

VOLUME 11, ISSUE 7

FEBRUARY 2017

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February ASHRAE Meeting

Topic: Data Center and Critical Space Cooling
Technology Advancements

Presenter: Mike DeGaetano, RL Kistler Inc.

When: Monday February 13th, 2017

Where: City Grill
384 East Ave, Rochester

Cost: \$25.00



Please RSVP by noon Thursday, February 9th to Tim Duprey
tim.duprey@pres-services.com

Statements made in this publication are not expressions of the Society or of the chapter and may not be reproduced without special permission of the chapter.



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(585) 289-6816
jeff.close@pres-services.com

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Christina Walter (585) 486-2148
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Buyer's Guide

Branden Farnsworth-Weinblatt, PE
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ASHRAE 2016-2017 Meeting Schedule			
Date	Event	Theme	Location
Friday, 2/10/2017	ASHRAE Valentines Dinner Dance	60th Anniversary	Century Club
Monday, 2/13/2017	Data Center and Critical Space Cooling Technology Advancements (presented by Mike DeGaetano, RL Kistler Inc)	Membership Promotion (PDH Approved)	City Grill @ 12:00 PM
Monday, 3/13/2017	ASHRAE Building Energy Quotient (bEQ) (presented by Hoy Bohanon, PE, President, Hoy Bohanon Engineering, PLLC)	Resource Promotion (PDH Pending)	City Grill @ 12:00 PM
Monday, 4/10/2017	Refrigeration Tour	Refrigeration Night (PDH Pending)	TBD
Tuesday, 4/18/2017	Rochester Engineering Symposium	7 PDH Possible	Rochester Hyatt Hotel
Monday, 5/8/2017	Annual ASHRAE Golf Outing and Picnic (Ravenwood Golf Course)	---	9:30 AM Golf 4:30 - 8:00 Picnic

Note: Dates, topics and presenters are subject to change, but if this happens we will post any updates to the calendar on our website.

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 February Message

February Newsletter 2017
President's Message

Our meeting in January was on "Cleanroom Design Considerations from a Certifiers Perspective" presented by Ralph Kraft. The turnout was great, thanks to everyone who attended.

Last month I had the privilege of attending my first ASHRAE Winter Conference and AHR Expo in Las Vegas. To say this was an experience is an understatement. The AHR Expo had over 2,000 exhibitors showing off their latest and greatest technology. If you have never been to the ASHRAE show I highly recommend you put it on your calendar for next year.

On Friday, February 10th, 2017 the Rochester ASHRAE Chapter will be hosting its 60th Annual Valentine Dinner Dance. Jody and Matthew McGarry put on a fantastic event. Please consider contributing to this event and joining us. It is a terrific time with fantastic food, music and fun.

In February our Chapter Meeting will be on "Data Center and Critical Space Cooling Technology Advancements" present by Mike DeGaetano, R.L. Kistler, Inc.



Jeff Close, 2016-2017 President

Please continue to check out our website at www.rochester.ashraechapters.org for information on upcoming chapter meetings, current officer list and contact information, chapter newsletters, and more! Also take a minute and like us on Facebook at www.facebook.com/#!/ashraerochester.

Jeffrey Close, P.E.
2016-2017 President
Rochester Chapter

February Meeting Info

Please consider joining us for this upcoming monthly meeting and/or please forward this e-mail to anyone you may think would be interested in attending or benefit from this presentation.

February ASHRAE Meeting << PDH APPROVED>>

Date: Monday, February 13th, 2017

Location: City Grill

Time: 12pm Lunch Buffet .. Presentation to start approx. 12:30pm

Cost: \$25.00

Speaker: Mike DeGaetano, RL Kistler, Inc..

Topic: Data Center and critical Space Cooling
Technology Advancements

Note: (1) PDH {Approved}

Remember, as an option, we have on-line payments available via PayPal
(no PayPal account required)

<< Pay for Meeting Registration online via PayPal >>

Use the following link: <http://rochester.ashraechapters.org/meetings.html>

Cash or check payment is still accepted at the door with your reservation.

Please RSVP no later than noon Thursday February 9th to Tim Duprey

Phone: 585.330.6430 or e-Mail ... ASHRAERochester@gmail.com, tim.duprey@pres-services.com or tduprey@rochester.rr.com.

Highlights from January ASHRAE Meeting



January's ASHRAE Meeting featured Ralph Kraft from R. Kraft, Inc. on "Cleanroom Design Considerations from a Certifiers Perspective".





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, Jeff Close at (585) 289-6816 or by email jeff.close@pres-services.com.

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

Job ID / Location	2016-25804: US-NY-Rochester (1 position) 2016-25927: US-NY-Endicott (1 position)	
Minimum Experience (Years)	7	
Discipline	Buildings Engineering	

Your Opportunity:

Our Buildings Engineering group specializes in the design and development processes unique to buildings. Working closely with our clients, our dedicated professionals help to establish and understand the needs of a range of building projects. This is where great ideas and rewarding careers are built. For both public and private sector clients, we provide unique plan checking capabilities as well as energy engineering and performance engineering services, covering each of the major engineering disciplines-structural, mechanical, and electrical. In addition, we bring together innovative and functional design solutions for companies involved in the discovery, research and development, and commercial scale manufacturing of pharmaceuticals, biotechnology, and medical device products. Focused on providing cost-effective solutions to engineering challenges, we are involved in a diverse range of projects from the initial planning stages to design, construction, and commissioning. Our structure cultivates career growth and provides opportunities as unique as you are.

Your Duties:

- Duties will include but are not limited to preparation of project proposals and resulting contracts, project implementation plans, resource planning, quality control and design review, project team review and coordination, client, and financial management.
- May assist as mechanical engineering lead overseeing the engineering & design of plumbing / fire protection / HVAC and other mechanical systems for new and renovated buildings.
- Mechanical engineering - actual designs including the completion of code reviews, preparation of the basis of design, system calculations, mark-up of drawings, specification preparation, field investigations, construction estimating and site inspections and other such design as required to execute the mechanical construction for new or renovated buildings.
- May perform project manager duties as needed.
- Some travel to site locations or other Stantec offices may be required.

Your Capabilities and Credentials:

The successful candidate will possess:

- Requires a B.Sc. Mechanical Engineer
- NYS PE desired, registration in other states a plus
- 7+ years' experience required
- Must have strong Mechanical Engineering skills in Plumbing, Fire Protection, HVAC, and related mechanical systems
- Prior management experience is a plus
- Prior consulting engineering experience is required
- Experience using Autocad, Revit, Trane Trace or Equest is a plus
- Excellent verbal and written communication skills
- Excellent interpersonal skills with team members and clients

We put people first, and it shows. We're proud to be one of New York's Best Places to Work, as named by The Business Council of New York and NYS-SHRM.

Please apply online directly at:

- (Rochester) <https://jobs-stantec.icims.com/jobs/25804/senior-mechanical-engineer---buildings/job>
- (Endicott) <https://jobs-stantec.icims.com/jobs/25927/senior-mechanical-engineer---buildings/job>

Presidential Award Of Excellence



Download



Achievements



Report

Chapter:

Fiscal Year:

▶ Chapter Operations	Par: 1200	Min Points: 600	Total Points: 1550
▶ Chapter Technology Transfer	Par: 1050	Min Points: 450	Total Points: 775
▶ Grassroots Government Advocacy	Par: 650	Min Points: 500	Total Points: 300
▶ Historical Criteria	Par: 300	Min Points: 100	Total Points: 485
▶ Membership Promotion	Par: 800	Min Points: 500	Total Points: 1450
▶ RP	Par: 1050	Min Points: 800	Total Points: 850
▶ Student Activities	Par: 500	Min Points: 300	Total Points: 900

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. Keep up to date with current events and photos from recent meetings.

Rochester Chapter

Committee Chairs Updates

YEA

Young Engineers (YEA)

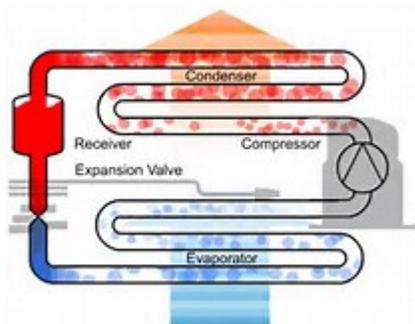
YEA Leadership Weekend

YEA Leadership weekend March 3-5 in Denver. This is an excellent opportunity to interact with other young engineers from throughout the country, and to develop skills to further your career. All registration and travel expenses will be paid! Contact Matt Kremers at mkremers@mcsmms.com.

Refrigeration

Refrigeration Night

Save the date! Plans are underway for “Refrigeration Night” on Monday April 10th at Allied Frozen Storage on State Street in Brockport. The focus will be on a group of beet warehouses with equipment varying from a 140 HP dual Blitzer Compact Screw compressor unit to a packaged chiller with glycol as a secondary coolant. There is also a variety of evaporator types and technologies and electronic control systems. Our host will be Peter Brennan, VP, Crosby-Brownlie, Inc.



Dinner plans still to be determined ... more information to follow in the February and March newsletters.

Rochester Chapter

Committee Chairs Updates

Membership Promotion

We have new members since November, if you see them, please welcome them!

Mr Nicholas Dalton	Associate
Mr Evan DeCotis	Associate
Mr Sean T Cavanaugh	Associate
Mr Nicholas A Pegoli	Associate
Dr Jon P Owejan	Associate
Mr Andrew R Sillato	Member
Mr Joe Richards	Member

Please remember to take a few minutes to make sure that your profile is up to date at www.ASHRAE.org. Keeping this information current ensures that you get the most value out of ASHRAE.

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



ASHRAE
Rochester Chapter

Membership Promotion

Join Online
ashrae.org/membership

ASHRAE Rochester Chapter
Rochester.ashraechapters.org

Michael Benedict
(585) 490-2661
mike@airsystemsbalancing.com

Rochester Chapter

Committee Chairs Updates

Student Activities

Fellow ASHRAE members,

Part of the purpose of ASHRAE is to share our engineering knowledge, experience and passion to students. High school is a critical time to learn about various career opportunities to determine what a young adult wants to spend their life pursuing. Our goal, as a professional society, is to educate students so they can make a decision: Is engineering a potential career path? For some, the answer is a definitive “no”, and that is ok. For others, we can help them determine if they should continue learning about engineering.

We have a great opportunity to reach out to three different high schools in our area, and I need volunteers to help. We will be speaking about engineering in general, and then touch on how each presenter went from a high school student to their current careers. These students will also be interested to hear about our daily activities, from being on construction sites, to calculations, to meetings. The schools districts we have been asked to visit are:

- East Irondequoit
- Pittsford

Naples

The dates and times are slightly flexible based on those who wish to volunteer. We are aiming for 2/14, 2/15 or 2/16, with times ranging from 7:30am through 2:00pm.

Please let me know by Friday February 3, 2017 so I can get this solidified with the schools!

Thank you,

Robert Hudson, PE, CEM, BEMP

Energy Engineer | HVAC Engineer

IBC Engineering, P.C.

Rochester | Buffalo

P: 585 - 292 -1590

E: rhudson@ibceng.com

www.ibceng.com



You are cordially invited to the

60th Annual Valentine's Dinner Dance

Hosted by ASHRAE Rochester

Friday, February 10, 2017

The Century Club
566 East Ave
Rochester, New York

7:00pm Reception - Hors d'oeuvres & cocktails
8:00pm Dinner - As you select
9:15pm Dessert, Coffee and Dancing



Menu Selections

Roasted Soy-Miso & Maple Glazed Chilean Sea Bass
Herb Roasted Free Range Chicken Breast
Wood Roasted 4oz. Filet & Red Wine Beef Shortrib
Chef's Choice Vegetarian Option Available

For reservations, please mail or fax this registration form by January 23, 2017.

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 \$75* per person = \$_____ (enclosed)

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

Stay at The Strathallan for \$159 a night!



December 29, 2016

Dear ASHRAE Members,

On Friday, February 10, 2017, ASHRAE will be hosting its 60th Annual Valentine Dinner Dance at The Century Club. ASHRAE is asking for your corporate support to donate \$375.00, billed to you as an advertising expense, to help defray the cost of this event. 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.

Your \$375 sponsorship comes with two complimentary dinners to the event, but this year, we're giving our sponsors a chance to save on more tickets! If you would like to sponsor the event and reserve a table for 10, consider becoming a gold-level sponsor. For \$825, you'll receive a reserved table, 10 dinners, and special "gold-level" sponsor designation.

As always, 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



Invoice

Advertising for February 2017 Promotion

(Check One)

Sponsor: \$375

Gold-Level Sponsor: \$825

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 2017 Promotion and agree to fulfill our commitment.

Company Name_____

Signed by_____

Date signed_____

Please return your check or commitment no later than January 23, 2017 to ABR Wholesalers, Inc. Thank you for your support.

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

Board of Governors Meeting Minutes



Rochester Chapter - ASHRAE

Board of Governors Meeting

January 6, 2017 @ 7:30 AM

Day Automation, 7931 Rae Blvd, Victor, NY 14564
(Call in #1-712-432-0360, Access: 137504#)

President / CRC Delegate	Jeff Close	X
President Elect / Program/ CRC Alternate	Bill Clark	X
Treasurer	Paul Kenna	X
Secretary	Tom Streber	X
Immediate Past President & Nominating	Chris Walter	X
Board of Gov. (3) & Attendance Chair	Tim Duprey	X
Board of Gov. (3) / Buyers Guide	Branden Farnsworth-Weinblatt	
Board of Gov. (2) & Refrigeration Co-Chair	Sam Scorsone	
Board of Gov. (2) & Website Chair	Steve Dear	
Board of Gov. (1) & Membership Promotion (MP)	Mike Benedict	X
Board of Gov. (1)	George Herman	X
Historian Chair	Jake Hall	X
Newsletter Editor	Scott Edwards	X
Resource Promotion Chair (RP)	Matt Devlin	
Awards & Recognition Chair	Al Rodgers	
Chapter Technology Transfer Chair (CTTC)	Jeff Wiedrick	X
Education	Bill Murray	
Publicity	Mark Kukla	
YEA Chair (Young Engineers in ASHRAE)	Matt Kremers	

Board of Governors Meeting Minutes



Rochester Chapter - ASHRAE

Board of Governors Meeting

January 6, 2017 @ 7:30 AM

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Student Activities Chair (SA)	Rob Hudson	X
Picnic/Golf Chair & CRC 2016 Committee Chair	Jim Browe	
Valentine's Dinner Dance	Jody McGarry	X
Grassroots Government Advocacy Chair	Tom Burke	
Refrigeration Co-Chair	Mike Nohle	
Women in ASHRAE	Jaimee Wilson	
Attendance Co-Chair	Brett Fryover	X

AGENDA

1. Call to Order Jeff Close
2. Roll Call Tom Streber
3. Review and Approval of Previous Meeting Minutes All
4. Treasurer Paul Kenna
 - Current Statement Balances.
 - 2016-2017 P&L Update - Ahead of budget.
5. President Elect/Program Bill Clark
 - Schedule Update
 - i. January meeting is PDH approved.
 - ii. February meeting is in review.
 - Engineering Symposium - April 18th.
 - Bill to check with Matt Devlin regarding skeet shoot.
6. Attendance Tim Duprey
 - 94 attendees at December meeting.
 - i. 27 non-members attending.
 - ii. 40 first time visitors.
 - 36 current reservations.

Board of Governors Meeting Minutes



Rochester Chapter - ASHRAE

Board of Governors Meeting

January 6, 2017 @ 7:30 AM

Day Automation, 7931 Rae Blvd, Victor, NY 14564
(Call in #1-712-432-0360, Access: 137504#)

7. CTTC Report Jeff Wiedrick
- Project submission by May 1, 2017. To review at last BOG meeting.
 - Submit newsletter article on submission categories
8. Membership Report Mike Benedict
- 268 Total members (244 non-student, 24 student).
 - Membership up (4) from December and (12) from June 2016.
 - Membership upgrades.
 - New members past 30 days ((10) YEA, (3) Associate, (0) Full).
 - New members to be included in newsletter distribution.
9. Student Activities Report Rob Hudson
- Student chapter status (MCC or RIT) - no response.
 - Rob to reach out to:
 - i. Kevin French (RIT HVAC).
 - ii. Pat Cirincione (MCC Applied Tech).
 - iii. BOCES.
 - Engineer's week volunteers - no volunteers as of yet.
10. Education Report Bill Murray
- Scholarship - Jeff C. to reach out to Craig (ASHRAE Society) for proper distribution protocol.
11. YEA Report Matt Kremers
- Leadership weekend (2-registered / 2-waiting)
 - Future site visit - possibly UL Lab.
12. Awards & Recognition Report Al Rodgers
- Would like list by April's meeting.
13. Resource Promotion Report Matt Devlin
- \$11,900 (current) vs. \$19,000 (goal)

Board of Governors Meeting Minutes



Rochester Chapter - ASHRAE

Board of Governors Meeting

January 6, 2017 @ 7:30 AM

Day Automation, 7931 Rae Blvd, Victor, NY 14564
(Call in #1-712-432-0360, Access: 137504#)

14. Refrigeration Report Mike Nohle/Sam Scorsone
- Tour options - no update.
15. Grassroots Government Advocacy Report Tom Burke/George Herman
- Monroe County Fire Marshalls and Inspectors Assoc. - May present in future meeting.
16. Newsletter Report Scott Edwards
- Valentine's Dance included.
 - Committee submissions
 - Newsletter deadline
 - RES deadline
17. Buyers Guide Branden Farnsworth-Weinblatt
- Chris W. to reach out to Marianne.
 - Plan/schedule for this year
 - Potential for business card ads
18. Historian Report Jake Hall
- Digitizing archive status.
 - Preparing Mid-Year report for Region.
 - Chapter time-line to be added to the website for PAOE points.
 - i. Jake to prepare a rough draft for next meeting.
 - Invite life members to meetings
19. Publicity Report Mark Kukla
- Facebook & Linked In
20. Website Report Steve Dear/Kevin Wind
- Monthly updates (schedule, newsletter, BOG MM's).
 - Need to update:
 - i. Society & Regional level members (check spelling).
 - ii. Valentine's Dance information.
 - iii. Add "History" tab.

Board of Governors Meeting Minutes



Rochester Chapter - ASHRAE

Board of Governors Meeting

January 6, 2017 @ 7:30 AM

Day Automation, 7931 Rae Blvd, Victor, NY 14564
(Call in #1-712-432-0360, Access: 137504#)

21. Nominating Report Chris Walter
- Announce at Feb meeting.
 - Nominating Committee to be announced at Jan. Chapter Meeting.
 - Need (2) BOG nominee and (1) Secretary nominee.
22. Women in ASHRAE Jaimee Wilson
- Book club (April) and ice cream social (June) are scheduled.
23. Valentines Dinner Dance Report Jody McGarry
- February 10th at the Century Club (East Ave).
 - Looking for sponsors.
24. Golf/Picnic Report Jim Browe
25. Presidential Award of Excellence (PAOE)
- Ahead of schedule total points.
26. New Business:
- RES Gala Sponsorship
 - i. Chapter to sponsor as RES Affiliate (\$720).
 1. Silent auction item is required (>\$100 value).
 - ii. Event is in April.
27. Old Business:
- BSA STEM program.
 - Engineering Symposium 4/18.
 - i. 2/23 Draft presentation submission deadline.
 - ii. Need (3) presentors.
 - CRC financials are complete. Surplus funds were split with Region I.
28. Set next BOG Meeting date / time / place.
- Friday, February 10th @ 7:30 AM, Day Automation Office.
29. Adjourn - 8:43 am.



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 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 to join!**



Shaping Tomorrow's
Built Environment Today

ASHRAE Handbook Online fits your needs, and now it fits your screen. Starting now, with a new responsive design,

- On tablets and desktops, text reflows to fit your screen comfortably: vertical or horizontal, and a wide range of window sizes.
- You can customize the font size to your preference and needs.
- The navigation menu retracts, so more of your screen real estate is devoted to reading space (which is what you are really there for).
- Improved mobile device toolbar scrolls with the page, sticking at the top.



With these improvements, **ASHRAE Handbook Online** makes it easier than ever for you to search across all volumes, print, ask questions about technical content, access bonus features, and look up new terminology.

Current subscribers can enjoy these features now. And eligible ASHRAE members can choose an ASHRAE Handbook Online subscription as a free member benefit when they renew their membership.

Log in or subscribe now to check out these new responsive features.

<http://eweb.ashrae.org/eweb/DynamicPage.aspx?webcode=hbo&site=handbook>

Upcoming 2017 Online Courses

Online instructor-led courses presented in real-time from ASHRAE Learning Institute
CEU/PDH Credits Available



Two Ways To Register

\$284 (ASHRAE Member \$219)

**Two-part courses: \$484
(\$359 ASHRAE Member)**

1. Internet

www.ashrae.org/onlinecourses

2. Phone

Call toll-free at
1-800-527-4723 (US and Canada) or
404-636-8400 (worldwide)

Earn Continuing Education Credits

Courses are archived for a period of time after their initial presentation.

February Courses

February 8th

Basics of High-Performance Building Design

This course focuses on the basic application of relevant ASHRAE resources, such as Standards 90.1, 55, 62.1 and 189.1 and the ASHRAE Green Guide, to achieve High-Performance Building Design. The course explains the differences in purpose and requirements between these various Standards and provides recommendations on selection of which requirements to adopt into a building project assuming it is not under the jurisdiction of Standard 189.1 but the design team still wanted to achieve a reasonable degree of "High Performance Building Design". Course content should be suitable for architects and engineers.

Instructor: Tom Lawrence, Ph.D., P.E., Member ASHRAE, LEED® AP

Earn Continuing Education Credits

Courses are archived for a period of time after their initial presentation.

February Courses

February 14th

Designing Toward Net-Zero Energy Commercial Building

This course provides application knowledge of the design and operating principles for energy efficient buildings and available technologies and systems to achieve net-zero energy building design. Building design strategies, review of current policy and regulation, energy, environmental and economic assessment of building's performance, energy efficiency in HVAC, lighting and appliances, and on-site renewable energy sources are reviewed.

Instructor: [Frank Mills, C.Eng., Member ASHRAE](#)

February 21st

ASHRAE Guideline 0: The Commissioning Process

This course targets building owners, facility managers, design engineers, building designers, architects, equipment manufacturers, and others interested in the commissioning process as outlined in Guideline 0. The course focuses on process, intent, activities and deliverables. It is intended as an entry-level course that will provide attendees with a fundamental background of the ASHRAE-promoted commissioning process.

Instructor: [Walter Grondzik, P.E., Fellow ASHRAE, LEED® AP](#)

February 27th

Commissioning Process & Standard 202

ASHRAE Standard 202, the recently published code-language representation of ASHRAE's long-established commissioning process requirements, is the focus of this course. The objective of this course is to provide an understanding of the commissioning process as described by Standard 202, to explain how and why the Standard 202 commissioning process differs from the Guideline 0 process, and to explore how compliance with the standard is likely to evolve.

Instructor: [Walter Grondzik, P.E., Fellow ASHRAE, LEED® AP](#)

Online Courses Scheduled Later in the Year Register Now to Reserve Your Seat

NEW! Fundamental Requirements of Standard 62.1-2016

Thur, March 9, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: Hoy Bohanon, P.E., Member ASHRAE, BEAP, LEED® AP

Commissioning Process in New & Existing Buildings

Part 1 - Mon, March 13, 2017, 1:00 pm to 4:00 pm, EDT

Part 2 - Wed, March 15, 2017, 1:00 pm to 4:00 pm, EDT

(Registrants must attend both parts in order to receive credits)

Instructor: Rick Casault, P.E., Member ASHRAE

Design of Affordable and Efficient Ground Source Heat Pump Systems

Wed, March 29, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: Steve Kavanaugh, Ph.D., Fellow ASHRAE

NEW! Complying with Standard 90.1-2016: Envelope/Lighting

Wed, April 5, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: Joe Deringer, AIA, Member ASHRAE, LEED® AP

NEW! Complying with Standard 90.1-2016: HVAC/Mechanical

Tues, April 11, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: McHenry Wallace, P.E., Member ASHRAE, LEED® AP

NEW! Complying with Standard 90.1-2016: Appendix G

Tues, April 18, 2017, 1:00 pm to 4:00 pm, EDT

Instructors: McHenry Wallace, P.E., Member ASHRAE, LEED® AP
and Joe Deringer, AIA, Member ASHRAE, LEED® AP

Air-to-Air Energy Recovery Fundamentals

Wed, May 3, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: Paul Pieper, P.Eng., Member ASHRAE

Air-to-Air Energy Recovery Applications: Best Practices

Tues, May 9, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: Paul Pieper, P.Eng., Member ASHRAE

Humidity Control: Basic Principles, Loads and Equipment

Tues, June 13, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: Lew Harriman, Fellow ASHRAE

Online Courses Scheduled Later in the Year Register Now to Reserve Your Seat

Humidity Control: Applications, Control Levels and Mold Avoidance

Tues, June 20, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: Lew Harriman, Fellow ASHRAE

NEW! New ASHRAE-Classified Refrigerants to Meet Society's Changing Needs

Tues, July 11, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: Thomas Leck, Ph.D., P.E., Member ASHRAE

Advanced High-Performance Building Design

Wed, August 9, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: Jeff Ross-Bain, P.E., Member ASHRAE

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NEW! Fundamental Requirements of Standard 62.1-2016

Wed, September 6, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: Hoy Bohanon, P.E., Member ASHRAE, BEAP, LEED® AP

Designing High-Performance Healthcare HVAC Systems

Tues, September 19, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: Dan Koenigshofer, P.E., Member ASHRAE, HFDP

Laboratory Design: The Basics and Beyond

Tues, October 10, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: John Varley, P.E., Member ASHRAE, HBDP, LEED® AP

Introduction to Ultraviolet Germicidal Irradiation (UVGI) Systems

Mon, October 16, 2017, 1:00 pm to 4:00 pm, EDT

Instructor: William Bahnfleth, Ph.D., P.E., Presidential/Fellow ASHRAE

NEW! Complying with Standard 90.1-2016

Part 1 - Wed, November 1, 2017, 1:00 pm to 4:00 pm, EDT

Part 2 - Tues, November 7, 2017, 1:00 pm to 4:00 pm, EST

(Registrants must attend both parts in order to receive credits)

Instructors: McHenry Wallace, P.E., Member ASHRAE, LEED® AP
and Joe Deringer, AIA, Member ASHRAE, LEED® AP

NEW! New ASHRAE-Classified Refrigerants to Meet Society's Changing Needs

Tues, December 5, 2017, 1:00 pm to 4:00 pm, EST

Instructor: Thomas Leck, Ph.D., P.E., Member ASHRAE

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For Release:
Jan. 3, 2017
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ASHRAE Announces Topics for New Building Performance Analysis Conference

ATLANTA – ASHRAE has announced the topics and a call for presenters for its new Building Performance Analysis Conference, formerly known as the ASHRAE Energy Modeling Conference.

This year's conference addresses energy modeling, the core topic of the past four conferences, and expanded subject matter which now encompasses non-energy building performance analysis and simulation and those professionals responsible for that work. The conference program addresses the needs of designers and modelers.

"This conference engages the design aspect of modeling and simulation," Dennis Knight, conference chair, said. "The conference topics address the work of HVAC engineers, architects and other building design professionals who rely on simulation and modeling tools to perform their day-to-day work and meet their standard of care."

The 2017 ASHRAE Building Performance Analysis Conference takes place Sept. 27-29, 2017, in Atlanta, Ga. A call for presenters is now open for presentations that address the following conference topics:

- Modeling for and during the design phase (includes thermal comfort, visual comfort, water, and health, safety and welfare)
- Early design modeling and concepts
- Modeling innovative or new technologies
- Existing building modeling
- Model validation and calibration
- Data visualization
- Future trends in modeling
- Making the business case for modeling

Presentation proposals are due March 13, 2017, and decisions will be announced April 3, 2017.

"The conference's goal is to serve practitioners with the most up-to-date best practices, work flows and processes required to plan, design, construct and operate high performing, low energy consuming, environmentally responsive and responsible, safe, secure and healthy buildings for human occupancy," Knight said.

The conference program will include keynote speakers, invited speaker sessions, other program types and presentations and the ASHRAE LowDown Showdown modeling competition.

For more information or to submit a presentation proposal, visit www.ashrae.org/BuildPerform2017.

ASHRAE, founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. The Society and its more than 56,000 members worldwide 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. More information can be found at www.ashrae.org/news.

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Jan. 4, 2017
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2016 Versions of ASHRAE Refrigerant Standards Published

ATLANTA – The 2016 editions of ASHRAE's major refrigerants-related standards have been published as a package with 30 new refrigerants and refrigerant blends added.

ANSI/ASHRAE 15, *Safety Standard for Refrigeration Systems*, and its sister standard, ANSI/ASHRAE 34, *Designation and Safety Classification of Refrigerants*, constitute a complete set of requirements for the safe design, construction and application of refrigeration systems used in a wide variety of residential, commercial and industrial applications.

For both of the standards, the updates come from a continuing stream of changes made based on new science and research, experience, and proposals from designers, manufacturers and users.

The 2016 edition of Standard 15 incorporates addenda *a*, *b*, *c*, *e* and *g* to Standard 15-2013, which comprise the following changes:

- Incorporated changes to ensure improvement in the safe design, construction, installation and operation of refrigeration systems
- Updated requirements for safety relief systems, including revisions to relief vent pipe discharge locations and design provisions for headered relief vent systems
- Updated design pressure requirements applicable to systems using carbon dioxide
- Modified overpressure protection for heat exchangers and pressure limiting devices for positive displacement compressors

The 2016 edition of Standard 34 incorporates 35 addenda to the 2013 edition. Among the key changes to the 2016 edition are the following:

- Added three new refrigerants and 27 new refrigerant blends
- Changed the source of the WEEL (Workplace Environmental Exposure Levels) values from AIHA (American Industrial Hygiene Association) to TERA OARS-WEEL (Toxicology Excellence for Risk Assessment/Occupational Alliance for Risk Science)
- Changed requirements for the refrigerant application process
- Changed the requirement for submission of standard test result data to validate the method used to determine burning velocity
- Changed units required for refrigerant designation to require the submission of dual units
- Revised R-744 toxicity data for the RCL, LC₅₀, cardiac sensitization NOEL, anesthesia NOEL, ATEL, RCL and ATEL source

The cost of ASHRAE Standards 15 and 34, which are packaged together, is \$95 for ASHRAE members (\$112, non-members). To order, visit www.ashrae.org/bookstore or contact ASHRAE Customer Contact Center at 1-800-527-4723 (United States and Canada), 404-636-8400 (worldwide) or fax 678-539-2129.

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User's Manual for 2016 IAQ Standard Published by ASHRAE

ATLANTA – A manual to help users navigate the changes in ASHRAE's 2016 ventilation standard is now available. The User's Manual for ANSI/ASHRAE Standard 62.1-2016, *Ventilation for Acceptable Indoor Air Quality*, provides information on the requirements of the standard and includes tables, illustrations and examples to aid users in designing, installing and operating systems for ventilation in buildings.

"The manual elaborates on the requirements in the standard published earlier this year," Hoy Bohanon, chair of the Standard 62.1 committee, said. "The standard contained changes that impact high rise residential spaces, the indoor air quality procedure, laboratory exhaust and demand control ventilation. The manual provides guidance on how to incorporate those changes and others."

The manual also contains:

- Information on the intent and application of Standard 62.1
- Sample calculations and examples
- Best practices examples complying with the requirements of this version of Standard 62.1
- Useful reference materials
- Guidance for building operation and maintenance personnel
- Instructions for the user in the application of tools used for compliance with Standard 62.1

Also included is a link to newly revised web-based spreadsheets that aid in ventilation rate procedure calculations. The cost of Standard 62.1-2016 User's Manual is \$80, ASHRAE members (\$95, non-members). To order, visit www.ashrae.org/bookstore or contact ASHRAE Customer Contact Center at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide) or fax 678-539-2129.

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For Release:
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Editors Note: Photos available of winning projects.

ASHRAE Celebrates 35 Years of Technology Awards

ATLANTA – For 35 years, the ASHRAE Technology Awards have recognized outstanding achievements in the innovative designs of buildings in the areas of occupant comfort, indoor air quality and energy conservation. This year, a vivarium, training laboratories, a transport center, a hospital, a police headquarters and two office buildings join the more than 300 projects that been recognized since 1981.

“Throughout the lifetime of the Technology Awards, ASHRAE has demonstrated how innovative design becomes the standard of care for the built environment,” Scott Wayland, who chaired the judging panel for the awards last year, said. “The showcased projects offer lessons learned from both the design and post-occupancy phases. These real world stories from Technology Award winning projects can help all of us learn how to deliver on ASHRAE’s core values.” This year marks the 35th anniversary of the program, which was started in 1981 as the ASHRAE Energy Awards, later renamed Technology Awards. The program was started to recognize contributions by ASHRAE members in the area of energy conservation and to promote the dissemination of successful techniques.

Three first-place awards were presented during the first year of the program. ASHRAE Life Member James Lange received first place in the institutional/commercial for new construction category for his design of the Western Life Insurance Building in Woodbury, Minn.

“I felt that this building would demonstrate many energy conserving features that had not been used on other projects,” Lange said. He said it was a great honor to be among the first recipients, noting that he gave speeches at many events and had articles published in major HVAC&R magazines.

The building remains in use today but changed ownership to a different insurance company. Lange said many of the energy conservation techniques he used then are in use today, including variable air volume terminal boxes, heat recovery chillers that recovered heat from the computer center to heat the building, thermal storage tanks, DDC controls that included air flow measuring stations, and recovered heat from the kitchen hood exhaust system.

The awards recognize outstanding achievements by members who have successfully applied innovative building design. Their designs incorporate ASHRAE standards for effective energy management and indoor air quality. Winning projects are selected from entries earning regional awards.

First place awards will be presented at the ASHRAE 2017 Winter Conference, which takes place Jan. 28-Feb. 1 at Caesars Palace with the co-sponsored AHR Expo being held Jan. 30-Feb. 1 at the Las Vegas Convention Center. The following designers and owners are recognized with first-place awards.

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ASHRAE Celebrates 35 Years of Technology Awards

See previous page for continuation

YKK80 Building

Kitaro Mizuide, Ph.D., P.Eng., general manager of mechanical and electrical engineering division, NIKKEN SEKKEI Ltd., Osaka, Japan, receives first place in the new commercial buildings category for the YKK80 Building, Tokyo. The building is owned by YKK Real Estate Co. Ltd.

The building received its name because the 80th anniversary of the company's founding was marked in 2014 with the construction of the new building, which was completed in 2015. One month after the design began, the Great East Japan earthquake occurred, resulting in the country shutting down all of its nuclear power plants and reassessing its energy supply and demand as well as seismic vulnerability.

The delay allowed for reassessment of energy, comfort, sustainability and seismic design requirements, ultimately leading to a much more innovative, integrated, comfortable, and healthy and aseismic design solution.

The building features an exterior "sudare screen," which is derived from a traditional Japanese blind, over the entire west facing façade to block and filter direct solar gain while maintaining daylight and views. The screen also helps filter outdoor noise, creates a safe service space for maintenance of exterior installed mechanical systems and provides lightning protection.

A custom, radiant ceiling panel cooling/heating system was designed to facilitate integration of hot/cold water piping with lighting and low velocity air flow. This slight air-flow concept is similar to experiencing a natural breeze under the shade of a tree. Small fans, functioning as diffusers, provide the slight air flow behind the inclined radiant panels and allow greater variation in temperature set points.

Another innovation is a state-of-the-art, real-time earthquake detection system designed to provide immediate response and safety information for occupants. The entire building rests on seismic isolation pads.

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University of California, San Francisco Parnassus Services Seismic Replacement Building (PSSRB) MBCx

Adam C. S. Wheeler, P.E., principal, Sherrill Engineering Inc., San Francisco, Calif., receives first place in the other institutional buildings, existing building commissioning category for the University of California, San Francisco, Parnassus Services Seismic Replacement Building. The building is owned by the University of California, San Francisco.

A detailed retro-commissioning process was undertaken on the 12 year-old, 80,000 sq. ft. vivarium facility, evaluating each subsystem within the HVAC system from the central to the zone level, while at the same time quantifying the current and expected needs of each zone. Current operation was then compared to need, and conservation opportunities and areas of inadequate performance were identified. Only control sequence revisions and low-cost measures were implemented, including:

- Ventilation set-back based on sensed and scheduled occupancy
- Eliminating unnecessary flow restrictions and bypasses
- Adding pressure and temperature set point reset logic
- Adding set point dead bands
- Control loop tuning
- Updating ventilation to match current zone usage

Notable “innovative” measures include:

- Hybrid zone control to address flow measurement minimum
- Second-decile average control for set point targeting
- Periodic reset to combat “creep” due to mechanical hysteresis

Energy use for 12 months following implementation of the measures indicates an EUI of 234 kBtu/ft²/yr (total) / 62 (electrical) use, down from 328/118 electrical. This cut the energy cost approximately 50% for a sub 1-year payback and avoids about 500 tons of CO₂ emissions at local rates. A key element to the project was the team’s extensive familiarity with both the building type and the specific building, leveraging decade-old original commissioning data and relationships with management and staff.

zero energy project. The team quantified the annual cost savings for both the energy reduction and photovoltaic generation for equipment life of 20 years.

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ASHRAE Celebrates 35 Years of Technology Awards

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Johns Hopkins University, Undergraduate Teaching Laboratories

Bradford Crowley, P.E., associate principal, Ballinger, Philadelphia, Pa., receives first place in the new educational facility category for the Johns Hopkins University, Undergraduate Teaching Laboratories, Baltimore, Md. The building is owned by Johns Hopkins University.

In March 2009, Johns Hopkins University released its President's Task Force on Climate Change Final Report, calling for a reduction of university carbon emissions of 51 percent by 2025. As the first major construction to follow, the Undergraduate Teaching Laboratories is a model for energy efficiency, sustainable site development and interior environmental quality. The building houses undergraduate laboratories and faculty research in the departments of biology, chemistry, neuroscience and biophysics.

Energy consumption in laboratories is driven by outside air requirements and the heating and cooling required to condition this air as well as high internal gains. The building uses a number of technologies, strategies and systems to mitigate the energy impacts. These include:

- Enthalpy and sensible recovery wheels to deliver neutral air
- Chilled beams, radiant floor heating and perimeter radiators
- Water side economizer using air handling unit cooling coils (free winter cooling)
- District energy from campus tri-generation plants
- High efficiency lighting and daylighting with occupancy sensor controls
- High performance fume hoods
- Occupancy sensor based airflow reset
- Decommissioning switches to turn off airflow to vacant labs
- High performing envelope and minimal east/west glazing

Designers note that the building's real innovation was not the technologies and systems themselves but rather how these systems complement each other and integrate with the architecture to simplify design, maintain space quality and offset construction costs via standardization.

The building and systems demonstrate the University's commitment to sustainability. With an energy savings of over 50 percent (both cost and Energy Use Intensity) and an annual avoidance of almost 2,000 metric tons of carbon dioxide, the building raises the bar on laboratory energy performance and challenges preconceptions of laboratory energy intensity.

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ASHRAE Celebrates 35 Years of Technology Awards

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STM – Construction du Centre de transport Stinson

Julien Allard, Eng., mechanical engineer and project manager, Bouthillette Parizeau, Montreal, Quebec, receives first place in the new industry facilities or processes category for the Construction du Centre de transport Stinson, Montreal. The building is owned by the Societe de transport de Montreal (STM).

In anticipation of an increase in services, the STM expanded its fleet of buses and developed a sustainability program for its Stinson Transportation Center, which accommodates 300 vehicles for 700 employees. By asking the public to use its services, the STM has made every effort to set an example in sustainability.

As part of its energy efficiency strategies, the building incorporates an expansive room (the size of almost seven football fields) featuring a green roof of 86,000 square feet.

Design solutions included high efficiency condensing boilers, energy recovery ventilation on the HVAC systems and des-tratification fans in high volume places. Annual energy consumption is reduced by almost 60 percent, resulting in a savings of \$1.2 million annual and of 7,235 tons in greenhouse gas emissions. This is equal to a savings of 2,896 compact cars making a daily commute of 24 miles.

Another savings came in water consumption, which was a concern given the use of water for washing buses. Nearly 75 percent of the water was reused for the pre-rinsing in the wash-bay area. Rainwater harvesting from the roof compensates for the remaining 25 percent of make-up water, with water drained into a 6,000 gallon underground tank.

The building uses numerous measuring stations (natural gas, electricity, water, chilled water and water) in order to compare consumptions and to eventually reproduce the innovations for other facilities.

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ASHRAE Celebrates 35 Years of Technology Awards

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Humber River Hospital

Kurt Monteiro, P.Eng., HFDP, HBDP, Smith + Andersen, Toronto, Ontario, receives first place in the new health care facilities category for Humber River Hospital, Toronto. The building is owned by the hospital.

A 656 bed facility, the hospital is one of Canada's largest acute care facilities. The hospital leadership had a vision of "lean, green and digital," with a goal of reinventing patient care.

The facility achieved many milestones in meeting that vision, including:

- Being the first fully digital hospital in North America
- Largest modular green roof installation in Canada
- Largest installation of electrochromic glass in North America
- 100 percent outside air operation for improved indoor air quality and infection control

The building is designed to exceed ANSI/ASHRAE/IES Standard 90.1-2007, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, by 40 percent. Several approaches were used to achieve this goal, including an integrated heating and cooling plant with highly efficient ventilation equipment and distribution; air side enthalpy recovery; enhanced building envelope design that incorporates automatically adjusting electromechanical glass to reduce solar gain during peak cooling times; and a lighting design featuring controls accessed via patient bedside computer terminal, which achieves a lighting power density 46 percent lower Standard 90.1-2007.

To enhance infection control and indoor air quality, all air handling units supply 100 percent fresh air with no recirculation. Design of HVAC systems with energy efficiency and energy recovery features reduced the energy impact of these 100 percent fresh air systems.

The hospital automated 75 percent of deliveries, including laboratory specimen testing, linen and garbage transportation, guided vehicles to deliver supplies and food to patient rooms.

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Cincinnati District 3 Police Headquarters – Net Zero Energy Building

Brian Rose, P.E., mechanical engineer, CMTA Inc., Cincinnati, Ohio, and Tracy Steward, mechanical engineer, CMTA Inc., Louisville, Ky., receive first place in the new commercial buildings category for the Cincinnati District 3 Police Headquarters – Net Zero Energy Building, Ohio. The building is owned by the City of Cincinnati.

As a facility that operates 24 hours a day, seven days a week, 365 days a year, the station is designed to generate as much energy as it consumes. The building features many firsts for the Ohio region, including the first net zero police station, net zero storm water on site and drastic energy reduction.

The net zero energy design was achieved by an almost 50 percent energy reduction and production of on-site energy by a 329 kW solar photovoltaic system. Since March 2016, the system has produced 173,223 kWh, within 1 percent of the projected production. During this same period, the building consumed only 106,543 kW, generating 63 percent more energy than consumed and ahead of schedule for being net zero.

The building also features a geothermal HVAC system installed with 40 400-foot vertical pipe bores; a single dedicated outside air unit including a heat recovery wheel and two-pipe coil for final tempering of the air; and water-to-water heat pump units.

A tight building envelope is important for a net zero energy building. Finding bulletproof glass that met the requirements of Standard 90.1-2007 for maximum U value of 0.50 and shading coefficient of 0.40 was challenging. The designers were successful in finding such glass with a U value of .20 and shading coefficient of 0.44.

To achieve net zero storm water, all storm water is contained on site. This is accomplished via bioswales and biofiltration/retention basins to mitigate combined water sewer overflow and cleanse storm water runoff.

The design/build project delivery method allowed a high performance, net zero energy building to be delivered within the owner's construction budget. From the initial charrette meetings and throughout the schematic and design development phases, the focus was on designing the most energy efficient building in a cost competitive environment. This project prioritized energy efficiency strategies that have significant impact on both the annual and lifetime energy savings of a net zero energy project. The team quantified the annual cost savings for both the energy reduction and photovoltaic generation for equipment life of 20 years.

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ASHRAE Celebrates 35 Years of Technology Awards

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435 Indio Way

Shannon M. Allison, Integral Group, Oakland, Calif., receives first place in the existing commercial buildings category for 435 Indio Way, Sunnyvale, Calif. The building is owned by Huettig and Schromm Inc.

Built in the 1970s, this office building was dark, derelict and impossible to rent. Designers retrofitted the existing uninsulated building to be a net zero energy building, which was changed from a Class C- building to a Class B+ building in real estate terms and leased in record time.

They focused on upgrading the envelope and reducing the mechanical loads. The building is 100 percent daylit and 100 percent naturally ventilated. Roof mounted photovoltaic and solar thermal systems were used to offset predicted energy use.

It features two rooftop packaged unit heat pumps to heat and cool as needed. The natural ventilation system is fully automated making it possible to turn off the rooftop units when the outside temperature is optimal. Automated operable windows and skylights allow for a night flush sequence, pre-charging the thermal mass of the building on cooling days.

A unique skylight design includes skylights facing south and tilted toward the sun with a pyramid shape to collect maximum quantity of daylight with the smallest aperture.

Emissions without photovoltaic systems are calculated to be 25 tons per year compared to 60 tons per year of a code minimum building. With the photovoltaic systems, it achieves a net positive rate of 8 tons per year.

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ASHRAE Seeks Practitioners and Designers for 2017 Building Performance Conference Activities

ATLANTA – ASHRAE is seeking presenters for its new Building Performance Analysis Conference as well as teams for its annual LowDown Showdown modeling competition.

The ASHRAE Building Performance Analysis Conference takes place Sept. 27-29, 2017, in Atlanta, Ga. The modeling competition is part of that event.

“This conference engages the design aspect of modeling and simulation,” Dennis Knight, conference chair, said. “Our goal is to serve practitioners with the most up-to-date best practices, work flows and processes required to plan, design, construct and operate high performing, low energy consuming, environmentally responsive and responsible, safe, secure and healthy buildings for human occupancy.”

A call for presenters is now open for presentations that address topics of interest to practitioners, modelers and designers.

Also, the ASHRAE LowDown Showdown modeling competition returns for its third year. Participants will model an existing building that includes both office space and climate controlled archival warehouse space.

The 2017 competition features two changes: it is now a competition vs. a challenge, and conference attendees can now form their own teams to retrofit an existing building.

For more information about the conference, to submit a presentation proposal or sign up for the modeling competition, visit www.ashrae.org/BuildPerform2017.

ASHRAE, founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. The Society and its more than 56,000 members worldwide 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. More information can be found at www.ashrae.org/news.

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News

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ASHRAE Announces Delhi, India as Site for 2017 Developing Economies Conference

ATLANTA – ASHRAE has announced that its second Developing Economies Conference will take place Nov. 10 and 11, 2017, in Delhi, India.

The conference addresses the challenges developing countries face in infrastructure and urbanization as well as air pollution, refrigerant phasedown and lack of trained manpower.

“Developing economy countries are in many ways leapfrogging technologies while simultaneously handicapped due to inadequate education and regulations,” Ashish Rakheja, conference chair, said. “At the same time, there is increasingly more new construction and demand on energy sources and a corresponding demand for excellent technical information to cope with these demands.”

The conference theme is titled “Trends, Opportunities and Challenges for the Built Environment in Developing Economies.”

The conference is focused on trends that are affecting the built environment in developing economies and the opportunities and challenges presented by these trends.

“This conference seeks to provide consulting engineers, building professionals and policymakers with guidance that will help them successfully meet the challenges in their countries,” he said. The conference attempts to bring together experts from all over the world. A call for conference presenters is now open.

Presentations are sought on the following topics:

- Technologies that are game changers in building design
- Solutions to challenges, such as outdoor and indoor pollution, refrigerant phasedown, lack of trained manpower and expensive technologies
- Standards, measurement and rating standards being developed and adopted to bring a common language for built environment evaluation, such as ASHRAE’s Building EQ, local standards, etc.
- Regulatory changes and direction affecting the building industry, such as energy codes
- Evolving economic models and their impact on building planning and use.

The presentations and sessions cover aspects of energy efficiency, comfort, indoor air quality, wellness and environmental impact of buildings in developing economy countries as affected by the air-conditioning, heating and ventilating systems for the buildings. Abstracts (400 or less words in length) are due July 7, 2017. For more information or to submit a presentation proposal, visit www.ashrae.org/Developing2017.

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ASHRAE Recognizes Members for Outstanding Industry and Society Achievements

ATLANTA – Fifty-five people were recognized for their contributions to ASHRAE and the industry at the Society's 2017 Winter Conference, Jan. 28-Feb. 1, in Las Vegas, Nev.

Fellow ASHRAE is a membership grade that recognizes members who have attained distinction and made substantial contributions in HVAC&R such as education, research, engineering design and consultation, publications and mentoring.

The Society elevated 22 members to the grade of Fellow:

- Charles S. Barnaby, Life Member, BEMP, a building software developer, Moultonborough, N.H.
- Charlene Warres Bayer, Ph.D., chairman and chief science officer, Hygieia Sciences LLC., Atlanta, Ga.
- Michel Bernier, Ph.D., P.E., a professor, Department of Mechanical Engineering, Polytechnique Montreal, Quebec.
- James J. Bushnell, Life Member, owner, HVAC Consulting Services, Solana Beach, Calif.
- Thomas D. Colvin, P.E., Life Member, senior consultant, Colvin Engineering Associates Inc., Salt Lake City, Utah.
- John F. Dunlap, P.E., BEAP, BEMP, CPMP, HBDP, HFDP, president, Dunlap & Partners Engineers, Richmond, Va.
- Steven J. Emmerich, group leader, Indoor Air Quality and Ventilation Group, National Institute of Standards and Technology, Gaithersburg, Md.
- Krishnan Gowri, Ph.D., principal engineer, Generative Design Group, Autodesk, Inc., San Francisco, Calif.
- John L. Harrod, P.E., Life Member, HFDP, Edmond, Okla.
- Eliseo Huerdo, Ing., Life Member, president, Termair S.A., Buenos Aires, Argentina.
- Julia Keen, Ph.D., P.E., BEAP, HBDP, professor, Kansas State University, Manhattan, Kan.
- Thomas M. Lawrence, Ph.D., P.E., coordinator, Mechanical Engineering Program, University of Georgia, Athens, Ga.
- Zoltan Magyar, Ph.D., head of the Department of Building Energetics and Building Service Engineering, Budapest University of Technology and Economics, Budapest, Hungary.
- David R. Olson, P.E., vice president, PCD Engineering Services Inc., Longmont, Colo.
- Richard L. Pavlak, P.E. president, Heapy Engineering, Dayton, Ohio.
- Michael Rosenberg, senior research scientist, Pacific Northwest National Laboratory, Richland, Wash.
- Timothy A. Shedd, Ph.D., CEO and CTO, Ebulient Inc., Madison, Wis.
- Carey J. Simonson, Ph.D., P.E., professor, Department of Mechanical Engineering, University of Saskatchewan, Saskatoon, Saskatchewan, Canada.
- Robert L. Towell, P.E., commissioning program manager and vice president, CxE Group LLC., Edwardsville, Ill.
- Phillip M. Trafton, Life Member, principal, Donald F. Dickerson Associates, Tarzana, Calif.
- R. Vijayakumar, Ph.D., consultant in chief/founder, Aerfil LLC., Liverpool, N.Y.
- Fu-Jen Wang, Ph.D., P.E., professor, Department of Refrigeration, Air Conditioning and Energy Engineering, National Chin-Yi University of Technology, Taichung City, Taiwan.

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The ASHRAE Technology Awards recognize outstanding achievements by ASHRAE members who have successfully applied innovative building designs. Their designs incorporate ASHRAE standards for effective energy management and indoor air quality and serve to communicate innovative systems design. Winning projects are selected from entries earning regional awards. First place recipients are:

- Kitaro Mizuide, Ph.D., P.Eng., general manager of mechanical and electrical engineering division, NIKKEN SEKKEI Ltd., Osaka, Japan, receives first place in the new commercial buildings category for the YKK80 Building, Tokyo. The building is owned by YKK Real Estate Co. Ltd.
- Adam C. S. Wheeler, P.E., principal, Sherrill Engineering Inc., San Francisco, Calif., receives first place in the existing building commissioning, other institutional buildings category for the University of California, San Francisco, Parnasus Services Seismic Replacement Building MBCx. The building is owned by the University of California, San Francisco.
- Bradford Crowley, P.E., associate principal, Ballinger, Philadelphia, Pa., receives first place in the new educational facility category for the Johns Hopkins University Undergraduate Teaching Laboratories, Baltimore, Md. The building is owned by Johns Hopkins University.
- Julien Allard, Eng., mechanical engineer, project manager and shareholder, Bouthillette Parizeau, Montreal, Quebec, receives first place in the new industry facilities or processes category for the Construction du Centre de transport Stinson, Montreal. The building is owned by the Societe de transport de Montreal (STM).
- Kurt Monteiro, P.Eng., HFDP, HBDP, Smith + Andersen, Toronto, Ontario, receives first place in the new health care facilities category for Humber River Hospital, Toronto. The building is owned by the hospital.
- Brian Rose, P.E., mechanical engineer, CMTA Inc., Cincinnati, Ohio, and Tracy Steward, mechanical engineer, CMTA Inc., Louisville, Ky., receive first place in the new commercial buildings category for the Cincinnati District 3 Police Headquarters – Net Zero Energy Building, Ohio. The building is owned by the City of Cincinnati.
- Shannon M. Allison, Integral Group, Oakland, Calif., receives first place in the existing commercial buildings category for 435 Indio Way, Sunnyvale, Calif. The building is owned by Huettig and Schromm Inc.

The 2016 Student Design Competition focused on a new 2-story municipal government building in Beijing, China. First place in the HVAC Design Calculations category is awarded to the University of British Columbia. Team members are Alexander Brosky, Samarth Joshi, Aubrey McNeill, Silvia Odaya, Cheng Yang and Ziran Yu. Faculty advisors are Ni-ma Atabaki, Ph.D., P.Eng., and Steven Rogak, Ph.D., P.Eng., while the industry advisor is Ali Nazari, P.Eng., BEMP, principal, Integral Group.

First place in the System Selection category is awarded to California State Polytechnic University, Pomona. Team members are Miro Zaroukian, Asped Khachatorian, Christian Garcia, Sevan Hovsepian and Tade Mirzakhanyan. Advisors are Henry Xue, Ph.D., and Richard L. Gilbert, P.E., California Energy Designs Inc.

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First place in the category of Integrated Sustainable Building Design is awarded to a team from the University of Central Florida. Team members are Logan G. Harrell, Gerald Hornik, Austin B. Christianson, Travis Kalikaparsaud and Jeremy Palavecino. The faculty advisor is Muthusamy V. Swami, Ph.D., and the technical advisor is Nathaniel B. Boyd, P.E., CPMP.

The Applied Engineering Challenge for 2015-2016 required students to plan, develop and enact solutions to sustainability issues in their local or regional areas.

For the Applied Engineering Challenge, recipients are from the University of Regina, Saskatchewan – Bradley E.R. Lulik, Eva Rennie and Brent Yeske. Their faculty advisor is Adisorn Aroonwilas, Ph.D.

The E.K. Campbell Award of Merit honors an individual for outstanding service and achievement in teaching and is presented by the Life Members Club. The recipient is Thomas H. Kuehn, Ph.D., P.E., Fellow ASHRAE, Life Member, professor emeritus, Department of Mechanical Engineering, University of Minnesota, Minneapolis.

The John F. James International Award recognizes a member who has done the most to enhance the Society's international presence. The recipient is Gerald C. Groff, Fellow ASHRAE, Life Member, retired president/CEO, Marquardt Switches Inc., Cazenovia, New York.

The Milton W. Garland Commemorative Refrigeration Award for Project Excellence recognizes a non-comfort cooling refrigeration application that highlights innovation and/or new technologies in a unique manner. The recipient is Claude Dumas, P.Eng., Life Member, project engineer and an expert in skating rink refrigeration systems, City of Montreal, Montreal, Quebec.

The Comfort Cooling Award for Project Excellence recognizes the designer and owner of a comfort cooling application that highlights innovative and/or new technologies. The recipient is Andy Pearson, Ph.D., C.Eng., Fellow ASHRAE, group manager and director, Star Refrigeration Ltd., Glasgow, United Kingdom.

The ASHRAE Pioneers of Industry Award recognizes deceased individuals who have made milestone contributions to the growth of HVAC&R. Recipients are Carl Georg Munters (1897-1989), a founder of Munters AB whose inventions were based on simple heat and mass transfer with no refrigerants or compressors; and Frederick Wittenmeier (1863-1928), a pioneer in development of carbon dioxide refrigerant systems and their application to comfort cooling for public buildings.

Honorary Members, elected by the Board of Directors are defined as notable persons of preeminent professional distinction. The recipient is Stephen T. Ayers, FAIA, architect of the Capitol, Architect of the Capitol, Washington, D.C.