report.
- **Membership:** Jake Hall (not present) – no report.
- **Attendance:** Tim Duprey (not present)
  - October meeting
    - o 34 RSVP's.
    - o 0 no shows
    - o 1 walk-ins
    - o 35 total attendance
- **Awards:** Al Rodgers (not present) – no report.
- **Student Activities:** Chris Lukasiewicz (not present) – no report.
- **YEA:** Matt Kremers
  - Currently scheduling for training.
  - Last year, first training session had better attendance.
  - Possible Fulton Boiler Plant Tour (more information next month).
- **Research:** Paul Kenna (not present) – no report
- **Newsletter:** Scott Edwards
  - RES deadline in 11/10/13.
- **Buyers Guide:** Stephanie Dempsey (not present) – no report.
- **Historian:** Lee Lomis – no report.
- **Website:** Kevin Wind (not present) – no report.
- **Nominating:** Jeff Ellis
  - Rob Wind to make an announcement at general meeting for committee members and possible candidates.

# Board of Governors Meeting Minutes

- **Publicity:** Mark Kukla (not present) – no report.
- **Valentines Dinner Dance:** Jody McGarry (not present) – no report.
  - Date is Friday, February 7, 2014
- **Old Business:**
  - CRC2016 (in Rochester) – no new report.
  - Regional visit – to be timed with membership promotion meeting.
  - Audit Committee – audit is completed.
  - Chapter taxes – taxes are complete.
  - Scholarship – no new report.
- **New Business:**
  - RES Tutoring Team – If anyone is interested in tutoring a couple of hours a week on a regular basis, contact Lee Loomis (information meeting is 11/14/13).
- **Next Meeting:** Wednesday, December 4, 2014 at 7:30 AM located at Trane's office.
- The meeting was adjourned @ 8:09 am

# Bellenger Book Corner

## WELCOME TO THE BELLENGER BOOK CORNER

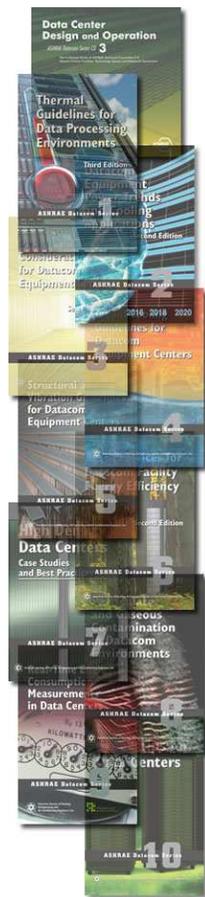


Mrs. Lynn G. Bellenger was an avid reader and supporter of continuing education. She encouraged local firms to create internship opportunities for aspiring engineers in order for them to gain more experience.

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.

### ASHRAE TECHNICAL COMMITTEE 9.9—MISSION CRITICAL FACILITIES, DATA CENTERS, TECHNOLOGY SPACES AND ELECTRONIC EQUIPMENT



TC 9.9 Mission Critical Facilities, Technology Spaces and Electronic Equipment is concerned with the design, operations, maintenance, and efficient energy usage of modern data centers and technology spaces.

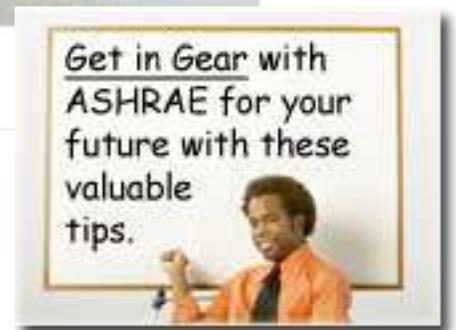
Along with the explosive growth of connected technologies (i.e. the Internet, mobile phones, telephony, etc.), high power density of electronic equipment has also been steadily increasing in recent years. In addition, the mission critical nature of computing has sensitized businesses to the health of their data centers. The combination of these effects has made it obvious that better alignment is needed between equipment manufacturers and facility operations personnel to ensure proper and fault tolerant operation within mission critical environments.

In order to address these concerns, TC 9.9 was formed. The committee is comprised of a wide range of industry representatives including but not limited to equipment manufacturers, consulting engineers, data center operators, academia, testing laboratories, government, etc. who are all committed to increasing and sharing the body of knowledge related to data centers.

The website is: <http://tc99.ashraetcs.org/index.html>

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.



#### 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).

## Refrigerants Update and Forecast

**Monday, December 16**

12:00 – 1:30 pm

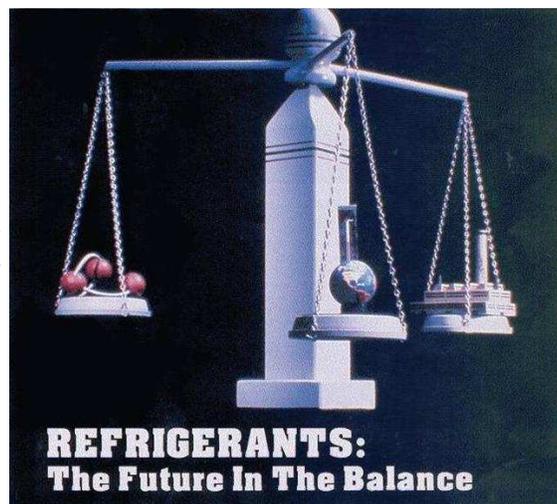
Lunch included

**Mario's**

Rochester, NY

Continuing education credits available

Come to hear the latest information on U.S. laws and regulations, proposed U.S. legislation and regulation, international agreements, and proposed international agreements that will impact the future use and phase out of HCFC (R-22 and R-123) and HFC (R-134a, R-410a, and R-407c) refrigerants. The presentation will include current requirements of the Montreal Protocol, Kyoto Protocol, the Clean Air Act, and U.S. EPA regulations, and proposed U.S. legislation and amendments to the Montreal Protocol that would phase down the production and use of HFCs such as 134a. Information will also be provided on the availability and projected cost of current HCFCs and HFCs plus forecast for new alternative refrigerants such as HFOs.



### Topics covered:

- Update your knowledge of important environmental regulations.
- Acquire detailed knowledge of phase-out schedules and future refrigerant price forecasts.
- Gain knowledge of the proposed international and domestic actions to phase down production and use of HFCs.

### Presenter:

#### **James Wolf, President, Global Policy Associates**

With more than 43 years of industry experience, Jim spent many years with Trane. He is well known in the HVAC industry, having served as the Society President of ASHRAE in 2000-2001. Jim has served as President of the Washington Industrial Round Table, President of the Washington Appliance Round Table, Chairman of the Alliance for Responsible Atmospheric Policy, and is currently Chairman of the International Policy Committee of the Business Council for Sustainable Energy. He is actively involved as a business advisor at the Montreal Protocol and Kyoto Protocol meetings. Jim received his Bachelors of Science degree in Electrical Engineering from the University of Arizona and his MBA degree from the American University. He is currently Chairman of the Climate Change Task Force, Treasurer, and serving on the Board of Directors of the Business Council for Sustainable Energy and represents the Business Council for Sustainable Energy as Head Delegate at the at the United Nations Framework Convention on Climate Change (UNFCCC) negotiations.

To Register: *Deadline to register Tuesday, December 10*

Call or email Meghan Gallagher at 585-256-2500 or [meghan.gallagher@trane.com](mailto:meghan.gallagher@trane.com) with the names of those attending.

*Space is limited.*

Visit [mariosit.com](http://mariosit.com) for directions.

**REGISTRATION FORM**

# ASHRAE 2014 WINTER CONFERENCE

New York, NY January 18-22

Last Name \_\_\_\_\_ First \_\_\_\_\_ Initial \_\_\_\_\_

Nickname (for badge) \_\_\_\_\_ Phone Number \_\_\_\_\_ FAX Number \_\_\_\_\_

Company Name (or name of school if student) \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State/Province/Country \_\_\_\_\_ Zip/Postal Code \_\_\_\_\_

**In which type of business or firm do you currently work? (check only one)**

- 01 HVAC&R Contractor/Contracting Firm
- 02 Plumbing Contractor/Contracting Firm
- 03 Mechanical Contractor/Contracting Firm
- 04 Other Primary Contractor/Contracting Firm
- 05 Consulting Engineering Firm or Individual Consultant
- 06 Architectural & Architectural/Engineering Firm
- 07 Design/Build Firms
- 08 Wholesaling/Distribution
- 09 Manufacturer's Agent/Representative
- 10 Importer/Exporter
- 11 Manufacturer of HVAC&R & other Allied Equipment and Components (OEM)
- 12 Building/Facility/Plant Management or Operations
- 13 Public Utility or Government Agency
- 14 Publishing
- 15 Education

- 16 Other Allied to Field (specify) \_\_\_\_\_
- 17 Guest/Spouse Other

**Business Focus**

- 1 Residential
- 2 Commercial
- 3 Industrial
- 4 Institutional
- 5 Guest/spouse/other

**EARLY BIRD SPECIAL**

Register by November 3 and SAVE!  
Advance registration deadline December 31.  
Full registration opens January 1, 2014.

**MEMBER #**

Member # must be supplied to receive member pricing.

**NON-MEMBER**

(Registrants paying the non-member registration fee receive first year of membership free. Completed membership application form must be submitted by March 28, 2014).

Please send hotel information (provide email address).

If you have a disability which requires special assistance, please attach a description of your requirements with your registration form to enable us to make appropriate arrangements. Contact the hotel for wheelchair availability at the New York Hilton.

E-mail \_\_\_\_\_

**Which of the following best describes your job function? (check only one)**

- 1 Owner, President, Partner
- 2 Other Senior Management (VP, General Mgr, etc.)
- 3 Engineer
- 4 Architect
- 5 Technician
- 6 Operations/Maintenance
- 7 Purchasing
- 8 Sales/Marketing
- 9 Research/Product Design & Development
- 10 Consultant
- 11 Faculty/Student
- 12 Editor/Publisher
- 13 Other Allied to Field (specify) \_\_\_\_\_
- 14 Guest/Spouse Other

**CONFERENCE REGISTRATION** includes technical program and AHR Expo. \*\*includes virtual.

**Early Bird ..... Advance ..... Full Registration**

Sept 1-Nov 3 Nov 4-Dec 31 Jan 1-22

- \$540 .....  \$565 .....  \$695 ..... ASHRAE MEMBER\*\*
- \$515 .....  \$540 .....  \$675 ..... ASHRAE MEMBER-1ST TIME ATTENDEE\*\*
- \$730 .....  \$755 .....  \$885 ..... NON-MEMBER\*\*
- \$705 .....  \$735 .....  \$860 ..... NON-MEMBER-1ST TIME ATTENDEE\*\*
- \$130 .....  \$130 .....  \$130 ..... SPEAKER\*\* (includes session chairs/forum moderators)
- \$155 .....  \$160 .....  \$165 ..... LIFE MEMBER\*\*
- \$55 .....  \$55 .....  \$55 ..... ASHRAE STUDENT MEMBER
- \$55 .....  \$55 .....  \$55 ..... ASHRAE STUDENT BRANCH ADVISOR
- \$80 .....  \$80 .....  \$80 ..... FULL TIME STUDENT NON-MEMBER
- \$0 .....  \$0 .....  \$0 ..... NEW YORK HOST COMMITTEE
- \$0 .....  \$0 .....  \$0 ..... NEW YORK-MONITORS
- \$0 .....  \$0 .....  \$0 ..... PRESS\*\*
- \$55 .....  \$55 .....  \$55 ..... SPOUSE
- \$249 .....  \$249 .....  \$249 ..... ASHRAE MEMBER-VIRTUAL
- \$445 .....  \$445 .....  \$445 ..... NON MEMBER-VIRTUAL

**ASHRAE LEARNING INSTITUTE**

**Full Day**  \$395 ASHRAE Member  \$485 Non-member

- Saturday, January 18, 8am-3pm**
  - 60 Commercial Bldg Energy Audits NEW
  - 61 Healthcare Facilities: Design & Applications
- Wednesday, January 22, 9am-4pm**
  - 77 Energy Mgmts in New & Existing Bldgs
- Tuesday, January 21, 9am-4pm**
  - 72 Energy Modeling Practice & Applications
  - 73 Changes to 90.1-2010 & IECC 2012 NEW
- Thursday, January 23, 8am-3pm**
  - 80 Complying with Std 90.1-2013 NEW
  - 81 OS&I of High-Performance Bldgs
  - 82 Bldg Enclosure Commissioning NEW

**Half-Day Courses**  \$119 ASHRAE Member  \$159 Non-member

- Saturday, January 18, 12pm-3pm**
  - 62 Electric Rates, Rules & Regulations NEW
- Monday, January 20, 2:45pm-5:45pm**
  - 69 Commissioning High-Performance Bldgs
  - 70 High-Performance Healthcare Facilities NEW
  - 71 Exceeding Std 90.1-2013 to Meet LEED® NEW
- Sunday, January 19, 2pm-5pm**
  - 63 Air-Air Energy Recovery Applications
  - 64 Lab Design: Basics & Beyond
  - 65 Optimization to HVAC&R Systems & Components
- Tuesday, January 21, 1pm-4pm**
  - 74 Fundamentals & Applications of Std 55 NEW
  - 75 Commercial GSHP NEW
  - 76 Data Center Energy Efficiency
- Monday, January 20, 8:30am-11:30am**
  - 66 CHX Efficiency Design & Operations
  - 67 High-Performance Bldg Design Applications & Trends
  - 68 IAD: Design, Construction & Commissioning NEW
- Wednesday, January 22, 9am-12pm**
  - 78 Application of Std 62.1-2013 NEW
- Wednesday, January 22, 1pm-4pm**
  - 79 Troubleshooting Humidity Control Problems

**SOCIAL EVENTS** All social events and tours will increase by approximately \$5 each Jan. 1.

QTY. BY DEC. 31 TOTAL

- 20 @ \$75
- 21 @ \$45
- 22 @ \$55
- 23 @ \$35

**Saturday, January 18**

- 20 Welcome Party, 6:30pm
- Monday, January 20**
- 21 President's Luncheon, 12:15pm
- Tuesday, January 21**
- 22 Members Night Out, 6:15pm
- 23 Life Members Lunch, 12noon

**TOURS (limited space per tour)**

QTY. BY DEC. 31 TOTAL

- 24 @ \$38
- 25 @ \$35
- 26 @ \$55
- 27 @ \$30
- 28 @ \$70

**Sunday, January 19**

- 24 NY TV & Movie Sites 1:00-4:00pm
- Monday, January 20**
- 25 Ground Zero, 2:15-6:00pm
- Tuesday, January 21**
- 26 Grand Central Terminal, 9am-12noon
- 27 Financial District, 1:30-5:00pm
- 28 Lincoln Center, 1:30-4:30pm

**TECHNICAL TOURS (limited space per tour)**

- 29 @ \$15
- 30 @ \$25
- 31 @ \$25
- 32 @ \$15
- 33 @ \$25
- 34 @ \$25
- 35 @ \$15

**Sunday, January 19**

- 29 NY Hilton, 3:30-4:30pm
- Monday, January 20**
- 30 Rockefeller Center, 3:30-5:00pm
- 31 Penn Plaza, 2:15-5:00pm
- 32 NY Hilton, 2:30-3:30pm
- Tuesday, January 21**
- 33 Penn Plaza, 12:15-3:00pm
- 34 New School Univ. Ctr., 12:15-2:45pm
- 35 NY Hilton, 3:00-4:00pm

**RESEARCH**

**ASHRAE CONFERENCE PUBLICATIONS**

Code # \_\_\_\_\_ Quantity \_\_\_\_\_ @Price \_\_\_\_\_ Total \_\_\_\_\_

Code # \_\_\_\_\_ Quantity \_\_\_\_\_ @Price \_\_\_\_\_ Total \_\_\_\_\_

**GRAND TOTAL \$** \_\_\_\_\_ (Registration fees, social events, tours, publications)

Payment must accompany registration form. ASHRAE reserves the right to charge the correct amount

**METHOD OF PAYMENT:**  CHECK ENCLOSED—(Payable to ASHRAE/NYC:14) U.S. FUNDS ONLY. CHARGE:  MasterCard  AMEX  Diners Club  VISA

CARD NO. \_\_\_\_\_ EXP. DATE \_\_\_\_\_ SIGNATURE \_\_\_\_\_

Send registration form and payment to: Meetings Section, ASHRAE, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone (404) 636-8400. FAX (678)539-2219. Deadline: Dec. 31.

Under proper safeguard ASHRAE will provide names of conference registrants to both sponsors of the ASHRAE conference and AHR exhibitors. If you do not wish to have your name and mailing address provided, please check the appropriate box.  No information from sponsors  No information from AHR exhibitors

Your advance conference registration will be confirmed by email within 2 weeks of receipt. If you do not receive a confirmation, please contact the ASHRAE Conferences Section.

# ASHRAE Learning Institute

Seminars & Courses at ASHRAE's Winter Conference and AHR Expo in New York, NY

## 2 WAYS TO REGISTER

Internet: [www.ashrae.org/newyorkcourses](http://www.ashrae.org/newyorkcourses)

Phone: Call 1-800-527-4723 (US and Canada) or 404-636-8400 (worldwide)

## Full-Day Professional Development Seminars

\$485/\$395 ASHRAE Member -- Earn 6 PDHs/AIA LUs or .6 CEUs

**Commercial Building Energy Audits NEW!**  
Saturday, Jan 18 – 8:00 a.m. to 3:00 p.m.

**Healthcare Facilities: Best Practice Design & Applications**  
Saturday, Jan 18 – 8:00 a.m. to 3:00 p.m.

**Significant Changes to Standard 90.1-2010 and IECC-2012 NEW!**  
Tuesday, Jan 21 – 9:00 a.m. to 4:00 p.m.

**Energy Modeling Best Practices and Applications**  
Tuesday, Jan 21 – 9:00 a.m. to 4:00 p.m.

**Effective Energy Management in New and Existing Buildings**  
Wednesday, Jan 22 – 9:00 a.m. to 4:00 p.m.

**Operations and Maintenance of High-Performance Buildings**  
Thursday, Jan 23 – 8:00 a.m. to 3:00 p.m.

**Complying with Standard 90.1-2013 NEW!**  
Thursday, Jan 23 – 8:00 a.m. to 3:00 p.m.

**Introduction to Building Enclosure Commissioning NEW!**  
Thursday, Jan 23 – 8:00 a.m. to 3:00 p.m.

## Half-Day Short Courses

\$159/\$119 ASHRAE Member -- Earn 3 PDHs/AIA LUs or .3 CEUs

**Electric Rates, Rules and Regulations NEW!**  
Saturday, Jan 18 – 12:00 p.m. to 3:00 p.m.

**Laboratory Design: The Basics and Beyond**  
Sunday, Jan 19 – 2:00 p.m. to 5:00 p.m.

**Air-to-Air Energy Recovery Applications: Best Practices**  
Sunday, Jan 19 – 2:00 p.m. to 5:00 p.m.

**Mathematical Optimization Techniques and their Applications:  
to HVAC&R Systems and Components**  
Sunday, Jan 19 – 2:00 p.m. to 5:00 p.m.

**Combined Heat & Power: Design through Operations**  
Monday, Jan 20 – 8:30 a.m. to 11:30 a.m.

**High-Performance Building Design: Applications and Future Trends**  
Monday, Jan 20 – 8:30 a.m. to 11:30 a.m.

**IAQ Best Practices for Design, Construction and Commissioning NEW!**  
Monday, Jan 20 – 8:30 a.m. to 11:30 a.m.

**Commissioning for High-Performance Buildings**  
Monday, Jan 20 – 2:45 p.m. to 5:45 p.m.

**Designing High-Performance Healthcare Facilities NEW!**  
Monday, Jan 20 – 2:45 p.m. to 5:45 p.m.

**Exceeding Standard 90.1-2013 to Meet LEED® Requirements NEW!**  
Monday, Jan 20 – 2:45 p.m. to 5:45 p.m.

**Data Center Energy Efficiency**  
Tuesday, Jan 21 – 1:00 p.m. to 4:00 p.m.

**Fundamentals and Applications of Standard 55 NEW!**  
Tuesday, Jan 21 – 1:00 p.m. to 4:00 p.m.

**Design of Commercial Ground Source Heat Pumps NEW!**  
Tuesday, Jan 21 – 1:00 p.m. to 4:00 p.m.

**Applications of Standard 62.1-2013: Multiple Spaces  
Equations and Spreadsheets NEW!**  
Wednesday, Jan 22 – 9:00 a.m. to 12:00 p.m.

**Troubleshooting Humidity Control Problems**  
Wednesday, Jan 22 – 1:00 p.m. to 4:00 p.m.

## HVAC Design Training

**March 17 – 19, 2014 --- Level I - Essentials --- Atlanta, GA and Toronto, Canada**

**March 20 – 21, 2014 --- Level II - Applications --- Atlanta, GA**

### HVAC Design: Level I – Essentials - Registration is \$1,239, \$989 (ASHRAE Member)

Gain practical skills and knowledge in designing, installing and maintaining HVAC systems that can be put to immediate use. The training provides real-world examples of HVAC systems, including calculations of heating and cooling loads, ventilation and diffuser selection using the newly renovated ASHRAE Headquarters building as a living lab.

### HVAC Design: Level II – Applications - Registration is \$829, \$679 (ASHRAE Member)

In two days, gain an in-depth look into *Standards 55, 62.1, 90.1, and 189.1* and the *Advanced Energy Design Guides*. Training will focus on a range of topics including: HVAC equipment and systems; energy modeling; designing mechanical spaces; designing a chiller plant; and BAS controls.

Visit [www.ashrae.org/hvacdesign](http://www.ashrae.org/hvacdesign) to register

# ASHRAE Certification Programs

Receive the recognition you deserve by earning an ASHRAE Certification at the 2014 ASHRAE Winter Conference and AHR Expo.

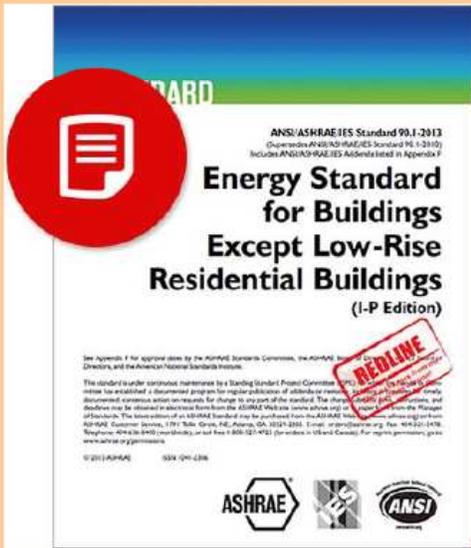
Take advantage of ASHRAE's special administration of the certification examinations on January 23, 2014. All exams will begin at 9:00 a.m. (candidates must report to the testing room at 8:30 a.m.). These exams are being offered in conjunction with the 2014 ASHRAE Winter Conference and AHR Expo in New York City. Refresh your knowledge in preparation of earning an ASHRAE certification with learning opportunities at the show and conference.

For more information, visit [www.ashrae.org/NYCExams](http://www.ashrae.org/NYCExams)



## Hot Products from ASHRAE

Latest Edition of Standard 90.1 Now Available as a Redline



Priced from \$135 (Members Pay \$115)  
Available now in I-P or SI units

Use the redline to instantly identify updates in the 2013 revision of Standard 90.1.

This expanded document compares the 2013 edition to 2010, ensuring you know exactly what changes have been made from one edition to the next.

It's an indispensable reference for engineers and other professionals involved in the design of buildings and building systems. Select the redline upgrade in print or digital format to receive two documents; the clean, active version of the standard and the redline version.

**About Standard 90.1-2013: Energy Standard for Buildings Except Low-Rise Residential Buildings (ANSI approved; IES co-sponsored)**

provides the minimum requirements for energy-efficient design of most buildings. Learn more

**About Redlines:** A redline document is a quick, easy way to compare all the changes between the active standard and the previous version. Redlines allow users to instantly identify additions, deletions, and other formatting and content changes. Learn more

Visit [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) to learn more about this and other outstanding ASHRAE publications!



Earn an ASHRAE certification while attending ASHRAE's Winter Conference and AHR Expo

ASHRAE has certified more than 1,600 HVAC professionals.  
Are you eligible to join this elite group?

The 2014 ASHRAE Winter Conference and AHR Expo in New York City will bring together more than 30,000 visitors from around the world. All six of ASHRAE's certification exams will be administered at the conference and show on **January 23, 2014**.

- [Building Energy Assessment Professional \(BEAP\)](#)
- [Building Energy Modeling Professional \(BEMP\)](#)
- [Commissioning Process Management Professional \(CPMP\)](#)
- [Healthcare Facility Design Professional \(HFDP\)](#)
- [High-Performance Building Design Professional \(HBDP\)](#)
- [Operations & Performance Management Professional \(OPMP\)](#)

To participate in this exam administration, applications must be submitted by **January 3, 2014** for the program in which you're interested. There will be no on-site registration and seating is limited. For eligibility requirements and applications, go to [www.ashrae.org/NYCExams](http://www.ashrae.org/NYCExams).

An ASHRAE certification is a distinct honor held by top professionals in HVAC&R and allied fields and is recognized as a standard of excellence worldwide. Take advantage of the opportunity to earn an ASHRAE certification while you're attending ASHRAE's Winter Conference and AHR Expo.

There are several opportunities available to help focus study efforts leading up to the exams:

- [Fall online courses](#)
- [E-learning courses](#)
- [CPMP Practice Exam](#)

# ASHRAE® Handbook ONLINE

**Immediate, Searchable, Online  
Access to both I-P and SI Editions  
of All Four Current Volumes**

For Desktop, Laptop, or Tablet

**Only \$49 for ASHRAE Members!**

- **Immediate access** as soon as you subscribe online—no waiting.
- **Immediate access to all four volumes of the ASHRAE Handbook** (Inch-Pound and SI editions). That's over 3600 pages of expert-reviewed content in each set of units for use worldwide.
- **Immediate access anywhere** you have an Internet connection—in your office—at home—on the job site. No need to carry books or CDs. Just log in wherever you are.
- **Powerful, flexible search.** Easy, effective, and fast.
- **Updated content** between print revisions. If an ASHRAE Technical Committee provides an update between print editions, you'll get it right away.
- **Copy and print** functions for your project records.



**Includes:**

**NEW! 2013 ASHRAE Handbook—Fundamentals**  
**2012 ASHRAE Handbook—HVAC Systems and Equipment**  
**2011 ASHRAE Handbook—HVAC Applications**  
**2010 ASHRAE Handbook—Refrigeration**

**With nearly 200 chapters in all,  
ASHRAE Handbook ONLINE  
covers every significant topic in HVAC&R technology.**

As an ASHRAE member, your one-year subscription for **only \$49** (list price: \$249) gives you **immediate access** to all four volumes. If purchased separately, all four volumes would cost \$780 plus shipping and handling.



*Your technical training provider presents...*  
**Air Conditioning Fundamentals 2014**

**Target Audience:** Essentially anyone who wants to broaden their base in fundamentals will greatly benefit.

- Any Direct or Indirect AM who has not had the opportunity to attend GTP
  - Perhaps a local new hire salesperson - that can't commit to 6-months at GTP
  - Someone who was promoted from within
  - A new hire that came from outside our industry
- Any BAS AE, PM, PA, Application Specialist or Estimator who wants to broaden their base in the fundamentals

**Primary Benefit:** Students will enjoy learning as much practical knowledge as possible about Air Conditioning Fundamentals. Students won't waste a great deal of time in theory. The typical student can immediately apply what he/she learns upon returning to their office. Past attendees have enhanced their overall confidence and found many ways to apply their recently acquired knowledge.

**Course Offerings (Rochester, NY):** (these classes are 3-days; Tuesday - Thursday)

- [ ] Jun 17-19 'Airside Fundamentals-II' (Duct Design, Fans & Fan Laws & Acoustics)
- [ ] Aug 19-21 'Systems Fundamentals' (HVAC Systems, Dehumidification, IceStorage-LowTempAir, Bldg Pressurization)

**Course Offerings (Harrisburg, PA):** (these classes are 3-days; Tuesday - Thursday)

- [ ] Feb 18-20 'Airside Fundamentals-I' (Load Design and Psychrometrics)
- [ ] Mar 18-20 'Refrigeration Fundamentals' (Refrig Basics, Refrig Piping, Refrig & Our Environment)
- [ ] Apr 15-17 'Energy Efficient Design Fundamentals' (Chiller-Side, Air-Side, System Controls, Energy Recovery, VRF)
- [ ] May 20-22 'Product Fundamentals' (AHU, WSHP, RTU, Chillers, Fan Coils, UV, VRF)

*Note: For more information about each of these classes, log onto [BeckerLearning.com](http://BeckerLearning.com)*

**Registration Deadline:** Each course will be filled on a first-come-first-reserved basis (established by receipt of payment).

**Contact:** Joe Becker, Becker Learning / 106 Needlewood Drive / Harrisburg, PA 17112  
 Phone: (585) 317-0000 Email: [Joe@BeckerLearning.com](mailto:Joe@BeckerLearning.com)

**More Details for 3-day courses:**

**Where:** We will hold the 3-day classes at the local hotels listed below. These hotels will hold a block of rooms at the Becker Learning discounted price up until 15-days before the class - so please make your reservations right away. All you need to do is let them know that you are part of the Becker Learning group.

- \* Rochester, NY (Greece): Homewood Suites at 400 Center Place Drive, Rochester, NY 14615 - (585) 865-8534 at the Becker Learning rate of \$114/night
- \* Harrisburg, PA: The Holiday Inn Express at 4021 Union Deposit Road, Harrisburg, PA 17109 - (717) 561-8100 at the Becker Learning rate of \$103/night

**Time:** We will start each morning at 8:00 AM and end by 5:00 PM (except Thursday when we end by 4:00 PM for travelers)

**Food:** Lunch, mid-morning and mid-afternoon snacks & drinks are provided.

**What is not included:** Transportation, other meals & lodging.

**Travel: Arrival:** Since the seminar starts at 8:00 a.m., plan to arrive the night before.

**Departure:** You can book flights out of Rochester as early as 5:30 p.m. on Thursday since our Hotel is less than 10-miles from the airport. Harrisburg flights should be booked after 6:00 pm as the hotel is a bit farther (about 30-minutes) from the airport.

**Registration:** Please fill out this form for each person attending, and mail it along with a **Check** or **Purchase Order** (made out to 'Becker Learning') to:

**Becker Learning / 106 Needlewood Drive, Harrisburg, PA 17112**

**Payment Deadline:** Complete Payment must be received prior to the start of the class.

2014 Courses: Rochester, NY: <input type="checkbox"/> Airside-II <input type="checkbox"/> Systems	
(check all that apply) Harrisburg, PA: <input type="checkbox"/> Airside-I <input type="checkbox"/> Refrigeration <input type="checkbox"/> Energy <input type="checkbox"/> Products	
Name: _____	Title: _____
Trane Office: _____	
Address: _____	
Phone: (     )	Email: _____

Type	# of Courses	\$/course	Total Cost \$	Check # or PO #
3-day		\$1,100		

*Authorizing Person*

Printed Name	Signature	Date

**\*\*\*If a PO is given, full payment must be received prior to the first day of class.**

**Cancellation Policy:**

- If someone cancels 60-days prior to the start of the class => no cancellation charge.
- If someone cancels 30-60 days prior to the start of class => 50% cancellation charge
- If someone cancels less than 30-days before the start of class, or simply doesn't show up => charged the full amount

**Teaching Methodology:**

Similar to the way Joe taught nine classes in the Graduate Training Program of The Trane Company, students will learn a concept and then immediately apply this new knowledge with an application problem. Quiz/testing will also be used to measure the overall effectiveness of the teaching. In this way, the program receives continual improvement through direct feedback.

**About the Instructor:**

Joe Becker is a graduate of the University of Wisconsin-Madison with degrees in Naval Science and Industrial Engineering (1979). He is also a Graduate from the U.S. Naval Nuclear Power School at Mare Island, California (1975). Joe is a registered Professional Engineer (Wisconsin 1990).

After nine years in the Navy, Joe resigned his Commission in the Civil Engineer Corps. Since graduating from Trane's GTP class of 83-II, he worked as a Systems Engineer in C.D.S., Marketing Engineer in the Variable Air Volume Product Group, Manager of Technical Training in GTP, Sales Engineer, Sales Manager in Rochester/Syracuse & Regional Sales Manager for the NE Territory.

Joe currently works part-time for Trane's East Territory & provides technical training through Becker Learning.



# News

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## ASHRAE Seeking Comments on Purposed Data Center Energy Standard

ATLANTA—High plug loads and rapidly advancing IT technology make data center applications significantly different from their commercial building counterparts. A purposed standard from ASHRAE that specifically addresses the unique energy requirements of data centers is open for advisory public review.

Standard 90.4P, *Energy Standard for Data Centers and Telecommunications Buildings*, is being developed in response to requests to recognize the energy performance profiles unique to data centers; previously, data centers were included in in ANSI/ASHRAE/IES Standard 90.1-2013, *Energy Standard for Buildings Except Low-Rise Residential Buildings*. Standard 90.4P will feature a performance based approach that is more flexible and accommodating of innovative changes which rapidly occur in the data center design, construction and operations, according to chair Ron Jarnagin.

Standard 90.4P is open for advisory public review from Nov. 15-Dec. 30, 2013. For more information, visit [www.ashrae.org/publicreviews](http://www.ashrae.org/publicreviews).

"The explicit needs of data centers drive a fundamentally different approach to regulating minimum efficiency requirements for the electrical and mechanical systems that support the plug loads," Jarnagin said. "By using an approach that requires compliance to a "system" level of performance, designers and end-users can utilize various trade-offs in their optimization strategies depending on their company specific business models."

Also, current industry modeling tools do not possess all the necessary mathematical models to accurately and appropriately model data center HVAC and power design. As a result, demonstrating compliance to the 90.1 Chapter 11 or energy cost budget approaches is not always a practical option. Instead, Standard 90.4P proposes to utilize a performance compliance path known as the Power Utilization Efficiency (PUE) developed by The Green Grid®.

Although there is proposed research for the development of mathematical methods and associated software tools to assist data center designers down the road; compliance with 90.4P is intended to be possible without the use of modeling tools at this time.

ASHRAE, founded in 1894, is a building technology society with more than 50,000 members worldwide. The Society and its members focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability. Through research, standards writing, publishing, certification and continuing education, ASHRAE shapes tomorrow's built environment today.

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# News

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## Papers Sought for International Conference on Efficient Building Design

ATLANTA – Papers are being sought for a conference focused on research in building design and system technologies for energy efficiency.

Organized by ASHRAE, the American University of Beirut and the ASHRAE Lebanon Chapter, the International Conference on Efficient Building Design: Materials and HVAC Equipment Technologies, takes place Oct. 2-3, 2014, in Beirut, Lebanon.

Abstracts (400 words in length) are due Jan. 6, 2014. If accepted, papers are due April 14, 2014. Authors of accepted papers are responsible for travel and registration. Hotel accommodations are free for authors presenting papers. Submittal information can be found at [www.ashrae.org/Beirut2014](http://www.ashrae.org/Beirut2014).

The Conference presents the latest research and development to improve building designs and state-of-the-art technologies in building materials and systems.

Reducing energy consumption and carbon dioxide emissions, implementing energy efficiency standards and introducing new equipment and technologies are areas seeking improvement in the Arab region, according to Nesreen Ghaddar, conference chair.

"This conference will serve as a platform for presenting advanced research in these topics with the intent to make recommendations for decision makers to implement," she said. "Specifically, direction is sought on what technology is optimal and can be adopted when phasing out HCFC refrigerants in equipment and systems in developing countries."

Topics include but are not limited to:

- Sustainable Building Designs
- Energy Efficiency Standards
- Building Materials
- Indoor Air Quality Systems
- HVAC and Different Technologies
- Solar Heating and Cooling for Built Environment
- Systems for Cooling and Water Production for Hot Humid Climates



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## ASHRAE Joins Effort to Promote Better Prepared Workforce

ATLANTA – ASHRAE has accepted an invitation from the U.S. Department of Energy (DOE) to join an effort that will improve building performance through a better prepared workforce. The goal is to advance the skill sets of engineers and other professionals involved in building design, operation and commissioning.

Under DOE leadership, a Board of Advisors has been created for the Commercial Workforce Credentialing Council (CWCC). This Board will be led by the National Institute of Building Sciences (NIBS) with the participation of ASHRAE and other credentialing and professional development organizations. They will work to establish a set of voluntary national guidelines to improve the quality and consistency of commercial building workforce credentials.

The *Better Buildings Workforce Guidelines* will reduce the confusion and uncertainty around workforce credentialing; lower costs; and support better credentials, better workers and better buildings. The *Guidelines* will set an industry-validated Job Task Analysis (JTA) for each job title, as well as certification schemes (blueprints) and learning objectives for training programs.

Initially the *Guidelines* will address commercial building workforce training and certification programs for five key energy-related jobs: energy auditor, commissioning professional, building/operations professional, facility manager and energy manager.

Three of ASHRAE's certification programs are part of this initial development:

- Commissioning Process Management Professional
- Building Energy Assessment Professional
- Operations & Performance Management Professional

Once implemented, industry certification programs must then receive accreditation from the American National Standards Institute (ANSI) in order to be recognized by DOE as meeting voluntary guidelines for the Better Buildings Workforce. This accreditation provides independent verification that the certifications are developed, maintained and administered according to the highest standards of the testing industry. ASHRAE has already begun the process of seeking ANSI accreditation in anticipation of this requirement.

"ASHRAE's involvement in this process is very important," William "Bill" Bahnfleth, ASHRAE president, said. "Participating in the development of the Guidelines gives us a voice in how the workforce of our industry will be developed. These Guidelines will ensure that quality services are provided by professionals with recognized certifications to increase consumer confidence in the service provided and ultimately to ensure the quality of our future building stock."

ASHRAE representatives recently attended an initial workshop to bring together industry stakeholders; explain the purpose of the newly created CWCC; discuss high-level questions; and provide input into the composition of the subject matter expert committees.

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## 2014 Winter Conference

### ASHRAE Technical Program Reaches for the Sky with Focus on Tall Buildings

ATLANTA – Lessons learned in the design, construction and operation of tall buildings can be applied to buildings of all sizes and stories.

A mini-conference on tall buildings is featured in the Technical Program at ASHRAE's 2014 Winter Conference, Jan. 18-22, at the New York Hilton, New York, N.Y. The International Air-Conditioning, Heating, Refrigerating Expo®, held in conjunction with the Winter Conference, runs Jan. 21-23, [www.ahrexpo.com](http://www.ahrexpo.com). The Expo, held at the Javits Convention Center, takes place Tuesday, Wednesday and Thursday as opposed to the traditional Monday, Tuesday and Wednesday.

For complete Conference information and to register, visit [www.ashrae.org/newyork](http://www.ashrae.org/newyork).

"What better place to showcase tall building design than in New York," Jon Cohen, New York Conference program chair, said. "Designing buildings with contingencies for natural disasters will benefit engineers worldwide. We should learn from how buildings respond to the disasters, and use this information to our advantage to save lives and infrastructure in the future. Environmental quality in buildings isn't just a health concern, it's a concern of the conscience. We need to do everything to ensure healthy work environments and living situations while considering the broader environmental impact."

Sessions specific to tall buildings include:

- Is ASHRAE Tall Enough for Tall Buildings?, Sunday, Jan. 19
- Linking Tall Buildings' Energy Use to Tenant Contribution to Economy, Sunday, Jan. 19
- Life Safety Issues with Tall Buildings, Tuesday, Jan. 21
- Natural Ventilation for Tall Buildings, Tuesday, Jan. 21
- Current Trends in Tall Building Designs, Tuesday, Jan. 21
- Specific Engineering Solutions for Tall Buildings, Tuesday, Jan. 21
- ASHRAE and Tall Buildings, Tuesday, Jan. 21
- Trends in Building Energy Disclosure: Increasing Energy Efficiency without Retrofits, Tuesday, Jan. 21 (AHR Expo session)
- Fire Safety Concern for Supertall Buildings, Wednesday, Jan. 22
- Data Center Control and Fire Safety in Tall Buildings, Wednesday, Jan. 22



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## **ASHRAE 2014 Winter**

### **Learn More about Requirements of 2013 ASHRAE Standards at Learning Institute Courses**

ATLANTA – With new versions of ASHRAE’s energy, indoor air quality and thermal comfort standards being published this year, users face new requirements.

Courses addressing the updates in those standards are featured at ASHRAE’s 2014 Winter Conference, Jan. 18-22, at the New York Hilton, New York, N.Y. The International Air-Conditioning, Heating, Refrigerating Expo®, held in conjunction with the Winter Conference, runs Jan. 21-23, [www.ahrexpo.com](http://www.ahrexpo.com). The Expo, held at the Javits Convention Center, takes place Tuesday, Wednesday and Thursday as opposed to the traditional Monday, Tuesday and Wednesday.

For complete Conference information and to register, visit [www.ashrae.org/newyork](http://www.ashrae.org/newyork).

Twenty-three Professional Development Seminars and Short Courses are being offered by the ASHRAE Learning Institute.

Of special interest are courses related to ANSI/ASHRAE Standard 62.1-2013, *Ventilation for Acceptable Indoor Air Quality*, and ANSI/ASHRAE/IES Standard 90.1-2013, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, both of which were recently published, along with the soon-to-be-published Standard 55-2013, *Thermal Environmental Conditions for Human Occupancy*.

“Throughout the HVAC&R and building construction industries, ASHRAE is the source of knowledge for energy efficiency, indoor air quality and thermal comfort in the built environment,” Hugh McMillan, chair of the ASHRAE’s Professional Development Committee, said. “ASHRAE publishes standards that establish baselines used to measure performance of buildings in those areas. As our knowledge base evolves, our standards must also evolve to reset the baseline. So that our members and others can stay abreast of the latest developments in this knowledge base, we offer courses in the application of these standards that allow those who attend to apply the latest developments to the design and construction of their projects.”

More information about the courses can be found at [www.ashrae.org/newyorkcourses](http://www.ashrae.org/newyorkcourses).

Also in New York, ASHRAE launches its new Career Enhancement Curriculum. These curricula offer tracks of courses in Energy Savings (ES) Practices and IAQ Practices. More can be learned about this new program by visiting our website at [www.ashrae.org/careerpath](http://www.ashrae.org/careerpath).



# News

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## Saturday, Jan. 18, 2014

- NEW! Commercial Building Energy Audits, 8 a.m.-3 p.m.
- Healthcare Facilities: Best Practice Design and Applications, 8 a.m.-3 p.m.
- NEW! Electric Rates, Rules and Regulations, 12 p.m.-3 p.m.

## Sunday, Jan. 19, 2014

- Air-to-Air Energy Recovery Applications: Best Practices, 2 p.m.-5 p.m.
- Laboratory Design: The Basics and Beyond, 2 p.m.-5 p.m.
- Mathematical Optimization Techniques and their Applications to HVAC&R Systems and Components, 2 p.m.-5 p.m.

## Monday, Jan. 20, 2014

- Combined Heat and Power: Design through Operations, 8:30 a.m.-11:30 a.m.
- High-Performance Building Design: Applications and Future Trends, 8:30 a.m.-11:30 a.m.
- NEW! IAQ Best Practices for Design, Construction and Commissioning, 8:30 a.m.-11:30 a.m.
- Commissioning for High-Performance Buildings, 2:45 p.m.-5:45 p.m.
- NEW! Designing High-Performance Healthcare Facilities, 2:45 p.m.-5:45 p.m.
- NEW! Exceeding Standard 90.1-2013 to Meet LEED Requirements, 2:45 p.m.-5:45 p.m.

## Tuesday, Jan. 21, 2014

- Energy Modeling Best Practices and Applications (Co-sponsored by IBPSA-USA and Rocky Mountain Institute), 9 a.m.-4 p.m.
- NEW! Significant Changes to Standard 90.1-2010 and IECC 2012, 9 a.m.-4 p.m.
- NEW! Fundamentals and Applications of Standard 55, 1 p.m.-4 p.m.
- NEW! Design of Commercial Ground Source Heat Pumps, 1 p.m.-4 p.m.
- Data Center Energy Efficiency, 1 p.m.-4 p.m.

## Wednesday, Jan. 22, 2014

- Effective Energy Management in New and Existing Buildings, 9 a.m.-4 p.m.
- NEW! Application of Standard 62.1-2013: Multiple Spaces Equations and Spreadsheets, 9 a.m.-12 p.m.
- Troubleshooting Humidity Control Problems, 1 p.m.-4 p.m.

## Thursday, Jan. 23, 2014

- NEW! Complying with Standard 90.1-2013, 8 a.m.-3 p.m.
- Operations and Maintenance of High-Performance Buildings, 8 a.m.-3 p.m.
- NEW! Introduction to Building Enclosure Commissioning, (Co-sponsored by Building Enclosure Commissioning Collaborative), 8 a.m.-3 p.m.