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UPCOMING EVENTS
• February Chapter Meeting
  February 3rd, 11:30am Meeting
  Virtual Meeting
  Speaker: Jenny Hill & Stirling Boston
  Topic: Legionella Risk Mitigation- A Comprehensive Approach

• February Board of Governors Meeting
  February 17th, 11:30 AM
  Engineered Equipment Inc.
  4601 N Sante Fe Ave
  Oklahoma City, OK, 73118

• February YEA Event
  February 2021 (Final Date TBA)
  Location & Time: TBA
ASHRAE Tech Hour brings you the latest technical content presented by some of ASHRAE’s brightest minds. Tech Hour videos are just one hour, worth one PDH*, and conveniently available through the ASHRAE 365 app. Download ASHRAE 365 on the App Store or Google Play or by clicking the below link.

https://www.ashrae.org/professional-development/tech-hour-videos

Tech Hour #1: Optimize Occupant Health, Building Energy Performance and Revenue through Indoor-Air Hydration (Presented by Stephanie Taylor, M.D., M. Arch., Taylor Healthcare Inc., CEO)

Central Oklahoma ASHRAE Chapter Member Spotlight: Dr. Craig Bradshaw

Dr. Bradshaw joined the faculty of the School of Mechanical and Aerospace Engineering at Oklahoma State University in August of 2016. Since that time, Dr. Bradshaw has taught courses focused on Thermal Fluids Design, Thermodynamics, and Mechanical Engineering Projects (Capstone Design). Dr. Bradshaw is a graduate of Purdue University and completed his doctoral thesis in the spring of 2012. With a focus on compressor and refrigerant research, Dr. Bradshaw joined Torad Engineering after graduation where he focused on compressor research, eventually ascending to manager of research and development. Dr. Bradshaw is instrumental in leveraging ASHRAE research projects to Oklahoma State University, including five ASHRAE Student Project Grants.

Recently, Dr. Bradshaw was instrumental in the formation of the CIBS (Center for Integrated Building Systems) at Oklahoma State University. Dr. Bradshaw is the founding director of the center and coordinated with industry and academic stakeholders to develop a multi-year strategy to improve building systems. This endeavor required recruitment of faculty and industry partners to support projects. Dr. Bradshaw is responsible for oversight of project execution and member engagement.

CIBS has a vision of a built environment that is holistically connected from component to grid-levels that maximizes energy utilization without sacrifice to occupant comfort or equipment performance. The center will develop the physical/cyber-physical models and datasets which are required to assess and suggest appropriate integration of equipment, systems, with structures and surrounding environment. These models and data sets will be disseminated in a common data framework that is accessible to the breadth of stakeholders to inform and evolve all aspects of the building design process. Further, the models and datasets will codified and disseminated to the CIBS members with the objective of delivering recurring, tangible, center outcomes to support member companies’ long-term objectives.
President’s Message

January Chapter Update

By: Chris Dolan
January 2021

Hello ASHRAEecok Family!

Happy New Year and Welcome to 2021. Hopefully 2021 will be a little easier to navigate than 2020!

Our February meeting will be in person. We will take the proper precautions to make it safe for everyone to attend. Please plan to show up and meet with your peers.

I am happy to announce our nominating committee has been approved. Bryan Garcia, Madison Schultz, Dusty Stoabs, Heather Martin, and Tanner Jones have all agreed to serve on the committee for this year. If you are interested in being a part of the Board please reach out to one of these people and let them know. It is always important to have new people participate so we can grow and change as a chapter.
Research Promotion

Upcoming Seminar– OSU MAE Graduate Research
By: Chris Dolan
January 2021

One of our most successful fundraisers for ASHRAE RP is the sporting clays event we host in the spring. The date has been set for March 12th! Our goal this year is to have 24 teams. It is going to take everyone’s help to make this happen. If you would like to volunteer to help with this event please send me an email (cdolan@eei-ok.com). Any help would be appreciated!

Young Engineers in ASHRAE (YEA)
By: Gavin Swenson
January 2021

I hope the holidays found you all well. We’re looking to kick the new year off with a bang; Our February YEA event will be paintball! You’re going to want to wear a face covering for this one. We hope to see you all out there! Further details should be hitting your inboxes soon.

Student Activities and Scholarship
By: Scott Sanders & Robert Smith
January 2021

The Central Oklahoma Chapter of the American Society of Heating, Refrigeration and Air-conditioning Engineers is pleased to announce Hyunjin Park and Saad Saleem as our 2020 scholarship recipients!

Hyunjin Park is a Mechanical Engineering PhD student at Oklahoma State University and Saad Saleem is also a Mechanical Engineering PhD student at Oklahoma State University as well.

The scholarship awards will be $1,500.00 and will be paid to their university in equal semester disbursements.

I would like to thank our scholarship committee for their assistance with the selection process. We are also looking for anyone that would like to be involved in the Scholarship Committee. For additional information please contact me at rsmith@eei-ok.com or 405-627-5941.

Sincerely,
Robert Smith, rsmith@eei-ok.com
ASHRAE COK Scholarship Chair 2020-2021
**Membership Promotion**

By: Tanner Jones  
January 2021

Happy New Year Central OK Chapter! I know we are all looking forward to making this year better than 2020 and working toward our goals. On the membership side of things, we ended the year roughly 7 members down from when we started in September. It has been difficult with layoffs, companies cutting costs (ASHRAE membership dues) and not being able to get together like normal, but ASHRAE Society has put in place a plan for those delinquent members that are having a hard time due to the pandemic. All delinquent members that have not been able to keep up with their dues because of the pandemic, please see the letter below. Please let Society know what you have been going through and they will more than likely able to help you with your dues.

I hope this e-mail finds you well and safe amid the current pandemic. I was notified by Society that your ASHRAE membership has expired. As you know, membership benefits include discounts and online access to ASHRAE publications, an annual copy of the ASHRAE Handbook, the monthly ASHRAE Journal and HPB Magazine, discounts on continuing education opportunities, conferences and much more. I would like to encourage you to renew your membership. Renewing is easy:

- Login to ashr ae.org  
- Click Join or Login  
- Renew your membership (remember to select our chapter for local dues)

If you are currently experiencing hardship, especially with the currently COVID-19 pandemic, please contact our Member Services Department at members@ashrae.org. One of our Member Services Representatives will assist you in determining your hardship case and provide guidance with respect to an adequate adjustment to your dues and other member benefits for the 2020 – 2021 Society Year. I want to encourage you to take full advantage of the benefits ASHRAE has to offer. Please visit the Society and our chapter website for upcoming chapter events.

If you have any questions, please let me or the committee members below know.

- Will Thompson (wthompson@mechs ales.com) – Committee Member
- Alex Roswell (aroswell@psaokc.com) – Committee Member
- Conner Walters (connerw@harrisonorr.com) – MP Co-Chair
- Tanner Jones (tkjones@eei-ok.com) – MP Chair
Chapter Technology Transfer

February Chapter Meeting Presenter

By: Heather Martin
January 2021

Please join on Wednesday, February 3rd for our February Chapter Meeting. In light of the COVID-19 Virus, the Will Rogers Theater has taken the following precautions to ensure everyone’s safety:

1. Setting up more tables
2. The number of people at each table will be limited to allow 6 feet of distancing
3. Masks must be worn in the lobby area and when not sitting down at a table
4. Setting up food behind the bar
5. Staff will be serving the food and all servers will be wearing masks and gloves
6. Hand sanitizer will be provided on all tables
7. Green, yellow, and red lanyards will be handed out upon check-in:
   A.) Green means you are comfortable with personal contact like handshakes or hugs.
   B.) Yellow means you are filling to fist-bump, but want to remain at a distance from other people
   C.) Red means you do not want any personal contact at all and ask that people remain 6 feet from at all times

We hope these measures will allow everyone to feel comfortable attending the meeting in person!

Speaker: James Livingston
Topic: Life Safety Damper Overview

Bio: James Livingston, Central Regional Sales Manager, Ruskin Company

James Livingston began his career at Ruskin in 1989 and has held various positions in product engineering and sales during his tenure. In 2010, he began his current role as a Regional Sales Manager where he supports Ruskin representatives in their efforts to promote and sell the company’s damper, louver and air measuring products. As a regional manager he has covered areas in the U.S. and Canada, and currently manages 13 states in the central U.S. James earned a B.S. in Mechanical Technology from the University of Central Missouri and resides in the Kansas City, Missouri area.

-Heather Martin
Government Affairs

**Oklahoma Building Code Progress**

By: Jeff Forman

January 2021

On 1/11/21, we again participated in a WebEx meeting with the OUBCC committee members. During this meeting, the IECC committee of the OUBCC discussed which version of the IECC Code to adopt for approval by the full commission. After detailed discussion, primarily dominated by residential code (not commercial) concerns, the 2015 IECC code was approved. If the full commission accepts, then they will refer to the OUBCC technical committee who will initiate a review process and make edits and modifications.

While disappointing the 2015 version was approved, there will be several opportunities to edit and improve to sections to the 2018 version to match our other code sections. Upcoming Senate Bill SB 148 is the legislation local ASHRAE members pushed to get sponsored and expands the OUBCC committee to 13 people, requiring the 2 additional people to be (1) licensed mechanical engineer and (1) licensed electrical engineer. Why is this important? OUBCC will have a more balanced representation by engineers and the commercial market.

Soon we will announce our 2021 Government Outreach Day (formerly Day on the Hill). The Oklahoma legislative session begins on 2/1/21, be prepared to reach out with us to your senator and representative.

If you have any questions or would like additional information, please contact me at jforman@mechsales.com, 405-368-8883 or Byron at bhughes@rbakins.com

Jeff Forman  
Government Activities Chair

Byron Hughes  
Government Activities Co-Chair
Sustainability / Community Service Projects
By: Craig Yadon
January 2021

Project #1 (UPDATE). Habitat for Humanity (November 14, 2020)
Below are recent pictures of the now bricked house that the chapter frames on November 14th and it appears that it might actually support the dead loads on the structure anyway. Thanks to Audre Carter for snapping these for us.

Project #2. Boathouse Docks and Shoreline Project (When: March 27, 2021)
The Central Oklahoma ASHRAE Chapter will continue to assist the OKC Boathouse District with cleanup of the north shore of the Oklahoma River. Over the last several years we have picked up numerous sacks of trash and debris which makes a huge impact on how the public views this beautiful OKC resource.
In early 2018, the ASHRAE Historical Committee proposed multiple projects in celebration of ASHRAE’s 125th anniversary. Many suggestions were made as to the coverage, format, and possible authors for the work; and, these projects eventually included writing articles for the ASHRAE Journal, creating a historic calendar, and compiling biographical information on men and women who had made substantive contributions to the art and science of the industry that ASHRAE serves. ASHRAE even created a lapel pin for members who wanted to join in the celebration (right). Society President Chuck Gulledge, in the 2020-2021 PAOE categories, create two Presidential Initiatives to celebrate the 125th Year Celebration. This article is the second in a series as a way to achieve these points. I hope you enjoy it.

ASHRAE and Industry History - Continued

In the first article we learned that the “The American Society of Heating and Ventilating Engineers (ASHVE)” was incorporated in the state of New York on January 24, 1895. Many of our ASHRAE rituals today are tied to this first group. To comply with the laws of the State of New York, the date of the annual meeting was specified in the Constitution as the last week in January (still typically followed today).

The newly formed Society was interested in many of the issues of the day, but foremost wanted to establish priorities that would be to the public’s best interest. Several committees were formed during the first meeting (Sound familiar? Look for other key words as you read along). These were:

- The Committee on Tests “for the purpose of making such tests as may be for the interest of the society”
- Committee on Standards “to establish a clearly defined minimum standard of heating and ventilation for all classes of buildings”
- Committee on Compulsory Legislation “to favor legislation compelling ventilation of all public buildings in accordance with the standards of this society”
- Committee on Uniform Contract and General Conditions of Governing Specifications “to establish a uniform scale of prices for all professional services”
- Nominating Committee for the purpose of identifying and nominating candidates for officers, Board of Managers and Council
Each year, beginning in 1895, the Society documented its work by publishing the proceedings, papers and discussions from the annual and semi-annual meetings in Transactions of The American Society of Heating and Ventilating Engineers (and ASHRAE still does today.)

President Bates said of this new society and the work to be done, “We need to look backward but a very few years to find that our profession was unknown. The rapid strides of modern civilization have created many new professions, and ours among them. There is a wide field open before us, and it yet remains to be seen how well we shall occupy it. The child is born, and it gives great promise of a grand future.”

Eventually the Society started printing “The American Society of Heating and Ventilating Engineers Guide”, first introduced in 1922. This guide included “The Synthetic Air Chart” that was developed by Dr. E. Vernon Hill and adopted by The American Society of Heating and Ventilating Engineers for the purpose of comparing the air conditions in any room with the ideal or standard conditions. The guide presented the chart along with a description of its method of application, which was worked out by the Society’s Research Bureau. The Bureau stated that the Synthetic Air Chart offers a means of determining the percentage of perfect ventilation by considering all the known factors that make up the air conditions in a room.

As the Society grew, it developed membership emblems and established awards in recognition of “work done and meritorious services performed in the field of heating, ventilation or air conditioning.” The emblems were to be worn so “Attention is called to your privilege as a member of wearing the Society's emblem (1925).” One of the earliest ASHVE awards was the F. Paul Anderson Award named after named for F. Paul Anderson, ASHVE president in 1927 and an ASHVE laboratory director from 1921 to 1925. This award was first presented in 1932 to Dr. Willis H. Carrier.
The Society even had a song set to the music of the Battle Hymn of the Republic (words by Washington Chapter, performed at 1940 Annual Meeting in the District of Columbia). Semi-Annual meetings were sometimes scheduled with fun in mind (1925, note, the play on words).

Please note: Information excerpted from information available from ASHRAE website through the Historical Committee links - “Proclaiming the Truth” – Chapter 1.

Respectfully Submitted,
Randy Schrecengost, Society Historical Committee past-Chair

Dusty Stoabs, PE, CPMP, LEED AP
ASHRAE Central Oklahoma Chapter Historian

www.ashraecok.org
ASHRAE COK- November Chapter Meeting Minutes
By: Don Carter

Meeting Date: 1/6/2021
Meeting Location: Online Meeting

Members: 24 Guests: Students: 0

Chapter Officers:

Chris Dolan – President (A)
Caleb Spradlin – President Elect (P)
Madison Schultz - Vice President (A)

Don Carter – Secretary (P)
Stephanie Thomas – Treasurer (P)

Board of Governors:

Michelle Lefebvre (A)
Aruna Abhayagoonawardhana (A)
Alex Roswell (A)
Robert Smith (A)

This Virtual meeting was called the meeting to order at 11.50 am.

The Nominating Committee was submitted for approval by the Chapter.
Heather Martin, Madison Schultz, Tanner Jones, Brian Garcia, Dusty Stoabs.
Chapter approved.

Heather Martin introduced speaker.
Douglass Reindl. Topic: Refrigerant Safety-Inside and Outside the Machinery Room

Heather Martin adjourned the meeting at 12:55 pm.

Submitted,

Don Carter
ASHRAE COK Secretary 2020-2021
# Upcoming Chapter Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
<th>Topic</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>2/3/2021</td>
<td>February Chapter Meeting</td>
<td>Will Rogers Theatre, 4322 N Western Ave,</td>
<td>Life Safety Damper Overview</td>
<td>James Livingston, Ruskin Company</td>
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<td>Oklahoma City, OK 73118</td>
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<td></td>
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<td>11:30am Lunch</td>
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<tr>
<td>2/17/2021</td>
<td>December Board of Governors</td>
<td>Engineered Equipment, Inc. 4601 N Santa Fe</td>
<td>N/A</td>
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<tr>
<td></td>
<td>Meeting</td>
<td>Ave, Oklahoma City, OK 73118</td>
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<tr>
<td></td>
<td></td>
<td>11:30 AM</td>
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<tr>
<td>February</td>
<td>February YEA Event—Paintball</td>
<td>TBA</td>
<td>N/A</td>
<td>N/A</td>
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<td>2021</td>
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<tr>
<td>3/27/2021</td>
<td>Spring Sustainability Project</td>
<td>Meeting Location—TBA</td>
<td>OKC Boathouse Docks &amp; Shoreline Project</td>
<td>Contact Craig Yadon with any</td>
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<td>questions</td>
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## 2020-2021 COK Chapter Contact Information

<table>
<thead>
<tr>
<th>Contact</th>
<th>Company</th>
<th>Phone</th>
<th>Email</th>
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<tbody>
<tr>
<td><strong>OFFICERS:</strong></td>
<td></td>
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</tr>
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