ASHRAE Falcon Chapter

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09

ASHRAE FALCON CHAPTER · UNITED ARAB EMIRATES

Chapter Newsletter

Volume 09 · September 2026 Edition

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Disclaimer — This newsletter is an independent publication created specifically for the ASHRAE Falcon Chapter. It does not represent official positions or policies of the Society, nor has it undergone Society review. ASHRAE Chapters do not speak on behalf of the Society. For information on ASHRAE's global activities, please visit the official ASHRAE website.

A Message to the Members

What makes ASHRAE special is the spirit behind the work.

ASHRAE is known for its standards, research and education, but what makes it special is the spirit behind that work. Professionals contribute their time and experience to advance knowledge that benefits the entire industry. Members can learn from a publication today and help shape its next edition tomorrow. That connection between learning and contributing gives ASHRAE a value that goes beyond professional membership.

A Global Society, A Local Community

The Falcon Chapter brings that global spirit closer to home. Here in the UAE, it connects professionals, academics and students with different backgrounds and experiences. It provides a setting where we can step outside our own organisations, hear different perspectives and build relationships across the profession.

Falcon also connects our local community with the wider region. Hosting the 2025 Chapter Regional Conference in Dubai demonstrated this role, bringing colleagues together to exchange ideas and experiences. Its support for student participation adds another important dimension, helping the next generation find its place within ASHRAE.

For members, this combination matters. We belong to an international society with shared knowledge and purpose, while having a local community in which we can participate personally. We can be learners, mentors, contributors and friends, sometimes all within the same gathering.

2026–2027 Society Year

Hassan Younes

President-Elect,
ASHRAE Falcon Chapter

An Invitation: Bring One Colleague With You

This year's ASHRAE Falcon Chapter presidential theme, **"Elevating our Community through Membership Promotion,"** encourages us to share that experience more widely. We invite every member to introduce at least one colleague, friend or young professional to our chapter.

Bring them to an event, share what membership means to you and encourage them to join. Your personal invitation can help someone feel welcome and take that first step.

ASHRAE connects us to a global community. The Falcon Chapter brings us together to learn, contribute and grow. Let us help more people become part of it.

Hassan Younes
President-Elect, ASHRAE Falcon Chapter

PRESIDENTIAL THEME

Elevating our Community through Membership Promotion

Two-Day Kick-Off Meeting & Training · 2026–2027 Society Year

Connect. Collaborate.

The ASHRAE Falcon Chapter opened its 2026–2027 Society year with a two-day Kick-Off Meeting and Training that brought committee members together under a simple but powerful theme: Connect. Collaborate. More than an orientation, the two days were designed to equip every volunteer with a clear picture of how ASHRAE works — from the chapter, through the region, all the way to Society, and to help each member serve their role with confidence, coordinate smoothly with fellow committees, and explore the full range of opportunities ASHRAE has to offer.

One message ran through every session and tied the whole program together: every ASHRAE volunteer, in every role, is ultimately serving and reporting to ASHRAE members. That principle framed the training from the welcome note to the closing session.

Day 1 — Foundations

Welcome and Society Year Kick-Off

Hassan Younes opened the training with a warm welcome, walking the room through the agenda and the purpose of the two days. He set the stage by explaining ASHRAE's structure and its regions, reminded members of the Society's mission, vision, and core values, and introduced the committee structure that would shape the year ahead.

ASHRAE Hierarchy — Chapter, Region, and Society

Building on the welcome, the session introduced the incoming 2026–2027 committee members and mapped out how ASHRAE is organized across its three levels — chapter, region (RAL), and Society — so that everyone could see exactly where their work fits within the larger organization.

Day 1 — Foundations, continued

Students, Membership and ChapterOps

Student Activities

Dr. Michel (RVC SA) gave an energizing overview of Student Activities spanning both post–high-school and K–12 audiences. He highlighted the many benefits ASHRAE brings to students, networking, job opportunities, scholarships, competitions, grants, and awards, and focused on the practical side: how to get students involved, how to connect and engage with them, how to promote these benefits, and how to encourage and support university student branches. A special thank you to **Dr. Michel** for traveling all the way from Lebanon to Dubai to deliver two valuable and insightful sessions on **Student Activities**. We truly appreciate your time, dedication, and contribution to empowering and inspiring our student community!

Membership Promotion and ChapterOps

Hassan K. presented the role of the Membership Promotion (MP) committee, covering membership grades in detail, definitions, qualifying criteria, fees, and benefits. Most importantly, he shared concrete strategies to promote membership and grow the chapter further, along with the MP awards program. He then ran a live demo of ChapterOps, ASHRAE's cloud-based platform that brings chapter operations into one place: planning activities (events, calendars, tasks, and follow-ups), supporting members (quick review of member records and participation), and tracking chapter work (PAOE, newsletters, tasks, and day-to-day operational details).

The day closed on a warm, cozy note over dinner — a chance for the team to bond, unwind, and celebrate together, complete with a small birthday celebration for two of our committee members.

Day 2

Committees, Advocacy, and Impact

Chapter Technology Transfer Committee (CTTC)

Day 2 opened with a thorough look at the CTTC session delivered by Osama Khayata, its definition, responsibilities, and duties. The session covered chapter activities and programs from purpose to logistics, including speaker protocol, and laid out the range of topics and formats available to the chapter: field trips, seminars and conferences, research talks, joint meetings, and non-technical talks. Members were also introduced to the Distinguished Lecturer Program and the CTTC awards program. Dr. Michel (RVC SA) followed with a second Student Activities session, continuing to connect the dots between technical programming and student engagement.

Government Affairs Committee (GAC)

Abdallah presented the GAC, its overview, purpose, and roles and responsibilities. He showed members how to get involved in communicating with elected officials and policymakers, including through the Government Affairs Committee and Government Outreach, turning advocacy into a practical, accessible part of chapter work.

Chapter Committees and Officers' Duties

Osama Khayata walked the team through all the chapter committees and officer duties in detail. from the Chapter Board of Governors (BOG) down through each committee , giving members a complete map of who does what and how the pieces fit together.

Presidential Award Of Excellence (PAOE)

Osama Khayata closed the training with ASHRAE's PAOE, the Society-wide point system that tracks and rewards chapter achievements. He explained its purpose, categories, minimum points and PAR, and the PAOE awards, along with the practicalities of how to enter points and meet the deadlines, illustrated with plenty of examples. And yes, he set the target very high for the team this year. Challenge accepted!

Over two days, committee members came away with a clear understanding of ASHRAE governance across chapter, region, and Society; a working knowledge of each committee's roles and responsibilities; and a renewed sense of how to coordinate with one another, engage with members, and make a real impact. Above all, the training reinforced the idea at the heart of everything we do, that we volunteer in service of our members.

Here's to an engaging, collaborative, and impactful 2026–2027.

Dr. Michel Hayek

Professor of Mechanical Engineering & Vice President for Academic Affairs, Notre Dame University–Louaize

Regional Vice-Chair Student Activities, Region-at-Large

In Conversation

Two Decades of Building Bridges Between Students and the Profession

From founding a student branch in 2004 to serving as Regional Vice Chair for Student Activities, Dr. Michel Hayek has spent his ASHRAE career on the side of the next generation. We asked him about the journey, and what students should be building now.

1. Tell us about your professional journey and how ASHRAE became part of it.

I moved back home to begin an academic career at Notre Dame University-Louaize after spending more than 15 years abroad pursuing higher education and gaining non-negligible experience in engineering practice. My association with ASHRAE began shortly thereafter when a group of dedicated students volunteered to establish a student branch. The Notre Dame University Student Branch was officially approved in 2004, marking the beginning of my involvement in ASHRAE activities.

The work of the student branch was well noticed and, as a result, I was invited in 2009 to assume the role of Chapter SA Chair. The SA Chair position is critical for every ASHRAE Chapter, as its primary responsibility is to engage with future members and leaders of the society at all levels. In this capacity, I attended a few CRCs and was elected in 2012 to serve as Chapter President, following two years as President-Elect.

The journey continued with my selection as Regional Vice Chair (RVC) for Student Activities in 2016, a position I held for one term of three society years. The next step was my nomination to join the Scholarship Trustees in 2018, where I served two consecutive three-year terms, including one year as Co-Chair and another year as Chair of the group. In 2024, following the establishment of the Region-At-Large in its current shape after the split of Region XV, I was invited by the DRC to serve once again as RVC for Student Activities.

In parallel, I continued to advance in my academic career, eventually attaining the rank of Professor of Mechanical Engineering, with expertise in thermal sciences including thermodynamics, heat transfer, fluid mechanics, energy systems and numerical methods. I have also held several administrative positions, including Department Chairperson for six years, Dean of Engineering for eight years, and currently Vice President for Academic Affairs. As a result of these experiences, I was selected as an evaluator for the New England Commission of Higher Education (NECHE) and elected as a member of Lebanon's Higher Education Council.

2. What inspired you to take on the Regional Vice-Chair Student Activities role in ASHRAE Region-at-Large?

The main driving force was the motivation of the group of students who initially volunteered to establish a student branch. This was further strengthened by the dedication of all the branch committees elected thereafter. Their enthusiasm was so remarkable that anyone who came into contact with them could not help but join their efforts and strive to keep pace with their energy and commitment. Through this experience, I discovered the importance of the advisor's role and decided to embark on my ASHRAE journey.

In Conversation · Dr. Michel Hayek, continued

3. What skills should students develop before entering the industry?

Technical skills are, of course, very important, but they are generally common to anyone graduating with a university degree. What truly makes the difference are soft skills, such as leadership, teamwork, communication, and interpersonal abilities. I always encourage students to devote significant attention to extracurricular activities, as these provide ideal opportunities to develop and refine such skills.

The AI revolution has introduced a new dimension to this issue, as technical knowledge is becoming increasingly accessible. As a result, greater emphasis is being placed on soft skills. Current trends also highlight the importance of strengthening fundamental knowledge and core competencies, enabling graduates to adapt effectively and navigate the rapidly evolving landscape in the AI era.

4. What can ASHRAE offer students that they may not find through university alone?

ASHRAE offers tremendous value to its members, particularly student members. In my opinion, the most significant benefit is the networking opportunities it provides. We belong to an ASHRAE region that is international by nature, giving our student members a unique opportunity to build strong and lasting global connections that can support them throughout their professional careers.

Participating in ASHRAE activities, whether at the Chapter or regional level, is also an excellent way to develop and refine the soft skills mentioned earlier, including leadership, teamwork, and communication. These experiences help students grow both personally and professionally while preparing them for future career opportunities.

5. Can you share one student interaction or experience that has particularly inspired you?

There are many memorable stories, and it would be difficult to single out any one experience. Overall, working with young minds is incredibly rewarding, both personally and professionally. Their enthusiasm and creativity make the experience deeply fulfilling and provide a constant source of inspiration.

6. What's your go-to way to recharge after a busy week?

I am usually very busy due to the numerous professional responsibilities I undertake each week, both at my university and beyond. What keeps me going is the constant reminder that life is a gift and should be lived with purpose and gratitude. My family is my greatest source of strength, providing the comfort, support, and energy I need to face challenges and continue moving forward.

2004
Notre Dame University Student Branch approved

2012
Elected Chapter President, ASHRAE Lebanese Chapter

2024
Regional Vice-Chair Student Activities, Region-at-Large

Our thanks to Dr. Hayek for his time. If you would like to nominate a member — or yourself — for a future interview, write to us at **mp@ashraeuae.org**.

Get Involved Where the Work Happens

Chapter Kick-Off: Connect. Collaborate.?

Hassan Kal
Membership
Promotion Chair

> *Joining an ASHRAE Technical Committee gives professionals the opportunity to contribute their expertise, exchange knowledge with industry peers, and play an active role in advancing the HVAC&R industry.*

The HVAC&R industry is constantly evolving, and one of the best ways to stay connected to that evolution is to get involved in an ASHRAE Technical Committee (TC).

Technical Committees bring together professionals from across the industry who share a common area of expertise or interest. They provide a space to exchange ideas, learn from others and, most importantly, contribute to work that has a real impact on the industry.

Being part of a Technical Committee gives you the chance to learn directly from other industry experts and stay close to the latest technical discussions and developments in your field. It is also a great way to build your professional network: you meet people from different companies, countries and backgrounds, all bringing their own experience and perspective to the table.

But it is not only about what you gain. It is also about what you can contribute. Depending on the committee, members can get involved in ASHRAE research, Handbook chapters, conference programs and other technical activities. Your experience and knowledge can become part of conversations that help move the HVAC&R industry forward.

Interested? Here's How to Get Started

01

Explore the committees

Find the TC that matches your experience, or an area you want to develop.

02

Update your profile

Make sure your ASHRAE profile and biographical information are current, then submit your request to participate.

03

Show up and contribute

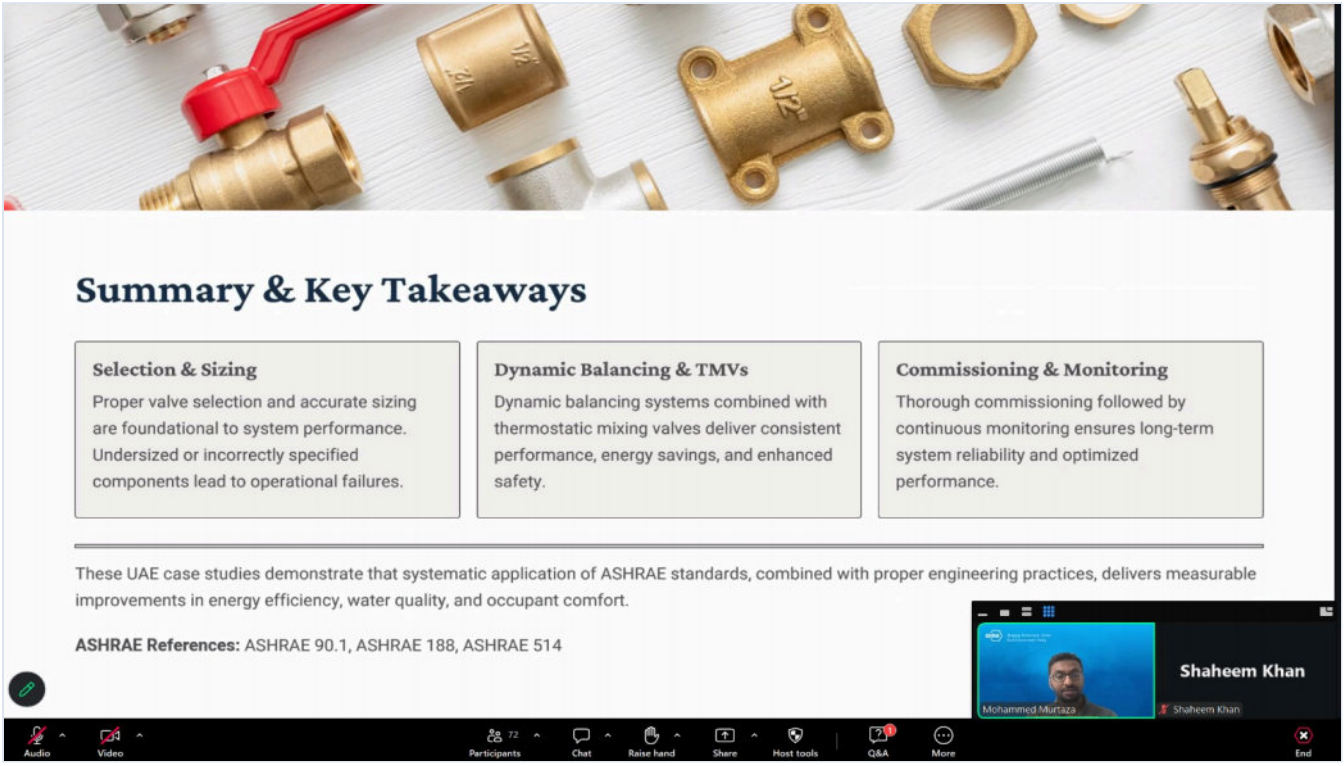
Attend meetings, connect with members, and look for opportunities to take on work.

Browse the full list of Technical Committees
Visit **ashrae.org** → Technical Resources → Technical Committees (TCs)

Technical Committees

Technical Webinar · 17 September 2026 · Online

HVAC Hydronic & Plumbing Flow Control



On September 17th, ASHRAE Falcon Chapter UAE hosted a technical webinar focused on an important aspect of modern building services design: HVAC hydronic and plumbing flow control.

The session explored an ASHRAE-driven approach to flow control in modern buildings in the UAE, with a particular focus on translating industry standards into practical engineering applications. Participants had the opportunity to explore how ASHRAE Standards 90.1, 188, 514, and 189.1 can be applied to real-world system design and contribute to efficient, reliable, and high-performing building systems.

The webinar was delivered by **Mohammed Murtaza**, Co-CEO of MCUBE Engineering Consultants and a member of the ASHRAE Society Communications Committee. His practical insights and industry experience provided valuable perspectives on the challenges and considerations involved in hydronic and plumbing system design.

The online session brought together members of the HVAC&R community who were interested in strengthening their technical knowledge and learning how ASHRAE principles can be applied in practice.

90.1
Energy Standard for Buildings

188
Legionellosis: Risk Management for Building Water Systems

514
Water Management Programs

189.1
High-Performance Green Buildings

We would like to thank **Mohammed Murtaza** for sharing his expertise and **WATTS** for supporting the session.

Technical knowledge grows when it is shared. Through webinars and technical events like this, ASHRAE Falcon Chapter UAE continues to create opportunities for professionals and students to learn, exchange ideas, and stay connected with developments across the HVAC&R industry. Thank you to everyone who joined us and contributed to the discussion.

Curtin University Dubai Career Expo · 17 September

Inspiring the Next Generation: ASHRAE Falcon Chapter at Curtin University Dubai Career Expo

Inspiring the next generation of HVAC&R professionals starts with sharing knowledge and real-world experience — and that is exactly what unfolded at the Curtin University Dubai Career Expo on 17 September.

On behalf of the ASHRAE Student Affairs Committee, ASHRAE Falcon Chapter UAE, we extend our sincere thanks to **Mr. Javed Rasheed** and **Mr. Liju Thomas Eapen** of the ASHRAE Falcon Chapter leadership for taking part in the event and generously sharing their industry insights with students. Their engagement gave attendees a valuable window into the HVAC&R profession — the career pathways it offers, the challenges it tackles, and the real-world impact of the work.

We also gratefully acknowledge **Dr. Chithirai Pon Selvan** for his continuous dedication to empowering students and championing the connection between academia and industry.

BUILDING BRIDGES

Moments like these reflect the heart of ASHRAE's mission: building bridges between experienced professionals and the students who will shape the future of our industry. We look forward to more opportunities to guide, mentor, and inspire the engineers of tomorrow.

FACES OF ASHRAE · ASHRAE INSIGHTS, SEPTEMBER 2026

FACES OF ASHRAE

Remy Moussa

We are proud to share that **Remy Moussa** has been featured in the September 2026 edition of ASHRAE Insights as part of the Faces of ASHRAE series.

Remy has been an active part of ASHRAE Falcon Chapter UAE since joining, contributing through leadership, technical workshops, YEA and DEI initiatives, and as a regional YEA lecturer.

We are happy to see a member of our Falcon Chapter community sharing her journey with the wider #ASHRAE community.

> *"What stands out in her story is her simple advice to young engineers: get involved, ask questions, build relationships and keep learning.*

Congratulations, Remy.

ASHRAE Insights

FACES OF ASHRAE: *Remy Moussa*

ASHRAE touches every corner of the HVAC industry. Remy Moussa's career mirrors that with her experience in technical fields as well as sales and consultancy. Within the Society, she lectures to our Young Engineers, chairs committees and runs workshops. Read below for her take on how the industry can face future challenges.

▸ What is your current job?
Consultant Coverage Lead, Trane Technologies, Dubai, UAE

▸ What is your level of education?
M.Sc., Renewable Energy, Saint Joseph University of Beirut B.Sc., Mechanical Engineering, Conservatoire National des Arts et Metiers

▸ Years of industry experience?
More than 10 years of experience in the HVAC and building systems industry across technical, sales and consultant support roles.

▸ ASHRAE Chapter
ASHRAE Falcon Chapter

▸ How long have you been an ASHRAE member?
I became an ASHRAE member in 2023 and have been actively involved in chapter and Society committees since day one, contributing through leadership roles and technical workshops on sustainable topics.

▸ What technical committees or other parts of ASHRAE are you involved with?
I am actively involved with the ASHRAE Falcon Chapter, where in 2025 I served on the Chapter Board of Governors and the Chapter Reception Committee. I am also the Chair of the YEA & DEI in ASHRAE Committee, continuing my commitment to advancing inclusion and engagement within the Society. In addition, I was honored to become a regional lecturer for Young Engineers in ASHRAE. As part of my involvement, I also deliver technical workshops focused on sustainable and energy-efficient topics, sharing practical knowledge and promoting best practices within the HVAC industry.

▸ What got you into the industry?
I've always been drawn to the idea of creating spaces that are not just comfortable, but also energy-efficient and sustainable. During my studies in renewable energy, I realized how much impact the HVAC industry has on people's daily lives, buildings and even the environment. That connection between engineering, sustainability and improving quality of life is what pulled me into this industry, and it still motivates me every day.

▸ What is your favorite part of your job?
My favorite part is being the bridge between technology and humans. I enjoy helping clients understand how the right HVAC design can improve comfort, efficiency and sustainability. I also love that my job feels like a long learning journey where every project is different, and it comes with new challenges and new ways to solve it.

▸ What advice do you have to new people starting out in ASHRAE?
Get involved as early as you can. Don't just attend events: volunteer, ask questions, step up, get out of your comfort zone and build relationships. ASHRAE is not just about standards and knowledge, it's also a community of professionals who are always willing to guide, support and open doors for you. The more you engage, the more you grow.

▸ What are your career goals?
I want to continue developing as a technical expert and a speaker to contribute to shaping sustainable, energy-efficient building solutions in our region and globally if I get the opportunity.

▸ What are the biggest challenges you see that the industry is facing?
One of the biggest challenges is balancing growing cooling demand, driven mainly by AI-ready mega data centers, with the need to reduce energy use and emissions. We are also facing pressure to transition to lower-GWP refrigerants, keep up with fast-evolving regulations and close the skills gap with enough trained people who understand both HVAC and sustainability.

▸ How do you think the industry could best address those challenges?
I believe we need stronger collaboration between manufacturers, consultants, contractors and end users, with clear education on practical solutions and a well-defined roadmap and objectives. Investing in training, sharing best practices through platforms like ASHRAE, and designing with life-cycle performance in mind can help us decarbonize buildings while still delivering comfort and reliability.

▸ What do you enjoy doing when you are away from work?
I love traveling and discovering new places and cultures; it's my favorite way to recharge and learn. I also enjoy spending time with family and friends and being involved in community activities wherever I can.

▸ What has been your favorite part of being an ASHRAE member?
My favorite part is the sense of community. ASHRAE has given me mentors, friends and opportunities to contribute, especially through Women in ASHRAE and DEI work, while constantly learning and sharing knowledge with others in the industry.

▸ What has been your proudest accomplishment of your career so far?
I'm most proud of combining my technical role with advocacy, supporting consultants and customers on sustainable solutions while also leading initiatives for women and young engineers in our region. Seeing projects delivered more efficiently and seeing younger engineers feel inspired and included is very rewarding.

▸ What is one thing you wished you knew when you started in the industry?
One thing I wish I knew when started in the HVAC industry is the importance of networking and building relationships.
While technical skills and knowledge are crucial, the ability to learn from others, seeking mentorship and collaboration can significantly impact career growth and opportunities.
Whether our role is a technical or sales role, networking is crucial to our growth on the business and personal level. Societies like ASHRAE can open doors to new ventures, provide valuable insights and help navigate challenges more effectively. If I got a rewind in my career path I would join ASHRAE on the first day of my work, enjoying the journey of mind growth earlier and the positive impact it would have on my entire career.

▸ Use this space for anything else you'd like to let Insights readers know about:
I'm grateful to be part of ASHRAE, where technical excellence goes hand in hand with purpose and human impact.

IN HER OWN WORDS

Leadership, technical workshops, YEA and DEI — all since 2023.

READ THE FULL STORY

Read her full story in the September 2026 edition of ASHRAE Insights.

Save the date · Saturday 31 October 2026 · 16:00

YEA Gathering on the Water

Young Engineers in ASHRAE are taking the conversation offshore. On the evening of Saturday 31 October, the chapter's early-career members will board a cruise along the Dubai coastline, no slides, no lecture hall, just the people you will be working alongside for the next thirty years.

There is a reason we keep coming back to this format. Careers in this industry are built less on what you know than on who knows you know it, and that recognition does not come from sitting quietly through a technical session. It comes from the twenty minutes afterwards, when someone asks what you are working on. An evening on the water is simply the best version of those twenty minutes we can offer.

Come if you are new to the chapter and have not worked out how to get involved yet. Come if you have been a member for years but only ever see the same three faces. Come if you are between roles, or thinking about a move, or just want to hear how a plant retrofit went for someone who is not your own project manager. Every one of those conversations is easier at sea level than across a meeting table.

Bring a colleague who is not yet a member, introducing one person to the chapter is exactly what this year's presidential theme asks of all of us, and this is the least intimidating door to walk them through.

Meet your peers

Engineers under 35 from consultancies, contractors, manufacturers, facilities teams and universities across the UAE.

Meet AFC members and Committee

Committee members of the Falcon Chapter will be aboard, the easiest way to find out how to get involved.

Bring a guest

Not a member yet? Come anyway. Every YEA member is encouraged to bring one colleague along.

Saturday 31 October 2026 · 16:00 · Dubai — seats are limited

Boarding details and the registration link will be shared on our channels.

Keep eyes on our social media

Daikin Cares × ASHRAE · Friday 25 September 2026 · Daikin MEA HQ, Jebel Ali

Breaking the Glass Ceiling

There is a particular kind of quiet that settles over a design review when you are the only woman at the table. Every woman in this industry knows it. **Breaking the Glass Ceiling** is an afternoon built around that reality, not to talk around it, but to give the women of our chapter the language, the confidence and the network to move through it.

Daikin Cares is hosting the gathering at their MEA headquarters in Jebel Ali, in collaboration with the ASHRAE Falcon Chapter. It is deliberately not a lecture. Over two and a half hours you will work through how you communicate, practise saying difficult things clearly, and spend real time with women who face the same rooms you do, consultants, contractors, manufacturers, facilities engineers and students, all in one place.

The session opens with **Find Your Flow**, a practical look at your own communication style: how you land a technical position with a client who is not an engineer, how you disagree productively, and how you make yourself heard without raising your voice. It continues over coffee with **Share Your Voice,** the unstructured half, where the useful conversations usually happen, and closes with **Break Through**, a glass painting workshop that puts something in everyone's hands and takes the formality out of the room.

If you have been meaning to get more involved in the chapter, this is the easiest place to start. You do not need to be a member, you do not need to prepare anything, and you do not need to come with someone. Bring a colleague if you can — one of the most direct ways to strengthen this community is to widen the circle of women who know it exists.

Places are limited and the room is intentionally small, so the conversation stays a conversation. If you are considering it, register early.

CREATE. CONNECT. CONVERSE.

An interactive gathering for women in business.

WHEN

Friday, 25 September 2026 15:30 – 18:00

WHERE

Daikin MEA HQ Jebel Ali, Dubai

WHO IT IS FOR

Women across HVAC&R — members and non-members alike

Limited places available — reserve your seat

Places are limited — registration closes once the room is full.

Register Now

ASHRAE Region-at-Large 2026 Student Competition

Celebrating Curtin Career Expo · Faces of ASHRAE: Mariam Yasin Takes 2nd Place

Seeing one of our chapter's students have her hard work and dedication recognized is always a special moment for the ASHRAE Falcon Chapter community.

We are proud to congratulate **Mariam Yasin** from Rochester Institute of Technology, Dubai (RIT Dubai) on achieving **2nd Place** in the ASHRAE Region-at-Large 2026 Student Competition.

Mariam's achievement is a wonderful example of what students can accomplish when they step beyond the classroom, pursue technical knowledge, engage with the professional community, and make the most of the opportunities available through ASHRAE.

Her success also reflects the importance of creating a strong connection between students, academia, and industry. Through initiatives such as student competitions, mentoring, technical activities, and networking opportunities, ASHRAE provides students with a platform to develop their skills, build confidence, and connect with professionals who can help shape their future careers.

A Recognition Made Possible Through Mentorship

Behind every student achievement are people who take the time to guide, support, and believe in the next generation of HVAC&R professionals. We extend our heartfelt appreciation to the mentors and educators who continue to dedicate their time, knowledge, and encouragement to students.

- **Prof. Chithirai Pon Selvan**
- **Prof. Ghalib Kahwaji**
- **Prof. Mohamed Samaha**
- **Bassel Anbari, PE**
- **Mohamad Saheli**

Students, your journey starts here

Mariam's achievement is a reminder that big achievements often start with a single opportunity to get involved. Whether through competitions, technical events, mentorship, or networking, there are opportunities to learn, connect, and create a lasting impact on the industry.

Congratulations, Mariam. We are proud to see your effort and dedication recognized, and we look forward to seeing where your journey takes you next. **Be part of something bigger. Be part of ASHRAE.**

MEET YOUR NEW HVAC CHALLENGE

HVAC Hero

LEARN. PLAY. SOLVE. SAVE.

Ready to put your HVAC knowledge to the test? **ASHRAE HVAC Hero** is an interactive simulation and training game that lets you step into the role of an HVAC problem-solver and see how many kWh you can save as you navigate a building with your new friend, Muggy.

SNEAK PEEK · IN-GAME

Whether you're an engineering student, a young engineer, or simply passionate about HVAC&R, HVAC Hero is a fun way to sharpen your problem-solving skills while exploring real-world energy-saving decisions. Challenge yourself, test your HVAC skills, and discover how your decisions can make a difference in building energy performance.

Simulate

Walk a real building floor by floor and find the energy waste before it finds you.

Decide

Every fix costs something. The kWh meter keeps score of how well you chose.

Compete

Compare your savings with colleagues and classmates across the chapter.

Download HVAC Hero and start your challenge today

Currently available for PC and Mac · ashrae.org/professional-development/hvac-hero

Download

The Connections That Make ASHRAE Special

Beyond the Handbook, Looking Forward to Cairo...

Some of the most valuable things we gain from ASHRAE are not found in a handbook. They come from the people we meet, the experiences they share, and the conversations that continue to inspire us long after an event ends.

The Chapter Regional Conference (CRC) 2025 in Dubai was a great example of this. Bringing together professionals, students, industry leaders, officers, and members from across the region, the conference created an environment where people could exchange ideas, share experiences, learn from one another, and build meaningful professional connections.

Beyond the technical sessions and discussions, it was the people and relationships that made the experience truly valuable. Every conversation offered an opportunity to see a different perspective, learn from someone else's journey, or spark an idea that could lead to something new.

The Countdown Has Started...

ASHRAE RAL CRC Cairo 2026

Hosted by ASHRAE Cairo Chapter, the conference will bring together ASHRAE Region-at-Large chapters, international officers, industry professionals, sponsors, ministers, and delegates from across the region and beyond.

THE VENUE

Cairo Marriott Hotel & Omar Khayyam Casino

In Zamalek, along the Nile. Originally built as Gezirah Palace in 1869, the venue combines Egypt's heritage with a modern conference environment.

THE PROGRAM

Non-traditional approaches to sustainable HVAC&R

Environmentally responsible systems and solutions presented by internationally recognized experts, with space to exchange knowledge and discuss the future of the industry.

ON THE SIDE

The Grand Egyptian Museum

An exclusive delegate visit to one of Egypt's most significant cultural landmarks.

For ASHRAE Falcon Chapter UAE, participation in CRC is about more than attending a conference. It is an opportunity to strengthen regional connections, exchange knowledge, support collaboration, and contribute to the continued development of the HVAC&R community.

As we look forward to Cairo, we are reminded that professional growth does not happen through technical knowledge alone. It happens through the communities we build and the people we learn from. Meet people. Share ideas. Learn from experience — because sometimes, one conversation is all it takes to start something new.

We look forward to connecting with colleagues and friends in Cairo.

TECHNICAL FEATURE

HOW AI IS TRANSFORMING HVAC SYSTEMS: SENSORS, LEARNING MODELS & PART-LOAD CONTROL

Mohamed Sakallah

Senior Sales Engineer, Taqeef Middle East · Vice President, ASHRAE Falcon Chapter UAE

AI-enabled air conditioners combine onboard sensors, Wi-Fi connectivity, and machine learning to adjust their operation continuously rather than running to a fixed setpoint. A conventional unit responds only to the thermostat, cycling the compressor on and off around the target temperature. An AI system treats temperature, humidity, occupancy, and the user's own history of adjustments as inputs, and modulates cooling capacity to hold comfort within a narrow band with far less wasted energy.

In practice, AI mode varies compressor speed, fan level, and airflow direction in response to real-time conditions and learned habits. Manufacturers report energy reductions of up to 30 percent, although the actual figure depends on baseline behavior, climate, and building envelope.

How AI Mode Works

Real-Time Sensing

Built-in sensors measure indoor temperature and humidity, with occupancy detected by infrared or motion sensing. Outdoor conditions come from the outdoor unit or online weather data, letting the system anticipate load changes before they reach the room.

Pattern Learning

Over days and weeks, the system records setpoint changes, daily schedules, and periods of absence, and builds a model of occupant preferences. Learning is refined through the companion app and cloud updates, so accuracy improves the longer the unit operates.

Dynamic Adjustment

Instead of hard on-and-off cycling, the controller modulates inverter compressor and fan speeds smoothly and shifts between cooling, dry, and fan modes as needed, removing temperature swing and start-up losses and keeping the unit in its most efficient part-load range.

Key Benefits

Energy Savings

The system avoids overcooling, limits peak power draw, and can operate against a monthly energy budget set by the user, reducing bills without any loss of perceived comfort.

Lower Maintenance

Fewer compressor starts and lower thermal stress extend component life. Many units also flag clogged filters, abnormal refrigerant pressures, or drifting performance before they become faults.

Hands-Free Comfort

The unit anticipates when to switch modes and adjusts airflow to occupancy. In humid climates, automatic dry mode is particularly valuable because it controls moisture without overcooling the room.

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Where the Larger Opportunity Sits

AI in Chilled Water Plants

The larger opportunity sits in central chilled water plants and district cooling, where chillers, cooling towers, and pumps account for most of a building's energy use. Conventional plant control relies on fixed setpoints and simple staging rules that are rarely retuned after commissioning. AI-based plant optimization instead forecasts cooling load from weather, occupancy, and historical data, then solves for the combination of settings that delivers that load at the lowest total kW per ton for the whole plant rather than for any single machine.

01

Optimized Setpoints and Staging

The controller continuously resets chilled water supply temperature, condenser water temperature, and pump differential pressure, and it selects which chillers, towers, and pumps to run and at what part load. Trading a slightly higher chiller lift against lower tower fan and pump energy is a balance that fixed rules cannot capture.

02

Fault Detection and Diagnostics

Machine learning models learn normal performance for each chiller and flag fouled condenser tubes, low refrigerant charge, approach temperature drift, and sensor failure early, before efficiency losses accumulate.

03

Thermal Storage and Demand Management

Where thermal energy storage exists, AI schedules charge and discharge against tariffs and load forecasts, shifting peak demand and improving plant utilization across the day.

10–20%

Typical reported plant-level savings, with the greatest gains in plants that were oversized or poorly staged.

The prerequisite is reliable instrumentation: flow, temperature, and power metering accurate enough for measurement and verification, since an optimizer is only as good as the data it trains on.

When Will We See AI in Air Conditioners?

AI modes are already available on residential split units from several manufacturers, and in commercial buildings AI is appearing at the building management level, optimizing chiller plants, air handling units, and demand response. Adoption is expected to broaden as sensor and connectivity costs fall and standards for intelligent building systems mature.

AI IN ASHRAE VISION 2035

ASHRAE will lead the integration of AI, data, and emerging technologies across the full building lifecycle, design, commissioning, operation, and adaptation, enabling intelligent, responsive, and high-performing built environments.

Standards and Frameworks

Develop standards, tools, and frameworks so that AI-driven building control can be specified, verified, and trusted.

AI-Driven Practice

Enable AI-supported design, ongoing commissioning, and operations that keep buildings performing as intended.

Responsible Adoption

Ensure adoption is ethical, practical, and aligned with the skills of the engineering workforce that must design, operate, and maintain these systems.

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TECHNICAL FEATURE

ENERGY MODELLING:
FROM COMPLIANCE TOOL TO DESIGN TOOL

Edward Keyrouz
Associate Director (Middle East Strategy and Growth), IES Ltd.

Every building we design in the Gulf starts with the same challenge: how do we keep people comfortable through summers that regularly climb above 46°C without driving cooling energy through the roof?

The answer is usually decided long before anyone selects a chiller or finalises a plant room specification. It happens in those early design stages, when building form, orientation and glazing are still being explored and the biggest opportunities to influence performance remain open.

Yet energy modelling is often brought in much later. By the time a model is created, the geometry has been fixed, major design decisions have been made and the exercise becomes little more than a compliance check. The model is used to demonstrate that the building meets the required standards, a report is submitted, and that's where its value ends. In my view, we've got that the wrong way around.

Across the UAE, frameworks such as Al Safat in Dubai and Estidama in Abu Dhabi set clear requirements for building performance. Cooling systems need to be sized for extreme summer conditions, and indoor environments must remain within defined comfort ranges for the vast majority of the year. At the same time, owners are increasingly interested in how their buildings will perform in the real world, not just whether they pass a compliance assessment.

A model that appears after the critical design decisions have already been taken offers limited value. By then, many of the choices that have the greatest impact on energy use, cooling demand and occupant comfort are difficult and costly to change.

> “
> ***That's why energy modelling needs to move much earlier in the process.***

Using dynamic simulation from the outset allows design teams to test different options while there's still flexibility to act on the results. Massing, orientation, glazing ratios, façade performance and cooling strategies can all be assessed against metrics such as energy use intensity, peak cooling demand and occupant comfort. The team gains a clearer understanding of what works, what doesn't and where the biggest opportunities lie.

The same model can then be carried through the project to demonstrate compliance with Al Safat or Estidama requirements, validate ventilation strategies and confirm comfort performance. Rather than creating one model for design decisions and another for compliance, the same dataset supports both.

And for me, that’s the real shift.

Instead of reaching the end of a project and asking, ‘Does this comply?’, we’re asking throughout the design process, ‘Which option performs best?’ The conversation changes from proving compliance to improving performance, and compliance becomes the natural outcome of a well-informed design process rather than a late-stage concern.

> In a climate as demanding as the Gulf's, that distinction matters. It's the difference between designing a building that simply meets the code, and creating one that genuinely responds to the environment in which it's built.

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June – July 2026

Welcome to the Falcon Chapter

A warm welcome to the members who joined the ASHRAE Falcon Chapter between June and July. We look forward to meeting you at our technical sessions, site visits and networking events, and to the expertise and perspective you bring with you.

NEW MEMBERS

- Mrs. Afshan Abbasi, Eng.
- Mrs. Sanaz Kashani
- Dr. Guanming Guo
- Mr. Arjay Madrid Gosiaoco
- Mr. Siddique Nazar
- Mr. Hassan Abou Jawhar
- Miss Mbalenhle Zwane
- Mr. Salim Ali Alshamsi
- Mr. Binay Kumar, Eng.
- Mr. Hani Sharkas
- Mr. Youssef Yaacoub, Sr.
- Mr. Jason Lyness
- Mr. Manivel Periasamy
- Mr. Akash Kakkayam Gopi
- Ms. Moza Ghanim Alsuwaidi
- Mr. Thaer Badie Kahlawi, Eng.
- Mr. Ammar Hasan Salloum, Eng.

NEW STUDENT MEMBER

- Mr. Swaroop Shinod Edaparuthi

Know someone who should be here next volume?

Introduce one colleague, friend or young professional to the chapter this year — that is the whole theme.

mp@ashraeuae.org

The Floor Is Yours

We want to hear from YOU.

The ASHRAE Falcon Chapter newsletter is only as strong as the voices behind it. Each volume, we pose a question to our community and invite members to respond with a short article. The best submission is featured in the next volume, read by your peers across the chapter.

This Volume's Question

"As our industry moves toward smarter, lower-carbon, and more resilient buildings, what is one change you believe HVAC&R professionals must embrace to remain relevant and create greater impact?"

Write a short article (300–400 words) and share it with us. One selected article will be published in our next volume, with full credit to the author.

Ask Us Anything — You Ask, We Write

Got a question you've been sitting on?

Each volume, we pick a reader-submitted question and dedicate a full article to answering it. No question is too basic, too niche, or too bold. We cover it all:

› Technical topics — HVAC design, energy modeling, standards
› ASHRAE membership — certifications, committees, benefits
› The engineering profession — trends, career pivots
› Soft skills — leadership, communication, career growth
› Standards & advocacy — what's changing, what it means
› Anything else on your mind as an engineer

Keep it short — a sentence or two. The best question each volume gets answered in the next issue, with a shout-out to the one who asked (or kept anonymous, if preferred).

Fun Fact

Comfort isn't just about temperature!

Humidity, air speed, mean radiant temperature, clothing, and activity level all influence how comfortable you feel. Thank you, ASHRAE Standard 55.

Stay Connected with the Falcon Chapter

Follow the ASHRAE Falcon Chapter UAE for technical seminars, workshops, networking events, and the latest from the region's HVAC&R community.

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