



ISSUE III | 2021

DAYTON CHAPTER

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Find Us on



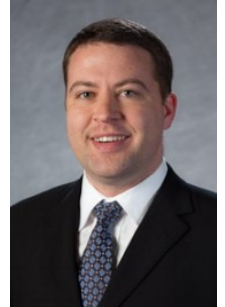
&



Us on Facebook

Main Presentation: Thermal Comfort and Air Movement with HVLS Fans

Presenter: Christian Taber,
LEED AP BD+C, HBDP, BEMP, CEM



March 8th Meeting

Christian Taber is a Principal Engineer at Big Ass Fans, working on building codes/standards and fan test standards that impact the fan industry. Christian is an ASHRAE certified High-Performance Building Design Professional, a Certified Energy Manager, and a committee member of ASHRAE Standard 90.1. He is also a member of the review committees for AMCA 230, 214, 211, 208, and 11. He holds an M.S. in mechanical engineering and B.S. in chemical engineering from Iowa State University, and an M.S. in biosystems engineering from the University of Kentucky.

In this course, we explore how HVLS Fans can contribute to thermal comfort, energy savings, and LEED v4.1. Our team explores the basics of ASHRAE Standard 55 requirements in LEED v4.1 BD+C. We discuss how air movement can assist with meeting the indoor air quality performance and energy performance requirements in LEED. Finally, we review how HVLS Fans can provide additional benefits for green building projects.

Social Hour: 11:30 AM to 11:45 AM

Chapter Business/Instructions: 11:45 AM—Noon

Main Presentation: Noon (Virtual Meeting, see below)

Join Zoom Meeting

[https://us02web.zoom.us/j/83837556736?](https://us02web.zoom.us/j/83837556736?pwd=V1REZXN5dkd1UFdDZTN6OWYwRnZVQT09)

[pwd=V1REZXN5dkd1UFdDZTN6OWYwRnZVQT09](https://us02web.zoom.us/j/83837556736?pwd=V1REZXN5dkd1UFdDZTN6OWYwRnZVQT09)

Meeting ID: 838 3755 6736

Passcode: 916888

One tap mobile

+16465588656,,83837556736#,,,,,0#,,916888# US (New York)

+13017158592,,83837556736#,,,,,0#,,916888# US (Washington D.C)

****Please login/display your first and last name when joining the**

FROM THE PRESIDENT

We appreciate everyone that participated in the survey last month regarding how we can direct Dayton ASHRAE funds. We will update you next month once we are able to finalize our plan.

Thank you to HARDI for participating in our joint meeting in February. Ben Schlinsog was with us to present on the Future of Refrigerants. Please join on March 8 for our next Chapter Meeting. We will be hosting Christian Taber. Christian's presentation topic will be Thermal Comfort and Air Movement with HVLS Fans. Christian will explore how HVLS fans can contribute to thermal comfort, energy savings and LEED v4.1.

With temperatures on the rise, we're inching closer and closer to golf season. Go to Daytonashraegolf2021.eventbrite.com to register for the golf outing on May 28th.

Finally, for anyone who like to get more involved with ASHRAE, please reach out to myself or another board member. We are actively looking to fill multiple roles for the 21-22 ASHRAE calendar year. Thanks, .

Brian Turner - President, Dayton ASHRAE

Upcoming Events

March 8th

ASHRAE Chapter Mtg.
11:30 AM, Virtual Meeting

March 17th

Board of Governors
8:00 AM, Virtual Meeting

April 12th

ASHRAE Chapter Mtg.
11:30 AM, Virtual Meeting

April 21st

Board of Governors
8:00 AM, Virtual Meeting

May 19th

Board of Governors
8:00 AM, Virtual Meeting

[See Additional](#)

[Events & Volunteer](#)

[Opportunities Here](#)

CHAPTER HISTORY (2008-2009)

President:	Lorraine Kapka	Sinclair Community College
President Elect:	Jeremy Fauber	Heapy Engineering
Secretary:	Colleen Haun	Ramsay Cohron
Treasurer:	Rick Pavlak	Heapy Engineering
Historian.:	Tom Ferdelman	Heapy Engineering
Student Activity:	Russ Marcks	Sinclair Community Col.
RP:	Dennis Lammlein	Signature Technologies
Membership:	Russ Rhodus	2-J Supply
Newsletter:	Lorraine Kapka	Sinclair Community College
CTTC:	Mike Kirchens	Elitaire

Meetings were held at the Dayton Engineers Club.
CRC held in Fort Wayne, IN.
Tour: Copeland Plant

Committee Chairs

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Phillip Reid

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Heapy

Board of Governors

Jeremy Fauber

Heapy

Rick Pavlak

Heapy

Lorraine Kapka

Sinclair College

MEMBERSHIP

New Members

The Dayton Chapter is happy to welcome its newest members. If you see them please give them a warm welcome!



February

Zahedule Huq
Andy Utomi

Do you know a colleague that would benefit from joining ASHRAE?

You can go to http://web.ashrae.org/connect_a_colleague/ and quickly sign up for ASHRAE to send an email to ask them to sign up on your behalf.

Membership Recognition

We would like to recognize the following members who have been with ASHRAE for the following years! Thank you for all your contributions to the field!

5 Years

Greg Relue

10 Years

Randall Frisby

15 Years

Anthony Styrcula

20 Years

Mario Linares



Membership Promotion Committee

Looking for a way to get involved with your local ASHRAE chapter and meet new people? The membership promotion committee is looking for volunteers to join the committee. The committee's primary responsibility is to recruit new members and retain existing members. If you are interested in serving please contact Jeremy Fauber at jpfauber@heapy.com or by calling 937-224-0861

Membership Application Here

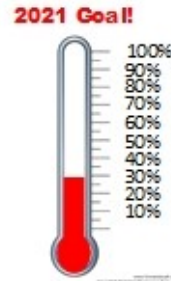
ASHRAE RP

We give a special thanks to our "Partner Level Donor," Emerson Climate Technologies for their wonderful support this year and for all the years they have supported ASHRAE Research. Since we were "socially distanced" in an online meeting for "Awards Night" this year, Brian Turner, Chapter President and Tom Mastbaum, RP Chair went to the Helix to present Emerson with their plaque. Our hats off to Emerson!! We have three more months to go on the "Campaign Trail" and are now at 32% of our Goal. The RP Year ends with the end of the ASHRAE Year on June 30, 2021. Please get your donations in by sending to the Dayton Chapter P.O. Box 3202, Dayton, OH 45401 or simply use the link below.



IMPORTANT: One change that you need to know about: To achieve "Honor Roll" status this year the minimum donation level is **\$150**. Honor Roll means that your name is published in the ASHRAE Journal, and you receive a Commemorative Gold Coin of a Refrigeration or HVAC Pioneer. We appreciate all donations and a donor your name will appear as a donor in our local newsletter. But if you want to keep your "Coin Collection" going and be "Published," the NEW MINIMUM is \$150.

2021 Goal = \$ 19,680
YTD = \$ 6,350
To go = \$ 13,330



Partner Level

Emerson Climate Tech.

Honor Roll

Larraine Kapka
Steve Meier
Tom Mastbaum
Evan Nutt
Trent Hayden
Nathan Lammers
Brian Shenck
Brian Turner
Kyle Schroeder
Jennifer Eller
Sam Tobias
Sheila Sagerer

Bronze Level

Uptime Solutions, Inc.

Honorable Mention

Joseph Ferdelman
Jeff Turner
Jeremy Fauber
Thomas Monnig
Mike Weisman
Matt Dill

Silver Level

Dayton ASHRAE Chapter



If you would like to donate NOW
simply click this link:

[DONATE NOW](#)

And make your donation to help ASHRAE



ASHRAE News

2021 Annual ASHRAE Golf Outing!!

Click on the ASHRAE logo below for more information and to sign up as a single, Foursome or to Sponsor a hole.

Friday, May 28th

At *Pipestone*

Golf Course

4344 Benner Road, Miamisburg



ASHRAE Job Board

[HVAC Sales Account Manager Apogee Mechanical LLC;](#)
Hialeah, Fla.

[University Facilities Engineer, Facilities Management University of Nevada, Las Vegas; Las Vegas, Nev.](#)

[Mechanical Engineer Triple C - The A&E Group;](#)
Remote, U.S.

[Electrical Engineer Triple C - The A&E Group;](#)
Remote, U.S.

[Laboratory Building Coordinator Assistant Texas Department of Health and Human Services;](#)
Austin, Texas

[Research Positions Lawrence Berkeley National Laboratory;](#)
Berkeley, Calif.

[Senior Facilities Mechanical Engineer Salt River Project;](#)
Tempe, Ariz.

[Store Design - Lead Mechanical Engineer Target Corporation;](#)
Minneapolis, Minn.

[Director of Engineering The National September 11 Memorial & Museum;](#)
New York, N.Y.

[Director of Facilities Maintenance Kansas State University | Human Capital Services;](#)
Manhattan, Kan.

[View All](#)

ASHRAE News

UV-C Chapters to be Updated With Best Practices, Guidance

During the COVID-19 pandemic, there have been questions about proper use of germicidal ultraviolet light (UV-C) energy for surface and air inactivation. To answer these questions, ASHRAE Technical Committee 2.9, Ultraviolet Air and Surface Treatment, is working on out-of-sequence updates for *ASHRAE Handbook*. The updated information addresses bio-security and preparedness with different UV technologies using data from ASHRAE's Epidemic Task Force and more. [Read more](#)

Analyzing CO₂-Based DCV for Multiple-Zone VAV Systems With Multiple Recirculation Paths

The original CO₂-based demand-controlled ventilation (DCV) is only applicable to single-zone mechanical systems. A *Science and Technology for the Built Environment* article presents research that applied DCV for multiple-zone variable air volume (VAV) systems with multiple recirculation paths. Researcher Zheng O'Neill, Ph.D., P.E., Member ASHRAE, spoke with *ASHRAE Journal* about this work. [Read more](#)

Avoid the Headlines! Today's Top 10 Security Best Practices for Controls

Mark your calendars: noon ET today

Ensure your controls system does not compromise your building operation or company network. This seminar will discuss 10 cybersecurity best practices that can be implemented in nearly any commercial controls system. [Read more](#)

Robot Dog Could Change How Buildings are Constructed

A London architecture firm is using a dog-like robot to scan and analyze buildings that are under construction. The robots, called Spot, can be programmed to follow a pre-mapped route through the construction site, scanning the progress of the building and comparing it to the original design. By monitoring the construction process every week, the architects can see if and how the physical building is deviating from the plans, and then make adjustments to account for variations. [Read more](#)

Study: New Framework Could Reduce Building Energy Demand for Heating, Cooling

Some researchers are concerned that lowering building energy demand only through energy-efficient technology and design will reach its practical limits. In a [study](#) researchers from Lawrence Berkeley National Laboratory, the National Renewable Energy Laboratory and UC Berkeley make the case for calculating the theoretical minimum thermal load. By calculating this new baseline, researchers are identifying the point at which further reduction in thermal energy would cause occupant discomfort, which could dramatically lower the energy required for heating and cooling buildings. [Read more](#)

Starbucks Builds Energy-Efficient, Modular Store in 6 Days

Starbucks recently built a drive-thru location in Canada using an energy-efficient modular system with near-zero construction waste. The location's roof, floor and wall panels create a thermally efficient, airtight envelope. The insulated panels are coated on both sides with a material made of sand and other materials, creating a building system that is water-proof and fire resistant. [Read more](#)

Study: Radiative Cooling System Lowered Temperature by More than 22°F

University at Buffalo engineers have created a radiative cooling system that lowered the temperature inside a test system in an outdoor environment under direct sunlight by more than 22°F (12°C). The system could eventually be scaled to cover rooftops, engineers say, with the goal of reducing reliance on fossil fuels for cooling and heating. [Read more](#)

ASHRAE Epidemic Task Force Releases Updated Building Readiness Guide

The ASHRAE Epidemic Task Force has updated its reopening guidance for HVAC systems to help mitigate the transmission of SARS-CoV-2. The updated [Building Readiness Guide](#) includes information on pre- or post-flushing strategy methodology, flushing time calculator, heating season guidance and adjustments to align with core recommendations. [Download the guide.](#) [Read more](#)

CDC Releases New Guidelines for Reopening Schools

On February 12, the Centers for Disease Control and Prevention (CDC) released a [35-page guide](#) for the reopening of K-12 schools for in-person instruction. The operational strategy focuses on phased mitigation and is intended to complement the CDC's [guidance, tools and resources](#) that have already been published. The CDC still lists ASHRAE's guidance, including [ASHRAE's guidelines for schools and universities](#) as a resource for ventilation. To learn more, [click here](#).

Sweeping Power Outages in Texas Leave Millions Without Power

Due to extreme cold weather, about four million people in Texas are without power and rolling blackouts are taking place in neighboring Oklahoma and Louisiana. Water line breaks and failures have also led to low or no water pressure, compounding problems. With typically mild winters in Texas, many power plants and associated infrastructure such as pipelines and wellheads have not been adequately winterized. The extreme cold is impacting both gas- and coal-fired electricity generation, as well as that from renewables, such as wind turbines that have frozen. In addition to improving the resilience and reliability of the grid and power generation, increasing energy efficiency of buildings is another solution being called for.

State of Michigan COVID-19 "Safer Dining Program" includes ASHRAE Recommendations

Governor Whitmer of Michigan recently announced a voluntary program called "MI COVID-19 Safer Dining," in which restaurants in the state can work with HVAC inspectors who will recommend ventilation, filtration and air cleaning changes as necessary to improve circulation, air quality and reduce the risk of COVID-19 spread. The program's checklist for restaurants includes references to ASHRAE and CDC recommendations for ventilation and air filtration mitigation protocols. The checklist can be [found here](#).

New Study Highlights Issues with U.S. Cities' Reporting of Carbon Emissions

A new study published in the journal *Nature Communications* assessed the self-reported carbon dioxide inventories in 48 U.S. cities and concluded that these cities under-reported emissions by an average of 18.3%. The study was conducted by cross-checking cities' emissions reports with atmospheric measurement data, which showed this discrepancy. Worldwide, cities are responsible for about 75% of total carbon dioxide emissions. Importantly, however, discrepancies in reporting are often due to a lack of guidance about how to conduct these analyses, along with a lack of resources. More details on the study can be found in *Nature Communications* [here](#).

Legionella Conference Virtual Special Session

On March 9-10, NSF Health Sciences and the National Environmental Health Association will be presenting a virtual special session on preventing disease and injury from waterborne pathogens in an emergent health crisis. This two-day session will focus on how managers in health care, water utilities, manufacturing, cultural institutions, and hospitality, as well as health departments and regulators, can better respond to water-related challenges during a pandemic or major health crisis. Since prolonged closures or low occupancies of industrial, commercial, educational and other types of facilities can significantly increase the risk of pathogen growth in plumbing systems, it is important that attendees understand how to develop emergency plans and adapt water safety practices to prevent avoidable public health hazards.

The [Legionella Conference website](#) contains more detail on speakers and topics.

ASHRAE Endorsed Conferences & Events

Because of the impact that COVID-19 is having on conferences, please check each conference's website for the most up-to-date information.

[2020 IEA Heat Pump Conference](#) — April 26–29, 2021, Jeju-do, Korea Heat pumps are the key equipment for energy savings and greenhouse gas reductions. This conference will serve as a forum to discuss the latest technologies in heat pumps and exchange valuable knowledge in market, policy and standards information on related technologies. Exhibitions at the conference will share products and technologies. [Click here](#) for more information.

[THERMAG IX - International Conference on Caloric Cooling](#) — June 6–10, 2021, University of Maryland

[IBPC 2021](#) — August 25–27, 2021, Danish Technical University, Copenhagen, Denmark

[52nd AiCARR International Conference](#) — September 3–4, 2021, Vincenza, Italy

[AHR Expo-Mexico](#) — September 21–23, 2021, Monterrey N.L., Mexico

2021 ASHRAE Virtual Design and Construction Conference

March 8 - 10, 2021

The 2021 Inaugural ASHRAE Virtual Design and Construction Conference takes place virtually March 8-10, 2021. The conference seeks to fill a need for ASHRAE members and practitioners, specifically engineers and contractors, using or planning to apply virtual design and construction in the design, construction and operation of buildings and HVAC systems.

The conference features several case studies, demonstrating successful applications in:

- AR on Engineering Drawings
- VR for Engineering Design Decisions
- BIM Technology in an Underground Metro Station in India
- Complete Central Utility Plant Design through a DFMA Approach
- Going Digital and Digital Twins
- Automating Pressure Cascade Calculations with Dynamo
- and others

The conference includes seminar presentations as well as panel discussions ranging from working in a pandemic environment (including having access to a project site only one time) and pre-fab construction.

Register Now

Technical Program Available

More Education

DOE's Better Buildings Webinar Schedule

The U.S. Department of Energy has released the schedule for its Better Buildings Webinar Series:

- ◆ [LEVELING THE SLOPE: HELPING STATE AND LOCAL GOVERNMENTS REACH THEIR ENERGY GOALS](#) – March 16, 2021 from 3:00 - 4:00 PM ET
- ◆ [REOPENING UNIVERSITIES: MANAGING HVAC SYSTEMS TO MIGRATE TO SPREAD OF SARS-COV-2](#)— March 23, 2021 from 2:00pm to 5:00pm EST
- ◆ [COMMERCIAL BUILDING ENERGY AUDITS](#) – April 6, 2021 from 1:00 - 4:00 PM EDT
- ◆ [AIR-TO-AIR ENERGY RECOVERY FUNDAMENTALS](#)— April 20, 2021 from 2:00pm to 4:00pm EDT
- ◆ [V IN HVAC—WHAT, WHY, WHERE, HOW, AND HOW MUCH](#)— April 22, 2021 from 1:00pm to 4:00pm EDT
- ◆ [HUMIDITY CONTROL 1: DESIGN TIPS AND TRAPS](#)— April 27, 2021 from 3:00pm to 6:00pm EST
- ◆ [AN INTRODUCTION TO ASHRAE EXISTING BUILDING COMMISSIONING PROCESS](#)— May 04, 2021 from 10:00am to 11:00am EDT
- ◆ [FUNDAMENTALS OF ULTRAVIOLET GERMICIDAL IRRADIATION \(UVGI\) FOR AIR AND SURFACE DISINFECTION](#)— May 11, 2021 from 10:00am to 1:00pm EDT

Learn from ASHRAE Experts via Live, Instructor-led Online Training

Registration opens this week for the 2021 online course series. View the scheduled courses, including CoV-2 mitigation topics, at www.ashrae.org/onlinecourses. Individual and group rates are available. Contact edu@ashrae.org to bring a live online course to your Chapter or organization.

New dates are regularly added to the online ASHRAE HVAC Design and Operations training. View the latest training schedule at www.ashrae.org/HVACDesign.

View more ASHRAE courses by topic at www.ashrae.org/ali.



CELEBRATING 125 YEARS