ASHRAE Philadelphia Chapter

May 2021
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QUAKER CITY CLIMATE

Thursday, May 27, 2021
12:00 Noon to 1:30 PM

Virtual Meeting

"Air Cleaning (Particulate Filtration, Portable and In-Duct Air Cleaners, Coil Cleaning) and Airborne Infectious Diseases"

Presented By:
Dr. Marwa Zaatari

See page 3 for more information.

There is no charge for this session,
however, you must register in advance to receive
the login information.

The link to the webinar will be sent to all registrants
prior to the event start time.

Click here to register.

ASHRAE Philadelphia Chapter Digital Directory

The link to the directory is on our home page on the website, or you may click here to advertise. Philadelphia Chapter Members have complimentary access!

2020-2021

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Tyler Holland

PRESIDENT'S MESSAGE

Fellow Chapter Members –

Another Philadelphia Chapter of ASHRAE year is almost in the books. This year certainly didn't look and feel like any other, but as I'm sure is true for many of you in your personal lives – we made it through.

This is a good time to reflect on goals set early in the year and look forward to what the future holds:

- Regardless of the circumstances, we set out to have meetings with engaging speakers on relevant topics – I think that we were successful in this endeavor and will continue this trend with our May meeting featuring a talk titled "Air Cleaning (Particulate Filtration, Portable and In-Duct Air Cleaners, Coil Cleaning) and Airborne Infectious Diseases" by Dr. Marwa Zaatari.

- The digital directory rolled out this year and has proven to be a success with many advertisers and a large volume of traffic from members throughout the year. Please continue to provide feedback on how we can improve the user experience.

- Two successful and safe golf outings were held, one in the fall and one in the spring.

- We stayed engaged with the local student chapters and will be able to award three book grants to deserving students in addition to presenting the Debra H. Kennoy Scholarship.

- We received applications for and were able to award two projects with Chapter Technology Awards.

- Although one goal was set two year ago by then current President Mike Radio, we are in real striking distance of 1,000 followers on Linked In – if you haven't already, please follow us on to stay current with all the latest Chapter happenings!

Although most of our engagement this year was done remotely, we greatly appreciate everyone's effort to participate. The board did an amazing job of staying focused and getting work done in a year where it would have been easy to throw in the towel. I was extremely lucky to work with such a great group and I feel that the Chapter is in great hands with these future leaders poised to continue to chart the path forward.

When Chapter meetings resume in the fall, it looks extremely likely that we will be able to get back to meeting in person. Have a safe and healthy summer and we will actually see you in the fall!

Tim Reinking
Philadelphia Chapter President
c021@ashrae.net

Thursday, May 27, 2021
12:00 Noon to 1:30 PM

Virtual Meeting

"Air Cleaning (Particulate Filtration, Portable and In-Duct Air Cleaners, Coil Cleaning) and Airborne Infectious Diseases"

presented by

Dr. Marwa Zaatari

Click here to register.

Abstract

This course provides an overview of air cleaning to minimize infectious diseases spread using ASHRAE COVID-19 filtration and disinfection framework. How to select particulate filters, air cleaners, and how to determine coil cleaning frequency and design considerations with respect to pressure drop, efficiency for different particulate size, by-pass, clean air delivery rate, and by-products will be reviewed. Different approaches using one or combination of control methods will be compared from energy and indoor air quality impact.

Meet the Presenter

Dr. Marwa Zaatari is Partner at D ZINE Partners and co-Chair of enVerid Systems Advisory Board. She leads the research and development of "Air as a Service" around heat exchanger coils, ventilation, filtration, and IAQ measurements. Her work continues to advance building science methods in assessing performance-based procedures to design and operate buildings to optimize energy and people efficiency.

Dr. Zaatari is an ASHRAE Distinguished Lecturer and a member of several ASHRAE Committees, a member of the ASHRAE Epidemic task force, Voting Member of Standard 62.1, Chair for TRG4 Indoor Air Quality Procedure, ice Chair of MTG.HWBE Health and Wellness in the built environment, Vice Chair of TC2.3 gaseous removal contaminants, Voting Member Standard 145.2 laboratory test method for gas-phase air cleaning systems, IAQ2020 conference organizer, LEED Committee member, and ex-Chair of LEED IAQP Working Group. She also serves on the USGBC board.

Dr. Zaatari has extensive experience in identifying and quantifying the sources, fate, and transport of indoor air pollutants, building energy and environmental management, assessing performancebased procedures of HVAC ventilation and air cleaning, and developing and applying models for energy efficiency, indoor air quality, exposure assessment, and economic impacts of indoor air pollution. Previously, Dr. Zaatari was Vice President of building Solutions at enVerid Systems since 2015. She leads the design of ventilation and filtration/sorption systems in buildings, integration into HVAC systems, and was responsible for managing customer-site installation and ongoing operations and field service.



Dr. Zaatari earned a PhD in Architectural and Environmental Engineering from the University of Texas at Austin with a focus on the built environment and a master's degree in engineering management from The American University of Beirut, Lebanon with a focus on energy management.

Philadelphia Chapter ASHRAE Golf Outing

Monday, May 10, 2021
DuPont Country Club—Nemours Course



Golf outing winners (left to right):
Joe Breder, Scott Ebling, Chuck Maun, Sean Hughes



Philadelphia Chapter CTTC Technology Award: Residential Category
McHugh Engineering Associates

Meriden Commons II is a 76-unit affordable multifamily housing development comprised of three buildings. The project is located in Downtown Meriden, Connecticut and is the second phase of the Meriden Commons redevelopment project, which includes a total of 151 multifamily living units. All three buildings in Phase II have been designed and constructed to meet Passive House standards and certification in accordance with The Passive House Institute (PHI).

Building A is a four-story multifamily mid-rise apartment building. Buildings B and C are each three-story townhouse apartments. The project consists of a mix of one, two, and three-bedroom units. Development was financed through the syndication of low-income housing tax credits (LIHTCs), 80% of the apartments will be income-restricted for households with incomes at 60% or less of the area median income (AMI). Of these affordable units, 16 have been set aside as permanent supportive units, and 2 additional units have been designated for qualifying veteran households. The remaining 20% of apartments are unrestricted market-rate units. The site is located in a very connected and walkable area of Downtown Meriden in close proximity to the Meriden Green public park and the newly renovated Meriden Transit Center.

McHugh Engineering Associates provided HVAC, Electrical, and Plumbing engineering services for the project. Wallace, Roberts, and Todd, LLC provided architectural design as well as the calculations for the Passive House Planning Package (PHPP). The project was developed by Pennrose Properties, a leader for real estate development whose mission goal is to improve the lives of working families by creating safe, secure housing communities where residents can build fulfilling lives. Commissioning and design assistance was provided by Innova Services to ensure implementation of cost effective, durable, and energy efficient construction techniques. The project was constructed by The Haynes Construction Company who specializes in construction of affordable housing. A tremendous amount of collaboration and coordination was put into the development of this project to ensure its success. Through the design and construction techniques of Passive House, Meriden Commons II stands out as an exceptionally efficient and sustainable multi-family building.



Building A, Meriden Commons II
Photo courtesy of Wallace, Roberts, and Todd, LLC

Philadelphia Chapter CTTC Technology Award: Educational Facilities
Ballinger

Quick Intro to the Project

Officially opened in fall 2019, the Interdisciplinary Life Sciences Building (ILSB) is a model for energy efficiency, indoor air quality, and ease of maintenance. The building's overall annual energy usage is over 40% less than ASHRAE 90.1 baseline. The 131,000 GSF facility includes wet bench life science research space, shared scientific research core spaces, new multidisciplinary science teaching labs, and active learning classrooms. Office spaces for faculty and research assistants are included to support the research mission of the building. The ILSB also includes a 6,000 GSF AAALAC accredited rodent vivarium as a central campus core facility to replace existing animal research facilities on campus.

The ILSB provides many new opportunities for integrating research, teaching, and learning across departments and colleges in support of the University's mission of student success and expanding research in areas of strategic importance. Collaboration areas for formal and informal interchanges and meetings are found throughout the ILSB, with the goal of cross-fertilization of ideas as dedicated teams pursue novel and promising leads in the pursuit of life science research.

Energy Efficiency

Research and teaching laboratory energy usage is driven by outdoor air ventilation-related heating and cooling, as well as high internal equipment heat gains. Numerous technologies, strategies, and systems have been included in the building to mitigate the energy impact of these drivers including:

- Dual-wheel enthalpy and sensible recovery wheels to deliver neutral air
- Active chilled beams and perimeter radiators
- "Airshare" distribution methods and Atrium displacement ventilation
- District energy from campus chilled water and high-temperature hot water plants
- High efficiency lighting and daylighting with occupancy sensor controls
- High performance fume hoods
- Carbon dioxide level sensors varying airflow to teaching classrooms
- High performing envelope and minimal east and south glazing



View of ILSB from Northeast

Interdisciplinary Life Sciences Building (ILSB)
Location: Baltimore, Maryland
Owner: University of Maryland Baltimore County
Principal Use: Research and Teaching
Gross SF: 131,000 SF
Net to Gross SF: 54%
Occupancy: September 2019
Current Occupancy: 100%

ASHRAE Philadelphia Chapter Digital Directory

Our 2020-2021 Chapter Digital Directory is now available.

This digital version is replacing the paper versions from years past. This provides flexibility during these challenging times, having access anywhere. It's easy to use, highly interactive, and always up to date. We hope you enjoy this refreshed publication.

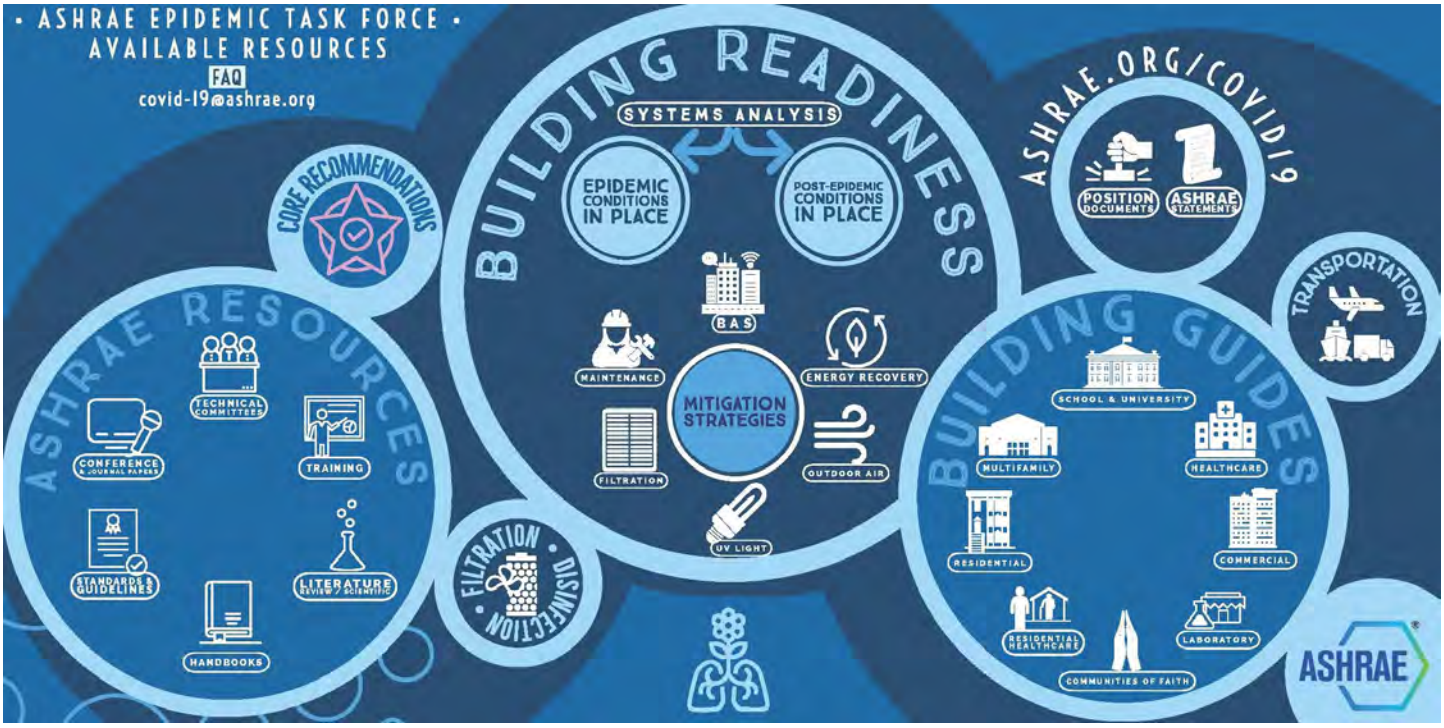
The link to the directory is on our home page on the website, or you may click here to advertise or purchase access to the directory!

ASHRAE VIRTUAL ANNUAL CONFERENCE

June 28-30, 2021

The 2021 Annual Conference will include a mixture of live and on-demand technical and interactive sessions.

Click here for more information.



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of the
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Hope Silverman
P 610-971-2169
hope@mmco1.com

Material can include letters to the editor, member news, upcoming events, comments on chapter programs or issues, etc.

New Philadelphia Chapter Members

New Chapter Members:
Emily Blessner
Chevanne Avery
Jesse Segal
David Haaf
Jeffrey Clemmenson
Mitchell Spall
Tracy Marcotte
Kathleen Mondock

New Society Members:
Steven Freed
Robert Schickling

If you are currently experiencing hardship, especially with the current 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.

What are the benefits of paying Philadelphia Chapter dues* ?

Discounts:

$200 Discount for Basic Class
$150 Discount for 90.1 Seminar
Free access to the Digital Directory
And much more!

* Note that Philadelphia Chapter Membership Dues are $35/year.

To receive discounts, please remit you Chapter dues when renewing online or applying for a new membership. Feel free to upgrade online by clicking here or contact c021@ashrae.net for assistance.

Membership Advancement

If you are currently an ASHRAE Associate Member, becoming a full Member is easier than you think! The following count toward the required **12 points** to advance to full membership status. You must update your ASHRAE online biography and send an email to membership@ashrae.org to advance.

Non-accredited degree = 4 points
PE = 4 points
Accredited degree = 6 points
Industry experience = 1 point/year