



MARCH - VOLUME LV ISSUE 07

THERMOGRAM

Main Meeting: Updates To ASHRAE 62.1 In 2022

Virtual Tech Session: New ASHRAE Guidelines For High-Sensible Spaces

ASHRAE March Meeting Details:

Lunch Virtual Meeting:
Tech Session (GoToMeeting) 12:00—1:30pm

Main Meeting at Engineer's Club:
Network Hour (ESB): 5:00 pm—6:30 pm
Dinner (ESB): 6:30 pm—7:00 pm
Main Speaker (ESB): 7:00 pm—8:15 pm

Main Meeting: Updates To ASHRAE 62.1 In 2022

What's new in ASHRAE Standard 62.1 2022? Depending on how long it's been since you've reviewed ASHRAE's ventilation standard you may be surprised in the number of changes in the past six years. With 35 published addenda to the 2016 edition, an additional 11 published addenda to the 2019 edition, and 5 addenda and counting to the 2022 edition there are a lot of significant changes that impact the design of modern ventilation systems, particularly if you only regularly see the portions adopted by the model codes.

Speaker: Dr. Brendon Burley, BKM

Brendon has been in the design industry since 1998 providing consulting services for a number of clients in the Philadelphia area before moving on to work on his degrees and research at The Pennsylvania State University. For the past 14 years he has been focused on health care and higher education projects, mostly in the mid-Atlantic region. His projects range from laboratory equipment installations to medical center expansions and replacements, including projects involving advanced imaging equipment, medical and research containment facilities, and clean rooms. He has been a member of ASHRAE since 2011 where he has served as a member of Standard 62.1 Ventilation and Acceptable Indoor Air Quality, Standard 170 Ventilation for Health Care Facilities, and the Environmental Health Committee. He currently serves as the chair for Standard 62.1.

Tech Session: New ASHRAE Guidelines For High-Sensible Spaces

This session will present the current state of regulations and efficiency standards for mechanical systems in computer rooms and data centers. It will also include a brief description of the history of data center cooling standards including: ASHRAE 90.1, the IECC, and Title 10 CFR. This will be followed by an in depth look at the current ASHRAE 90.4 standard (Energy efficiency in data centers), its contents, compliance paths, and required calculations.

Speaker: Dave Meadows, Director of Technology at STULZ USA

Dave has over 20 years of experience in mission critical technologies and participates in numerous committees and panels throughout the year. Dave has a BS in Mechanical Engineering from the University of Maryland, Baltimore County.

PRESIDENT'S PEN

Dear Members,

Thank you to everyone who joined us for a very interesting refrigeration tour of a Laurel Gardens Ice Rink for our February meeting. We are looking forward to coming up with other creative refrigeration tours for future February meetings - please let the board know if you have any fun ideas!

March is the month for deadlines that members will want to keep in mind. March 31st is the deadline for ASHRAE scholarships (please encourage any students in your life to apply!) March 1st is the deadline for ASHRAE Technology Award submissions. We have more information on both of these items further on in the Thermogram for those who are interested.

Our next meeting brings us back to the Engineer's Club for some updates to ASHRAE standards to 62.1. We are looking forward to seeing everyone on March 2nd.

A handwritten signature in cursive script that reads "Nancy Neely".

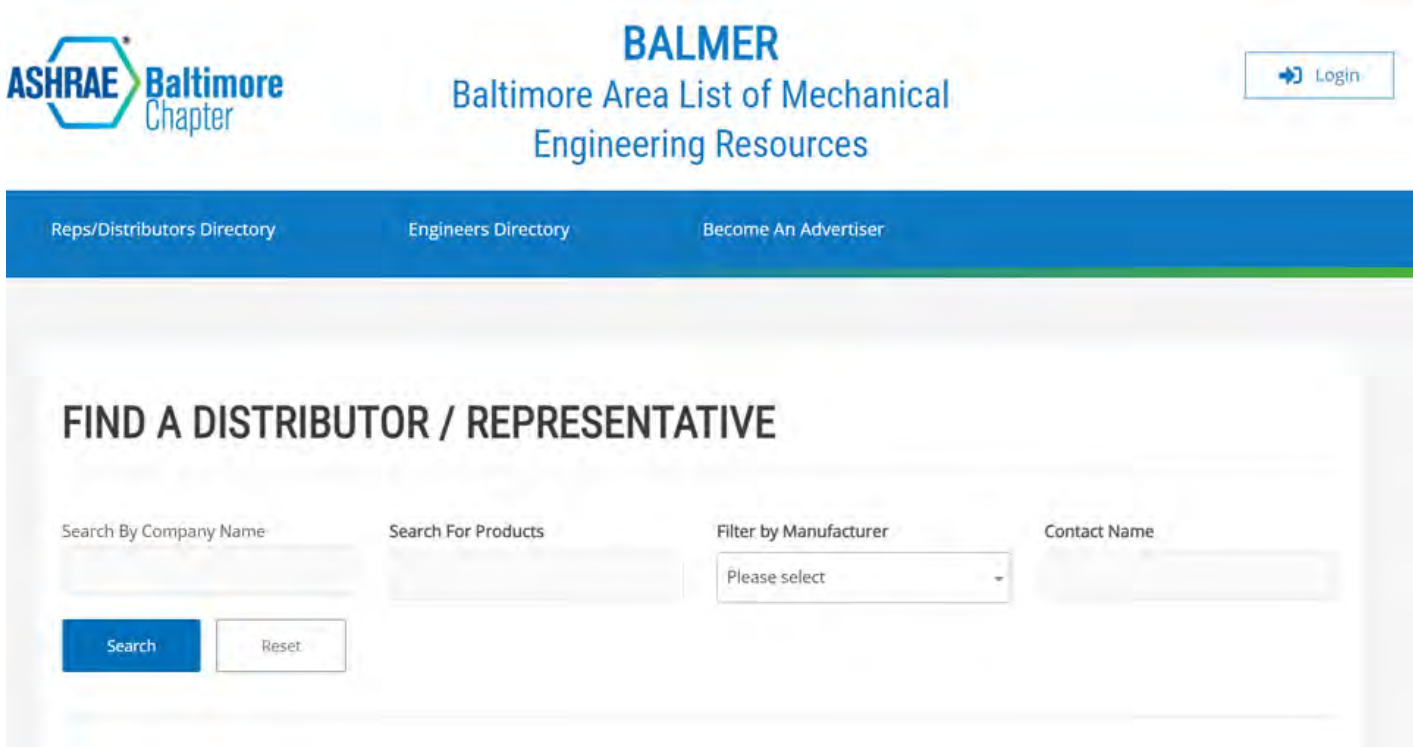
Nancy Neely

Nancy Neely
ASHRAE President

BALMER RE-LAUNCH!

Remember the old MEMRA Books? Baltimore ASHRAE is thrilled to announce the re-launch of BALMER - the Baltimore Area List of Mechanical Engineering Resources - a website dedicated to equipment representatives and engineering firms to make it easier to find products, reps, and contact information needed in the industry. If you are interested in listing your firm, please contact us at president@ashrae-balto.org.

\$500 for Reps/Distributors
\$250 for Engineering Firms



Thank you to our 2022-2023 Chapter Sponsors!

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2022-2023 Chapter Leadership Roster

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Committee Chairs

Attendance/Recpt. Co-Chair: Luis Belisario, WRA reservations@ashrae-balto.org	Government Affairs: Tyler Brown, ATS gga@ashrae-balto.org	Research Promotion Co-Chair: Joe Petty, ATS research@ashrae-balto.org
Attendance/Recpt. Co-Chair: Elyas Khan, JCI reservations@ashrae-balto.org	Golf Outing: Tyler Lee, Chesapeake Systems golf@ashrae-balto.org	Scholarship: Robert Broczkowski, ETC scholarship@ashrae-balto.org
Christmas Party: Wade Myers, JMT christmas@ashrae-balto.org	Historian Hailey Brennan, Spectrum Energy historian@ashrae-balto.org	Student Activities: Nick Spicher, Chesapeake Systems studentacts@ashrae-balto.org
Chapter Programs: Theresa Schroeder, WRA programs@ashrae-balto.org	Historian Co-Chair: Jennifer Leach, BR+A historian@ashrae-balto.org	Thermogram: Kelly Brennan, Schneider Electric newsletter@ashrae-balto.org
CTA (Tech Awards): Theresa Schroeder, WRA cta@ashrae-balto.org	Membership: Rich Girard, RMF membership@ashrae-balto.org	Young Engineers: Co-Chair: Matt Francis, ATS yea@ashrae-balto.org
Diversity in ASHRAE Co-Chair: Patrick Harrilal, JMT dia@ashrae-balto.org	Membership Co-Chair: Ben Joel, WSP membership@ashrae-balto.org	Young Engineers Co-Chair: Matt Hart, ATS yea@ashrae-balto.org
DIA Co-Chair: Ashleigh Newman, The Morin Company dia@ashrae-balto.org	Refrigeration: Jon Olmstead, Hobbs & Associates refrigeration@ashrae-balto.org	Web Technician: Vikas Kiran, Prime Engineering ashtech@ashrae-balto.org
Engineers Week: Robert Broczkowski, ETC engweek@ashrae-balto.org	Research Promotion: Michael Poe, WSP research@ashrae-balto.org	Women in ASHRAE: Nicole Harshbarger, Schneider Electric wia@ashrae-balto.org

MEETING SCHEDULE

ASHRAE Baltimore Programs 2022-2023

Meeting Date	Topics/Speakers	Location
September 8, 2022	12:00 PM - Main Meeting: Hot Water Solutions 5:30 PM - Summer Social at Tiki Lee's Dock Bar	Main Meeting - Virtual Summer Social - Tiki Lee's
October 6, 2022 Research Promotion Night	12:00 PM - Tech Session: Heat Exchanger Sizing & Selection 5:30 PM - Main Session: Maryland's Climate Solutions Now! Act	Tech Session: Virtual Main Meeting: ESB
November 3, 2022 Membership Promotion Night	12:00 PM - Tech Session: Valves, Actuators, & Dampers 101 5:30 PM - Main Session: Ethics Case Studies	Tech Session: Virtual Main Meeting: ESB
December 2, 2022	72nd Annual Christmas Party	Timonium Fairgrounds, 4H Building
January 5, 2023	12:00 PM - Tech Session: Heat Pump Water Heating for Commercial Domestic Hot Water Applications 5:30 PM - Main Session: The Evolution Of Air-Handling Systems: From Air Conditioning To DOAS To Post-COVID IAQ	Tech Session: Virtual Main Meeting: ESB
February 2, 2023	12:00 PM - Tech Session: Refrigerant Update	Tech Session: Virtual
February 9, 2023	1:00 PM Laurel Gardens Ice Rink Tour with Networking at Jailbreak Brewing to Follow	Laurel Gardens, Jailbreak Brewing
March 2, 2023 Membership Promotion Night	12:00 PM - Tech Session: New ASHRAE Guidelines for High-Sensible Spaces 5:30 PM - Main Session: Updates to ASHRAE 62.1 in 2022	Tech Session: Virtual Main Meeting: ESB
April 13, 2023 Former Presidents' Night Research Promotion	12:00 PM - Tech Session: Energy Auditing Processes 5:30 PM - Main Session: Decarbonization	Tech Session: Virtual Main Meeting: ESB
May 4, 2023 Student Night	12:00 PM - Tech Session: DOAS and Chilled Beams 5:30 PM - Main Session: TBD	Tech Session: Virtual Main Meeting: TBD
June 1, 2023	Golf Outing	Turf Valley



GET RECOGNIZED!

Have an innovative project that has been in operation for 1 year? Apply for the Chapter Technology Award!

Awards are given in 6 categories:

- Commercial Buildings
- Institutional Buildings
- Health Care Facilities
- Industrial Facilities/Processes
- Public Assembly
- Residential

For additional information
and application visit



www.ashrae-balto.org/CTA

2022-2023 Scholarship

Multiple Winners:
\$750-\$1500



**Applications Accepted
Until - March 31, 2023**

Questions? Email Us!
scholarship@ashrae-balto.org

**[Click here](#) to learn more
and apply today!**

The Baltimore Chapter is hosting the 2023 Chapter Regional Conference!

Region III CRC
Baltimore, Harbor East
August 9-13th 2023



We're looking for volunteers!

The Baltimore Ashrae Chapter would not be such a success without a team of dedicated volunteers supporting our mission. Join us!

 bwatkins@cummins-wagner.com

Please contact Brad Watkins for more information. Committee and Chair positions available!



CELEBRATE NATIONAL ENGINEERS WEEK

FEB
17-24
2023

the ENGINEERS CLUB
& Engineers Week Council
invite you to Engineers Week

Since 1951, National Engineers Week has helped to increase public awareness and appreciation of the engineering profession and to celebrate the accomplishments of engineers. Join us at the Engineers Club and the Baltimore Museum of Industry for the many activities celebrating National Engineers Week and the Maryland Engineering Challenges.

MARKING the 72nd Anniversary of NATIONAL ENGINEERS WEEK

Meet Maryland's most prominent engineers & technology educators at these activities.

National Engineers Week was founded in 1951 by The National Society of Professional Engineers and is celebrated annually at the time of George Washington's Birthday. Our first president was a military engineer and a land surveyor. Like our first president, today's engineers are problem solvers. They design, develop and oversee the design, manufacture and construction of products, machines and structures. Engineers Week is a time to recognize the contributions engineers have made to our way of life and to encourage students to pursue engineering careers to perpetuate advancements for future generations.

The Engineers Club and its affiliated Associate Societies encourage everyone to come out and support these activities at The Garrett-Jacobs Mansion, 11 West Mount Vernon Place and The Baltimore Museum of Industry, 1415 Key Highway.

For more information call 410-539-6914 or log on to www.esb.org. For information on other challenges in the Maryland Engineering Challenges Series, visit the Baltimore Museum of Industry website at www.thebmi.org and click the Programs link.

ALL OF THE ACTIVITIES ARE AT THE ENGINEERS CLUB UNLESS OTHERWISE NOTED
FOR MORE INFORMATION, CONTACT LEANNE HARRIS AT LHARRIS@JMT.COM

Happy **72nd** NATIONAL ENGINEERS WEEK!

Engineers Week Activities

Friday	February 17 th	ASPE Program - Plumbing System Design & Public Health A fun-filled Program and Luncheon for High School Students & Advisors to learn about the different facets of Plumbing and Plumbing Engineering. Plumbing protects public health and encompasses a wide range of things you use on a daily basis—from the appliances in your house, to those in public spaces like schools and hospitals, a team of Plumbing experts have had a hand in making sure it's safe for use. Join us to learn more!
	10 am to 1:30 pm	
Tuesday	February 21 st	ASHRAE Program – Green Building Technology A Program & Luncheon for High School Students & Advisors to meet with engineers, discuss career opportunities & complete a design challenge using Green Building Technology.
	10 am to 1:30 pm	
Wednesday	February 22 nd	Consider a Career in Engineering – A Program & Luncheon For Middle & High School Students & Advisors to introduce them to the different branches of civil engineering & show them how a team of engineers interacts to design and construct a project. Presented by the ACEC/MD, MDOT SHA & the Maryland Quality Initiative (MdQI) Industry Outreach Subcommittee; https://students.mdqi.org
	10 am to 1:30 pm	
Thursday	February 23 rd	WTS - Introduce a Girl to Engineering – A National Event Program & Luncheon A Program and Luncheon for High School Girls & Advisors to introduce them to the field of civil engineering, provide an opportunity to hear from successful women who have made a career in the transportation industry and to practice what they have learned via several fun hands on activities. Presented by the Women's Transportation Seminar (WTS) Baltimore Chapter
	10 am to 1:30 pm	
Thursday	February 23 rd	NSA and CAMI - Cybersecurity Day– A Program & Luncheon An interactive program & luncheon for High School Students & Advisors to experience the National Security Agency's (NSA) use of cybersecurity to protect our nation from foreign advisories, and the career paths available within the cybersecurity field. Participants will also have an opportunity to meet and speak with cybersecurity experts, and learn more about student programs that NSA offers. Dreamport (7000 Columbia Gateway Dr Suite 150, Columbia, MD 21046)
	10 am to 1:30 pm	
Friday	February 24 th	MDOT - Technology in Transportation - A Program & Luncheon A Program & Luncheon for introducing Middle School Students to the steps the Maryland Department of Transportation (MDOT) takes to plan, design, construct and maintain roads/bridges using various modules of interactive technology. Presented by MDOT
	10 am to 1:30 pm	
Friday	February 24 th	MITAGS & Sail Baltimore – Introduction to Maritime Training and Simulation- A Program & Luncheon Program & Luncheon to introduce Middle & High School Students to the maritime industry and the significant role it plays in much of everyday life. Many of the products we use or consume daily are shipped to local stores from overseas and our Maritime workers make this possible. Students will hear from ship captains and local pilots and will participate in fun hands-on activities like knot tying and compass navigation. They will have an immersive experience on one of MITAGS full-mission ship simulators, which are the largest in North America. Presented by MITAGS (Maritime Institute of Technology and Graduate Studies) & Sail Baltimore (692 Maritime Blvd. Linthicum Heights, MD 21090)
	10 am to 2 pm	



CELEBRATE

ENGINEERING Jan-April 2023

Maryland Engineering Challenges at the Baltimore Museum of Industry

For more information contact Jessica Celmer by email: challenges@thebmi.org, or visit <https://bit.ly/BMIChallenges>

Baltimore Museum of Industry



Engineering Challenge	Dates in 2023	Individual Event Sponsors
Future City	January 14 th	Sponsored by the MD Society of Professional Engineers, American Society of Civil Engineers, American Society of Highway Engineers & Society of American Military Engineers
Wood Bridge	February 4 th	Co-sponsored by the MDSPE & ASCE
Straw Bridge	February 4 th	American Society of Mechanical Engineers, Baltimore Section
Safe Racer	March 11 th	Whitney, Bailey, Cox & Magnani, Wallace Montgomery Employee Team
Robot	April 30 th	Institute of Electronic & Electrical Engineers
Cargo Ship	April 22 nd	Technology & Engineering Educators Association of Maryland
Paper Airplane	April 22 nd	American Institute of Aeronautics & Astronautics, Mid-Atlantic Section
Hovercraft	April 22 nd	American Institute of Chemical Engineers, MD Section

Be Creative DISCOVER Celebrate
 TRAVEL EXPLORE CHANGE THE WORLD
 COLLABORATE Solve Problems
 Make a Difference COMMUNICATE

Happy **72nd** NATIONAL ENGINEERS WEEK!

NOT A MEMBER? BECOME ONE TODAY!



What is the value of ASHRAE Membership?
Free products new, full dues paying Members and Associates receive.
ashrae.org/membership

Members select one of three as an annual benefit:



One ASHRAE Standard (PDF)
up to \$200 value



Upcoming Handbook
\$240 value



One eLearning Course
up to \$60 value



ASHRAE Journal Subscription
\$90 value



Science and Technology for the Built Environment
\$390 value



One Year of ASHRAE Handbook Online
\$315 value



One Free Society Conference
\$750 avg. value

\$2,074
in free ASHRAE products + membership discounts



Technology Portal Member Access
\$289 value



ASHRAE Bookstore
25% Off



ASHRAE Professional Development
avg \$200 savings



ASHRAE Certification
\$200 savings