



Iowa Stalks Monthly Newsletter - January 2019

This Month at ASHRAE Iowa

2019 Chapter ByLaws Update

Amendments to the chapter by-laws have been proposed by the Board of Governors. [Please see this link for the full Bylaws update.](#) The update contains three amendments plus some housekeeping such as renumbering paragraphs. The amendments are:

1. The President-Elect is responsible for reviewing the Bylaws annually.
2. Officially adding the Young Engineers in ASHRAE committee.
3. Renaming of Grassroots Government Advocacy committee to the Government Affairs Committee per the suggestion of Society.

Bylaw updates must be voted on by chapter members. Once you have reviewed the changes, [please vote using this link.](#) Voting will close February 15th.

2019 January Chapter Meeting

When

Wednesday January 23, 2019

- 5:30 – Social/Networking
- 6:15 – Dinner
- 6:30 – Presentation

Location

[Hotel Renovo](#)

11167 Hickman Rd.
Urbandale, IA 50322

[MAP](#)

Program

Abstract:

Lessons learned and best practices based on millions of SQFT of UFAD projects.

Recommendations to properly design, construct, commission and maintain a modern UFAD System.

Speaker Bio:

Ghassan F. ElKhatib P.E.

Ghassan received a bachelor's degree in Architecture Engineering with emphasis in HVAC from the University of Kansas, and has been a consulting Mechanical Engineer for over 14 years with past PE Registrations in over forty (40) States. Ghassan has experience with a broad spectrum of mechanical systems, and is currently a Business Development Manager (System Application Specialist) for AirFixture, a manufacturer of Under Floor Air Distribution (UFAD) products that are distributed through Johnson Controls and installed in over 110 million square feet worldwide.

Cost

Free for ASHRAE Iowa members

\$20 for non-members

Always free for students

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Registration

Registration is open now – it will close on **January 16th** so we can get food counts turned in.

Please [register](#) online if you are attending.

President's Corner

Happy New Year!

I hope you all had a great holiday season and were able spend time with family and friends. I don't know about you, but I'm loving the fresh blanket of snow we got this past weekend!

After having a few ideas fall though, our BOG has come up with what I think will be a great meeting! We will be meeting on **January 23** at Hotel Renovo in Urbandale to hear Ghassan F.

ASHRAE Iowa Chapter

www.ashraeiowa.org

- Board of Governors -

Tjaden Ahrens

Matt Jesson

Matt Peters

Sara Schmerbach

- Officers -

President

ElKhatib P.E. speak on lessons learned and best practices for underfloor air distribution.

On **February 12**, we will head up to Ankeny for our annual refrigeration night. Hy-Vee will graciously open their new commissary facility for us to tour. It should be a great experience!

Hopefully you've seen the news regarding the recent rule change to IAC193C requiring at least 2 of the 30 professional development hours to be in the area of professional ethics. If you made it to our December meeting, you're half way done! We are trying to get another opportunity for a PDH in the area of ethics for our March meeting. For the March meeting, our BOG is organizing a technical seminar with lots of PDHs available! We have ASHRAE distinguished lecturer, Tom Lawrence, lined up to come speak with us.

Hope to see you at one of these upcoming events!

Brian Steffens (bsteffens@shive-hattery.com)
Iowa Chapter President 2018-2019

Brian Steffens
President Elect

David Poetting
Treasurer

Adam Puls
Secretary

Tyson Scheidecker

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Dan Zaug

Auditing

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Luke Miller

Honors & Awards

Andrew Pospisal

Membership

Tim Conrad

Product Directory

Holly Elbert

Refrigeration

Justin Barrett

Research Promotion

Michael Gustafson

Ted Gerber

Student Activities

Mike Wolfe

Joe Nielsen

TEGA

Dan Ponxs

Emmett Konrad

YEA

Heidi Turner

AG Fleckenstein

Past Presidents

Luke Miller 2017-2018

Andrew Pospisal 2016-2017

Matt Gumm 2015-2016

Justin Barrett 2014-2015

Tim Conrad 2013-2014

Matt Jesson 2012-2013

Kelly Crow 2011-2012

Verne Stewart 1976-1977

Curtis Hammer 1975-1976

Ralph Schilling 1974-1975

Donald Bonicamp 1973-1974

Kent Mosher 1972-1973

Thomas Van Hon 1971-1972

Robert McBride 1970-1971

Holly Elbert 2010-2011
Roger Leshar 2009-2010
Kit Cartwright 2008-2009
Jerrod Sieverding 2007-2008
Jason Kems 2006-2007
Chuck Heldenbrand 2005-2006
Jeff Gross 2004-2005
Ron Engelhardt 2003-2004
Dan Zaug 2002-2003
Susan Oltrogge 2001-2002
Christopher Nelson 2000-2001
Donald Swanson 1999-2000
Edward Truslow 1998-1999
James Hall 1997-1998
Robbin Vannoy 1996-1997
Mark Conway 1995-1996
Paul Melton 1994-1995
Gregory Maxwell 1993-1994
Jeffery Hammer 1992-1993
Jack Culp 1991-1992
James Lee 1990-1991
Clint Leonard 1989-1990
Charles Pedersen 1988-1989
Gary Reynolds 1987-1988
Dennis Hogan 1986-1987
Eugene Zefron 1985-1986
Donald Hagge 1984-1985
Robert Rist 1983-1984
Joseph Proctor 1982-1983
Mark Allen 1981-1982

William Whitman 1969-1970
Einar Dahl 1968-1969
Eugene O'Neil 1967-1968
James Green 1966-1967
Neil Hanson 1965-1966
Bob Flanagan 1964-1965
Lyndon Kelley 1963-1964
Elwood Giberson 1962-1963
Vern Polly 1961-1962
John Bain 1960-1961
Crom Campbell 1959-1960
R.T. Howard 1958-1959
W.A Schworm 1957-1958
D.E. Schroeder 1956-1957
G.J. Kraai 1955-1956
W.E. Nanes 1954-1955
J.F. Sandfort 1953-1954
R.H. Schnell 1952-1953
C.H. McGuinness 1951-1952
R.S. Stover 1950-1951
D.E. Wells 1949-1950
D.C. Murphy 1948-1949
C.A. Wheele 1947-1948
E.O. Olson 1946-1947
B.E. Landes 1945-1946
W.W. Stuart 1944-1945
C.W. Helstrom 1943-1944
P.E. Triggs 1942-1943
Perry LaRue 1941-1942
R.A. Norman 1940-1941

Curtis Klaassen 1980-1981
Gerald Anderson 1979-1980
C.W. Miller 1978-1979
Richard South 1977-1978

Tracy Johnson 1939-1940
W.R. White 1938-1939

Upcoming Meetings

Mark your calendars! The chapter is working hard to put on a great set of events this year and we hope to see you there.

Iowa Chapter Future Meetings

Month	Date	Location	Topic
September	12	The Legacy Golf Club	Fall Frolic Golf Outing
October	17	Ramada Tropics	Membership & RP Night
November	14	Ames	Student Night & Tour
December	12	Holiday Inn	SMCI / CSI Joint Meeting
January	23	Hotel Renevo	UFAD Systems
February	12	Hy-Vee Commissary Tour	Refrigeration Meeting
March	28*	TBD	MP, RP, & History Project
April	18*	Val Lanes	Chapter Meeting and Bowling Tournament
April	19*	At Your Desk!	ASHRAE Webcast
May	14*	TBD	Spring Fling Golf Outing

Society & Region Events

Month	Date	Location	Topic
January	12-16	Atlanta, GA	2019 Winter Conference
May	2-4	Milwaukee, WI	Region VI CRC
June	22-26	Kansas City, MO	2019 Annual Conference

*Tentative dates

What's New in the Iowa Chapter?

Past President Appreciation

December was President's Month as the chapter recognized the efforts of last year's president (Luke Miller) as well as those former chapter presidents in attendance.



Pictured from left to right: Justin Barrett (2014-2015), Tim Conrad (2013-2014), Luke Miller (2017-2018), Andrew Pospisal (2016-2017), Matt Jesson (2012-2013), Holly Elbert (2010-2011), Brian Steffens (2018-2019), Ron Engelhardt (2003-2004), Matt Gumm (2015-2016)



Energy Efficiency Lobby Day



The Iowa Environmental Council and their partners are facilitating an Energy Efficiency

Lobby Day. This is free to attend and will be an opportunity to discuss energy efficiency with Iowa legislators. Click on the following link to learn more about the event and to attend:

<https://iaenvironment.salsalabs.org/energyefficiencylobbyday/index.html>

YEA Fall Event



The fall YEA event was held at the new Smash Park in West Des Moines. Be on the lookout for a YEA Spring event in the next couple of months!

Research Promotion

Please consider donating to RP if you haven't already. With the new year, we have a new goal. Any donation is helpful and appreciated. If you have any specific questions about how your donated money will be used, [please contact Michael Gustafson](#).

ASHRAE Iowa Research Investors 2018-2019			
Go to http://ashraerp.com to donate online. Please contribute all donations to the Endowed Research via ASHRAE Foundation.			
Individual Investors HR = Honor Roll participants \$100 min		35.0% OF GOAL \$12,990.55 - TO GO!	Company Investors HR = Honor Roll participants \$250 min
Mr. Mark G. Conway	HR	\$10,000	ASHRAE Iowa Chapter
Mr. Roger O. Hill		\$19,500	Shive-Hattery Group Inc.
Mr. Brian A. Steffens	HR	\$19,000	
Mr. David Forsting	HR	\$18,500	
Mr. Luke Miller	HR	\$18,000	
Mr. Eli C. Cartwright	HR	\$17,500	
Mr. Fred Miller	HR	\$17,000	
Mr. Matt S. Jesson	HR	\$16,500	
Mr. Adam Puh	HR	\$16,000	
Mr. Daniel L. Pines	HR	\$15,500	
Mr. Tyson Scheidecker	HR	\$15,000	
Mr. Justin J. Barnett	HR	\$14,500	
Mr. Michael K. Gustafson	HR	\$14,000	
Mr. Ted Garber	HR	\$13,500	
Mr. Ronald Engelhardt	HR	\$13,000	
Mr. James A. Lee	HR	\$12,500	
Mr. Chris W. Nelson	HR	\$12,000	
Mr. Rick A. Rapustka	HR	\$11,500	
		\$11,000	
		\$10,500	
		\$10,000	
		\$9,500	
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Updated 08-01-19

This year, the BOG is encouraging you to donate online in an effort to save paper and increase the efficiency of the RP donation process. Please visit the ASHRAE RP Donation page [here](#). ASHRAE provides options for you to determine where to place your donation. The Iowa Chapter is looking to increase its endowment and would appreciate it if you would place your

donation in the box available next to “Endowed Research via ASHRAE Foundation”, check the box indicated that you understand that those funds are restricted for the support of ASHRAE Research, and put “Iowa Chapter” in the “Existing Fund Name (If known):” box. From there it’s as simple as any other online purchase with a credit card.

Don’t forget that ASHRAE is a 501(c)(3) organization. Contributions are deductible as allowed by law. A receipt will be sent to the address listed above.

If you would still prefer to donate by check or have any further questions about the donation process, [please contact Michael Gustafson](#).

Thank you for your donation!

A green rectangular banner with a double black border. The text "ASHRAE Society News" is centered in white, serif font.

ASHRAE Society News

What's new?

Updating Equipment Load Factors for the *ASHRAE Handbook*

Plug loads are one of the main contributors to the building's overall energy consumption in most office buildings, so they need to be considered in load calculations, according to an article in [Science and Technology for the Built Environment](#). Weekday and weekend power consumption profiles are developed for different office equipment in the article, "[Equipment Power Consumption And Load Factor Profiles For Buildings' Energy Simulation \(ASHRAE 1742-RP\)](#)," written by Omer Sarfraz, Student Member

ASHRAE, and Christian Bach, Ph.D., Associate Member/Student Branch Advisor, an assistant professor at Oklahoma State University. [Read more.](#)

Residential Energy Efficiency

Newly Revised Standard 90.2 Includes New Performance Specifications, More

The newest version of ANSI/ASHRAE/IES Standard 90.2-2018, *Energy-Efficient Design of Low-Rise Residential Buildings*, seeks to deliver residential building energy performance that is at least 50% more efficient than the energy efficiency defined by the 2006 IECC. [Read more.](#)

[Acoustical Testing Requirements Updated in Chilled Beam Standard](#)

[Five New Errata Released for Standards 90.1, 189.1](#)

[New Interpretation of Standard 62.1 Addresses Exhaust Requirements](#)

[More Standards Actions](#)

[Public Reviews Open for Commercial Aircraft Standard, Guideline + More](#)

[Comment on Newly Approved Standards Projects](#)

[Join Committees on Fan-Coil Units, Lab Fume Hoods + More](#)

[Submit Nominations for Standards Achievement Award by Dec. 31](#)

Industry News

[University's 1.1 MW Solar-Plus-Storage Project Comes Online](#)

FAIRFIELD, Iowa—Maharishi University of Management recently brought online a new 1.1-MW solar power plant. The solar-plus-storage facility uses both single-axis tracking and vanadium-flow battery energy storage. Designed and installed by solar-power company Ideal Energy, the installation is said to be the first system of its kind in the Midwest. The single-axis tracking array generates about 15% more energy annually than a fixed-tilt array of comparable size. The project also includes a 1.05 MWh battery energy storage system to reduce energy costs via "peak shaving"—drawing power from the solar panels or batteries instead of from the grid during peak use times.

[The Most Read Articles From 2018](#)

Novel applications were the subject that drew the most interest from readers of this newsletter in 2018. From the data center cooling technology of a major corporation to a project developed by a teenager, readers were interested in examples of "what's next." Only an article about a U.S. Supreme Court decision was not about a new application or emerging technology. Below are links to the most clicked articles to be featured in *ASHRAE HVAC&R Industry News*.

Smart Cities Look to Mall of America for Innovation

The Mall of America and other venues are becoming microcosms for smart city projects. The Mall of America is using [Bluetooth for services](#) and has more than 700 Wi-Fi access points and more than 600 Bluetooth beacons that plug into access points to deliver more precise navigation. In an *ASHRAE Journal* article from August 2016, ASHRAE Fellow Steve Bushby and Allen Jones, Associate Member ASHRAE, [discuss another aspect of smart cities](#): the smart grid.

Hospitals Aim for 100% Clean Electricity by 2025

The University of California is aiming for 100% reliance on clean electricity supplies across its campuses and medical centers by 2025. The university aims to emit net zero greenhouse gases also by 2025. Sustainability in [hospitals is challenging](#), due to round-the-clock energy demands and more stringent environmental controls than in non-clinical facilities. An *ASHRAE Journal* article from June 2018 discusses how a group of hospitals in [reduced its greenhouse gas emissions by 52%](#).

Solar Thermal AC Units Could Reduce Energy Use

The Guam Department of Education spends about \$12.3 million on power, according to a study that recommended strategies to reduce the department's power consumption. One solution was [solar-assisted thermal air-conditioning units](#), which consist of cylinder tubes lined with thin solar heat-conducting film. Inside the cylinders, high-pressure copper coils serve as a heat exchanger. An *ASHRAE Journal* article from March 2018 explores how another educational setting [converted its heating and cooling systems](#).

[Tower in China Acts Like 'World's Biggest Air Purifier'](#)

Turin, Italy—XIAN, China—An experimental 100 m (328 ft) tower in northern China—called "the world's biggest air purifier" by its developers—has brought a noticeable improvement in air quality to an area known for its pervasive smog, according to the scientist leading the project. The tower in Shaanxi province is undergoing testing by researchers at the Institute of Earth Environment at the Chinese Academy of Sciences. The head of the research said improvements in air quality had been observed over an area of 10 km² (3.86 square miles) in the city over the past few months and the tower has managed to produce more than 10 m³ (353 million ft³) of clean air a day since its launch.

[Shipping Container Made With PCMs Keeps Contents Cool](#)

University of Birmingham experts have worked with one of the world's biggest railway rolling stock companies to develop the first-ever shipping container using materials that store and release cold energy.

Using phase change material (PCM), Birmingham scientists and their counterparts at CRRRC Shijiazhuang, in China, have developed a 'refrigerated' container that is easier and more efficient to operate than conventional equipment.

[Chicago Aquarium Saves Millions With Energy Management Dashboard](#)

The Shedd Aquarium in downtown Chicago had invested in an impressive suite of clean energy solutions, from a 1-megawatt lithium-ion battery to automated energy management software.

[Carbon Dioxide for Industrial Refrigeration](#)

By Donald L. Fenton, Ph.D., P.E., Life Member ASHRAE

CO₂ is one of the five natural refrigerants and over the past 20 years has gained popularity, particularly with low-temperature refrigeration for industrial systems. When CO₂ is used in a cascade or a secondary coolant refrigeration system, the ammonia

system charge is reduced by about 80% and confined to the machinery room where the consequences of a leak or spill are decreased. However, CO₂ is not without drawbacks. This article discusses pros and cons.

ASHRAE Learning Institute

Check out ASHRAE eLearning for more than 90 courses available on your computer. These courses have been created by HVAC&R professionals using ASHRAE's extensive pool of knowledge and most courses are recognized PDHs by AIA and GBCI (confirm with licensing body for specifics). Course options include:

- Introduction to Refrigerants
- Refrigerant Selection
- Refrigerant Management
- Ethics for the Built Environment Professional Engineer
- Standard 62.1-2013: Natural Ventilation Procedure
- Using Standard 90.1-2010 to Meet LEED Requirements
- Building Information Modeling
- Humidity Control Design: Basic Principles, Loads and Equipment
- Standard 189.1 for High-Performance Green Buildings - Energy Efficiency
- School of Hard Knocks: Controlling Moisture & Humidity in Buildings

[Click Here for More Details](#)

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Explaining the magic of the drink ticket.
