

# THE BADGERAIRE

AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING ENGINEERS, INC.



Shaping Tomorrow's  
Built Environment Today

## **March 15, 2012 Lunch discussion and tour of Marquette's newest campus addition, Engineering Hall**

Engineering Hall will help prepare our graduates to be leaders in technology and innovation on the global stage. Its laboratories and teaching spaces are specifically designed to educate engineers who are firmly grounded in theory and trained to be problem-solvers and entrepreneurs at the forefront of modern engineering. Faculty and students are addressing global challenges of clean water, energy efficiency, healthy children and families, safe and sustainable infrastructures.

The new engineering building allows students and faculty to tackle global challenges in a setting that will educate and inspire. It is designed to be an integrated research and teaching facility, and much of the physical structure and many support systems of the finished building - glass, beams, sensors and more - have been left exposed. This open environment of "engineering on display" will help students, faculty and visitors learn to create, innovate and problem-solve in the 21st century. Each floor has a focus:

### Phase I

#### Lower Level: Energy

1st Floor: Engineering Education and Outreach

2nd Floor: Advanced Sensors Technology

3rd Floor: Human Performance and Health Care

4th Floor: Water Quality and Clean Water

The lower level and first floor of Phase I of Engineering Hall are complete with Floors 2, 3, and 4 scheduled for occupancy by August 2012. An additional 135,000 square-foot-section at an estimated cost of \$50 million is planned to complete this 250,000 square-foot building.

The building's sustainable features include, an energy recovery chiller, steam condensate heat recovery, low temperature building heating water system, a green roof, photovoltaic panels and more.

The lunch discussion will include short presentation from:

- Tom Ganey, University Architect, Marquette University
- Douglas Mikolainis, Design Engineer, Grunau Company
- Doug Bergmann, HVAC Systems Engineer, Masters Building Systems
- David Newman, Laboratory Manager – Civil, Construction and Environmental Engineering, Marquette University
- Mike Jahner, Associate Director – Facilities Services, Marquette University Building tour to follow lunch.

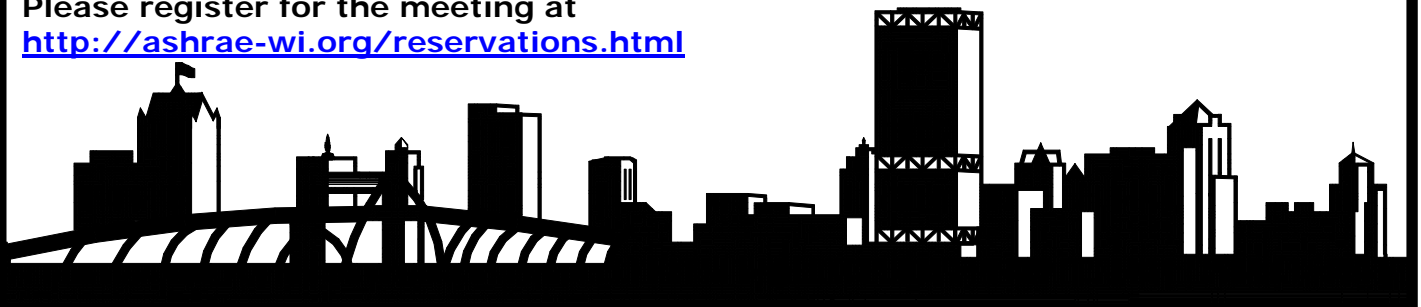
### **Marquette University - Alumni Memorial Union**

**1442 W Wisconsin Ave**

**Milwaukee, WI 53233**

**Please register for the meeting at**

**<http://ashrae-wi.org/reservations.html>**



## Wisconsin Chapter of ASHRAE

### IS PRESENTING A SEMINAR

For Resource Promotion Committee

THURSDAY, MARCH 15, 2012 from 8:00 AM TO NOON

At MARQUETTE UNIVERSITY

ALUMNI MEMORIAL UNION

1442 W Wisconsin Ave (location 61 on the attached map)

Milwaukee, WI 53233

ROOMS AMU 157 and 163

People can park in the 16<sup>th</sup> Street Parking Structure (location #55) for \$5/day.

REGISTRATION 7:30 AM TO 8 AM

Coffee, water and muffins available

TWO CONCURRENT SESSIONS WITH TWO SEMINARS PER SESSION	
ACOUSTICAL SOLUTIONS	VARIABLE REFRIGERANT FLOW – ENERGY RECOVERY AND DEDICATED OUTSIDE AIR SYSTEMS VRF – ERV - DOAS
ROOM AMU 163	ROOM AMU 157
8:00 AM TO 9:45 AM  SOUND HEALTHCARE 2012	8:00 AM TO 9:45 AM VRF part load curve info and library info and creating VRF models in Trace 700.
10:00 AM TO 11:45 AM ACOUSTICAL SOLUTIONS FOR UNIVERSITIES	10:00 AM TO 11:45 AM Using Energy Recovery and Dedicated Outside air to supplement VRF

#### **COST:**

**\$50.00 per person for two (2) Seminars (lunch included)**

**\$30.00 per person for one (1) Seminar (lunch included)**

UNIVERSITY AND TECHNICAL COLLEGE STUDENTS FREE

**ALL FUNDS TO GO TO RESOURCE PROMOTION FUND**

CEU's and PDH's will be available upon request

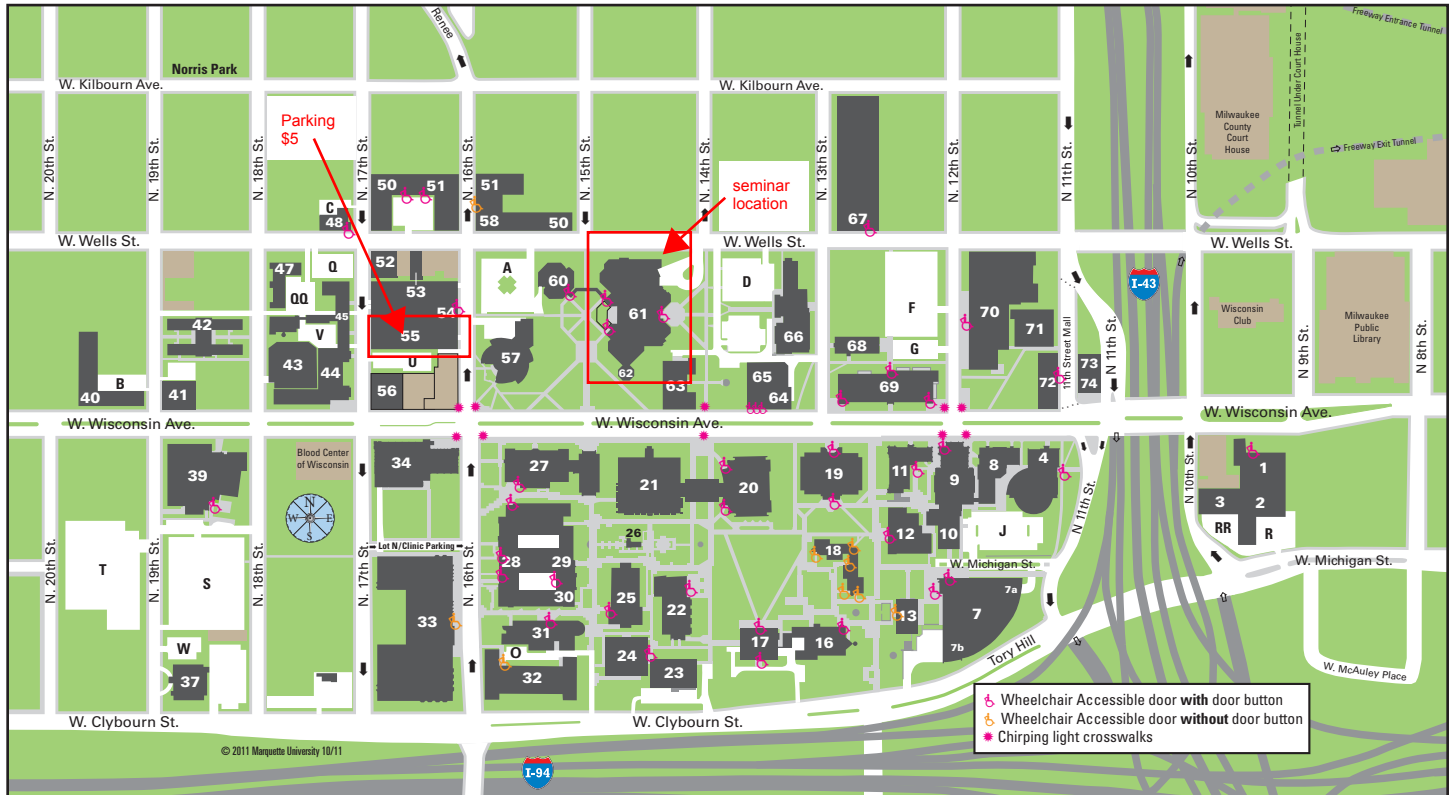
#### **REGISTRATION:**

[www.ashrae-wi.org](http://www.ashrae-wi.org)

click on registration

TWO CONCURRENT SESSIONS	
ACOUSTICAL SOLUTIONS	VARIABLE FLOW REFRIGERANT – ENERGY RECOVERY AND DEDICATED OUTSIDE AIR SYSTEMS VFR – ERV - DOAS
<p><b>SOUND HEALTHCARE 2012</b></p> <p><b>Kenric Van Wyk</b>, President of Acoustics By Design, will present this seminar.</p> <p>This seminar uncovers the basic acoustical principals in LEED for Health Care and it outlines the acoustical standards found in its source documents, The FGI Guidelines for the Design and Construction of Healthcare Facilities and Sound and Vibration. These requirements are being adopted as building code across the United States and in many countries around the world, so the information affects everyone from architects and interior designers to healthcare professionals.</p> <p>LEARNING OBJECTIVES: Upon completion, participants are able to:</p> <ul style="list-style-type: none"> <li>• Show how acoustical points can be earned in LEED for Health Care</li> <li>• Describe how healthcare facilities are affected by the speech privacy requirements of HIPAA</li> <li>• Understand the acoustical principals in the Sound &amp; Vibration 2.0 document</li> <li>• Identify the 6 Acoustical Sections in the 2010 FGI Guidelines</li> </ul>	<p><b>THE TRACE 700 / ENERGY PRESENTATION</b></p> <p><b>Matt Rash</b> is a Mitsubishi City Multi Applications Engineer and will present this seminar</p> <p>Discussion of VRF efficiency advantages. Evolution and discussion of new VRF related test standards. Discussion of ASHRAE 90.1-2010 VRF prescriptive minimum efficiency benchmarks and AHRI directly and Energy Star. Discussion of major requirements for VRF modeling software. Discussion of VRF part load operation characteristics curves and how that equates to accurate energy analysis. Discussion of limitation with entering detailed VRF part load curve info and library info into Trace 700 software. Detailed explanation of creating VRF models in Trace 700.</p>
<p><b>ACOUSTICAL SOLUTIONS FOR UNIVERSITIES</b></p> <p><b>Kenric Van Wyk</b>, President of Acoustics By Design, will present this seminar.</p> <p>This seminar covers the basic architectural acoustics concepts and specific acoustical issues which must often be addressed during the design process of many different university spaces. Acoustics By Design, Inc. is an engineering firm specializing in architectural acoustics, noise and vibration control, and audio-visual systems design.</p> <p>LEARNING OBJECTIVES: Upon completion, participants are able to:</p> <ul style="list-style-type: none"> <li>• Identify how the background noise level criteria and the reverberation time criteria set forth in LEED for Schools apply to university facilities.</li> <li>• Investigate university facilities for compliance with the acoustical criteria in the ANSI Standard S12.60 on Classroom Acoustics.</li> <li>• Assess educational spaces for both utility and acoustical performance criteria in three university case study projects.</li> <li>• Evaluate the top 5 features and benefits of utilizing acoustical design principals in university facilities.</li> </ul>	<p><b>OUTSIDE AIR PRE-CONDITIONING AND ENERGY RECOVERY AND VRF TODAY</b></p> <p><b>Doug Bergmann</b> – Vice President Masters Building Solutions</p> <p>VRF technology has quickly gained acceptance in the marketplace and a key to a successful project is providing properly conditioned ventilation air. Doug Bergmann will provide an overview of the various energy recovery technologies and OA preconditioning equipment in the marketplace. The discussion will review the pros and cons of various systems as well as take into consideration the size of the project, budget constraints, and controls integration. The presentation will discuss products currently available in the marketplace and products that will be coming in the near future.</p>

# Marquette University Campus Map



WISCONSIN CHAPTER OF ASHRAE

TECHNICAL SEMINAR

MARCH 15, 2012

8:00 AM TO NOON



## President's Column

Hello everyone. Spring is around the corner, even though it feels like we have had spring all winter, due to the mild weather and lack of snow. But it will be nice to get into the warmer weather, and to see things starting to turn green again. Please take this time to "spring clean" your ASHRAE membership, and your commitment to the society.

Thanks to all of you who participated in the joint Chapter meeting with AIA at Harwood Engineering and Zimmerman Architectural Studios. We had great attendance, over 60 people, and Mr. Bill Lotz, our Distinguished Lecturer, who came all the way from Maine, gave great insight into the issues of moisture in buildings and how to account for those concerns. Thanks to Bob Lex, Kurt Zimmerman and Randy Sikkema for hosting this great event at their wonderful facility.

I also wanted to take a moment and recognize Thomas Meyer, President of Praxis Green. I was recently informed of Tom's selection for an ASHRAE Distinguished Service Award, based on his service on ASHRAE Committees and for giving his time and talents to Society. He will be presented the award at the Annual Conference in San Antonio, TX during the Plenary Session Saturday, June 23<sup>rd</sup>, 2012. Please congratulate Tom if you get the chance.

Please look for the invites to our next few meetings, which are in the schedule in this newsletter. We only have a few meetings left until summer, and our golf outing is around the corner.

As always, if you have any questions, comments or concerns, please do not ever hesitate to contact me or any of the Board Members.

Best Regards,  
Justin Patrick  
President, ASHRAE - Wisconsin Chapter  
[justin.k.patrick@jci.com](mailto:justin.k.patrick@jci.com)  
414-524-7198

## Young Engineers in ASHRAE (YEA) social event

Please join us Thursday, March 22nd from 7:00 to 10:00 PM for the next Young Engineers in ASHRAE (YEA) social event. The event will be held at Spin in Milwaukee's Third Ward. Ping pong, beverages and appetizers will be provided by the chapter. Members and non-members and people below the age of 21 are welcome to attend. Please pass along the invitation to fellow classmates and friends within the industry. Stop on by and play some pong. See the flyer at the end of the Badgeraire

## Changes to the Board

The WI Chapter of ASHRAE Board of Governors would like to thank Aaron Ting for his years of service, since 2007, as the Chairman of the CTTC Committee. We are saddened to say that Aaron is stepping down as the committee chair. However, we are extremely happy to say Aaron is embarking on a new journey in life, fatherhood.

Congratulations to the Ting Family!!!

The BOG has a replacement for the vacant CTTC Committee Chair. Ryan McNally will take the reins of CTTC. Aaron Ting has offered to remain on board to help in transitioning the new committee chair into the role and responsibilities.

Thanks Ryan!!

## Don't miss the upcoming DOAS ASHRAE Webcast

### [Dedicated Outdoor Air System: A Path to Balancing Energy and IEQ](#)

The free Webcast is **April 19, 1:00PM-4:00PM EDT**. On-line registration begins March 19  
More information is at the end of the newsletter

## **Upcoming Training sessions from the Energy Center of Wisconsin**

### **Energy efficiency in commercial food service**

**Presenter:** Don Fisher, President/CEO, Fisher-Nickel

**Dates/Locations:** March 14 Brookfield, WI and March 16 River Falls, WI

**Cost:** \$169 (ASHRAE members can receive a \$20 discount by entering ECTWENTY when registering)

This training will feature take-home strategies for optimizing the performance of your cookline, refrigeration systems, ware washing equipment, kitchen exhaust ventilation and HVAC systems. Don Fisher will highlight energy-efficient lighting technologies for foodservice operations and introduce online tools to help you quantify the energy savings in your facility. Saving energy and water is not just good for the planet; it's good for your bottom line. [More](#)

### **Fueling Wisconsin fleets with compressed natural gas**

**Presenters:** Lorrie Lisek, Wisconsin Clean Cities–Southeast Area and Peter Taglia, Energy and Environmental Consulting, LLC

**Dates/Locations:** March 20 Eau Claire, WI and March 21 La Crosse, WI

**Cost:** No cost

Compressed natural gas can fuel everything from vans and shuttles to semitrucks, school buses, waste disposal trucks and delivery vehicles. Have you been wondering if it's the right option for your fleet? Join us at one of the free informational sessions to learn about challenges and benefits, latest technologies, fueling stations, and incentives available to add CNG to your fleet. [More](#)

### **Demand control: your action plan to savings**

**Presenter:** Steve Schaefer, Vice President, Enerlogics Networks Inc.

**Dates/Locations:** April 3 Eau Claire, WI, April 4 Rothschild, WI and April 5 Green Bay, WI

**Cost:** \$99 (ASHRAE members can receive a \$20 discount by entering ECTWENTY when registering)  
Discover how to manage your loads to minimize

electric demand costs. Join us to examine the fundamentals of monitoring, analyzing and managing electrical demand in facilities. Learn how you can take advantage of your electric rates to cut costs—from time-of-use with demand charges to peak pricing demand response programs. [More](#)

### **Energy efficient lighting: from principles to payback**

**Presenter:** Randy Johnson, LC, President, US Lamp

**Dates/Locations:** April 17 Eau Claire, WI and April 18 Fond du Lac, WI

**Cost:** \$169 (ASHRAE members can receive a \$20 discount by entering ECTWENTY when registering)  
Making lighting changes can be a dramatic cost savings with a short payback period. Examine the latest skills and techniques to achieve high quality, energy efficient lighting. Explore how to evaluate and implement economical and efficient lighting in commercial or industrial settings. If you are looking at installing new lighting or wanting to find cost-effective methods to conserve energy—translated to saving dollars—you will not want to miss this training. [More](#)

### **Understanding and managing electrical power quality**

**Presenter:** Greg Stark, PE, Biological & Agricultural Engineering Department, Texas A&M University

**Dates/Locations:** May 1 Wauwatosa (Milwaukee), WI and May 2 La Crosse, WI

**Cost:** \$169 (ASHRAE members can receive a \$20 discount by entering ECTWENTY when registering)  
Gain the tools you need to effectively operate your facility. Learn what constitutes power quality and how it influences your equipment. There are common electrical power quality disturbances and problems that you can counteract when you know how to improve power quality supply, immunize your equipment and control the disturbances. Join us as presenter Greg Stark shares more than 20 years of expertise providing assistance to electric power suppliers and their customers. [More](#)

## **Continuing Education Classes Available from UW-Madison**

The University of Wisconsin-Madison, Department of Engineering Professional Development, will be offering short courses this spring and summer on topics including commissioning, cogeneration, energy modeling, chilled water plant design, displacement ventilation system design, and DDC controls.

For more information about these and related courses:

[http://epdweb.engr.wisc.edu/Courses/Course\\_Categories.Jasso](http://epdweb.engr.wisc.edu/Courses/Course_Categories.Jasso)

## **Membership Promotion**

Our ASHRAE Chapter is always looking for more members. Please consider inviting a guest to join you in coming to any of the upcoming meetings. Show off what a great organization this is!

Remember to get your dues paid before the end of the year so you can take the tax deduction. It's just one more benefit of being an ASHRAE member.

## **Are You An Associate Who Wants to Advance to Member?**

To advance from Associate to Member, you must update your ASHRAE bio online, and notify [membership@ashrae.org](mailto:membership@ashrae.org) you have updated your bio and wish to be considered for grade advancement.

## **Reasons to Advance ASHRAE Membership:**

1. Prestige
2. Chapter recognition through newsletter
3. Chapter recognition at meeting
4. To serve on a technical committee
5. To serve in a chapter officer role
6. To serve in a regional role

7. To qualify for ASHRAE Fellow and other Society awards
8. You can add Member ASHRAE to your email tag
9. Allows your chapter to shine among other chapters
10. Society recognition in Insights

## **Steps for updating your biography:**

1. Go to the ASHRAE home page and login;
2. Look for Member Central (Member Central is located under the top left-hand column below the Login box);
3. Click "Update Your Bio";
4. Click on the link "Edu. Pro. Reg" located in blue font above your name to add all of your educational history, relevant professional licenses and work history;
5. Confirm your contact information is current by clicking on "Contact Info";
6. Once you have updated your biography, send an email to [membership@ashrae.org](mailto:membership@ashrae.org) with your Member ID number (which can be found by clicking on "Bio Info") requesting advancement.

## **Membership Roster Updates**

Delinquency in Society dues is very high. Please remember that dues should be paid in August. We understand that historically, dues were paid at the end of the year so please update whomever is responsible for submitting your dues to the national chapter so that they are aware of the August due date. If you are no longer a member and do not wish to be, please update your bio online and alert the National Chapter. Delinquency reflects poorly on the rest of the chapter, so please, pay your dues or formalize your departure from ASHRAE.



## Upcoming Chapter Meetings-Mark Your Calendars!

MEETING DATE / TIME	LOCATION/TIME	TOPIC	SPEAKER
March 15	Marquette University Alumni Memorial Union 1442 W Wisconsin Ave Milwaukee, WI 53233 Noon	Marquette Engineering Hall Presentation and Tour	Tom Ganey Douglas Mikolainis Doug Bergmann David Neuman Mike Jahner
March 15	Resource Promotion Seminar 8:00AM to Noon	See Page 2	
March 22, 2012	Spin in Milwaukee's Third Ward 7:00PM-10:00PM	YEA Social Event	
April 19, 2012	Refrigeration, Palermo's	Evening	TBD

### Other Chapters

For details regarding **surrounding chapter** meetings see:

- Northeast Chapter <http://www.newisconsinashrae.org/>
- Madison <http://www.ashraemadison.org/>
- Illinois [www.illinoisashrae.org](http://www.illinoisashrae.org).

### **Wisconsin Chapter Officers and Committee Chairs**

President	Justin Patrick
Vice President	Tim Pann
Secretary	Jason Leffingwell
Treasurer	Jason Nenonen
Refrigeration Chair	Phil Golden
Membership	Joe Carmichael
Research and Promotion Chair	Randy Sikkema
Student Chapter Coordinator	Ryan McNally
Historian	Maggie Roll
Newsletter Chair and Editor	Brian Lynch
Website, Badgeraire Distribution	Steve Hagman
Governor at Large	James Burke
Governor at Large	Bill Armstrong





GET AWAY  
from your desk and come join  
ASHRAE members at  
SPIN Milwaukee



ping pong,  
appetizers &  
beverages will  
be provided\*

## who

Young professionals,  
students and educators  
interested in the art of  
heating, ventilating and  
air conditioning.\*

## what

ASHRAE Chapter 48 is hosting  
a social event for all students  
and professionals in the  
HVAC career field.

## when

Thursday, March 22  
7:00 to 10:00 PM

## where

SPIN Milwaukee  
233 East Chicago Street  
Milwaukee, WI 53202

student raffle  
prizes available for  
those who attend.

sponsored by



\*MUST BE 21 TO CONSUME ALCOHOLIC BEVERAGES  
\*NOT REQUIRED TO BE A MEMBER TO ATTEND.  
PEOPLE BELOW THE AGE OF 21 ARE WELCOME TO ATTEND.  
WELCOME TO INVITE FELLOW CLASSMATES AND FRIENDS  
RELATED TO THE INDUSTRY.



## ASHRAE WEBCAST

April 19, 2012 – 1:00 p.m. – 4:00 p.m. EDT

### **“Dedicated Outdoor Air Systems- A Path to Balancing Energy and IEQ”**

Dear Chapter President:

ASHRAE's Chapter Technology Transfer Committee with support from **Valent Air Management Systems, Rotor Source, Inc., Engineered Air, Munters, and Heat Pipe Technology**, will present a free Webcast, **“Dedicated Outdoor Air Systems – A Path to Balancing Energy & IEQ,”** on **Thursday, April 19, 2012**. The program will be archived online until **May 3, 2012** for those unable to participate in the live webcast. Registration will be required to view the archived program.

Please promote the webcast and host it as a chapter activity. Chapters that host the webcast will earn 100 Presidential Award of Excellence (PAOE) points.

Below are several reminders to assist you with hosting the webcast;

- **Secure a viewing location** with a PC, video projector, and a screen.
- **Promote the webcast program.** Distribute the enclosed brochures at your next chapter meeting and use the **Media Kit** at [www.ashrae.org/doaswebcast](http://www.ashrae.org/doaswebcast) to notify chapter members about the webcast via your chapter newsletter and email.
- **Register your site.** Online registration begins **March 19, 2012** at [www.ashrae.org/doaswebcast](http://www.ashrae.org/doaswebcast). If you will be hosting or viewing the webcast at a local Trane site, please coordinate registration with your Trane contact person. Only one registration per site is needed. The site coordinator's registration will cover all participants at the site.
- **Test your equipment.** When you complete registration, you will be given a link to test your system.
- **Use a signup sheet or email RSVP** to maintain an accurate headcount of participants at your site.

To add a registration reminder to your Outlook and find additional information regarding the program and presenters, visit [www.ashrae.org/doaswebcast](http://www.ashrae.org/doaswebcast). Please share the enclosed guides with your colleagues.

If you have any questions or need assistance, please call (678) 539-1200 or email [ashrae-webcast@ashrae.org](mailto:ashrae-webcast@ashrae.org).

Thank you for your continued support of the ASHRAE webcast programs.