

## THE FEATURES

- 1 March Meeting
- 2 Speaker Biography
- 3 ASHRAE Meeting Calendar
- 4 President's Message
- 5 Women in ASHRAE Networking
- 6 ASHRAE SoCal Spring Technical Seminar
- 7 2020 CLEanTECH Forum
- 9 Ed Schmidt 2020 Golf Tournament

## TECHNICAL ACTIVITIES

- 10 Mike's Monthly Maintenance  
Understanding the Trade-offs in Cooling Tower Approach, Performance and Selection...in an Era of Climate Change
- 12 Cal Poly Pomona 2019 Energy Banquet

## GRASSROOTS COMMITTEE

- 13 Research Promotion  
Research Promotion Endowment Fund
- 15 Membership Corner

## AND MORE...

- 16 ASHRAE Student Scholarships
- 20 Announcements
- 22 Job Opportunities
- 24 Sol\*Air Supporters
- 25 2019-2020 Officers, Directors, and Chairs

For ASHRAE news and society headlines, please check:  
[ashrae.org/about/news](http://ashrae.org/about/news)

## MARCH MEETING

Tuesday, March 3, 2020 5:30 - 9:00 PM

### Theme: Women in ASHRAE

Promoting the HVAC Industry for a Sustainable Future

### Speaker:

Pam Duffy - Spark One Solutions

### AGENDA:

5:30 - Social Hour

6:40 - Announcements & Dinner

7:00 - Main Program

8:45 - Raffle & Adjourn



The raffle at the meeting will be donated to the chapter Research Promotion!

### COST: Chapter Members/Non-Members

Early Bird: \$75/\$85

On Site: \$85/\$95

Students: Free!

### LOCATION:

Proud Bird

11022 Aviation Blvd

Los Angeles, CA 90045

### DINNER CHOICES:

Buffet

## UPCOMING EVENTS

### Women in ASHRAE

Ballast Point - March 20

### ASHRAE SoCal Spring Technical Seminar

La Krenz Innovation Campus - March 27 (Page 5)

### 2020 CLEanTECH Forum

Cal State LA - April 2 (Page 6-7)

# Speaker Biography



Promoting the HVAC Industry for a Sustainable Future

## **Pam Duffy**

**P.E., Senior Product Manager - Spark One Solutions**

Pam Duffy, P.E. was a Senior Product Manager for Lennox International. As a product manager, Pam was responsible for strategic direction, product roadmaps, new product development, launches and sunsets, and ongoing product category support. She has a mechanical engineering degree from the University of Central Florida and earned her P.E. license in 2013. She has since founded her own company, Spark One Solutions.

Pam is a nationally-recognized advocate for VRF (Variable Refrigerant Flow) technology in North America. She has regularly contributed to formal publications, such as the NEWS, as well as more informal avenues such as LinkedIn. Pam has delivered hundreds of presentations on VRF technology at events such as ASHRAE society conferences. In addition, Pam contributes her expertise to technical groups. Some of her past involvement includes: ACCA Manual S voting member, ASHRAE T.C. 8.7 Corresponding Member, and a regular reviewer of ASHRAE Standards, Guidelines, and Addendums.

Pam is an active volunteer in the Dallas Chapter of ASHRAE.

Previously, Pam served as President of the Atlanta Chapter in 2013-2014, for which the Chapter earned the Region's Rudy Ferguson (Chapter of the Year) award. Pam is also currently serving as a member of the Electronic Communications Committee (ECC) and previously served for on the Conferences and Expositions Committee (CEC).

Pam is a Life Member of the Society of Women Engineers (SWE) and has been named to both the Consulting-Specifying Engineer's list of 40 under 40 as well as the NEWS' 40 under 40.

# ASHRAE Meeting Calendar

All our pictures from the chapter meetings are located on our social media!



<https://www.facebook.com/ASHRAESOCAL/>



<https://twitter.com/ashraesocal>



<https://www.linkedin.com/in/ashrae-southern-california-chapter-1a9a5015b/>



**April 2, 2019**

**Theme: Sustainability**

**Presentation: Energy/Sustainability**

**Speakers: [TBD]**

**Location: Taix French Restaurant**

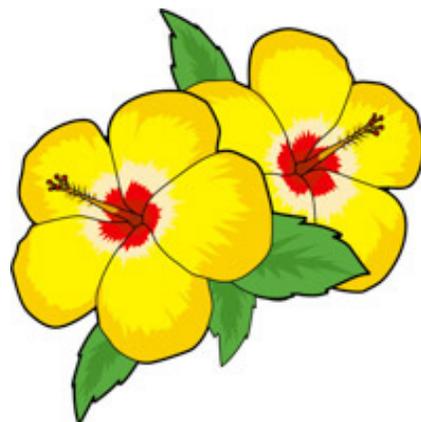
**May 7, 2019**

**Theme: Student Night**

**Presentation: ASHRAE Student Members Presentations**

**Speakers: ASHRAE Student Members**

**Location: Taix French Restaurant**



# President's Message

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Dear ASHRAE SoCal,

Our February meeting “The Secrets and Challenges of Young Decision Makers” was another well-attended event for our chapter, with roughly 100 participants. I'd like to thank Andy Reilman, Austin Allen, Jun Yang, and Karine LeBlanc for their panel participation.

On a less exciting note, I would like to remind our members of the ASHRAE Resources Address COVID-19 Concerns. Our ASHRAE President Darryl K. Boyce sent us communication on how healthy buildings are part of airborne infectious disease solutions. I encourage you all to review the ASHRAE's COVID-19 Preparedness Resources available on how to best protect occupants from exposure to the virus that might be circulated by HVAC systems. I am proud to be part of an organization that constantly addresses the imminent concerns of the world. ASHRAE has been tying our world's trending problems into building engineering solutions.

For our March 3rd meeting, we will be hosting our Women in ASHRAE evening at Proud Bird. Please come and show your support of our chapter's goal to promote diversity in the industry. We have Pam Duffy, an ASHRAE Distinguished Lecturer, speaking on “Promoting the HVAC Industry for a Sustainable Future.” Pam Duffy has over 10 year of experience in HVAC, is active with ASHRAE Technical Committees, and was also president of the Atlanta Chapter. We are all very excited to both support our Women in ASHRAE and to learn about how to shape our conversations to better promote the HVAC industry.

The ASHARE SoCal March meeting is also a special event where we will be announcing the candidates for 2020-2021 leadership. Floor nominations from our membership will be taken and voting results will be announced by April. I am thankful for the work done by our ASHRAE officers, directors, chairs, and members. I look forward to what our future leadership will bring to our chapter and industry.

Thank you!  
Nick Rosner, P.E.  
ASHRAE SoCal President 2019-2020



# Women in ASHRAE Networking Event

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The ASHRAE chapters of SoCal, Orange Empire, and Tri-County are excited to present the second annual Women in ASHRAE networking event! The event will be held at Ballast Point Brewery in Long Beach on March 20 from 4pm – 8pm, and will include appetizers and drink tickets. Space is reserved to 50 people, so make sure to RSVP! This is a great time to get together and support women in our industry. Last year, we had a full house, so reserve your spot now!”

<https://www.eventbrite.com/e/women-in-ashrae-networking-event-tickets-95543658655>

# ASHRAE SoCal Spring Technical Seminar



## ASHRAE SoCal Zero Carbon Building Design Spring Technical Seminar

MARCH 27, 2020 | 7 AM - 1 PM | LIGHT BREAKFAST AND LUNCH INCLUDED

LA KRETZ INNOVATION CAMPUS 525 S Hewitt St, Los Angeles, CA 90013

Registration Now Open! <https://www.ashrae-socal.org/events>

### MEET YOUR PANEL:

For questions please contact [rverba@lawa.org](mailto:rverba@lawa.org).



#### Erin McCahey, PE, LEED AP BD+C

Principal in Mechanical Engineering at Arup in Los Angeles, with 25 years of experience leading multidisciplinary design teams on a wide variety of project types. She also holds recognition as an accredited High Performance Building Design Professional and a Fellow from the American Society of Heating, Refrigeration, and Air-conditioning Engineers.



#### Aravind Batra, PE, LC, LEED AP BD+C

P2S Vice President with over 25 years of experience in consulting engineering covering both renovation and new construction. He brings an in-depth knowledge of electrical systems and is responsible for the design of numerous high performance buildings, independent reviews of various types of buildings, and providing peer review on various renovations and new buildings projects for educational, industrial and commercial facilities.



#### Stefani Szczechowski

Regional Sales Manager for Distech Controls in Southern California. She has been promoting open protocol systems and leading IoT technology for the past five years with Distech Controls. Stefani has been consistently exceeding customer expectations in the building management system industry since 2008 working with clients across the Western United States. She is making her mark in the industry as she was awarded the ControlTrends 2016 Young Gun of the Year Award and the 2018 ControlTrends Woman of the Year Award.



#### Peter Kraut, PE

Licensed mechanical engineer, specializing in the design of plumbing systems. He founded SCEG in 2001 and is a past President of the Los Angeles Chapter of ASPE. He has designed countless sustainable systems including reclaimed water, solar water heating, greywater, blackwater and rainwater harvesting for many notable projects including the Los Angeles Federal Courthouse, and a high rise Moxy-AC Marriott Hotel.



#### Jeff Landreth, PE, BEMP, BEAP, LEED AP O+M

Engineer, educator, and entrepreneur. He has spent the majority of his 15-year career as an energy, sustainability, and overall building performance consultant working on a wide range of project types and scale, locally and throughout the world. He is an expert in new and existing building commissioning, building automation, and performance optimization. He has been a building systems instructor and lecturer at Southern California universities since 2008.



#### Avidah Haghghi, AIA, LFA, LEED GA

Registered Architect and a Living Future Accredited professional dedicated to creating a regenerative built environment through her role as a designer and AEC industry advocate. She has a diverse portfolio of work spanning public and private sectors, such as public schools, large mixed-use developments and institutional projects, including the State's largest NZE building currently under construction. As an Architect and Project Performance Team member at ZGF, she advises clients on global sustainability goals and real estate strategy, and works with design and consultant teams to identify unique opportunities in every project to create high performance buildings.



### MEET YOUR MODERATOR:

#### Greg Collins, PE, LEED AP BD+C, BEMP

Founder and Principal at Zero Envy, a firm that provides building energy modeling, consulting, hourly support and training. Greg is a licensed Mechanical Engineer with over ten years of experience in engineering and technical sustainability consulting.

# 2020 CLEAnTECH Forum



2020 CLIMATE, ENERGY  
& TECH FORUM



**CLEAnTECH**  
April 2nd  
9am - 3pm



presented by

The  
CARBON  
MOVEMENT

5151 State University Dr  
Los Angeles, CA 90032

Golden Eagle Building

3rd Floor Los Angeles Rooms A/B/C

Go to Eventbrite for Registration and Sponsorship information

<https://www.eventbrite.com/e/2020-cleantech-forum-csu-los-angeles-tickets-93619595731>

Search "CLEANTECH FORUM @ CSU Los Angeles"

ASHRAE Members Discount Code CLEANTECH20 for 20% discount

# 2020 CLEAnTECH Forum



## 2020 Climate, Energy & Tech (CLEAnTECH) Forum

**Date:** April 2, 2020 **Time:** 9am-3pm **Venue:** CSU Los Angeles

The 2020 Climate, Energy & Tech Forum serves as a collaborative platform for industry, academia, environmental non-profits, and government agencies to exchange ideas, introduce transformative initiatives, and build market awareness around the topics of climate change adaptation, distributed energy resources, energy management, and emerging technology research.

### **Keynote Speaker**

Maureen Hand, PhD  
California Air Resource Board (CARB)

### **Pathway 2045**

John Harris, Strategic Planning Advisor  
Southern California Edison

### **CREST Center for Energy and Sustainability**

Dr Arturo Pacheco-Vega  
CSULA Mech Eng. Department

### **Grid Alternatives Industry Panel**

### **Sustainable Design Panel**

Joshua Foster, FKA Los Angeles  
Nataka White, ARUP

### **Los Angeles Department of Water and Power (LADWP)**

### **Community Energy Equity**

Natalie Hernandez, Manager  
Climate Resolve

### **Southern California Gas Company**

### **Innovation in Electric Vehicles**

Taj Eldridge, Senior Director of Investment  
Los Angeles Cleantech Incubator (LACI)  
Kameale Terry-Fullington, Founder  
Charger Help!

Paul Francis, Co-Founder, KGIT  
Terry Travis, Co-Founder, EV Noire

# Ed Schmidt 2020 Golf Tournament

The Southern California Chapter of ASHRAE presents the

Visit [EdSchmidt2020.com](http://EdSchmidt2020.com)

## Tenth Bi-annual Edward Schmidt Memorial Scholarship Golf Tournament Friday May 8th, 2020 – 1:00 Shotgun Start

Learn More & Register Now at  
[EdSchmidt2020.com](http://EdSchmidt2020.com)



Edward Schmidt served as President and Scholarship Chairman of the Southern California Chapter. He passed away in June 2003, at the age of 54, following a courageous battle with leukemia. He was an avid golfer, and through this tournament we hope to honor him by recognizing deserving students for the scholarship fund.

**LOCATION:**  
*Pacific Palms Resort*  
One Industry Hills Parkway  
City of Industry, CA 91744

### Event Schedule

11:00 am – Registration  
*Lunch will be provided for each player in the assigned golf carts.*  
1:00 pm – Shotgun Start  
6:00 pm – Cocktails & Hor D'oeuvres  
6:30 pm – Awards Banquet

- Raffles & Announcements
- Dinner

### All Proceeds go to the ASHRAE Scholarship Fund.

Donations to ASHRAE are fully deductible from taxable income by most donors who itemize their deductions.

**ASHRAE is a 501c (3) organization and all donations are tax deductible.**

IRS Tax ID #23-7132135



# Mike's Monthly Maintenance

by Mike Gallagher, [MGallagher@wasocal.com](mailto:MGallagher@wasocal.com)

## Understanding the Trade-offs in Cooling Tower Approach, Performance and Selection...in an Era of Climate Change.

How “oversized” is a particular open tower/fluid cooler/evaporative condenser selection? Is it worth the money/floor space/weight premium? What is a rational way to compare selections? And if you spend the money for a better performing tower, how can you control it to get the best return on your investment? I wrote a column about this topic a dozen years ago. Time and climate change reality have modified how I look at this issue.

Let's start with the two variables that you choose first: leaving tower water temperature and design wet bulb (WB) temperature. Leaving tower water temperature is a judgment call, dependent on the cooling equipment being served...which is a subject for another day. Design wet bulb is also a judgment call, where the question, “What if I miss it? Will the system shut down?” is usually the biggest concern. Once you've made your decisions here, and decided upon a water flow rate, it is time to look at the cooling tower. Climate change has made this thought process both more urgent and more difficult. When I moved to SoCal over 30 years ago, we would typically hit 76 WB a time or two each summer. Maybe a total of 10-15 hours. That has changed, and the rate of change has increased noticeably over the last decade. Last summer, we had 3 solid weeks at 76 F or above, with a couple of consecutive days that peaked at 78F. Like the melting of the ice caps, no credible engineer can argue the effect, regardless of disagreement about the cause.

For the purposes of this discussion, we'll focus on open cooling towers. Please recognize that a closed circuit tower (“fluid cooler”) and its DX cousin, the evaporative condenser, use similar logic but have different parameters and (in the case of the evaporative

condenser) some added system-imposed limitations.

The key thing to understand about a cooling tower is the relationship between ambient wet bulb and leaving water temperature. As water evaporates in a given tower, the water that didn't evaporate will be cooled. The water temperature will drop toward the wet bulb temperature, but never reach it. How close it gets under specific conditions is referred to as the “approach” (the leaving water temperature minus the ambient wet bulb). The approach, along with the tower first cost, is your key to analyzing which selection makes the most sense.

Let's say that you are evaluating a cooling tower installation, regardless of whether it is a new installation or a replacement. A dozen years ago I would have based the selection on a single process: you decide upon the design gpm, leaving water temperature and the design WB. You request 4 selections from your preferred vendor, from the minimum unit that will do the job, up through the next three selection increments (that may involve a fan motor change, or it may involve an entire tower housing change, or both). For each you will get a brake horsepower at design conditions, an approach, weight & dimensions and a first cost. Assuming that the units fit in the space and their weight does not pose a structural problem, and that installation cost is roughly similar for each, the decision essentially comes down to the relationship between approach and first cost. If you graph it, you typically find a big improvement with the first upgraded choice that is better than the minimum, with successively less improvement as you proceed from there. At some point you will reach a point of diminishing return, such that it makes sense to stop enlarging the tower.

# Mike's Monthly Maintenance

In essence, it was pretty much that simple back then. But what has changed in 12 years? Now, I prefer to add a second step. Take the selection that you thought was optimum based on the first step, and bump the WB by a full 2F. So if you selected based on 75 WB, you now do a performance run at 77 WB. Do the same for the next larger selection that the rep provided during the first step. Compare how each did at the 2F larger WB condition. If you (and the water cooled equipment being served) can live with the results of the less expensive tower, then go with that. If not...then go with the next higher capacity selection. **Because we've learned that peak wet bulb events are not hours, or days long...they now last for weeks.**

The next question is, "How do you control the tower if you want full benefit from your selection?" I've suggested before that it is hard to argue with simply running the fan at full speed all the time, so long as you are above the minimum acceptable leaving water temperature for the cooling system being served. That is, of course, *not* going to be the *optimum* strategy, because it doesn't take into account the diminishing return situation that is encountered when the ambient wet bulb/tower approach relationship does not permit further performance improvement past a given point, regardless of how fast you turn the fans.

I'll assume that you've decided to include a variable frequency drive (VFD) to control the fan. This saves a lot less energy in the real world than you might expect, but has a lot of other benefits (I've beaten this to death in previous columns; call me if you want a rehash of the reasons).

Remember that tower performance is dependent upon ambient WB. There is more than one way to determine ambient WB, but once you have it, it is a simple matter to adjust leaving tower water temperature as a function of ambient WB. *The simplest method is to simply change the leaving water temperature set point to stay above ambient WB by the amount of the tower approach at design conditions.* In other words, if your design selection had an approach of 6 F, then the tower leaving water set point would track 6 F above WB as the WB varied over time. The cooling equipment being served will probably necessitate a maximum and minimum set point.

The above method preserves your investment based upon what ever magnitude of tower approach you chose when evaluating cooling tower selections. So long as your maximum and minimum set points make sense for the system, you also will keep the tower operating in synch with the system that it serves.

Questions? I'm always happy to hear from you:  
[MGallagher@wasocal.com](mailto:MGallagher@wasocal.com).

# Cal Poly Pomona 2019 Energy Banquet



**CAL POLY POMONA**

Dear ASHRAE SoCal Chapter,

On behalf of the Cal Poly Pomona ASHRAE student branch, I'd like to thank you for supporting our 2019 Energy Banquet. We hope to have your support for the years to come!

Thank you,  
*Jazmin*

Jazmin Leon

President 2019-20, ASHRAE CPP



# ASHRAE SoCal Chapter Research Promotion

Corporation and Individual tax deductible **contributions helped ASHRAE fund the following Research**

IDENTIFIER	TC/TG	COST	RESEARCH TITLE OR SUBJECT	CONTRACTOR
1408-RP	2.06	\$149,839	The Effect of Lining Length on the Insertion Loss of Acoustical Duct Liner in Sheet Metal Ductwork	U. NEVADA- Las Vegas, NV
1455-RP	1.04	\$160,000	Advanced Control Sequences for HVAC Systems - Phase I Air Distribution and Terminal Systems	TAYLOR ENGINEERING - Alameda, CA
1469-RP	5.10	\$350,000	Thermal Comfort in Commercial Kitchens	KEMA, INC. - Oakland, CA
1515-RP	2.01	\$174,714	Thermal and Air Quality Acceptability in Buildings that Reduce Energy by reducing Minimum airflow from Overhead Diffusers	UC-BERKELEY - Berkeley, CA
1544-RP	6.06	\$194,850	Establishing Benchmark Levels and Patterns of Commercial Building Hot Water Use	APPLIED ENERGY TECHNOLOGY - Davis, CA
1588-RP	4.07	\$75,000	Representative Layer-by-Layer Descriptions for Fenestration Systems with Specified Bulk Properties such as U-factor and SHGC	WHITE BOX TECHNOLOGIES, INC. - Moraga, CA
1609-RP	7.03	\$110,000	Defining the Capabilities, Needs and Current Limitations of Building Information Modeling (BIM) in Operations and Maintenance for HVAC&R	HITCHCOCK CONSULTING - Kelsey, CA
1665-RP	3.02	\$103,685	R-40 Stability with HVAC&R System Materials	McCAMPBELL ANALYTICAL, INC. - Pittsburgh, CA
1673-RP	9.12	\$90,000	Revision of the ASHRAE HVAC Design Guide for Tall Commercial Buildings	B&S Analytics - Marina Del Ray, CA
1682-RP	5.02	\$117,719	Study to Identify CFD Models for Use in Determining HVAC Duct Fitting Loss Coefficients	Embry-Riddle University - Prescott, Arizona
Grant 14-15	2.01	\$20,000	Support for the Development of ASHRAE Thermal Comfort Database Mark II	UC-BERKELEY - Berkeley, CA & U. SYDNEY, Australia

Support Future Research in  
Building Science & Air Conditioning !

For online contributions go to [www.ashrae.org/contribute](http://www.ashrae.org/contribute)



# Online Donation to ASHRAE Research Promotion

Click or Copy/Paste the following link on your browser:

<https://www.ashrae.org/standards-research--technology/ashrae-rp>

Browser, optimized for Bing and MSN  
ashrae.org/standards-research--technology/ashrae-rp  
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Purchase Research Reports

ASHRAE RP  
RP Committee & the RP Campaign

The RP Committee manages and supports both the Society-level fundraising and Chapter-level fundraising of the RP Campaign. Traditionally supporting just research, the RP Campaign was expanded 10 years ago to include support of Education & ALI, Endowed Research through ASHRAE Foundation, YEA programs, ASHRAE Scholarships, and the General/Unrestricted fund. Research, the backbone of ASHRAE, remains the primary fund of the program with over \$1.9 million raised for this program annually.

If you have questions about a particular fund or the RP Campaign in general, please [contact ASHRAE's RP Staff at Headquarters](#).

**CLICK**

Invest in the 2014-15 RP Campaign

Online Contribution Form

Thank You!

Invest in ASHRAE and Help Shape our Future

I would like to financially support ASHRAE's mission, programs, and member services indicated below: (indicate the amount you wish to contribute in U.S. dollars to any or all resources below)

U.S.\$ 200  
U.S.\$  
U.S.\$

ASHRAE Research  ASHRAE Research Canada

ASHRAE Learning Institute and educational programs  
Endowed Research via ASHRAE Foundation.

\* By checking the box, I indicate that I understand that these are endowed funds and permanently restricted for the support of ASHRAE Research.

Existing Fund Name (If known):  
[Click here to see existing endowments](#)

U.S.\$  
U.S.\$ 100  
U.S.\$ 200  
U.S.\$ 500

ASHRAE Scholarships (endowed scholarship support)  
Select One  
ASHRAE General Fund  
Young Engineers in ASHRAE (YEA) Support

Total contribution to be charged to credit card

Please check one:  
 Personal Contribution  Company Contribution  
(Honor Roll level contributions listed in ASHRAE's October Journal Issue start at \$100.00 for individuals and \$150.00 for companies.)

Payment Method (Note - all fields are required)

Charge my gift to:  
Name as Appears On Card:  
Credit Card Type: American Express  
Credit/Charge Card Number:  
Expiration Date: Select Month Select Year

If you have any questions please feel free to send an email to the RP Chair to [socal.ashrae.rp@gmail.com](mailto:socal.ashrae.rp@gmail.com)

# Membership Corner



## Membership Promotion

By Carter Chappell -  
Membership Chair

To become a member of the Southern California Chapter you must first be a member of Society (for more info, please visit [www.ashrae.org/membership/join](http://www.ashrae.org/membership/join)). If you are currently a member of Society and wish to join the Chapter, you can synchronize your renewal dates by paying pro-rated Chapter dues. Society membership is \$205 for Associates and Members, \$21/\$79/\$105 (Fee per year at a 3 year introduction) for Affiliates, and \$21 for students; Chapter membership is \$60 for Affiliates, Associates and Members and \$10 for students. Student Transfer membership allows you to maintain a reduced membership for the two years following graduation.

\*Rate changes every year for the first 3 years.

If you have any questions about your membership, please don't hesitate to contact **Carter Chappell** at [cchappell@icidualcool.com](mailto:cchappell@icidualcool.com)

### ***HAVE YOU PAID YOUR MEMBERSHIP DUES?***

Even though you December have paid your Society membership dues, don't forget to pay your Chapter dues. Chapter dues go directly to the SoCal Chapter and are greatly appreciated. If you haven't paid your Chapter dues yet, please be sure to stop by reception at the next chapter meeting and we can accept your dues directly. Thank You!

### **SmartStart** By Andres Palomino - Membership Chair

Are you a Student Member that recently graduated? Do you know someone that is? First off, welcome to the real world! Secondly, you should all take advantage of the SmartStart Program! SmartStart is a 3-year program that allows Student Members to transfer to Associate grade membership at a fraction of the cost:

First Year: \$21

Second Year: \$79

Third Year: \$105

Join within 6 months of your graduation date to take advantage of the SmartStart program now!  
([https://fs12.formsite.com/ashrae/form581146616/secure\\_index.html](https://fs12.formsite.com/ashrae/form581146616/secure_index.html))

# ASHRAE Student Scholarships



## John Tamney Memorial Scholarship

2020– 2021 ASHRAE Southern California Chapter Student Scholarships will be granted to a graduating high school senior who has been accepted into a mechanical engineering or engineering technology program at any California college/university or community college. The scholarship grant amount is generally \$12,000 for tuition during Fall 2020 and Spring 2021 enrollment.

Applications are due **March 31, 2020**. For consideration by the Chapter, please submit the following documents listed below:

1. Letter of acceptance for California colleges/universities or community college for entry to Mechanical Engineering or Engineering Technology program.
2. Name and location of High School.
3. At least one letter of recommendation from student's teacher or counselor
4. Graduating high school transcript with grade point average (GPA) - photo copy is acceptable.
5. Resume of personal interest and academic achievements.
6. Personal data – mailing address, phone, email address.
7. Essay on student's goals and future life path.

Notice of the award of the scholarship grant will be made at the Chapter meeting on **May 5, 2020** at TAIX French Restaurant (1911 Sunset Blvd., Los Angeles, CA 90026). 50% of funds will be available in Fall 2020, and 50% will be available in Spring 2021.

**Submit all above documentation in electronic form** (PDF or MS-DOC) to the

Scholarship Selection Committee members, listed below, by **no later than March 31, 2020**.

**Clayton A. Lampman, P.E.**

C.A. LAMPMAN ASSOCIATES  
1531 North Santa Anita Ave.  
Arcadia, CA 91006-1844  
Phone: (626) 355-8979  
Fax: (626) 355-5829  
E-mail: [cala\\_eng@earthlink.net](mailto:cala_eng@earthlink.net)

Jay Madden, PE  
Southern California Edison  
1515 Wamut Grove Ave  
Rosemead, CA 91770  
(626) 302-0829  
E-mail: [jay.madden@sce.com](mailto:jay.madden@sce.com)

# ASHRAE Student Scholarships



## **2020 – 2021 Student Scholarships for Community Colleges**

The 2020– 2021 ASHRAE Southern California Chapter Student Scholarships will be granted to eligible and deserving Community (2-year) College students. The scholarship grant amounts are generally \$400 to \$750 each and will be available during fall 2020 enrollment. We are seeking to select candidates for these scholarships from students who are enrolled in a technical curriculum focused on refrigeration and/or air conditioning, with a serious goal of entering the field of HVAC&R Engineering after graduation. They may be a full time or part time student currently and must demonstrate financial need. If you are an instructor or college administrator we need your help to identify and recommend qualified students at your institution.

Applications are due **March 31, 2020**. For consideration by the Chapter, the student should submit the documents listed below:

1. Photocopy of last semester/quarter college transcript – 1) must have C average or higher and 2) must have completed at least one course in engineering or physical sciences.
2. Letter of Recommendation from Dean or Department Chair.
3. Complete resume of completed courses, work experience, and general interest.

The Chapter's Scholarship Committee members will base their final selection on a personal interview of the candidates to be held between **mid-April** and **early-May 2020** at a location to be selected. Please note that **the interview is the single most important criterion in the selection process** and we encourage the student to be well prepared with all necessary documentation, including transcripts and letters of recommendation. The Scholarship Committee Interviewers will be evaluating the general character presentation of the applicant, verbal communication skills, interest/knowledge in HVAC&R industry, and financial need.

Notice of the award of the scholarship grant will be made at the Chapter meeting on **May 5, 2020** at TAIX French Restaurant (1911 Sunset Blvd., Los Angeles, CA 90026). Funds will be available in fall of 2019.

**Submit all above documentation in electronic format** (PDF or MS-DOC) to the Scholarship Selection Committee members, listed below, by no later than **March 31, 2020**.

**Clayton A. Lampman, P.E.**  
C.A. LAMPMAN ASSOCIATES  
1531 North Santa Anita Ave.  
Arcadia, CA 91006-1844  
Phone: (626) 355-8979  
Fax: (626) 355-5829  
E-mail: [cala\\_eng@earthlink.net](mailto:cala_eng@earthlink.net)

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# ASHRAE Student Scholarships



## **2020 – 2021 Student Scholarships for 4 Year Engineering College/University**

The 2020 – 2021 ASHRAE Southern California Chapter Student Scholarships will be granted to eligible and deserving Four-Year Engineering College/University students. The scholarship grants will be available during fall 2019 enrollment. We are seeking to select candidates for these scholarships from students who are enrolled in an engineering or technical curriculum and show an academic interest in refrigeration and/or air conditioning related courses, including controls with a serious goal of entering the field of HVAC&R Engineering after graduation. Additionally, the student must demonstrate financial need. If you are an instructor or college administrator we need your help to identify and recommend qualified students at your institution to apply.

### **Requirements for ASHRAE Engineering Scholarships:**

1. Scholarship to be granted to an enrolled Mechanical Engineering student who has a cumulative 3.0 GPA and have completed at least 3 semesters or 5 quarters of engineering of sophomore level or higher courses.
2. The amount of the scholarship to vary from \$900 to \$3,000 each, subject to an evaluation of the required documents and an interview.
3. Additional scholarships may be granted to freshman or entering freshmen in Mechanical Engineering if they are recommended by a Southern California Chapter member and have the goal of eventually entering the HVAC&R field.

### **Requirements for J. Frank Park Scholarship:**

1. Scholarship to be granted to an enrolled Mechanical Engineering student who has a cumulative 3.0 GPA and have completed at least 5 semesters or 8 quarters of engineering of junior and senior level courses.
2. The amount of the scholarship may vary from \$2,500 to \$5,000, subject to an evaluation of the required documents and an interview. This scholarship is limited to one grant per calendar year.
3. The applicant must demonstrate interest in HVAC&R by having taken or enrolled in one or more related course.
4. Submit a short essay (two pages or less) on "Why mechanical engineering that pertains to heating, refrigeration, and air conditioning is or will be my chosen career." The essay will be a major factor in the selection process. It will be judged on the basis of originality, knowledge of the industry, correlation between student's background and objectives, structure of thoughts, and logic of conclusions.

### **Requirements for Edward Schmidt Memorial Scholarship:**

1. Scholarship to be granted to an enrolled Mechanical Engineering student who has a cumulative 3.5 GPA and have completed at least 5 semesters or 8 quarters of engineering of junior and senior level courses.
2. The amount of the scholarship to vary from \$3,500 to \$15,000 subject to an evaluation of the required documents and an interview. This scholarship is limited to one grant per calendar year.
3. The applicant must demonstrate interest in HVAC&R by having taken or enrolled in

# ASHRAE Student Scholarships

- one or more related course.
4. Submit a short essay (two pages or less) on "What key element of your engineering education has prepared you for a career in heating, refrigeration, and air conditioning industry." The essay will be a major factor in the selection process. It will be judged on the basis of originality, knowledge of the industry, correlation between student's background and objectives, structure of thoughts, and logic of conclusions.

Applications for all three categories of scholarships are due **March 31, 2020**. For consideration by the Chapter, the student should submit the documents listed below:

1. Letter of Recommendation from Dean or Department Chair
2. Photocopy of last semester/quarter college/university transcript showing full-time student status (12 units or more) and meeting the minimum required GPA.
3. Complete resume of completed courses, work experience, and general interest.
4. A short essay if applying for any of the scholarship categories requiring it as described above.

The Chapter's Scholarship Committee members will base their final selection on a personal interview of the candidates to be held between **mid-April** and **early-May 2020** at a location to be selected. Please note that **the interview is the single most important criterion in the selection process** and we encourage the student to be well prepared with all necessary documentation, including transcripts and letters of recommendation. The Scholarship Committee Interviewers will be evaluating the general character and presentation of the applicant, verbal communication skills, interest/knowledge in HVAC&R industry, and financial need.

Notice of the award of the scholarship grant will be made at the Chapter meeting on **May 5, 2020** at TAIX French Restaurant (1911 Sunset Blvd., Los Angeles, CA 90026). Funds will be available in fall of 2019.

**Submit all above documentation in electronic format** (PDF or MS-DOC) to the Scholarship Selection Committee members, listed below, by no later than **March 31, 2020**.

**Clayton A. Lampman, P.E. C.A.**  
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# ANNOUNCEMENTS

## Resource Promotion Chair for SoCal Chapter

100% of this money will go to research, meaning not only you are helping creating jobs for some people ( those who actually do the research projects ) you are also helping advancement of our industry and helping green engineers such as myself learn faster and have better, more reliable resources. And for that we thank you!

You can make your contribution by:

- Going online and following instructions below ( will take 2 mins !)
- Call me and give me your information and I will do it for you
- Send a check directly to headquarter
- Send a check to me
- Ask me to come pick your check up
- Or anything else you are comfortable with, be creative!

Thank you all and see you soon.

### Online Contribution

Go the <https://xp20.ashrae.org/secure/researchpromotion/rp.html>

1. In the first rectangle put your contribution amount and check ASHRAE Research circle.
2. Check the box for endowed support
3. In existing fund name copy : S California Chapter
4. If you want to support scholarship please fill the scholarship amount and pick general
5. Click on personal contribution
6. Under contribution information field in red are required, fill out your information
7. SUBMIT and wait for your name to pop up a san honor roll investor !

**Invest in ASHRAE and Help Shape our Future**

I would like to financially support ASHRAE's mission, programs, and member services indicated below; (indicate the amount you wish to contribute in U.S. dollars to any or all resources below)

U.S.\$   ASHRAE Research  ASHRAE Research Canada  
U.S.\$  ASHRAE Learning Institute and educational programs  
U.S.\$  Endowed Research via ASHRAE Foundation.

By checking the box, I indicate that I understand that these are endowed funds and permanently restricted for the support of ASHRAE Research.

Existing Fund Name (if known):   
[Click here to see existing endowments](#)

U.S.\$  ASHRAE Scholarships (endowed scholarship support)  
(Select One)

If "Other" is selected, please enter the name of the Scholarship

U.S.\$  ASHRAE General Fund  
U.S.\$  Young Engineers in ASHRAE (YEA) Support  
U.S.\$  Total contribution to be charged to credit card

**Please check one:**  
 Personal Contribution  Company Contribution  Chapter Contribution  
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**Frank Schwamborn**  
[frank.schwamborn@p2sinc.com](mailto:frank.schwamborn@p2sinc.com)

**REMEMBER: All donations to ASHRAE are tax-deductable!**

# ANNOUNCEMENTS

CONSTRUCTION TECHNOLOGY 39HB-2,4,6  
DEPARTMENT  
ARCHITECTURE CABINETMAKING CARPENTRY HVAC PLUMBING WELDING

LOS ANGELES TRADE-TECH  
**LATTC**  
A Community College

## ***SPRING 2020 SEMESTER*** ***LOS ANGELES TRADE TECHNICAL COLLEGE*** ***400 West Washington Boulevard Los Angeles CA*** ***AIR CONDITIONING PROJECT MANAGEMENT CLASS***

*If you are currently working in the HVAC Trade and have the basic skills, taking this class may lead to promotions and higher earnings in the HVAC industry.*

**COURSE NUMBER { REF A/C 100 }**  
**Air Conditioning Project Management**  
**3 UNITS { Section # 12720 }**

**Register on-line @ [www.lattc.edu](http://www.lattc.edu)**

**Thursday Evenings 6:00 p.m.—9:10 p.m.**  
**Building E - Room E2 232**  
**Starting February 13, 2020 to June 4, 2020**  
**(16 Classes)**

**Class Pre-requisite: None**

A desire to learn about becoming a Project Manager in the Heating and Air Conditioning Industry. Knowledge of Microsoft Word & Microsoft Excel will be beneficial for this course.

***Some of the course topics covered are:***

***Managing Air Conditioning Construction Projects / Proposals /  
Design Build Projects / Coordination of Trades / Blueprint Reading /  
Estimating Practices / Submittals***

Instructor: Barry Kirschenbaum - Project Manager (35 years experience in the HVAC Trade)  
LATT Graduate—Ref A/C / Cal Poly Pomona Graduate - Mechanical Engineering

Contact me if you have any questions concerning this class: Mob:#: 626-433-3997  
Email : [kirschbd@lattc.edu](mailto:kirschbd@lattc.edu)

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### HVAC Design Engineer

#### Job Description:

We are seeking a motivated individual to join our Western Allied Corporation Engineering Team in Santa Fe Springs, CA. In this position, you will be responsible for creating design-build drawings that are complete, clear, constructible and cost conscious. We follow our projects from conception to completion and for the life of the building. As an HVAC Design Engineer, you will have the unique opportunity to be a part of the construction and service team working with field staff to deliver quality HVAC systems to our customers.

#### Job Responsibilities:

- Perform and assist with engineering design
- Assist with construction coordination of design drawings with field and other trade partners
- Assist with project close out documents at completion of construction
- Complete code-required energy compliance documentation
- Conduct engineering calculations, selection and layout of equipment, duct and piping system design

#### Job Requirements:

- Proficiency in Revit, AutoCAD and Navisworks
- 2+ years of mechanical engineering experience at a consultant or contractor
- Fluent in engineering problem solving and communication
- Understanding of psychrometrics, refrigeration, acoustics, and controls systems
- BS in Engineering desirable
- EIT Certificate or PE desirable

Please contact Brian Sybesma ([bsybesma@wasocal.com](mailto:bsybesma@wasocal.com)) to apply

# Sol\*Air Supporters

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