



# San Jose Chapter



Dear San Jose ASHRAE Members and Friends,

I can't believe Spring is almost here, 2020 has been on quite the pace! We're keeping up the pace as well with yet another great technical topic. Thanks again to Sherezad Shafiq for his pumped-up presentation on pump optimization and sequencing!

Let's keep the ball rolling, bocce balls that is! Our annual Bocce Ball Tournament is geared up and ready to go! Thank to everyone who has already signed up to sponsor us and attend the event; we really couldn't do it without you. Unfortunately, all teams slots have been taken, but everyone is welcome to dine and enjoy the evening with us!

**Buzz word alert! Electrification.** I'm sure we've all been hearing about electrification and how our industry is shifting towards a lower carbon footprint. Amp up your knowledge base as we invite Stet Sanborn to speak to us on **Designing All-Electric Buildings**. Should be an electrifying presentation!

I hope to see you all very soon,.

Thanks,

Richard Lam

San Jose ASHRAE Chapter President

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*Thank You*



# SAN JOSE CHAPTER WINS YOUTH OUTREACH AWARD FOR SECOND STRAIGHT YEAR

The Youth Outreach Award is given annually to an ASHRAE member who actively engages a youth audience in their country, region, or local community through science, technology, engineering and mathematics (STEM) activities. Qualified activities include science fairs, technical tours, classroom activities, judging local competitions, and mentoring.

The 2019 Youth Outreach Award was presented to Cinthya Carillo, San Jose Chapter Student Activities Co Chair, and this year, our President Elect, Elise Kiland, has been chosen to receive the 2020 Youth Outreach Award, which will be presented at the Annual Conference in Austin, Texas.

Elise has participated in many STEM events with the chapter, including the annual Bay Area Science Festival, Girl's Day and Everybody Makes Day at the Tech Museum. She is a mentor and Team Leader for the ACE Mentorship program at Independence High School, and on the End of Year Event committee. Elise also is an active volunteer for Eden Area ROP at Castro Valley High School.

## CONGRATS ELISE!



# ASHRAE

## Travel Grant Winner

### PJ McCurdy

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I am grateful to have made connections to San Jose ASHRAE through my summer internship which then allowed me to be sponsored to attend the ASHRAE Winter Conference in Orlando. Being the first conference I have attended, the winter conference seemed overwhelming at first with so many sessions being offered. I was able to attend sessions recommended and required for students as well as several others on smart thermostat technology and occupancy sensing that peaked my interest.

I was amazed by the tour of the Orange County Convention Center which reminded me how much design work and equipment contribute to maintaining such a large space at a comfortable level. The west concourse of the OCCC hosted the AHR Expo, where I collected promotional swag from many companies.

I was able to attend some social events including the student/YEA mixer, welcome party at TopGolf, and regional dinner during the Super Bowl. At TopGolf, I met several people from industry and practiced my golf skills, and during the regional dinner, since it was a collaboration among many regions, I was able to connect with familiar colleagues from San Jose and also those from the UK and Germany.

I am still working on establishing an ASHRAE student branch at Santa Clara University to strengthen our university's relationship with the San Jose chapter. Depending on the university, HVAC-R may not be mentioned in an academic setting. Establishing this relationship will increase SCU students' exposure to the field and build connections within our San Jose/Silicon Valley community.

Again, I am grateful for the networking opportunities and exposure to diverse topics in the HVAC-R field that I was presented by attending the ASHRAE winter conference in Orlando. I am excited to see how my membership in ASHRAE continues to grow.




# ASHRAE

## Travel Grant Winner

**Keanu Heggem**

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On the second day of the conference I attended a walkthrough of one of the wings of the Orange County Convention Center. My group got to see some of the facilities around the building. These facilities included one of the six boiler rooms on the site, the station where maintenance requests are handled, and the station where the air systems around the site are monitored and controlled. Additionally, the group viewed a solar panel complex at the roof of the site and learned about some of the challenges associated with installing such an array.

Later that same day I attended a regional dinner, with my admission graciously paid by Western Allied. This dinner was a prime opportunity to network, as representatives from many companies were present. The day of the dinner happened to also fall on the day of a major sporting event, resulting in a quality game to watch while socializing and building connections. The dinner showed the outright friendliness and comradery of the members of ASHRAE. The food was also rather delicious.

On my final day at the Conference I attended the AHR Expo. The event was massive, filling the entirety of the gigantic convention center with hundreds of companies all vying to advertise their newest products and advancements in their industries. I got to see how much truly goes into designing an air conditioning unit or a refrigerator. There was a plethora of companies to build any given part that goes into an HVAC unit, or building anything that would be used to build something in such a unit. I saw demonstrations of how to insulate piping, a demonstration of a high-speed cutting tool, robotics, control systems, and so much more. This event helped me to solidify what areas I wanted to investigate as someone with a lot of interest in mechatronic devices, as speaking to some of the companies made me more aware of the inner workings of control systems.

I greatly enjoyed my experience at the conference and would strongly recommend it to anyone who wanted to learn more about what goes into the practical application of HVAC systems or who just wanted to build more connections in the industry.







# ASHRAE

## Travel Grant Winner

**Boeun Choi**

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I attended the ASHRAE Conference for the first time this February; I participated for three days from Saturday, February 1 to Monday, February 3. On Saturday, I attended Student Welcome, Plenary Session, YEA (Young Engineers in ASHRAE)/Student Mixer, and Welcome Party. There were huge award ceremonies at both Student Welcome and Plenary Session. It was fascinating to see the student projects from across the world. At the YEA/Student Mixer, I learned about technical committees, met professionals, and learned about their jobs; I was glad to learn that my coursework was related to their work. I got a chance to meet and talk to a few more professionals and fellow students at the Welcome Party.

On Sunday, I attended Student Program, Student Tour, YEA Hospitality Reception, and Regional Dinner. The Student Program consisted of a career panel, three talks, and lunch. The Career Panel speakers gave advice on time management, taking the PE exam, and improving the writing skills. Out of the three talks, my favorite was about HVAC in agriculture; it was interesting to learn that humidity control was crucial, and that HVAC contributed to a different type of sustainability beyond urban buildings. After lunch, I and other students went to the Orange County Convention Center and explored the mechanical rooms and the rooftop with solar panels installed. The air handling units I saw there were the biggest that I have ever seen. After the tour, I interacted with professionals at the YEA Reception and Regional Dinner; I am glad that I got an opportunity to learn about many different HVAC companies across the country. On Monday, I attended Seminar 37, President's Luncheon, and TC 7.3 (Operation and Maintenance Management) meeting. The seminar was about cost-based control of supplied air temperature; the speakers showed substantial energy savings achievements from the supply air temperature reset. Their work was very similar to the HVAC operation optimization work that I did at my internship, so I enjoyed watching their presentations. After the seminar, I attended the President's Luncheon; there, I learned about many different company names as they were acknowledged during the award ceremony. My last itinerary was attending the technical committee meeting. I attended the TC 7.3 meeting and observed how the meeting was conducted. I feel very fortunate to have won the travel grant and given the opportunity to attend the ASHRAE Conference. I not only gained technical knowledge from attending student programs and talks but also shared valuable conversations with professionals and other students. It was a great introduction to ASHRAE, and I look forward to attending the future conferences both as a student and a professional.

# ASHRAE

## Travel Grant Winner

### Chenli Wang

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ASHRAE is a global society advancing human well-being through sustainable technology for the built environment. And this year is the 125th anniversary of ASHRAE, so it's an excellent experience to participate in this 2020 ASHRAE Winter Conference at Orlando. The conference is much more like a combination of technical seminars and parties for all the ASHRAE members. It's a community of passionate, educated, and engaged members, and they are very friendly to student members. Everyone at the conference is in the HVAC industry and willing to share their career path/working experience with me, which is very helpful.

The student tour to the Orange County Convention Center is also amazing. This building is the biggest Leadership in Energy and Environmental Design (LEED) gold-certified convention center in the world. The overall building space is more than 7.1 million square feet. The 1MW solar photovoltaic (PV) rooftop system on the convention center is the largest rooftop PV system in the southeast United States, which was completed in 2009 over the south concourse. We also got the opportunity to visit the whole HVAC system supporting the building. One HVAC engineer work over there also showed us the HVAC control system they used to supply the commercial building on this scale. It is the experience that can't be found elsewhere.

My current research focuses on how to use Cyber-Physical Systems(CPS) to measure the occupancy information and control the HVAC system in a residential house. In the ASHRAE 2020 winter conference, especially in big data and smart controls section, I expanded my knowledge about big data. I learned a lot of new techniques, new algorithms, and unpublished data. So I saw how other people did for measuring the occupancy information from some environment information like temperature, humidity, light, or CO2. I even had an opportunity to talk to the chapter chair in this field and have his suggestions on my work.





## ANNUAL ASHRAE BOCCE BALL TOURNAMENT

March 19, 2020  
Campo di Bocce, Los Gatos

**JAN 21 - SPONSORSHIP  
REGISTRATION OPENS**

Platinum - \$2000

Gold - \$1500

Silver - \$1000

Team - \$700



Contact Cherie Nixon ([cnixon@therma.com](mailto:cnixon@therma.com)) with  
any questions and to register.





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## ***APRIL TECHNICAL MEETING AND STUDENT NIGHT***

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### **TAKE IT FROM A MILLENNIAL: GENERATION DIFFERENCES IN THE WORKFORCE**

**SPEAKER: PAM DUFFY, PE**

We welcome you to join us for our technical meeting at the Hotel Biltmore in Santa Clara for an evening of sharing knowledge, fun, and networking.

**Date:** April 8<sup>th</sup>, 2020

**Location:** Hotel Biltmore

2151 Laurelwood Rd, Santa Clara, CA 95054

**Time:**

Check-in and Social:

5:30PM

Dinner

6:30PM - 8:15PM

YEA Mixer

8:30PM – Last Call

**Cost:**

Early bird Registration fee:

\$ 50/- (by Midnight April 1<sup>st</sup>)

Late Reg/Walk-ins/Non-Members:

\$ 60

**RSVP:** <https://sjashrae.org>



## Speaker:

### **PAM DUFFY, PE**

**OWNER, SPARK ONE SOLUTIONS, LLC**

Pam Duffy, P.E. is the Owner of Spark One Solutions, LLC based in Dallas, TX – a marketing and business solutions consulting company based serving A/E/C businesses.



She has a mechanical engineering degree from the University of Central Florida and is a licensed PE. She has over 10 years of experience in the HVAC industry in roles varying from mechanical design, to technical training, to marketing and sales. Now, she uses her diverse background to help A/E/C companies communicate their value to customers with marketing.

Pam serves on many boards and committees in ASHRAE. Pam was President of the Atlanta Chapter during 2013-2014, during which they won the Chapter of the Year award. At the Society level, Pam serves on the society Communications Committee and is a member of several Technical Committees. She is also a Distinguished Lecturer.

Outside of ASHRAE, Pam is a Life Member of the Society of Women Engineers (SWE), has been named to the Consulting-Specifying Engineer's list of 40 under 40, and serves on the AHR Expo Industry Council.

## Presentation Summary

Generational differences in the workplace go far beyond the occasional pop culture references. Employees from different generations have different expectations of the workplace. This presentation will cover how generation differences impact the manager/employee relationship as well as team dynamics. The presentation will also cover what employers can do to recruit, retain, and mentor millennials to become their next leaders. Other tough questions will be discussed, such as how to balance tried and true strategies while not stifling new ideas.



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## **MAY REFRIGERATION TOUR**

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### **STANFORD UNIVERSITY CENTRAL ENERGY FACILITY (CEF) TOUR**

**SPEAKER:**     **ANDREW LAU-SEIM, ASSOCIATE DIRECTOR OF ENGINEERING FOR  
ENERGY OPERATIONS AT STANFORD UNIVERSITY**

**We welcome you all to our Chapter meeting at Stanford University, conveniently located in Palo Alto, for an evening of sharing knowledge, fun and networking.**

**Date:**                     **May 13<sup>th</sup>, 2020**

**Location:**             **Central Energy Facility at Stanford University  
506 Oak Road, Stanford 94305**

Parking for the Stanford Central Energy Facility (CEF) is located at the Searsville parking lot, across Fremont Road from the CEF. Parking is not regulated after 4pm.

**Time:**

**Check-in and Social:**             **5:00PM**

**Plant Tour:**                         **5:45PM – 6:15PM**

**Presentation and Dinner:**     **6:30PM – 8:15PM**

*Dinner shall be at Einstein conference room, walking distance)*

**Dinner Cost:**

Registration Fee:                     **\$ 70 by Midnight May 6<sup>th</sup>**

Late Reg./Walk-ins:                 **Not Allowed, Guest List approval required**

**[CLICK HERE TO REGISTER](#)**

## Requirements for guests:

- Tour guests going inside the facility are to wear sturdy, closed-toed shoes [no high heels or sandals].
- All guests must wear hard hats, protective eyewear and ear-plugs in the mechanical spaces of the facility, which will be provided upon arrival.
- No food or drink is allowed in the mechanical spaces of the facility.
- The tour includes portions that are indoors and outdoors with varying temperatures, so please dress in layers accordingly.

See you all there!

## Hosts/Speakers:

**Andrew Lau-Seim** is the Associate Director of Engineering for Energy Operations at Stanford University. He leads the team that performs all engineering activities for the Central Energy Facility, campus electrical and thermal distribution systems on the historic main campus, as well as the new Stanford Redwood City Campus. Andrew joined the Energy Operations team at Stanford in 2015 for the startup and commissioning of Stanford's new heat recovery system, which transformed Stanford's energy system from gas-fired cogeneration and steam distribution to a renewable electric-powered heat recovery system with low temperature hot water distribution. The heat recovery system will save Stanford hundreds of millions of dollars over 35 years; provided an immediate 68% reduction in campus greenhouse gas emissions, which will continue to grow as the California grid becomes more renewable; and also provided an immediate 15% reduction in potable water use. Andrew is an alumnus of San Jose State University.

**Leslie Kramer** is the Associate Director for Energy Retrofit Programs in Stanford's Department of Sustainability and Energy Management. Her team focuses on improving the energy efficiency of the largest energy-consuming buildings on the Stanford University campus through comprehensive retrofits and on-going commissioning. She works with a variety of stakeholders to identify and implement projects that save energy and money while maintaining or improving overall building performance. Prior to joining Stanford University, Ms. Kramer was a vice president at HDR Engineering, Inc. (formerly Brown, Vence and Associates, Inc.), where she managed the energy efficiency practice and worked as an energy engineer on projects ranging from energy auditing and onsite renewable energy to utility demand-side program management. Ms. Kramer is a certified energy manager and has a Masters of Arts in energy and resources and a Bachelor of Arts in engineering.

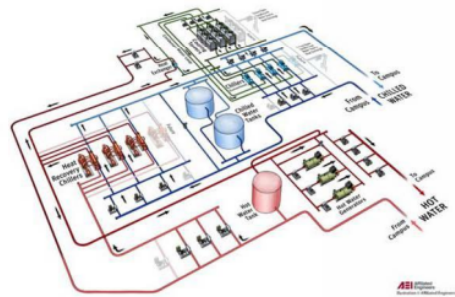
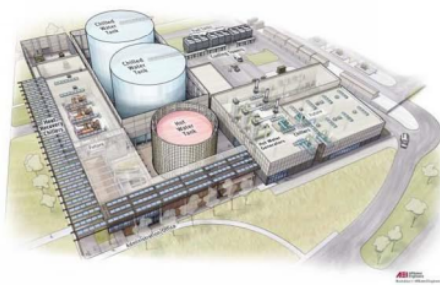
**Topic:**

**Stanford University – Central Energy Facility (CEF) Tour**

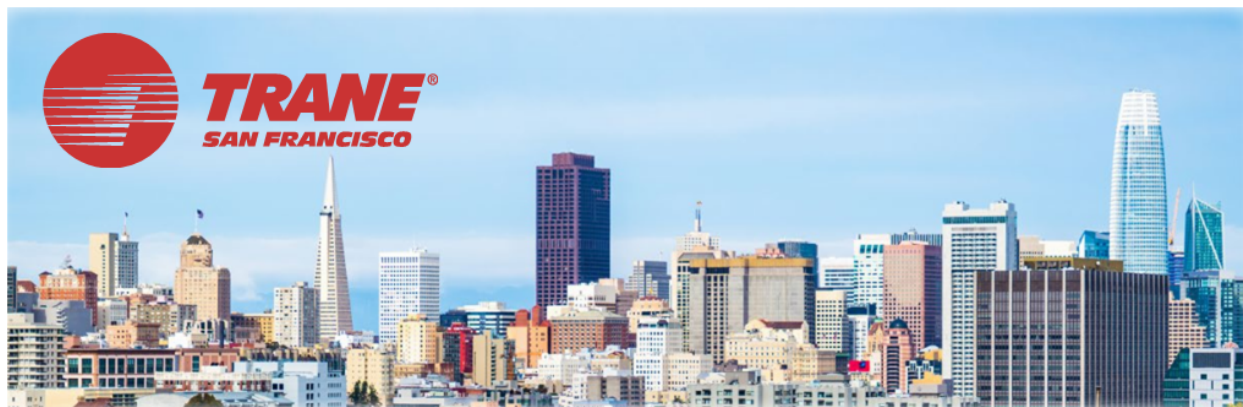
**Overview:**

The Stanford Energy System Innovations (SESI) project is a \$485 million transformation of the campus district energy system. The transformation was from gas fired combined heat and power with steam distribution to electrically powered combined heat and cooling with hot water distribution. When completed in April 2015, the new heat recovery system became 50% more efficient than the previous cogeneration system on a natural gas basis; or 120% more efficient when state-mandated 33% renewable power is factored in. SESI immediately cut Stanford's Category I and II GHG emissions in half; saved 15% of Stanford's drinking water supply; and will save the university \$420 million over the next 35 years compared to the previous system.

The heart of SESI is heat recovery- capturing waste heat from the district chilled water system to produce hot water for the district heating system. 60% of the waste heat is recovered from the chilled water system to generate 90% of Stanford's heating needs, which led to a 68% reduction in campus greenhouse gas emissions. The new system is the first of its kind, and radically transformed the way district energy systems are viewed around the world. An overview of the new system is shown in the images below.







## PACIFIC COAST TRANE TRAINING SCHEDULE

### At-a-Glance January through June 2020

Your One-Stop Training Center for Trane Equipment, CITY MULTI® VRF, Trane A/C Clinic, HVAC Fundamentals, Controls and EPA Section 608 Certification

- **Schematics and Wiring Diagrams - Part 1** (Owners-Operators and Service Contractors) **01/24/20** (Day)
- **Pneumatics Controls and Maintenance** (Owners-Operators and Service Contractors) **01/25/20** (Saturday)
- **Trane/Mitsubishi CITY MULTI® VRF in Benicia** (Installing Contractors) **02/04/20 — 02/06/20** (Day)
- **Schematics and Wiring Diagrams - Part 2** (Owners-Operators and Service Contractors) **02/20/20** (Day)
- **Basic Electricity for HVAC - Part 1** (Owners-Operators and Service Contractors) **02/21/20** (Day)
- **Cooling Towers Ops and Maintenance** (Owners-Operators and Service Contractors) **03/27/20** (Day)
- **Trane Voyager/Precedent Rooftop Unit** (Owners-Operators and Service Contractors) **03/28/20** (Saturday)
- **Basic Electricity for HVAC - Part 2** (Owners-Operators and Service Contractors) **04/30/20** (Day)
- **Trane IntelliPak Rooftop Unit Ops and Maintenance** (Service Contractors) **05/01/20** (Day)
- **Trane/Mitsubishi CITY MULTI® VRF in Benicia** (Installing Contractors) **05/12/20 — 05/14/20** (Day)
- **Indoor Air Quality for HVAC** (Owners-Operators and Service Contractors) **05/22/20** (Day)
- **EPA 608 Exam and Certification** (Owners-Operators and Service Contractors) **05/23/20** (Saturday)
- **Trane Controls for Building Operators** (Owners-Operators and Service Contractors) **06/13/20** (Saturday)
- **HVAC Systems and Field Service** (Owners-Operators and Service Contractors) **06/26/20** (Day)
- **Boilers and Water Source Heat Pumps** (Owners-Operators and Service Contractors) **06/27/20** (Saturday)

For registration info contact Fawn Davis, Training Director at 408-481-3655  
Register online at [www.PacificCoastTrane.com/training](http://www.PacificCoastTrane.com/training)

Pacific Coast Trane Training Center • 310 Soquel Way • Sunnyvale, CA 94085



Vanessa Laseson

## Membership Promotion Co Chairs



Gabriel Perez

San Jose would like to welcome  
the following members:

### Associate

Jason Morales

William Parker Watson

### Member

Alex Sandoval

### Student

Stephanie Chin

Lauren A Esaki-Kua

Pouya Kalehbasti

Molly J Jansky

Andrew Soong

Kaleb Pattawi

Jacqueline Lum

Darran Casey

Cole Wolfe

Bao Pham

"We look forward to seeing you at the next meeting!"

Please consider membership advancement! Why should a member advance from Associate to Full Member status?

- Local Chapter Recognition
- Service Society, Chapter, or Regional Committees
- Qualify for ASHRAE Fellow & other Society awards

To become a Full Member, complete the three steps below.

Have all (3) qualifications below?  
Apply for advancement!

Engineering Degree (4+ years)  
PE License  
Work Experience (3+ years)

### 1 - Check if you qualify.

See the next page on  
Attaining Full  
Membership

### 2 - Update your online ASHRAE Profile.

Go to [www.ASHRAE.org](http://www.ASHRAE.org).  
Select "My ASHRAE"  
Select "Review/Update  
Profile"

### 3 - Notify / email ASHRAE.

Email [membership@ashrae.org](mailto:membership@ashrae.org)  
Let them know you have an  
updated bio and wish to be  
considered for a grade  
advancement.

## ATTAINING FULL MEMBERSHIP

*Twelve years may not be as long as you think!*

How many years have you been working in this industry? \_\_\_\_\_(A)

How many years did you attend a technical school, college, or university? \_\_\_\_\_(B)

Is (B) at least 2 years? Then enter that number here: \_\_\_\_\_(C)

Did you graduate from an accredited college or university? If yes, multiply (C) by 0.5 and enter here: \_\_\_\_\_(D)

Have you attained professional registration?  
If yes, enter 3 here: \_\_\_\_\_(E)

Now....add (A) + (C) + (D) + (E) = \_\_\_\_\_(F)

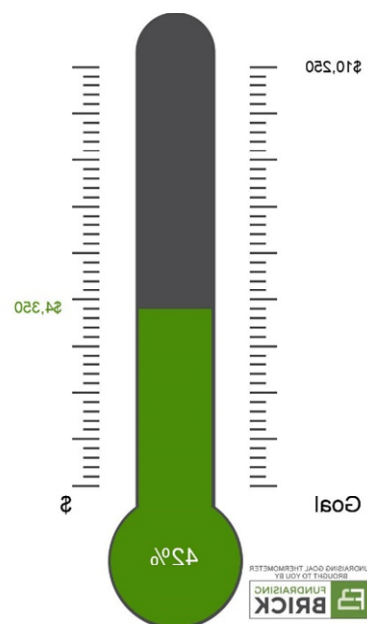
Is (F) at least 12? Then you qualify for full membership!

Update your member bio online today [www.ashrae.org](http://www.ashrae.org)



Rob Potter

Research  
Promotion  
Chair



## What is Research Promotion?

The RP Campaign is an annual fundraising campaign benefiting the funding of numerous ASHRAE Programs. These programs include:

ASHRAE Research ASHRAE Scholarships for undergraduate students ASHRAE Learning Institute (ALI) development of new courses & materials Graduate Research Projects (Grants-in-Aid) Young Engineers in ASHRAE (YEA) Leadership Training Permanently endowed support to all of the above programs

The RP Campaign is overseen by the RP Committee, a standing ASHRAE Committee. The Committee is made up of 14 Regional Vice Chairs (RVC), 1 Consultant (past RVC), 3 Vice Chairs (past Consultant), and Chair (past Vice Chair). Staff support includes a 3-member team based at ASHRAE Headquarters.

The RP Campaign raises over \$2.2 million a year from over 6,000 donors. These donors are made up of ASHRAE Members, industry associations, and industry organizations.





David Hodson

Chapter Technology  
Transfer Committee  
(CTTC) Chair

## What is CTTC?

**The Chapter Technology Transfer Committee (CTTC)** provides efficient and effective transfer of current and relevant information throughout the HVAC&R industry to and from the Chapters. CTTC develops and maintains high quality and readily available tools to enable Chapters to offer information and attractive industry-related information and programs to all segments within the HVAC&R industry

## Upcoming Events



Advance your career and open new doors by earning an ASHRAE Certification

<https://www.ashrae.org/professional-development/ashrae-certification>



Vanessa Lasseon

Government Affairs  
Committee (GAC)  
Chair

## What is GAC?

**The Government Affairs Committee (GAC)** is responsible for organizing ASHRAE members to educate local, state, provincial, and national government bodies and officials in areas of interest to ASHRAE members, and to promote effective cooperation between ASHRAE members and government.

### ASHRAE Government Affairs

Stay informed on the latest news. Subscribe to ASHRAE's Government Affairs Update!

This bi-weekly publication features information on government affairs-related activities of interest to ASHRAE members and others interested in the built environment.

Subscribe through the link below:

<https://www.ashrae.org/government-affairs/government-affairs-updates>

## Announcements



### Public Comment Opportunities:

- BSR/ASHRAE Standard 127- 2012R
- 30 Day Public Review (ends March 10<sup>th</sup>)
- 45 Day Public Review (ends March 25<sup>th</sup>)



### GAC Announcements:

- House Energy and Commerce Subcommittee Holds a Hearing on Energy Efficiency and Storage
- San Jose Energy Trainings

# GAC ANNOUNCEMENTS



## **House Energy and Commerce Subcommittee Holds a Hearing on Energy Efficiency and Storage**

The House Energy and Commerce's Subcommittee on Energy held a hearing entitled, "Saving Energy: Legislation to Improve Energy Efficiency and Storage," which reviewed several pieces of energy legislation:

- [H.R. 1744](#), the "Storage Technology for Operational Readiness and Generating Energy Act" or the "S.T.O.R.A.G.E. Act"
- [H.R. 2909](#), the "Promoting Grid Storage Act of 2019"
- [H.R. 3962](#), the "Energy Savings and Industrial Competitiveness Act"
- [H.R. 4447](#), the "Expanding Access to Sustainable Energy Act of 2019"
- [H.R. 5650](#), the "Federal Energy and Water Management Performance Act of 2020"
- [H.R. 5758](#), the "Ceiling Fan Improvement Act of 2020"

ASHRAE wrote [a letter supporting certain provisions](#) in one of the bills under review, H.R. 3962, the "Energy Savings and Industrial Competitiveness Act." Mark W. Menezes, the Under Secretary of Energy at the U.S. Department of Energy testified. Click [here](#), to watch the full hearing.

## **San Jose Energy Trainings**

Location: San José Environmental Innovation Center

Provided by: Pacific Gas & Electric (PG&E)

**Power, Energy and Therms: Fundamental Concepts, Monitoring Techniques and Load Disaggregation :**  
*for building professionals, operators, owners, energy consultants and facility managers*

- March 24, 8:30 AM - 4:30 PM,
- [Register](#)

**Energy Efficiency Update: Strategies for Reducing Energy Use, Operating Costs and Carbon Emissions:**  
*same audience as above*

- May 13, 8:30 AM - 4:30 PM
- [Register](#)

**A Class for Control Freaks: Optimizing your Building Automation System:** *same audience as above*

- June 18, 8:30 AM - 4:30 PM
- [Register](#)

## **Residential Zero Net Energy for New Construction:**

*for single family, low-rise residential buildings in the private & public sectors*

- March 17, 10:00 - 11:30 AM
- Provided by Bay Area Regional Energy Network (BayREN)
- [Register](#)





Cinthya Carrillo

Student  
Activities Co  
Chairs



Sargon Ishaya

## Announcements



Interested in Outreach? ASHRAE can provide tools to help!

- ASHRAE and HVAC & R related presentations. Ideal for colleges, universities, & high schools
- Hands-on STEM activities. Ideal for K-8 classes.





## Looking for an Internship or Full-Time Position?

- Post your resumes on <https://jobs.ashrae.org/>
- Look for the latest job listings!
- Available for Students and Professionals!

## Looking to hire?

- Post your job openings on <https://jobs.ashrae.org/>
- Find qualified individuals looking to hire!