



## Iowa Stalks

### Monthly Newsletter - November 2018

## This Month at ASHRAE Iowa

### 2018 November Chapter Meeting

#### When

Wednesday November 14, 2018

Dinner Meeting and Tour

4:00 pm – Industry/Student Panel

5:00 pm – Social

6:00 pm – Dinner/Business Meeting

7:00 pm – Depart for Marston Hall  
(for those who sign up)

7:15 pm – Presentation and Tour of  
Marston Hall Tour by Lincoln Pearce  
(max. 30 people for the tour)

#### Location

Olde Main Brewing Company  
(Dinner & Meeting)

316 Main St, Ames, IA 50010

ISU Marston Hall (Tour)

### The Transformation of Marston Hall: Creating a 21st century learning environment in a 19th century structure

Marston Hall, originally built in 1903, is the historic home of the College of Engineering at Iowa State University in Ames. In 2016, ISU completed the first comprehensive renovation of Marston Hall, creating a 21st century learning environment within the 19th century structure.

The building's age and original structure presented opportunities and challenges in the design of mechanical systems for the project. Lincoln Pearce will discuss the strategies used to achieve ISU's architectural, energy efficiency, and LEED goals, including:

## Program

Roundtable discussion with students  
and industry professionals  
Tour of ISU Marston Hall

## Social Sponsor

Johnson Controls, Inc. (JCI)

- System concept analysis and final selection reasoning
- Integrating mechanical distribution pathways into the building architecture
- Controlling and mitigating humidity concerns
- Minimizing envelope and ventilation loads

**Presenter: Lincoln Pearce, IMEG Corp.**

Lincoln is a Senior Principal at IMEG with more than 20 years of building design and construction experience. He is a licensed Professional Engineer, LEED Accredited Professional, and an ASHRAE Certified Building Energy Assessment Professional.

# President's Corner

With the chill in the air, it feels like winter has hit us already! The holidays are around the corner and it always feels like this time of years gets super busy and zooms by so fast. Hopefully you will be able to still make it to a few ASHRAE events before the year is up as we have several events planned this year!

Our October meeting was a great start to our chapter meeting. We had a great turnout to hear ASHRAE DL, Daniel Int-Hout, III, speak on Building Loads and Dedicated Outdoor Air Systems. Thanks to everyone who came out to help make that meeting a success.

This month is student night in Ames! We will meet at Olde Main for dinner and will be celebrating the

## ASHRAE Iowa Chapter

[www.ashraeiowa.org](http://www.ashraeiowa.org)

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Matt Jesson  
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*President*  
Brian Steffens  
*President Elect*  
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*Treasurer*  
Adam Puls  
*Secretary*

students by handing out five scholarships to well-deserved Iowa State students. After dinner we have a tour of the recent renovations of historic Marston Hall.

Additionally, later this month we have a Young Engineers in ASHRAE (YEA) event planned at Smash Park in West Des Moines. Come show off your skills and share some food and drink with us.

On December 12 we will host our annual lunch joint meeting with CSI and SMCI at the downtown Holiday Inn. We will continue our tradition of honoring our past presidents, so I hope all you past presidents can make it. We again have the honor of hosting past ASHRAE society president Tim Wentz. Tim will give his presentation titled "*The Interface Between Risk and Ethics.*"

Mark your calendars and I'll see you at the events!

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

Tyson Scheidecker

**- Committee Chairs –**

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Dan Zaug

Auditing

Joe Moench

CTTC

Matt O'Banion

Peter Erzen

eCommittee

Jason Kems

Chris Clausen

Education

Kit Cartwright

Matt Gumm

GAC

Matt Swenka

Historian

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

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## 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  
Holly Elbert 2010-2011  
Roger Leshner 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

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  
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

Robert Rist 1983-1984  
Joseph Proctor 1982-1983  
Mark Allen 1981-1982  
Curtis Klaassen 1980-1981  
Gerald Anderson 1979-1980  
C.W. Miller 1978-1979  
Richard South 1977-1978

P.E. Triggs 1942-1943  
Perry LaRue 1941-1942  
R.A. Norman 1940-1941  
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
<b>November</b>	<b>14</b>	<b>Ames</b>	<b>Student Night &amp; Tour</b>
December	12	Holiday Inn	SMCI / CSI Joint Meeting
January	17*	Hotel Renevo	TBD
February	15*	TBD	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?

## Research Project Opportunity

Seventhwave (formerly Energy Center of Wisconsin) is conducting the **ASHRAE Research Project RP-1814** “Actual Energy Performance of Secondary Schools and Medium Offices Designed to Comply with ASHRAE Standard 90.1-2010.”

They have reached out to the ASHRAE Iowa chapter and their members for sample buildings for the research project. If you have a project that may be a potential candidate, contact [Joe Zhou](#), senior researcher, with Seventhwave OR fill out a two-minute online survey [at this link](#).

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## Young Engineers in ASHRAE (YEA)



\*NOTICE - CHANGE OF DATE\* Mark your calendars for **November 30th** as the Fall YEA event will be held at the new Smash Park in West Des Moines. [Signup is available online](#)

Young Engineers in ASHRAE is a program to help identify, create and support activities geared towards young members that want to grow their career. Learn more about YEA at the ASHRAE website: <https://www.ashrae.org/communities/young-engineers-in-ashrae-yea>

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# STEM Festival

There was a great turnout at the DMACC Stem Festival. Over 800 students passed through the event that had 47 different exhibits, including ASHRAE Iowa's STEM rig. Thanks to the volunteers that turned out to help run the booth.



## 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 <a href="http://ashraerp.com">http://ashraerp.com</a> to donate online. Please contribute all donations to the Endowed Research via ASHRAE Foundation.			
Individual Investors HR = Honor Roll participants \$100 min		7.0% OF GOAL	\$18,600.00 -TO GO!
		Company Investors HR = Honor Roll participants \$250 min	
Mr. Mark G. Conroy	HR	\$20,000	ASHRAE Iowa Chapter
Mr. Roger D. Hill	HR	\$19,500	HR
Mr. Brian A. Steffens	HR	\$19,000	
Mr. David Hummel	HR	\$18,500	
Mr. Luke Miller	HR	\$18,000	
Mr. Kirk C. Cartwright	HR	\$17,500	
Mr. Fred Miller	HR	\$17,000	
Mr. Matthew S. Jenson	HR	\$16,500	
Mr. Adam Puls	HR	\$16,000	
Mr. Daniel L. Ponus	HR	\$15,500	
Mr. Tyson Scheidecker	HR	\$15,000	
Mr. Justin L. Barrett	HR	\$14,500	
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		\$1,400.00	

Updated: 07-11-18

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!**





# ASHRAE Society News



## ASHRAE Government Affairs

Sign up for the bi-weekly Government Affairs newsletter. It is the best way to stay current with government activities that impact the HVAC&R industry and identify opportunities for you to get involved.

Link: <https://www.ashrae.org/about/government-affairs>

## Industry News

### [ORNL Develops Means to Control Heating, Cooling of Large Network of Buildings](#)

*OAK RIDGE, Tenn.*—Oak Ridge National Laboratory has developed a method to control the heating and cooling systems of a large network of buildings for power grid stability. "We developed control schemes that don't require a large number of calculations and can be implemented easily on existing HVAC systems that have simple on-off controls," said ORNL's Mohammed Olama. Simulations found that the controls are successful in providing frequency regulation from 50 buildings, while keeping indoor temperatures within 0.5°C (0.9°F) of a set range.

### [Arizona Utility, NREL Launch Large-Scale Home Energy Storage Study](#)

*TEMPE, Ariz.*—An Arizona utility is collaborating with the National Renewable Energy Laboratory (NREL) on one of the largest battery energy systems (BES) studies to date, involving up to 4,500 of its customers. Salt River Project (SRP) is providing qualified customers financial incentives to purchase a residential battery system. Select customers will participate in a research study to provide a large-scale analysis of the impacts of BES technologies. NREL will assist the utility throughout the three-year program by evaluating battery technologies and interpreting data about customer battery use.

PHOTO: Households in central Arizona

### [Scientists Develop Liquid That Can Store Solar Energy For More Than a Decade](#)

GOTHENBURG, Sweden—Researchers in Sweden have [developed](#) a specialized fluid that can absorb solar energy, hold it for up to several years and release it when needed. The liquid molecule is composed of carbon, hydrogen and nitrogen. When it is hit by sunlight, the bonds between its atoms are rearranged and it turns into an energized isomer. Energy from the sun is thus captured between the isomer's strong chemical bonds, and stays there even when the molecule cools to room temperature.

### [ASHRAE Opens Third Round of Comments for Legionella Guideline 12](#)

A third round of public comments is open for ASHRAE Guideline 12- 2000R, Proposed Revision of Guideline 12-2000, *Managing the Risk of Legionellosis Associated with Building Water Systems*. Guideline 12 is open for public review until Dec. 17. Those interested in reviewing and commenting on the guideline can do so through the [ASHRAE Online Comment Database](#). This is an Independent Substantive Change (ISC) public review draft, so only revisions in strikethrough and underlined are open for comment. The purpose of ASHRAE Guideline 12 is to provide information and guidance to assist in control of legionellosis associated with building water systems. It also provides guidance useful in the implementation of ASHRAE Standard 188, *Legionellosis: Risk Management for Building Water Systems*.

### [How Good IAQ Can Help Save Energy in Labs](#)

*Charles Coward, P.E., Fellow/Life Member ASHRAE*

According to the author, stable control of an HVAC system can only be achieved when the number of controlled variables are less than or equal to the degrees of freedom (DOF), which represents the maximum number of variables in the control system that can be manipulated by it. In complex HVAC applications, the number of points in a system, such as an air handler control sequence, can exceed 100. This article reviews the process of calculating the DOF and applies it to an air-handling system using a typical control system for a laboratory space as an example.

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## **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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Back when it was warm outside.

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