



FEBRUARY - VOLUME LV ISSUE 06

# THERMOGRAM

**Main Meeting: Refrigeration Tour Of Laurel Gardens Ice House**

**Virtual Tech Session: Refrigerant Phase-Out Update**

## ASHRAE February Meeting Details:

February 2nd, 2023

Lunch Virtual Meeting:

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

February 9th, 2023

Laurel Gardens Ice House Tour: 1:00-3:00pm

Happy Hour at Jailbreak Brewery: 3:00-5:00pm

### **Main Meeting: Laurel Gardens Ice Hour Tour**

**Address: 13800 Old Gunpowder Rd, Laurel, MD 20707**

"The Gardens Ice House in Laurel is the largest skating and hockey facility in the DC/Maryland area. The Veteran owned facility is located in the Fairland Regional Park near Laurel, Maryland, two miles from Interstate 95, The Gardens Ice House is a 150,000 sq/ft skating facility in the Mid-Atlantic region. We are open every day of the year. Some of the highlights include 1 seasonal outdoor rink, 1 Olympic-sized rink, and 2 NHL Regulation-sized rinks, one with an 1800 people capacity."

Join ASHRAE on a tour of this awesome venue!

### **Tech Session: Refrigerant Phase-Out Update**

Join us to discuss current plans for refrigerant phase-outs in the US, and proposed replacement refrigerants.

Speaker: Chris Hsieh, Applications Engineer, Trane

Chris has been with Trane in La Crosse since 1996. He is one of the contributing authors for the Trane *Engineers Newsletter* and the Engineers Newsletter Live programs. His engineering focus includes system applications support, industry-related green/environmental programs, ENERGY STAR®, LEED, ASHRAE 189.1, and IAQ initiatives. Chris is active in various ASHRAE technical committees, most recently serving on the ASHRAE 62.1 committee, and has served as a consultant for ASHRAE's SSPC 189.1 since 2013.

# PRESIDENT'S PEN

Dear Members,

February brings us to our annual Refrigeration Meeting, and we're super excited to announce that this year we will be taking a tour of The Gardens Ice House in Laurel!

Refrigeration is one of the several extremely hot topics in our industry this year, and we will also be getting an update on the latest and greatest happenings with different refrigerants for our virtual tech session this month. With many impending Federal and State legislation changes, it's never been more important than now to stay up-to-date on what is happening around refrigerants.

I'm looking forward to seeing everyone in person on February 9th for our tour and then for happy hour afterwards!

Stay warm!



Nancy Neely  
ASHRAE President

# CELEBRATING BLACK HISTORY MONTH!

The 2016 film *Hidden Figures* introduced the world to the diverse team of technical staff that was otherwise lost to history for their contribution to the aerospace industry. To celebrate Black History Month, the Diversity in ASHRAE committee has prepared our own list of “Hidden Figures” for their contributions in the HVAC&R industry.

## 1. Alice H. Parker

Alice Parker was a turn of the century inventor specializing in HVAC heating. In 1919 Ms. Parker received a patent for what was a novel product for the era. Her product was a gas-fired furnace with ducted air distribution. The most common heating systems of the time relied on solid fuels (wood and coal) for central heating applications.

## 2. Lewis Latimer

Lewis Latimer was born in 1848 to parents that were previously enslaved. Over the course of his life Mr. Latimer was a sailor for the US Navy, a drafter, and an inventor. Mr. Latimer was the draftsman to develop the patent application drawings for Alexander Graham Bell for the telephone. In the HVAC realm, Lewis Latimer received an 1886 patent for an “Apparatus for cooling and disinfecting”, which was used in hospitals and theaters.

## 3. David Crosthwait

David Crosthwait was the first African American fellow elected to ASHRAE. Mr. Crosthwait was a graduate of Perdue university with a degree in mechanical engineering. He spent his entire career in the HVAC industry and develop design guidelines and building codes. Two notable HVAC projects designed and installed by David Crosthwait are the heating systems for New York’s Radio City Music Hall and Rockefeller Center.

## 4. Fredrick McKinley Jones

.Fredrick McKinley Jones was a mechanical engineer with a focus on refrigeration. Mr. Jones developed a design for a portable air conditioner. The portable air conditioner design was the basis for founding the company Thermo King. Portable air conditioners and Thermo King allowed for mobile transportation of perishable goods including blood, medicine, and food.

The individuals identified here are just a small fraction of black contributors in the HVAC&R field. The industry is filled more than ever with smart, ambitious, and talented people who are seeking to make their mark on the industry. You may already be working with the next generation of hidden figures!

# 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](mailto:president@ashrae-balto.org).

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



## BALMER

Baltimore Area List of Mechanical Engineering Resources

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### FIND A DISTRIBUTOR / REPRESENTATIVE

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## 2022-2023 Chapter Leadership Roster

### Board of Governors

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	<b>Secretary</b> Kaylee Haupt	gov2@ashrae-balto.org, P:443.789.0188 Baltimore County Public Schools		<b>Past President</b> Sam Philipp	pastpresident@ashrae-balto.org, P:410.316.2485 JMT

### 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 6, 2023 Former Presidents' Night Research Promotion	12:00 PM - Tech Session: TBD 5:30 PM - Main Session: TBD	Tech Session: Virtual Main Meeting: ESB
May 4, 2023 Student Night	12:00 PM - Tech Session: TBD 5:30 PM - Main Session: TBD	Tech Session: Virtual Main Meeting: TBD
June 1, 2023	Golf Outing	Turf Valley



## ASHRAE TECHNOLOGY AWARDS

# 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](http://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](mailto: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](mailto: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](http://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](http://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](mailto:LHARRIS@JMT.COM)

Happy **72<sup>nd</sup>** NATIONAL ENGINEERS WEEK!

### Engineers Week Activities

Friday	February 17 <sup>th</sup>	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 <sup>st</sup>	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 <sup>nd</sup>	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; <a href="https://students.mdqi.org">https://students.mdqi.org</a>
	10 am to 1:30 pm	
Thursday	February 23 <sup>rd</sup>	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 <sup>rd</sup>	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 <sup>th</sup>	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 <sup>th</sup>	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](mailto: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 <sup>th</sup>	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 <sup>th</sup>	Co-sponsored by the MDSPE & ASCE
Straw Bridge	February 4 <sup>th</sup>	American Society of Mechanical Engineers, Baltimore Section
Safe Racer	March 11 <sup>th</sup>	Whitney, Bailey, Cox & Magnani, Wallace Montgomery Employee Team
Robot	April 30 <sup>th</sup>	Institute of Electronic & Electrical Engineers
Cargo Ship	April 22 <sup>nd</sup>	Technology & Engineering Educators Association of Maryland
Paper Airplane	April 22 <sup>nd</sup>	American Institute of Aeronautics & Astronautics, Mid-Atlantic Section
Hovercraft	April 22 <sup>nd</sup>	American Institute of Chemical Engineers, MD Section

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

Happy **72<sup>nd</sup>** NATIONAL ENGINEERS WEEK!

# NOT A MEMBER? BECOME ONE TODAY!



## What is the value of ASHRAE Membership?

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**\$2,074**  
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ASHRAE Certification

\$200 savings