ASHRAE Philadelphia Chapter

October 2019
Volume 55, Issue 2

INSIDE THIS ISSUE:

President's Message	2
Engineers' Night	3
October Meeting Info	4
Committee Updates	5
2019-2020 Programs	6
CTTC Article	7
Sept Meeting Photos	8
ASPE Symposium	9 & 10
Future City Philadelphia	11
Membership	12

COSTS

Fees are based on online reservations and prepayment.

Philadelphia Chapter Members:
$30

ASHRAE Society Members -
$40

ASHRAE Life Members And Code Officials:
No Charge

Non- ASHRAE Member Or Guest:
$50

YEA Member (35 & under):
$25

Student Members:
$5

Student Non-members:
$10



QUAKER CITY CLIMATE

Thursday, October 10, 2019

Lunchtime Session

Dr. Nadia Sabeh, PhD, PE, LEED AP
President, Dr. Greenhouse, Inc.

presents

"HVAC for Indoor Plant Production Facilities"

(See page 4 for more information.)

Please join us for an educational lunch session.

It's a Young Engineers in ASHRAE (YEA) and Student Activities Event!

YEA Young Engineers in ASHRAE

Click here to Register

Student Activities

Noon to 2:00 PM
Registration 11:45 AM - 12:15 PM
Food Service 12:15 PM - 12:45 PM
A cash bar will be available.
Presentation 12:45 PM - 1:45 PM

LOCATION
World Café Live (downstairs)
3025 Walnut Street
Philadelphia, PA 19104

Click here for directions.

Please Note: During Mobile Checkout - choose the option to "Pay with Debit or Credit Card" if you do not want to use a PayPal account and click "RETURN TO MERCHANT" after paying to complete registration.

2019-2020

President
Michael Calabrese, PE

President-Elect
Tim Reinking

Vice President
Eric Feinschil

Treasurer
Judd Vail

Secretary
Dan Brown

Senior Governor
Mike Radio, PE

Governors
Anthony Scaccia, PE
Sean Hughes, PE
Mike Magee

Electronic Communications
Anthony Scaccia, PE

Chapter Technology Transfer Committee Chair
Brian Stehman

Research Promotion Chair
Gary Debes

Basic School Coordinator
James Lill, PE

Refrigeration
Hasanaat Prophete

Membership Promotion Chair
Nathanael Carleton

Student Activities Chair
Noreshvarman Manisagar

Program Committee Chair
Tim Reinking

Chapter Historian
Sean Hughes

Young Engineers in ASHRAE
Tyler Holland

Publicity
Michael Calabrese, PE

Government Activities
Anthony Scaccia

Special Events
Tim Reinking

Honors and Awards Committee
Mike Radio, PE

Attendance
Nathan Ware

Reception
Robin Martin

Diversity in ASHRAE
Ashley Lester

PRESIDENT'S MESSAGE

Greetings Chapter Members,

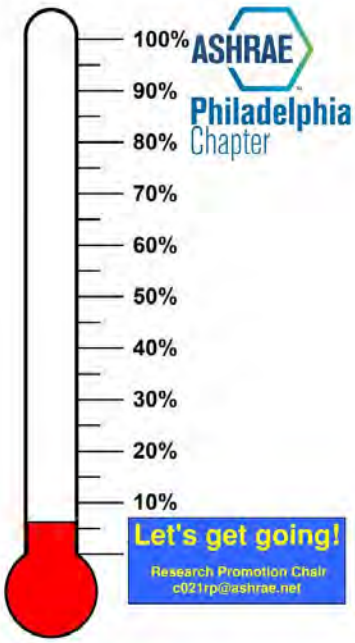
I was happy to see a great turnout for our September meeting, it was sold out. Pam Duffy's presentation was well received and we had great feedback. We also had a packed house for the Student Activities and Young Engineers in ASHRAE (YEA) joint social. There are many more events scheduled this year, in case you missed it.

I'm hoping to see everyone in October since we have three events - SCMA's "Engineers' Night", "Indoor Plant Facilities", and the ASPE tech sessions and product show. The SMCA dinner event is always a good time with the product show, networking and educational program. This dinner meeting is at the Crystal Tea Room on October 3rd. October 10th is our lunch session, held at World Café Live (downstairs) with Dr. Greenhouse. Although we are belated for National Indoor Plant Week, indoor growing is a hot topic and Dr. Nadia Sabeh's presentation on the design of indoor environments for growing plants is impressive, reviewing many challenges such as controlling humidity for growing indoors, to botanical air filtration. Dr. Sabeh's presentation was one of the most well attended at the ASHRAE winter conference and will be awesome, don't miss it. On October 17th, ASHRAE will be providing several technical presentations during the ASPE products show at the Clarion Hotel near the PHL airport. The ASPE event is in lieu of the ASHRAE product show. Coordinating with ASPE provides more value for our membership and includes FREE technical sessions.

We are increasing our involvement with the ASHRAE student chapters, universities and STEM activities. The chapter will be participating in "Future City", a STEM event, on October 26th in Newtown Square. This middle school fair is educational and it is a great opportunity to engage the children and make STEM exciting. These meetings and events are a good way to pay-it-forward and we are always in need of sponsors and donations. Remember that we are a non-profit 501(c)(3) organization and all donations are tax deductible.

We look forward to seeing you on October 10th at World Café Live.

Michael Calabrese, PE
Philadelphia Chapter President
c021@ashrae.net



Engineers' Night

Thursday, October 3, 2019

Crystal Tea Room

100 Penn Square East, Wanamaker Bldg.

9th Floor, Philadelphia, PA 19107

Cocktails and Vendor Display: 5:00 pm – 6:30 pm

Dinner and Program: 6:30 pm — 8:00 pm

Leak Testing to the SMACNA Standard

Experience a duct assembly complete with a VAV box and volume damper.

Mediators (Mark Terzigni and Eli Howard of SMACNA) will discuss their views on duct leakage as well as specifics of the new SMACNA manual. Mark and Eli will elaborate on traditional leak testing specifications vs. the SMACNA Leak Testing Manual.

Visit www.smca.org to register by September 26, 2019.

SMCA Members and Industry Fund Contributors who sign up and are no shows, will be billed at SMCA's cost of $150 per person to attend this event.

October Meeting Presentation
October 10, 2019

Speaker Bio



Dr. Nadia Sabeh (A.K.A. "Dr. Greenhouse") is President and Founder of **Dr. Greenhouse, Inc.**, an agricultural and mechanical engineering firm that specializes in the design of HVAC systems for indoor plant environments. Dr. Sabeh first became interested in controlled environment agriculture (CEA) as an undergraduate, while working on a small shiitake and oyster mushroom farm in southern Idaho. For over 20 years, Dr. Sabeh has dedicated her education and career to helping farmers control their environments, allowing them to grow crops indoors, in greenhouses, and in locations that would otherwise make it impossible or impractical to do so. She and her team have designed HVAC systems for facilities growing cannabis, strawberries, leafy greens, vine crops, and mushrooms all over the world, including Europe, the Middle East, Canada, and the U.S. Dr. Sabeh has her PhD in Agricultural Engineering from the University of Arizona's Controlled Environment Agriculture Center (CEAC) and is a licensed Mechanical Engineer in the State of California. She currently serves as Chair of the ASABE/ASHRAE co- sponsored committee responsible for developing the standard "HVAC for Indoor Plant Environments without Sunlight," serves on the HVAC Advisory Committee for the Resource Innovation Institute, and is actively engaged in academic and industry research.

Abstract

"HVAC for Indoor Plant Production Facilities"

In her presentation, Dr. Nadia Sabeh will introduce the concept of indoor farming, why people are doing it, and the challenges associated with creating a productive environment for plants. She will cover broad topics on plant biology and how they are affected by factors such as temperature and humidity, carbon dioxide, air movement, and air quality. She will also present a brief review of the current state of standards, regulations, and research.

Presentation Tip: You might want to brush up on your psychrometrics ahead of time!



Click here for info!
2020 ASHRAE Winter Conference
& AHR Expo

The New 2019-2020 Directory is Available!

The latest edition of the Directory of Associations, Consulting Firms, and Manufacturers' Representatives in the Philadelphia Area is now available. It sells for $23 each.

Send your check to ASHRAE, 994 Old Eagle School Road, Suite 1019, Wayne, PA 19087. If you prefer to pay by credit card, please call Hope at 610-971-2169 or email her at hope@mmco1.com.

Young Engineers in ASHRAE (YEA) Committee Updates

Hey everyone! It's Tyler, your Philly Chapter Young Engineers in ASHRAE (YEA) Committee Chair. For those who don't know, YEA's purpose is to encourage young engineers 35 and under to get involved with ASHRAE and develop future membership and leadership in ASHRAE and the HVAC/R industry. I wanted to take a moment to thank everyone who attended our social event last week at North Bowl. As a heads up, we have another social event coming up on November 21st and we welcome any and all young industry members to attend. Please call, text or email me anytime if you or someone you know would like to get involved with ASHRAE/YEA. Looking forward to seeing you all at the next event!

Tyler A. Holland
c021yea@ashrae.net
M: (303) 552-1226

Student Activities Committee (SA) Updates

Fall is officially here so schools is in session. We are kicking things off with the Temple student chapter. Special shout out to Katie Martin, Temple ASHRAE Student Chapter President and Dr. Hamid Heravi in reviving this chapter. We will be conducting our meeting with the board and their members to help them plan their program for the year sometime in the next two weeks. I am planning to do the same with Widener and UDEL soon. As the students settle down, we will be getting ready for the Winter Conference planning as well.

Last week's YEA & SA Bowling Social was a success and for that I would like to thank our sponsors TriState HVAC, LLC and The Kirkman Oliver Company and all the attendees. November 21st is the next event date so keep that in your books. Again, we could use more help with all these initiatives so if you or anybody that you know are looking to get involved, please get in touch with me to talk about the ideas you may have or even to help plan the upcoming events. Thank you!

Noresh

Noreshvarman Manisagar
Chair, Chapter Student Activities Committee
c021sac@ashrae.net

Government Activities Committee (GA) Updates

Any Chapter members who are residents of New Jersey and interested in helping out with ASHRAE's **New Jersey Day on the Hill**, please reach out to me. Thank you!

Anthony Scaccia
Chair, Government Activities Committee
c021ggac@ashrae.net

The Chapter is seeking sponsors for our Student Activities Social(s). Please email the Chapter Chair, Noresh Manisagar (c021sac@ashrae.net) or the Chapter President (c021@ashrae.net) for more information.

PHILADELPHIA CHAPTER PROGRAMS CALENDAR 2019-2020

Date	Time	Venue	Session / Topic	Theme
Thursday, October 03, 2019	**5pm - 8pm**	**Crystal Tea Room**	**ASHRAE-SMCAs 'Engineer's Night'** **"Leak Testing to the SMACNA Standard"** **https://smca.org/member-resources/events-calendar/112-engineers-night**	**-SMCA**
Thursday, October 10, 2019	**11:45am - 12:15pm Registration** **12:15pm - 12:40pm Lunch** **12:45pm - 2pm Presentation**	**World Café Live (Downstairs)**	**"HVAC Design Considerations for Indoor Plant Cultivations Facilities"** **- Nadia Sabeh, aka Dr. Greenhouse -**	**-Young Engineers in ASHRAE (YEA)** **-Student Activities**
Thursday, October 17, 2019	**10am - 6pm**	**Clarion Hotel Philadelphia Airport**	**Joint Event: ASPE Technical Symposium & Products Show**	**-FREE Technical Seminars &** **-Vendor Show**
Thursday, November 14, 2019	11:45am - 12:15pm Registration 12:15pm - 12:40pm Lunch 12:45pm - 2pm Presentation	Del Frisco's The Vault	"Targeting Success – Improve Employee Satisfaction, and Profit" - Julia Keen, an ASHRAE Distinguished Lecturer (DL) -	-Diversity in ASHRAE -Employers -Joint w/WTS Society
Thursday, November 14, 2019	TBD	TBD	Seminar "TBD" - Julia Keen -	-Diversity in ASHRAE Event (Discussion-Social)
Thursday, November 21, 2019	TBD	TBD	TBD	-Young Engineers in ASHRAE (YEA) Event (Social)
Friday, November 22, 2019	TBD	TBD	TBD	-Student Event (Social)
Friday, December 06, 2019	TBD	Burns Engineering	"CTTC: Codes and Standards Seminar" - Larry Spielvogel and Associates -	-FREE Seminar for Chapter Members
Wednesday, December 11, 2019	7am - 7:30am Registration 7:30am - 8am Breakfast 8am - 9am Presentation	The Union League McMichael Room	"Variable Primary Flow Hydronic Systems" - Bill Bahnfleth, Society Past President and Distinguished Lecturer (DL) -	-Employer Recognition -Research Promotion Donor Appreciation
Thursday, January 09, 2020	11:45am - 12:15pm Registration 12:15pm - 12:40pm Lunch 12:45pm - 2pm Presentation	World Café Live	"Integrating Renewable Energy Systems into Buildings" - Sheila Hayter, Society Past President and Distinguished Lecturer (DL) -	-Diversity in ASHRAE -Chapter History
Thursday, January 09, 2020	6pm - 8pm	TBD	DIA Event	-Diversity in ASHRAE Event (Social)
Wednesday, January 15, 2020	7pm	Wells Fargo Center	Basketball Sixers vs Brooklyn Nets	-Social
Monday, February 3 thru Wednesday, February 5, 2020	-	Hilton Orlando	ASHRAE Winter Conference	-Student Activities
Thursday, February 13, 2020	TBD	Burns Engineering	"Seminar - TBA" - Ralph Kison -	-FREE Seminar for Chapter Members
Thursday, February 13, 2020	TBD	Yards Brewery	Brewery & Refrigeration Plant Tour	Tour
Thursday, February 13, 2020	5pm - 8pm	Yards Brewery	"Mentor-Mentee Relationship" - Ralph Kison -	-Research Promotion Night -Membership Promotion Night -Student Activities, Scholarship Awards -Young Engineers in ASHRAE (YEA) -SMCA
Thursday, March 12, 2020	5pm - 8pm	TBD	TBD - ASHRAE Distinguished Lecturer (DL) -	-President Boyce Visit -Employer Recognition -Research Promotion Donor Appreciation
Thursday, April 09, 2020	5pm - 8pm	TBD	TBD - ASHRAE Distinguished Lecturer (DL) -	-Government Activities (GA)
Friday, April 10, 2020	TBD	Philly Wholesale Produce Market	Food Warehouse	Refrigeration Tour
Thursday, April 23, 2020	TBD	TBD	TBD	-Young Engineers in ASHRAE (YEA) & Student Activities Event (Social)
Thursday, May 14, 2020	5pm - 8pm	TBD	"Building Science"	-Government Activities (GA) -Past-Presidents Night
Monday, May 18, 2020	11am - 7pm	DuPont CC	Annual Golf Outing	Social Event
TBD	-	Citizens Bank Park	Baseball Phillies vs. TBD	Social Event
Thursday, August 13 thru Saturday, August 15, 2020	-	Washington DC Key Bridge Marriott	Region 3: Chapters Regional Conference (CRC) - Hosted by the National Capital Chapter -	Membership Training

Note from the Chapter Technology Transfer Committee (CTTC):

ASHRAE Standard 62.1 underpins a multitude of design decisions, from physical equipment to control sequences to documentation practices. The recently released Addendum AE (section 5.9) changes the game around humidity control. Instead of maintaining 65% relative humidity during occupied periods, the HVAC system now must maintain below 60 degrees F dew point during both occupied and unoccupied periods. This change is meant to address the fact that mold growth doesn't care if the building is occupied or not! Furthermore, this dewpoint target must be maintained with solar loads at zero.

This change obviously has interesting consequences for the way a system is designed and controlled. It also presents a question about design documentation: should unoccupied conditions be scheduled as a mechanical requirement, instead of merely a footnote in the sequence of operations?

Brian N. Stehman
CTTC
bstehman@tristatehvac.com

Addendum to Standard 62.1-2016: Ventilation for Acceptable Indoor Air Quality

Maximum Dew Point Considerations, Published August 2019

Full report here: <https://www.ashrae.org/File%20Library/Technical%20Resources/Standards%20and%20Guidelines/Standards%20Addenda/62.1-2016/62_1_2016_ae_20190826.pdf >

ASHRAE Philadelphia Corporate Sponsorships Available

The Philadelphia Chapter invites your company to join as a Corporate Sponsor for the 2019-2020 year. Your firm's participation in this program would enable us to make a donation to ASHRAE Research Promotion which includes over $1.5 million in local research funding.

Corporate Sponsors are listed on our web site, in our newsletter, and in our annual directory. They receive free copies of our directory and recognition at all of our events. With the ease of one payment, you may get all this, as well as free dinner tickets good for our monthly meetings, and make a valuable contribution to ASHRAE Research at the same time.

If you are interested, please email us at philachapter@mail.ashrae.org. The Board of Governors thanks you for your continued support of ASHRAE.

We need your attendance!

If we are below our guaranteed level for attendees at our meetings, our treasury could be negatively effected. Our programs are designed around the membership's input and we all need to support these meetings to maintain a strong/informed association. We hope to see you at our next meeting. Please come out and support our Chapter!

The program calendar on page 6 is tentative and subject to change.
Please refer to ASHRAE Philadelphia website for up to date information.
Advance registration and pre-payment are required before the meetings.

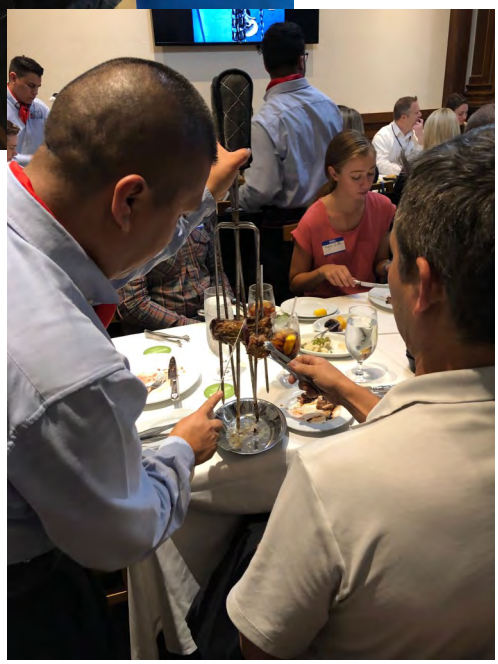
September Meeting and YEA Social Photos














ASPE
American Society of Plumbing Engineers
PHILADELPHIA
20th Biennial
Plumbing Trade Exhibition & Technical Symposium
Open To All Professional Trades
Mechanical/Plumbing Contractors, Engineers, Designers, Maintenance Engineers & Facilities Managers
Thursday - October 17th 2019
10 am to 6 pm
The Clarion Hotel & Conference Center
Formerly The Ramada Inn
76 Industrial Highway, Essington, PA 19029
The CTT Committee from the Philadelphia Chapter of ASHRAE will be holding 4 technical sessions at the event.
Topics include -
Pumping, Water Quality, Steam and Boilers.
A total of $2,500 in door prizes will be awarded at the show starting at 3pm.
Winners must be present with registration and or Symposium Tickets
Serving The Delaware Valley & Surrounding States

American Society of Plumbing Engineers
Philadelphia Chapter

ASPE
American Society of Plumbing Engineers
PHILADELPHIA

Technical Symposium
October 17th, 2019
Clarion Hotel and Conference Center
76 Industrial Highway
Essington, Pa. 19029

Symposium Class Topics

11:00 AM Plumbing Hydraulics and Pumps
David Strunk, PE - Strunk-Albert Engineering

1:00 PM Plumbing Design in High Rise Buildings
Drew McFadden, CPD – Alderson Engineering

3:00 PM Intro to the New Philadelphia Plumbing Code
Walt Krzyzanowski – Philadelphia Plumbing Advisory Board

Register on-line at www.aspephila.org

For additional information contact Steve Ziga at sziga@hpegroup.com

Philadelphia Chapter Plumbing Education Program

ASPE
CHAPTER AWARD OF MERIT
Recipient 2017-2018

Please Note: ASHRAE technical programs will be released shortly.
ASHRAE members should register using the ASPE website, www.aspephila.org.
This event is free to our Philadelphia Chapter Membership.

Future City COMPETITION Philadelphia Region

ENGINEERING FAIR

Where: SAP America
3999 West Chester Pike
Newtown Square, PA 19073
When: October 26, 2019
9 am to 12 pm

Check in begins at 7:30

The Future City Philadelphia Regional Steering Committee is hosting an Engineering Fair to introduce students to Regional the Future City Competition and to help educators get started with the program.

Help Future City Philadelphia inspire students to design!



We were able to let our creativity come out and work together building the city."

~ Future City Student

We are looking for engineering firms, technical societies and universities to be exhibitors! Come join us to provide a fun filled morning of hands-on activities, games, and demonstrations that will inform and inspire students about engineering!

To register, go to futurecityphilly.org and select the Engineering Fair link.

For more information, contact:
Companies & Tech/Prof Societies: Susan Best, susanbest54@gmail.com
Colleges, Universities and Governmental Agencies: Ken Golkin, ken.golkin@gmail.com
There is no charge to be an exhibitor.

Future City® Competition is a hands-on, project experience for 6th, 7th, and 8th graders to learn how engineers shape the world we live in today and will live in tomorrow
Students work as a team with an educator and engineer mentor to:

- Design cities using SimCity™ software;
- Research and write solutions to an engineering problem;
- Build tabletop scale models with recycled materials;
- Present their ideas before judges at the Regional Competition in January.

APPROVED FOR LISTING NASSP 2018–2019 STUDENT CONTESTS, PROGRAMS & ACTIVITIES

The Philadelphia Chapter
of the
American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.

994 Old Eagle School Road
Suite 1019
Wayne, PA 19087-1866
P 610-971-2169
F 610-971-4859

Visit
our web site at:

www.ashraephilly.org

Republication of material contained herein is expressly forbidden without official Chapter authorization. The Chapter does not speak or act for the Society. Any member with material to submit for inclusion in the *Climate* can send the information to:

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

David Ciervo
Devin Coyne
Stephen Dziura
Amanda Kauffeld
Dr. Yiqiang Lin
Xiaoyu Liu
Ayushree Mahida
Noah Perlroth
James Scanlon
Jeffrey Schools
Matthew Ward

What are the benefits of paying Philadelphia Chapter dues?

- Session Discount, valued up to $25 off
- Free Tech Seminars
- Free Code Seminar
- Members Resume posted on our webpage
- And much more . . .

Note that Philadelphia Chapter Membership Dues are $35/year.
To receive discounts and FREE seminars, please remit you Chapter dues when renewing online or applying for a new membership. Feel free to contact Hope Silverman at hope@mmco1.com, who can accept payment and update the Society.

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

Congratulations!
100 Years of Progress Through Partnership
The Sheet Metal Contractors Association of Philadelphia and Vicinity