





A Newsletter for the Iowa Chapter of ASHRAE

ASHRAE Iowa Chapter www.ashraeiowa.org

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> TEGA Emir Kadic

THIS MONTH AT ASHRAE

Membership Promotion

Date:

Monday, January 13th

Schedule:

11:45AM: Registration 12:00PM: Lunch 12:30-1:30PM: Program

Location:

Ramada Tropics Conference Center 5000 Merle Hay Rd. Des Moines, IA <u>click for map</u>

Program:

Nick Maletta from Holmes Murphy & Associates will give a presentation on *Engineering Ethics*.

2 CEU's available (AIA Approved)

Lunch Cost:

<u>Free</u> to ASHRAE lowa Chapter members \$20 for Guests

RSVP:

Registration for this event is now closed.



Come join us at the Ramada Tropics Conference Center on Monday, January 13th for a lunch meeting and presentation.

Nick Maletta from Holmes Murphy & Associates will be giving a presentation on "Engineering Ethics" in our industry. This is a topic not often covered but one that can help reduce risk for you and your company.

See you there!

PAST PRESIDENTS

Marth Janeau	0010 0010	
Matt Jesson	2012-2013	
Kelly Crow	2011-2012	
Holly Elbert	2010-2011	
Roger Lesher	2009-2010	
Kit Cartwright	2008-2009	
Jerrod Sieverding	2007-2008	3
Jason Kems	2006-2007	,
Chuck Heldenbrand	2005-2006	١
Jeff Gross	2004-2005	,
Ron Engelhardt	2003-2004	
Dan Zaug	2002-2003	
Susan Oltrogge	2001-2002	2
Christopher Nelson	2000-2001	
Donald Swanson	1999-2000	
Edward Truslow	1998-1999)
James Hall	1997-1998	3
Dalalain Managari		
Robbin Vannoy	1996-1997	
Mark Conway	1995-1996	5
Paul Melton	1994-1995	5
Gregory Maxwell	1993-1994	
Jeffery Hammer	1992-1993	3
Jack Culp	1991-1992)
James Lee	1990-1991	
Clint Leonard	1989-1990)
Charles Pedersen	1988-1989)
	1987-1988	
Gary Reynolds		
Dennis Hogan	1986-1987	7
Eugene Zefron	1985-1986	5
	1984-1985	
Donald Hagge		
Robert Rist	1983-1984	1
Joseph Proctor	1982-1983	3
Mark Allen	1981-1982	
Curtis Klaassen	1980-1981	
Gerald Anderson	1979-1980)
C.W. Miller	1978-1979)
Disability of the control of the con		
Richard South	1977-1978	
Verne Stewart	1976-1977	7
Curtis Hammer	1975-1976	
Ralph Schilling	1974-1975	
Donald Bonicamp	1973-1974	1
Kent Mosher	1972-1973	3
Thomas Van Hon	1971-1972	
Robert McBride	1970-1971	
William Whitman	1969-1970)
	1968-1969	
Einar Dahl		
Eugene O'Neil	1967-1968	3
James Green	1966-1967	7
	1965-1966	
Neil Hanson		
Bob Flanagan	1964-1965)
Lyndon Kelley	1963-1964	1
Elwood Giberson	1962-1963	R
Vern Polly	1961-1962	
John Bain	1960-1961	
Crom Campbell	1959-1960)
R.T. Howard	1958-1959	
W.A Schworm	1957-1958	3
D.E. Schroeder	1956-1957	7
G.J. Kraai	1955-1956	
W.E. Nanes	1954-1955	5
J.F. Sandfort	1953-1954	1
R.H. Schnell	1952-1953	
C.H. McGuiness	1951-1952	2
R.S. Stover	1950-1951	
D.E. Wells	1949-1950	
D.C. Murphy	1948-1949	
C.A. Wheeler	1947-1948	3
E.O. Olson	1946-1947	
B.E. Landes	1945-1946	
W.W. Stuart	1944-1945	5
C.W. Helstrom	1943-1944	
P.E. Triggs	1942-1943	
Perry LaRue	1941-1942	2
R.A. Norman	1940-1941	
	1939-1940	
Tracy Johnson		
W.R. White	1938-1939	•

President's Corner



I hope everyone had a great holiday season with family and friends. It is always a great time of the year to take some time off to recharge the batteries and get you ready to take on the New Year.

We decided to kick off the New Year with a lunch meeting to be held at the Ramada Inn **Tropics Convention** Center on Monday, January 13. We appreciate Holmes Murphy for volunteering their time and expertise to talk to our membership about Engineering Ethics. This topic was brought to light through the survey we conducted at the beginning of my term as something that many members wanted more information on. I feel this will be a great opportunity to learn more about a topic that isn't often covered in the HVAC industry to help reduce risk for both your company and yourself.

In addition, the main theme of the January meeting is membership promotion. It is our goal as a chapter to continue to grow our membership so we can provide economical avenues for PDHs as well as great networking opportunities for members to share ideas. Please reach out to individuals within your organizations that use the resources that ASHRAE has to offer and explain the benefits of becoming a member.

In addition, ASHRAE society has been putting an emphasis on recruiting younger enaineers throughout the country to become members. These individuals are our future so it is important to get them involved early in their careers to ensure we can continue to grow as a chapter/ society. We have been blessed in Central Iowa of having great participation at the BOG level which I have come to learn is not often the case for other chapters throughout the region. In order to help promote the participation of younger engineers in our chapter, Val Hageman (YEA Chair) is going to be putting on a YEA social event on February 5, 2014 for individuals that are 35 and younger. Keep your eyes open for an email explaining the details in the near future.

I look forward to seeing you all at the meeting on Monday. Stay warm!

Tim Conrad Iowa Chapter President 2013-2014

UPCOMING CHAPTER MEETINGS

January 13th

Lunch meeting with presentation by Holmes Murphy on ethics in our industry

Location: Ramada Tropics Resort Merle Hay Rd Des Moines, IA

February 17th

Afternoon tech session on "How to Implement Demand Control Ventilation and Comply with ASHRAE Standards". Dinner meeting to follow.

Location: Johnny's Italian Steakhouse West Des Moines, IA

ASHRAE Iowa December Meeting



Chapter Past Presidents (left to right): Paul Melton, Jim Hall, Mark Conway, Jason Kems, Susan Oltrogge, Kelly Crow, Dan Zaug, Curt Klaassen, Matt Jesson, and Holly Elbert





The December meeting was the annual joint meeting with CSI and SMCI held at the Holiday Inn Downtown. The ASHRAE lowa Chapter had strong representation with 37 members in attendance out of the 81 total. Also, we had ten of our past chapter presidents participate the yearly group picture (top).

2012-2013 chapter president Matt Jesson was presented with a Certificate of Appreciation plaque by current chapter president, Tim Conrad (left).

SMACNA National Technical Resources Director, Eli P. Howard III, gave an excellent program on ductwork protection and sealing during construction and how it affects indoor air quality (right).

February Meeting



Resource Promotion Meeting and Tech Session

Date: Monday, February 17, 2014

Schedule:

2:00PM - 5:00PM Tech Session (with the following segments):

2:00PM – "How to Implement Demand Control Ventilation & Comply with ASHRAE Standards"

3:00PM - "Using ASHRAE Standard 62.1-2010 Multiple Spaces Equations"

4:00PM – "Retro-commissioning for Energy Savings

5:00-6:00PM: Social Hour

6:00-7:00PM: Dinner and business meeting

Location:

Johnny's Italian Steakhouse, West Des Moines

Speaker:

HOY R. BOHANON, JR., P.E. Director of Energy Programs, WorkingBuildings, LLC Winston-Salem, NC

Hoy Bohanon, PE, LEED AP, BEAP is director of the Energy Programs for WorkingBuildings. WorkingBuildings is a professional services firm whose offerings include building commissioning, sustainability consulting, and laboratory compliance services. Mr. Bohanon began his engineering career as a research and design engineer, and then gained experience as a project engineer, facilities engineer, facilities manager, indoor air quality research engineer, environmental engineer, and business owner. He has a master's degree in engineering from North Carolina State University, and a bachelor's degree in mechanical engineering from Georgia Institute of Technology.



Mr. Bohanon has written technical papers and articles on indoor air quality, operations, and maintenance and is a frequent presenter at technical society meetings. He is a recipient of the ASHRAE Distinguished Service Award and is vice-chair of ASHRAE Standard 62.1 committee, Ventilation for Acceptable Indoor Air Quality. He also serves on the bEQ committee, Building Performance Alliance ad-hoc committee, and TC5.5 Air-to-Air Energy Recovery. He is chair of the US Technical Advisory Group panel 1 (general principles) and panel 4 (indoor air quality) for ISO TC205 Building Environment Design. He is a co-author of The Indoor Air Quality Guide: Best Practices for Design, Construction and Commissioning and Performance Metric Protocols for Commercial Buildings: Best Practices Guide. He also teaches multiple courses for the ASHRAE Learning Institute addressing ASHRAE 62.1 and IAQ. Mr. Bohanon is also a member of the Professional Engineers of North Carolina, US Green Building Council, and ASHE.

February Meeting (cont.)

LECTURE TOPICS

► How to Implement Demand Control Ventilation and Comply with ASHRAE Standards GBCI Approved | 1 CE Hour | 0090010478 AIA Approved | 1LU/HSW | BOHANON02

ASHRAE standards 90.1 and 189P require demand control ventilation in some instances. ASHRAE standard 62.1 allows demand control ventilation but places restrictions on its application. Many existing installations do not comply with the requirements of ASHRAE Standard 62.1. What is required and what strategies and technologies can be used to meet the requirements of the all the standards?

► Retro-commissioning for Energy Savings

GBCI Approved | 1 CE Hour | 0090010481

AIA Approved | 1LU/HSW | BOHANON03

What is retro commissioning? Is it required by LEED? How can a process save energy? What are some of the aspects of an energy saving retro-commissioning application? What guidance is available from ASHRAE guidelines? What are the types of savings from the process and what are the critical components to assure that savings are realized?

▶ Using ASHRAE Standard 62.1-2010 Multiple Space Equations

GBCI Approved | 1 CE Hour | 0090010484

AIA Approved | 1LU/HSW | BOHANON04

Use of the multiple spaces equation is now a code requirement in many areas and is a requirement of LEED for any new building that uses multiple space ventilation systems. Why is the equation there? How do you use the equations? What are the two options? Does the system approach make a difference in the quantity of outdoor air required? This presentation presents answers and discussion points for these important questions.

2014 YEA Happy Hour

We're having our annual YEA (Young Engineers in ASHRAE) Happy Hour on Wednesday, February 5th from 5-7PM at the new Up-Down arcade bar in the East Village. If you're age 21-35, you're in YEA and you are invited! Non-ASHRAE members in the industry are welcome to join the fun so invite your age 21-35 co-workers as well.

Pizza will be brought in from Scornovacca's and Up-Down has 20 beers on tap and even more choices in bottles and cans. They feature more than 40 arcade games from the '80s and '90s, pinball machines, three classic skee-ball alleys, Nintendo and Sega console gaming, and life-size Jenga and Connect Four.

Event: YEA (Young Engineers in ASHRAE) Happy Hour

Date: Wednesday, February 5th, 5-7PM

Location: Up-Down, 500 East Locust, Des Moines





ASHRAE Technology Awards Program



The ASHRAE lowa Chapter is soliciting Technology Award Applicants. The purpose of the awards is three-fold:

- To recognize ASHRAE members who design and/or conceive innovative technological concepts that are proven through actual operating data.
- To communicate innovative systems design to other ASHRAE members.
- To highlight ASHRAE technological achievement to others, including associated professionals and societies worldwide, as well as building and facility owners.

If interested in submitting a project, contact Xiaohui (Joe) Zhou at <u>xhzhou@iastate.edu</u>. Submissions for the chapter level will be due by March 15th, 2014.

For more information on the Technology Awards Program visit https://www.ashrae.org/membership-conferences/honors--awards/technology-awards-program

ASHRAE's Attic & Antiques





Have you ever encountered pieces of HVAC history while working on remodel projects? Are you fascinated by the origins of modern HVAC equipment? If so, help us to launch our new section, ASHRAE's Attic & Antiques. We're trying to populate our newsletter and website with fascinating old photos and historical anecdotes, preferably with a local bent. Send your photos and stories to Matt Jesson at matti@hvactab.com

The HVAC&R Industry

Efforts to Improve Natural Gas Furnace Efficiency Have Chilled

KANSAS CITY, Mo.—Natural gas furnaces, by far the most popular way to warm U.S. homes, should be an obvious target for new energy-efficiency regulations to lower heating bills. However, a 10-year federal effort to raise the minimum standard for gas furnaces, which hasn't changed in decades, has so far been unsuccessful. Missteps, disagreements and a lawsuit have derailed the effort. It now looks as if it will take several more years to implement a new standard. Under the current federal rule for natural gas furnaces, the appliances must be 78% efficient. The proposed standard would raise that to 90% for new furnaces installed in northern states. The standard for southern states would remain essentially unchanged at 80%. In an average residence, a furnace that is 90% or more efficient costs an extra \$600 to \$800, with installation. But it can save \$50 to \$100 or more a year in fuel costs. However, critics of the proposed standard, while acknowledging the benefits, say it is deeply flawed. Among the alleged flaws are the different efficiency standards for warmer and cooler climates, which would be difficult to enforce. A lawsuit filed by an opponent of the proposed rule is still in the courts. Pending the outcome, the new efficiency standards for air conditioners are scheduled to go into effect in 2015.

Read more

Outdoor Pollutants Can Get Indoors, Says Study

BOSTON—A recent study found that indoor air consistently contains about 25% of the particle pollution that is measured outside. Randy Martin, lead author of the study and associate research professor of environmental engineering at Utah State University, studied the effects of outdoor pollution on indoor air quality on "red" air quality days. Air quality is considered unhealthy for the general population once it is classified as red, meaning it has an index value of 151 to 200 on the American Lung Association's air quality index. Martin and his team found that contaminants such as ammonium nitrate mix with indoor air at particulate sizes small enough to "penetrate all the way down into your respiratory system and deposit itself in the deepest lung tissue in the sacs, which can interfere with your oxygen exchange in your capillaries."

Read more

U.S. Solar Industry Achieves Second-Largest Quarter Ever

BOSTON—The United States installed 930 MW of solar photovoltaics in the third quarter (Q3) of 2013, an increase of 20% over the second quarter of 2013 and 35% compared to Q3 2012. According to a report by GTM Research and the Solar Energy Industries Association (SEIA), this represents the second-largest quarter in the history of the U.S. solar market and the largest quarter ever for residential PV installations. The "U.S. Solar Market Insight: 3rd Quarter 2013" also concluded that 2013 is likely to be the first time in more than 15 years that the U.S. installs more solar capacity than world leader Germany.

Read more

CTBUH's Top 12 Tall Building Happenings of 2013

CHICAGO—According to the Council on Tall Buildings and Urban Habitat (CTBUH), 2013 was a banner year for skyscrapers, particularly in terms of news-media interest. The popularity of skyscrapers reached new "heights" in 2013. London's The Shard opened in February as the tallest building in Europe. In August, Shanghai Tower topped out as the tallest in China, and the capstone of a new Chinese building boom. In November, CTBUH afirmed New York's One World Trade Center's official height, making it officially the tallest building in the Western Hemisphere.

<u>Click here</u> to read CTBUH's month-by-month review of some of the top tall-building stories from 2013.

2013-2014 Meeting Dates

	GENERAL MEETING	GENERAL MEETING				
MONTH	Topic	Date				
July		-				
August	-					
September	Fall Frolic Golf Outing – Legacy Golf Club	5				
October	Student Night / Membership Promotion	16				
November	Research Promotion	12				
December	Past Presidents / History (joint w/ CSI and SMCI)	16 (Lunch)				
January	Membership Promotion	13 (Lunch)				
February	Resource Promotion	17				
March	Refrigeration	TBD				
April	ASHRAE Webcast	17				
May	Spring Fling Golf Outing 19					

Winter Meeting	2014 Winter Conference - New York, NY	Jan 18-22
CRC	Region VI CRC – Iowa City, IA	May 1-3
Summer Meeting	2014 Annual Conference – Seattle, WA	Jun/Jul 28-2

Meet Your BOG Officers



Back Row (Left to Right)
Chris Deal, Refrigeration
Dan Ponxs, BOG
Jason Kems, e-Committee
Luke Miller, RP
David Poetting, GGAC
Vince Sanders, RP
Justin Barrett, President-Elect

Front Row (Left to Right)
Dan Zaug, BOG
Tim Conrad, President
Kelly Crow, Honors/Awards
Matt Gumm, Treasurer
Matt Jesson, Historian
Britt Vincent, CTTC
Xiaohui (Joe) Zhou
Patrick Peterson, BOG

ASHRAE 2013-2014 Research Promotion Fund

	ASH	RAE Iowa Resea	rch Investors 2013-20	14	
Individual Investors				Company Investors	
HR = Honor Roll participants \$100 min	1	36.4% OF GOAL	\$10,173.54 -TO GO!	HR = Honor Roll participants \$150 min	
Mr. Mark W Allen	(HR)	*** ***		A. J. Allen Mechanical Contractors Inc.	(HF
Mr. Justin J Barrett, PE	(HR)	\$16,000		ASHRAE Iowa Chapter	(HF
Mr. Aaron Brace	(HR)	\$15,500		Capitol R&D Inc.	(HF
Mr. Kit C. Cartwright	(HR)	\$15,000		KJWW Engineering Consultants	(HF
Mr. Timothy J Conrad	(HR)	\$14,500		MMS Inc.	(HF
Mr. Mark G Conway	(HR)	\$14,000		System Management & Balancing Inc.	(HF
Mr. Kelly G Crow	(HR)	\$13,500		VHF Sales, Inc.	(HF
Mr Einar Dahl Jr	(HR)	\$13,000		Woodman Controls Company	(HI
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Mr. Vince Sanders	(HR)	\$7,000			
Mr. Dale Vest	(HR)	\$6,500			
Mr. Daniel V Zaug	(HR)	\$6,000	\$5,826.46		
Dr. Xiaohui (Joe) Zhou, PhD, PE	(HR)	\$5,500 —			
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