ASHRAE Southern California Chapter

SOL*AIR

Newsletter for the Southern California Chapter of ASHRAE

Jan 2025 | Vol 69 No 3

UPCOMING EVENTS

ASHRAE WINTER CONFERENCE
ORLANDO & AHR EXPO
Sat-Wed Feb 8-12, 2025

JANUARY MEETING

Tue Jan 7th, 2025

Title 24 Energy Code Panel Discussion

Speakers Andy Reilman, Dave Intner, Dominic Butler, and Moderator Michael Adams

Photo by Alek Leckszas, Public Domain

TICKETS
Students: FREE
Chapter Members: $70
Non-Members: $80

LOCATION
Quiet Cannon Conference Center
901 Via San Clemente
Montebello, CA 90640

REGISTER HERE
https://socalashrae.eventbrite.com

FEATURES

TECHNICAL ACTIVITIES

CHAPTER ACTIVITIES

AND MORE...

ASHRAE Southern California Chapter

TITLE 24 ENERGY CODE

Panel Discussion

7 JANUARY

530-8 PM

Quiet Cannon
901 Via San Clemente,
Montebello, CA 90640

- 2025 Code Changes
- Evolution of CA Energy Code
- Lessons Learned from 2022 Code Cycle

Andy Reilman
Principal
Linkage Engineers

Dave Intner
Energy Efficiency Advisor
SoCal Edison

Dominic Butler
Sustainability Specialist
Syska Hennessy Group

Michael Adams
Lead Energy Consultant
Glumac

Moderator

For Registration:
https://socalashrae.eventbrite.com

ASHRAE Southern California Chapter

President's Message

Dear ASHRAE Southern California members and guests,

Happy New Year! I hope you all enjoyed the holidays and are making the most of the winter weather.

Looking back in the past couple of months, we had our general monthly meetings which covered key pressing topics and also casual social events. Our October general meeting focused on the pressing topic of decarbonization of the built environment. **Paul Torcellini**, a distinguished ASHRAE lecturer and principal engineer at NREL, provided valuable insights into the latest trends and innovations in sustainable building design and operation. More importantly, he encouraged our audience to adopt a holistic approach and to think critically when making project decisions, emphasizing that each choice can significantly impact carbon emissions, either as a reduction or a missed opportunity. There was a special event that took place in October as well. I was honored to be invited to attend the **ASPE Los Angeles** chapter's 60th Anniversary celebration. It was an elegant event honoring the volunteers who have shaped the chapter's success over the years. Both the ASPE LA Chapter and the ASHRAE SoCal Chapter are excited to continue our collaboration, driving innovation in efficiency, resiliency, and decarbonization for a sustainable future. On a more casual note, **ASHRAE SoCal YEA** committee hosted the YEA Fall Mixer in October, which brought together young and seasoned professionals for an evening of networking and connection in a relaxed atmosphere. These types of events allow our YEA members to network, find the sense of community and also learn from our seasoned professionals regarding how to navigate our HVAC industry successfully.

In November, we hosted our meeting that dove into another key topic of airborne infection transmission control. Our speaker was **William Bahnfleth**; Bill is a distinguished ASHRAE lecturer and a Professor of Architectural Engineering at The Pennsylvania State University and was the chair of ASHRAE Epidemic Taskforce during the pandemic. Bill's presentation provided valuable insights regarding the use of technologies and engineering controls for mitigating airborne infection risks.

President's Message

In December, we hosted the joint meeting with Tri-county and Orange Empire chapters, where **ASHRAE Society President, Dennis Knight**, graced us with his presence and delivered his presidential keynote on HVAC workforce development. **ASHRAE Region X Regional Members Council Representative, Colin Laisure-Pool**, made a guest appearance at the December meeting and gave a short presentation informing members about the regional members council and the role it has within ASHRAE. Our Membership Promotion committee also hosted a social event in December, which was a great success!

Looking ahead at our **January meeting**, we are bringing together local industry experts from consulting engineering and utility side for a panel discussion on Title 24 energy code. This discussion will dive into the upcoming 2025 energy code changes, rationale behind the big changes and resources that are available for engineers and owners. The panelists will also discuss the lessons learned from 2022 code cycle and recap the overall history and evolution of California's energy code. The turnout at our past several meetings have been promising and I have been impressed by the engaged participation of our members. We are striving to have a safe and inclusive forum for all our members and guests and it's great to see folks attending our meetings and events and actively participating. Thank you for your continued engagement and participation in our chapter. Enjoy the beginning of the new year!

Thank you,

Rafi Karim
ASHRAE SoCal President, 2024-2025

MEET OUR BOARD 2024-2025

Elyse McBride, PE
Past President
elyse.mcbride@ifactor.com

Elyse McBride, PE is a mechanical engineer at Infrastructure Factor Consulting, Inc. She has experience with K-12 schools, hospitals, and commercial building design. She has previously served on the Tri-County ASHRAE board before moving to the SoCal ASHRAE region. She received her bachelor's degree in Mechanical Engineering from Cal Poly Pomona.

Rafi Karim, PE
President
Rafi.Karim@arup.com

Rafi is the Mechanical Building Performance Leader for Arup's Los Angeles office with extensive experience leading multidisciplinary teams to deliver high-performance projects. Rafi is passonate about sustainable built environment and has served numerous grassroots positions in ASHRAE SoCal and ASHRAE San Diego during the last 11 years.

Matt Sittel
President-Elect
matt.sittel@rfmacdonald.com

Matt Sittel is a New Equipment Sales Engineer for R.F. MacDonald Co., supporting clients with equipment and design assistance for hot water and steam boilers, pumps, and other commercial HVAC and industrial equipment. Matt covers West LA County through Santa Barbara. He has a passion for learning about and sharing new technology and energy-saving equipment and designs, as well as helping to solve complex problems with clients.

Shahpoor Khosravi, PE
Treasurer
shahpoor.khosravi@p2sinc.com

Chet Dik
Secretary
Chet.Dik@p2sinc.com

Alex Larson
Director of Membership and Retention
alex.larson@dmghvac.com

Alex Larson is a sales engineer with DMG. He is currently the Director of Membership and Research Promotion and the Communications Co-Chair. Outside of work he enjoys scuba diving and backpacking.

Thank you to our sponsor!

ThermostatCare

We Care About California Contractors and Communities

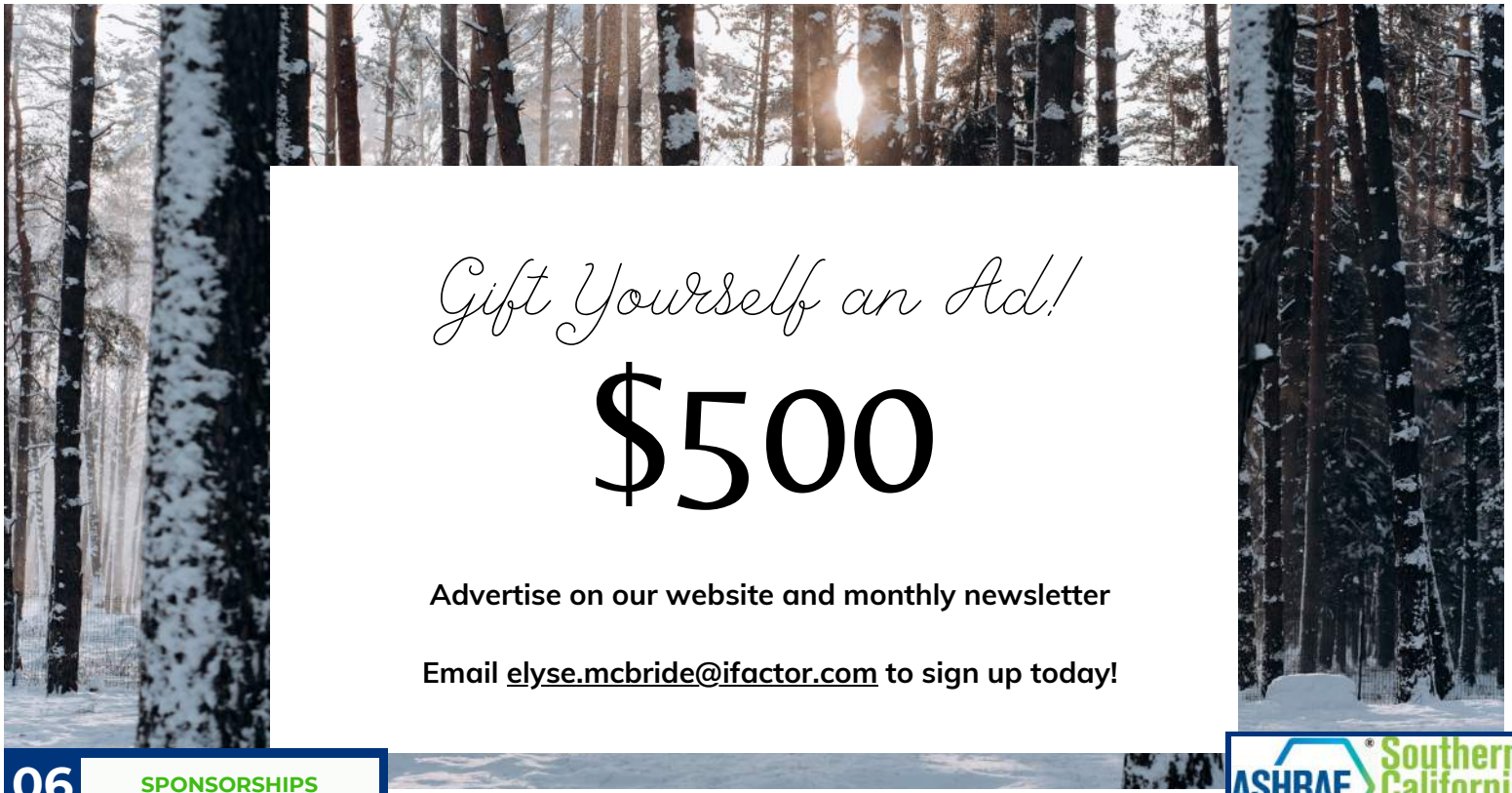
Mercury thermostats are considered universal waste and can pose a serious health hazard to our communities and environment if they are mishandled, broken, or are discarded in regular household trash.

Thermostat Care works with California DTSC to ensure that mercury thermostats are disposed of safely. We help contractors and service technicians comply with regulations by providing access to free drop-off locations or a free private collection container.

Request your free collection container today by completing a bin or pail request form and emailing it to the team at ContainerRequests@ThermostatCare.org. All costs including the actual container, pre-paid return shipping, and collection materials are free of charge.

Service technicians are eligible to receive a $30 mail-in rebate per mercury thermostat if they are a CA resident and the returned mercury thermostat(s) were removed from a building in CA. Please note that licensed CA contractors are not eligible for the rebate.

Please visit ThermostatCare.org/Contractors to learn more



Gift Yourself an Ad!

$500

Advertise on our website and monthly newsletter

Email elyse.mcbride@ifactor.com to sign up today!

MIKE'S MONTHLY MAINTENANCE

Mike's Naughty and Nice List

I'm in my last year as president at Western Allied, and it has given me some pause for reflection. Santa has brought me some nice things in my HVAC stocking over my 45 year career; but there has also been some coal. A quick summary (opinionated, but not without personal experience to support the opinion):

Nice

Scroll compressors. Probably the single biggest mechanical HVAC improvement of the past 40 years. We used to have a forest of dead recip compressors in the back area of the shop at the end of each summer. Now we probably replace 20% of what we used to replace. A definite improvement.

Digital controls. Outstanding potential here, and sometimes it is fully realized. When embedded in equipment it is mostly positive. For the rest of the building, we don't come close to realizing all of the promised gains. Unfortunately, the control company model from when I entered the industry...get it 90% done, then walk away, telling the client to buy a service agreement...is still the control company model today, except most companies lack sufficient technicians to support the number of service agreements available. That causes a lot of issues for end user clients. At this point in my life I'm pretty much manufacturer and platform agnostic, and the contractor's reputation for supporting the controls client after the installation is paramount. That reputation is earned, and it is generally truthful.

Electronic expansion valves (EEV's). Sure, this relates to the digital controls item, above. But it is a separate and distinct product, and far superior to a thermal expansion valve (TXV). In addition to responding better to system conditions, an EEV can also provide a hard shut off. In the HVAC world, this product (when properly used) has significantly improved both performance and compressor reliability.

(CONT'D ON NEXT PAGE)

MIKE'S MONTHLY MAINTENANCE

Better sensors, pretty much across the board. Shoot, 40 years ago we did not have an enthalpy sensor that was both reliable and had a decent life expectancy. Now we have refrigerant, CO2, temperature, pressure and enthalpy sensors (just to name a few) that are excellent. Better input can indeed lead to better output.

Multi-protocol, non-proprietary controllers. The era of having to be held hostage to a proprietary control brand is over, if the engineer specifies it to be generic.

Mag-lev (magnetic levitation) compressors. At full load, they are about the same efficiency as any other centrifugal. At part load, with essentially no shaft bearing friction and variable speed, they run away with efficiency comparisons. We've actually compared a new single compressor VSD centrifugal with a new multi-compressor mag-lev, side by side. There literally is no comparison. Every manufacturer is moving to mag-lev for a reason.

Naughty

Micro-channel condenser coils for large units. I've never seen as many condenser coil leaks as I've seen with micro-channel. To be clear, when the coil area is small or very well supported, or there is a bend in the coil and hence a good deal of built-in rigidity, micro-channel seems to do well. But big slab micro-channel coils, particularly those without full perimeter reinforcement, can't seem to withstand the constant flexing as condenser fans come off and on. This is the disaster that every manufacturer denies in public, but whose more knowledgeable personnel acknowledge in private over the second glass of wine or beer.

The rise of the smaller and less expensive bladder-type expansion tank over the old fashioned compression tank. Compression tanks were (and are) easily maintainable, and their performance is clearly visible. Bladder tanks without a bladder pressure gage are a joke. Half the buildings I enter for the first time have a bladder style expansion tank with either zero or an incorrect bladder pressure. So why are 99% of the bladder tanks you see installed without a pressure gage? If you understand the role of the expansion tank, then it is a clear blunder to specify a bladder tank without a pressure gage.

(CONT'D ON NEXT PAGE)

MIKE'S MONTHLY MAINTENANCE

ECM motors that have been mis-applied, usually through ignorance. A 3 phase ECM motor's starting torque is tiny compared to an induction motor. That can manifest itself in several ways. If you are designing a system with an outside air or injection fan of some sort that will need to start while the fan system it is serving is already running, be aware that an ECM motor's starting torque cannot reverse a backward rotation and come on line with proper rotation. That also means back draft dampers (or better yet, actuated dampers) to isolate staged fans in an array are needed. Also recognize that spare ECM motor parts (and sometimes the motors themselves) will not be in stock... anywhere. This industry-wide problem of selling equipment without a parts reserve has become a widespread problem.

Title 24 and certain of its non-sustainable requirements. Two examples come immediately to mind. Humidifiers that cannot use heat energy to generate steam, and which instead must rely on mechanical energy to atomize water. What a maintenance problem. Or cooling towers that are supposed to operate down as low as 1/3 of design water flow. Scale inhibiting chemicals in a tower's water treatment are only effective on a fully wetted surface. Trying to keep all the media fully wetted at a fraction of the tower's design water flow is...to use the polite word...a challenge. Buildings that are not maintainable are not sustainable. It is sad that Title 24 has provisions that are non-sustainable, at least without extreme service requirements (which are seldom if ever practiced).

Finally, it is a good thing we have those scroll compressors now. VRF and other high performance heat pump technologies rely on over-speeding the compressor to as much as 2x cooling speed when the compressor is in heating mode. While I've told people for decades that a compressor lasts almost as long in a heat pump as in a cooling-only application, that does not appear to be true in VRF applications. I have to assume that the over-speeding aspect is at least a big part of the cause.

The happiest of holidays to you! There are a lot more nice HVAC things in our stockings than naughty things. Remember, sustainable design starts with a maintainable system. And as always, let me know if any questions or comments. mgallagher@wasocal.com

Mike Gallagher, PE, fASHRAE
President at Western Allied Corporation

ASHRAE Southern California Chapter

PEOPLE, PROCESS & PERFORMANCE

Building Strategic Partnerships

Strong relationships between companies are crucial in today's business world. We frequently hear about partnerships, mergers, and alliances designed to create value for customers and shareholders that a single company might struggle to achieve alone.

Now, given the prevalence of these collaborations, it's worth exploring some fundamental questions: What makes a partnership effective? What are the characteristics of a good partner? And what differentiates a good partnership from a great one? In this write up, I will use the acronym PARTNER to discuss the topic and highlight some principles to keep in mind when building a strategic partnership.

P: Preparation and Research

Building a successful partnership starts with careful preparation and thorough research. Identifying the right partner means not only understanding your own goals but also seeking organizations whose values and objectives align with yours. This foundational step ensures that both parties bring complementary strengths and can work towards shared objectives with mutual respect and commitment.

·Identify Potential Partners: Attend ASHRAE local and national meetings to identify key industry players, emerging companies, and where partnership opportunities exist. Stay informed about current trends within the industry to better understand how each potential partner fits into the broader market.

·Assess Compatibility: Evaluate each potential partner's strengths, weaknesses, and positioning within the local and national HVAC industry. This includes an assessment of their reputation, financial stability, and market reach to ensure they offer not only complementary skills but also align with your companies' values.

A: Alignment of Goals

For a partnership to be effective, seek goal alignment from the very beginning. This alignment minimizes misunderstandings and ensures that every effort (marketing campaign, services, product lines, etc) within the partnership contributes toward shared, clearly defined objectives. To implement that alignment, establishing measurable goals and having a mutual understanding of desired outcomes ensures a focused, goal-driven collaboration.

(CONT'D ON NEXT PAGE)

PEOPLE, PROCESS & PERFORMANCE

·Define Objectives: Why are we working together? Outline specific objectives for the partnership. Identify what your organization aims to accomplish through the collaboration and communicate these objectives to your potential partner. This alignment allows for a smoother collaboration and minimizes the risk of future conflicts or unmet expectations.

·Set Measurable Goals: Develop SMART goals: Specific, Measurable, Achievable, Relevant, and Time-bound. This provides a clear framework for what success will look like and helps both parties remain focused on concrete, attainable goals.

R: Relationship Building

All partnerships are not created equal. While relatively easy to strike a business partnership, a strong, trustworthy long-term partnership goes beyond the words drafted into a contract. To be truly successful, a partnership requires ongoing engagement, understanding, and mutual respect.

·Build Trust & Respect: Foster a foundation of mutual trust and respect. Always tell the truth, even when it's difficult. Acknowledge mistakes and take responsibility. Respect the confidentiality of your partner's business details and always show professionalism.

·Dependable & Reliable: Reliability in a business relationship is crucial for building trust and ensuring long-term success. Consistently meeting deadlines and maintaining high-quality standards demonstrate dependability and commitment. To be successful and build momentum, start partnering on low stakes projects and gradually increase the level of criticality.

T: Transparent Communication

Clear, transparent communication is the cornerstone of any successful partnership. Open dialogue ensures both parties feel heard, informed, and engaged. Regular updates and continuous feedback foster a collaborative environment where potential issues can be addressed proactively, and ultimately allow the partnership to grow stronger over time.

·Open Dialogue: While staying professional, encourage honest and open. Create an environment where both parties feel comfortable discussing challenges and opportunities freely. Share concerns and problems as they form to ensure no surprises down the line. If goals will not be met, let your partners know well in advance so they can make appropriate changes.

PEOPLE, PROCESS & PERFORMANCE

·Feedback Mechanisms: Even after reaching a steady state in the collaboration, don't neglect the value of feedback. Continue encouraging constructive input from both sides, ensuring ongoing improvement and collaboration opportunities are discovered and addressed. This could take place via daily, monthly, or quarterly joint meetings depending on the nature of the collaboration.

N: Networking and Collaboration

Good partnerships have a shared vision with separate actions, but great partnerships actively collaborate and share resources. By working closely together and sharing knowledge and resources, partners can enhance their individual and collective impact. This collaborative approach not only strengthens the relationship but also creates an unmatched competitive advantage.

·Collaboration: Work together from start to finish. From system design and installation to ongoing maintenance and support. Align process flows to ensure optimal project delivery and customer experience. Other forms of collaboration include joint training, industry presentations, co-branded marketing and outreach to potential customers.

·Resource Sharing: Share resources, knowledge, and expertise as needed to maximize the partnership's effectiveness. This could include industry insights, connecting each other to their networks, or training resources personnel to help meet goals.

E: Evaluation and Monitoring

Continuous evaluation and monitoring allow both parties to assess the partnership's effectiveness and make improvements over time. By tracking progress and using performance metrics, you can measure the impact of the partnership and make necessary adjustments to ensure it remains beneficial for both parties.

·Track Progress: Regularly monitor the partnership's progress by assessing outcomes against predefined objectives. Tracking helps identify if goals are being met or if adjustments are needed to maintain alignment with initial objectives.

·Performance Metrics: Use key performance indicators (KPIs) as a benchmark for measuring success. KPIs offer an objective measure of the partnership's impact and help both parties focus on performance-based outcomes.

(CONT'D ON NEXT PAGE)

R: Resilience and Adaptability

Just like any relationship, a business partnership will encounter challenges over time due to both internal and external factors. For the partnership to endure, the ability of each partner to adapt is crucial. Additionally, establishing effective crisis management strategies ensures the partnership remains stable and can swiftly recover from any setbacks.

·Adapt to Change: Be flexible and prepared to adapt to change. Partnerships evolve as businesses grow. Don't feel constrained to the original partnership model and stay flexible to take advantage of new opportunities as provide mutual benefit.

·Crisis Management: Develop strategies to address crises or unforeseen events swiftly. This includes having contingency plans in place to manage risk and modify the partnership as necessary. The lessons learned from the 2020 pandemic showed the importance of having multiple partners for sourcing, a robust customer engagement plan, and adaptable market strategies.

As the saying goes - "Coming together is a beginning, staying together is progress, and working together is success." I hope you can keep building new partnerships and sustaining the existing ones for greater business success. Please send any comments or questions to ric@rocsolidteam.com.

Ricson Chude, PE, CEM, CEA, CMVP
Engineering Manager at Southern California Edison

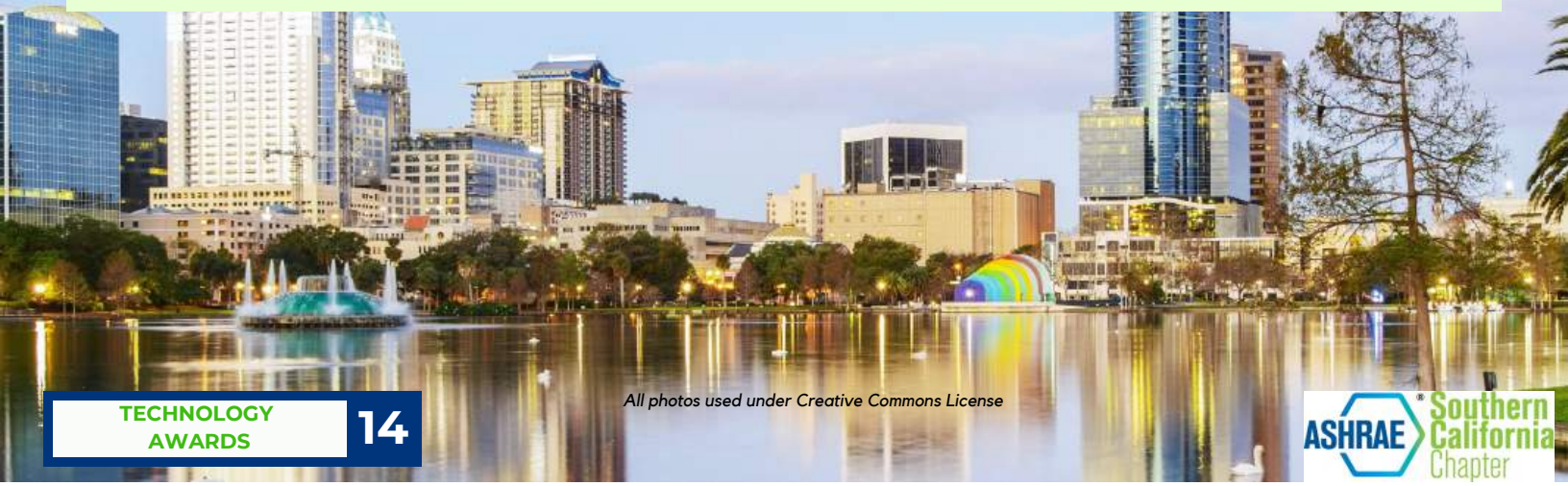
CALLING ALL MEMBERS

Apply to the ASHRAE Technology awards today!

Applications due March 28th

Questions? Email kristenkcole14@gmail.com

https://www.ashrae.org/membership/honors-and-awards/technology-awards-program



All photos used under Creative Commons License

DBIA-WPR LA/OC CHAPTER & ASHRAE YOUNG PROFESSIONALS

NEW YEAR - NEW MINDSET WORKSHOP

Join DBIA-WPR LA/OC YPs as we team up with ASHRAE to Kick off the new year with an evening of connection and an interactive leadership development workshop with Karine Leblanc.

Karine is an engineer, Amazon-published author, and international speaker who's passionate about elevating our industries leaders. Her presentation is focused on:

Elevating AEC Leadership: The Power of Emotional Intelligence

For leaders in the AEC industry, the challenge of building robust teams and nurturing client relationships often poses a stumbling block. By developing emotional intelligence with actionable strategies, you can transition from being task-focused managers to empathetic and inspiring leaders. This transformation will not only improve team performance and project outcomes but also create a positive and thriving work environment, leading your organization toward greater success and growth.

Each ticket includes (2) drink tickets (non-alcoholic options available) & heavy appetizers.

You could also be the winner of some great raffle prizes!
This event is led by YPs but Non-YPs welcome, bring your YPs with you!

DBIA WESTERN PACIFIC REGION DESIGN-BUILD INSTITUTE OF AMERICA

****APPROVED FOR 1.25 CEHs****

2025 LA/OC CHAPTER YP EVENT

WEDNESDAY, JANUARY 22, 2025

5:00pm-8:00pm

REGISTER ONLINE BY ONLY AT: dbiawpr.org

Hosted by DBIA-WPR LA/OC Chapter Young Professionals and Young Engineers in ASHRAE.
Questions? Contact event chair Catherine Woodworth at 850.276.3195, cwoodworth@henselphelps.com.

SPEAKER

Karine Leblanc Modular Solutions Sales Manager - West
Daikin Applied

LOCATION

Murray Company
18414 S Santa Fe Ave
East Compton, CA 90221

AGENDA

Check-In, Eat, Networking 5:00pm
Interactive Workshop (Prompt) 6:00pm
Continue Networking 7:15pm
Event Ends 8:00pm

COST TO ATTEND

DBIA Member	$20
ASHRAE Member	$20
Non-Member	$30
Owner	$ 0
Student	$ 0

yp design-build young professionals

ASHRAE YEA

FOR MORE INFORMATION

Email DBIA-WPR at admin@dbiawpr.org

Oct Meeting: Decarbonized World

Montebello, CA

We had a great turnout at our October meeting! Our speaker was Paul Torcellini, PhD, a distinguished ASHRAE lecturer and principal engineer at NREL. Paul dove into the most pressing topic of decarbonization of the built environment. Paul, a renowned expert in this field, provided valuable insights into the latest trends and innovations in sustainable building design and operation.

More importantly, he encouraged our audience to adopt a holistic approach and to think critically when making project decisions, emphasizing that each choice can significantly impact carbon emissions, either as a reduction or a missed opportunity.

2024 EVENT RECAP

November Meeting
Montebello, CA

We had great turnout for our November meeting, which featured ASHRAE Distinguished Lecturer Dr. Bill Bahnfleth, who shared his expertise on Airborne Infection Transmission. Dr. Bahnfleth chaired the ASHRAE Epidemic Task Force during the Covid-19 crisis and was critical in developing ASHRAE's response and guidance. It was a fascinating and engaging presentation that engendered some great discussion, delving into the various technologies available used to mitigate infection risk and their benefits and drawbacks.

2024 EVENT RECAP

December Meeting
Montebello, CA

For our December Joint-Meeting with SoCal, Tri-County, and Orange Empire Chapters, we were fortunate enough to continue our tradition of hosting the current ASHRAE Society President. President Dennis Knight presented his inspirational and entertaining presidential-message on empowering our HVAC&R workforce, tying in his personal journey and decades of experience to the current state of our industry and how we can all move forward to the benefit of our industry, our communities, and the world. It was great to catch up with friends and colleagues from all around Southern California as well as ASHRAE Regional Leaders such as Colin Laisure-Pool, who made the trip from Arizona to educate us all on the Regional Member's Council. It was a great night to learn and get motivated for our industry and for ASHRAE!

ASPE 60th Anniversary

Downtown Los Angeles, CA

Our ASHRAE SoCal Chapter President, Rafi Karim, had the pleasure of attending the ASPE Los Angeles Chapter's 60th Anniversary celebration. The event was an elegant affair, featuring delicious food and a sophisticated ambiance that perfectly suited the occasion. During the celebration, the ASPE LA Chapter board members took the time to honor all the volunteers who have been an integral part of the chapter over the past 60 years. Their dedication and contributions have been pivotal in shaping the chapter's success and legacy. Looking ahead, both the ASPE LA Chapter and the ASHRAE SoCal Chapter are excited to continue our collaboration.

Together, we are committed to driving innovation in efficiency, resiliency, and decarbonization, paving the way for a sustainable future in the engineering community.

2024 EVENT RECAP

YEA Fall Mixer

Angels City Brewing, Los Angeles, CA

The ASHRAE YEA Fall Mixer was a resounding success! Held in a warm and inviting atmosphere, the event brought together young and seasoned engineers for an evening of delightful food and refreshing brews. Attendees had the perfect opportunity to network and connect, sharing experiences and insights in a relaxed setting. The mixer fostered meaningful conversations and new connections, strengthening the bonds within our engineering community. Thank you to everyone who joined us and contributed to making this event memorable. We look forward to more such gatherings in the future!

BOARD ROSTER

2024-2045 ASHRAE Southern California Board

Director and Regional Chair, ASHRAE Region X	Buzz Wright		buzz@regionx.org
OFFICERS			
Past President	Elyse McBride	951-892-6153	elyse.mcbride@ifactor.com
President	Rafi Karim	909-435-8237	rafi.karim@arup.com
President-Elect	Matt Sittel	562-967-9887	Matt.Sittel@RFMacDonald.com
Treasurer	Shahpoor Khosravi	301-529-2742	shahpoor.khosravi@p2sinc.com
Secretary	Chet Dik	248-881-2586	chet.dik@p2sinc.com
DIRECTORS AND CHAIRS			
Director of Membership and Retention	Alex Larson	714-309-7198	alex.larson@dmghvac.com
Membership Promotion	Kari Stachowiak	714-823-1418	karis@CriticalAirTech.com
Membership Promotion	Dmitriy Bezinover	213-269-4234	dmitriy.bezinover@stantec.com
Research Promotion Chair	Alan McDermott	415-535-4241	alan@vertisys.net
Research Promotion Co-Chair	Rey Ong	626-552-6660	rong@siglers.com
Reception Chair	**Open**		
Raffle Chair	**Open**		
Director of Student Activities, YEA and Historian	Alexandre Authie	310-596-0200	aauthie@amagroupusa.com
Student Activities Chair	Yanting Xu	626-768-7636	yxu@aeieng.com
Young Engineers in ASHRAE (YEA) Chair	Chris Tanakaya	909-223-4149	chris.tanakaya@p2sinc.com
Chapter Historian	Clay Lampman	626-590-0206	cala_eng@earthlink.net
Scholarships Chair	Jay Madden	626-940-9088	maddenjay@sbcglobal.net
Director of Public Relations & Correspondence	**Open**		
Women in ASHRAE Chair	Karine Leblanc	310-347-9177	karine.leblanc@daikinapplied.com
Newsletter Editor	**Open**		
Chapter Website & Communications Chair	Rey +Alex L	626-552-6660	rong@siglers.com
Director of Chapter Technology Transfer & Sustainability	Kristen Cole	310-462-5278	kcole@dlrgroup.com
CTTC Chair	Kristen Cole	310-462-5278	kcole@dlrgroup.com
Government Affairs Chair	Akshay Kumar	562-452-7946	akshay.dhanapalkumar@p2sinc.com
Refrigeration Chair	**Open**		
Sustainability Chair	Frank Schwamborn	310-578-2871	frank.schwamborn@arup.com
STANDING COMMITEES AND CHAIR			
Audit Chair	Jay Madden	626-940-9088	maddenjay@sbcglobal.net
PAOE Chair	Chet Dik	248-881-2586	chet.dik@p2sinc.com
Golf Tournament Co-Chair	Joey Jiron	562-360-4588	jjiron@wasocal.com
Golf Tournament Co-chair	Kari Stachowiak	714-823-1418	karis@CriticalAirTech.com
INVESTMENT FUND COMMITTEE			
Investment Fund Manager	Phillip Trafton	818-266-5742	phil.trafton@coffman.com
Trustee 1	Nick Rosner	424-445-7875	nick.rosener@se.com
Trustee 2	Jay Madden	626-940-9088	maddenjay@sbcglobal.net
Trustee 3	Omar Rojas	213-373-4822	orojas@siglers.com

SOL*AIR

Newsletter for the Southern California Chapter of ASHRAE

Jan 2025 | Vol 69 No 3

ASHRAE® Southern California Chapter

VISIT US AT (ASHRAE-SOCAL.ORG)