THIS MONTH AT ASHRAE

Student Night

Date: Monday, November 7th

Location: ISU Alumni Center
420 Beach Avenue
Ames, IA 50011

Buchanan Residence Hall
2160 Lincoln Way
Ames, IA 50013

Schedule: 5:30 - 6:30  Tour of Buchanan Residence Hall #2
   Please bring your own hard hat.
6:30 - 7:00  Appetizers and Social Hour
7:00 - 7:30  Business Meeting and Scholarship Presentations
7:30 - 8:30  Appetizers and Social Hour

Cost: Free to ASHRAE Iowa Chapter Members
$15 for Guests

Register online by November 6th!

Alumni Center: Please park on the East side of the building.

Buchanan Residence Hall #2: There is limited parking near the construction site. Parking will be available at the Memorial Union parking ramp across the street. If you choose to walk, it is ½ mile from the Alumni Center.
Greetings and Happy No-Shave November to those who participate! May your mustaches, beards and etc. grow wild and free!

The October meeting was an excellent start to our chapter meetings with great member turnout as well as an informative tour and presentation on the net-zero energy Market One building. Thank you to all who attended and especially to Harry Doyle and Modus Engineering for their time and hospitality.

Coming up this month is our annual student meeting in Ames. We will start off at 5:30PM with a tour of the new Buchanan 2 Residence Hall project. Parking will be limited in the area so give yourself some extra time to park and walk to the building. After the tour we’ll meet back at the ISU Alumni Center at 6:30PM for drinks, appetizers and presentation of chapter scholarships. We’ve left extra time in this month’s schedule for our professional members to interact with the student members so feel free to mingle! Make sure you register for the meeting on our website: www.ashraeiowa.org

The December meeting will be our annual joint lunch meeting with CSI and SMCI at the downtown Holiday Inn. This year’s meeting will be on December 12th and will feature SMACNA’s Executive Director of Technical Services, Eli Howard, speaking on Fire/Smoke damper selection, installation and service.

Hope to see you next Monday in Ames!

Andrew Pospisal (email)
Iowa Chapter President 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 Lesher 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
Curtis Klaassen 1980-1981
Gerald Anderson 1979-1980
C.W. Miller 1978-1979
Richard South 1977-1978
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
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. McGuiness 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
Tracy Johnson 1939-1940
W.R. White 1938-1939
October Meeting
October 12th, 2016
MODUS Engineering

We had a great turnout for the October meeting. Thank you to MODUS for the tours and Harry Doyle for his presentation, *Market One… Net Zero One Year Later*.

YEA Meeting
October 25th, 2016
Fox Brewing

Another successful YEA event with plenty of pizza, beer, and good times.
December Meeting
Joint Meeting with SMCI & CSI

Date: Monday, December 12th

Location: Downtown Holiday Inn
1050 6th Avenue
Des Moines, IA 50314

Agenda: Lunch and Presentation

Topic: Fire / Smoke Damper Selection, Installation, and Service

More details to come!

Future Meetings

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Location</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>29</td>
<td>Echo Valley Country Club</td>
<td>Fall Frolic Golf Outing</td>
</tr>
<tr>
<td>October</td>
<td>12</td>
<td>MODUS Engineering</td>
<td>Membership &amp; RP Night</td>
</tr>
<tr>
<td>November</td>
<td>7</td>
<td>ISU Alumni Center</td>
<td>Student Night</td>
</tr>
<tr>
<td>December</td>
<td>12</td>
<td>Downtown Holiday Inn</td>
<td>SMCI &amp; CSI Joint Meeting</td>
</tr>
<tr>
<td>January</td>
<td>11</td>
<td>Gilroy’s</td>
<td>Refrigeration</td>
</tr>
<tr>
<td>February</td>
<td>22</td>
<td>Exile Brewing Company</td>
<td>Distinguished Lecturer</td>
</tr>
<tr>
<td>March</td>
<td>22</td>
<td>West Des Moines Marriott</td>
<td>Technical Session</td>
</tr>
<tr>
<td>April</td>
<td>20</td>
<td>TBD</td>
<td>ASHRAE Webcast</td>
</tr>
<tr>
<td>May</td>
<td>TBD</td>
<td>TBD</td>
<td>Spring Fling Golf Outing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Location</th>
<th>Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>28-1</td>
<td>Las Vegas, NV</td>
<td>2017 Winter Conference</td>
</tr>
<tr>
<td>April</td>
<td>20-22</td>
<td>St. Louis, MO</td>
<td>Region VI CRC</td>
</tr>
<tr>
<td>June</td>
<td>24-28</td>
<td>Long Beach, CA</td>
<td>2017 Annual Conference</td>
</tr>
</tbody>
</table>
Industry News

ASHRAE Publishes 2016 Version of Standard 90.1
Numerous energy-saving measures resulting from industry input are contained in the newly published ANSI/ASHRAE/IES Standard 90.1-2016, Energy Efficiency Standard for Buildings Except Low-Rise Residential Buildings. The 2016 version of the standard contains 125 addenda published since the 2013 standard. The new version includes technical changes to provisions regarding building envelope, lighting, and mechanical systems. Specific building systems affected include chilled water plants, DOAS, economizers, elevators, fenestration and lighting controls. The formatting of the standard also has been changed to make it easier to read and use. In addition, new annexes and tables link the standard to related documents, notably ANSI/ASHRAE Standard 169-2013, Climatic Data for Building Design Standards.

Novel 3-D Printed Material Shrinks When Heated
LIVERMORE, Calif.—A research team led by Lawrence Livermore National Laboratory (LLNL) has developed 3-D printed materials with a unique property—instead of expanding when heated, they shrink. The bi-material microlattice structure is printed from polymer and a polymer/copper composite material that can flex inward, causing the structure to contract when exposed to heat over a range of tens to hundreds of degrees. Possible applications for the metamaterials, the researchers concluded, could come in securing parts that tend to move out of alignment under varying heat loads.

"Traditionally, the way you compensate for (thermal mismatches) is with active control or heating and cooling," said principal investigator Chris Spadaccini, director of LLNL's Center for Engineered Materials and Manufacturing. "But what if you could design a material that would hold the object and passively adjust to local temperature changes?"

Stored Snow Could Provide Cheap Cooling During Warmer Months
VANCOUVER, British Columbia—A recent study has found that snow cleared from roads during the winter can be used to help reduce summer air-conditioning use and expenses. The research team from the University of British Columbia (UBC) used computer modeling to find that directing a building's air-handling units through a snow dump—snow collected and stored from winter road clearing operations—can be an efficient and effective cooling method. The study included simulations for different sizes of buildings and accounted for different types of equipment needed in both conventional systems with industrial cooling units and snow-dump based systems, which insulate snow collected during the winter to use during the summer.

Companies Tout Low-Grade Waste Heat as Energy Source for Data Centers
PLANO, Texas—A new partnership between data center colocation company Aligned Data Centers and Swedish energy company Climeon aims to harness low-grade waste heat and convert it into energy for data centers. The companies say that Climeon’s heat recovery technology can be used to capture heat from water treatment plants, paper mills and electric utilities. Climeon's technology creates energy from low-grade waste heat, between 50°C and 70°C (120°F and 160°F). The technology is delivered in a module that only requires a hot water source, a cold water source and a power connection. The 150 kW generation unit has a footprint of only 4 m² (43 ft²). Incoming waste heat converts a working media from liquid to gas. The gas occupies more space than the liquid, creating pressurized gas that passes through a turbine to generate electricity.

ASHRAE News

Online Thermal Comfort Compliance Tool Included in Standard 55 User’s Manual
The new user’s manual for ANSI/ASHRAE Standard 55-2013, Thermal Environmental Conditions for Human Occupancy, includes a free online thermal comfort tool that can be used as the official tool for showing compliance with Standard 55-2013 and all of its published addenda. The online tool is available only to those who purchase Standard 55 User’s Manual and can be accessed from any Internet-connected device. In all, the user’s manual provides detailed information on the requirements of the standard. It includes tables, illustrations and examples to aid users in the design, commissioning, and measuring and rating of thermal comfort in buildings.

Feature of the Week

The Hidden Daytime Price of Electricity
By Evan Berger
According to the author, in a sense electricity demand charges serve as a peak-time adder for a typical nonresidential customer with a bell-shaped load curve, making energy twice as expensive during the day—or, looking at it from another perspective, half-off at night. Yet despite the outsized effect that demand charges have on commercial, industrial, and institutional customers, these costs are poorly understood by the entities who pay them. This article provides an overview of various “demand” charges, such as utility demand, grid demand, and rate structure-related costs. Also, it demonstrates how reducing peak demand and managing one’s load curve can provide customers with opportunities to reduce costs.
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