





As the ASHRAE Falcon Chapter, we are honoured to commemorate the vibrant heritage and advancements of the UAE. In harmony with the UAE's Vision, which envisions the nation as a front runner in energy leadership through the promotion of sustainable energy and a green economy, the ASHRAE Falcon Chapter is committed to championing initiatives that drive us closer to this shared objective. Let's join hands and persist in our efforts toward a more sustainable and resilient future.

Wishing everyone a joyful National Day!

In this Volume

RAL - CRC Where Things Happen!





<u>SHARE with ASHRAE!</u> <u>Connecting minds, sharing insights</u>







<u>Past Activities</u> <u>Reflecting on remarkable moments!</u>

<u>Student Zone</u> <u>Shaping tomorrow's leaders, today</u>









THANK YOU SPONSORS

Dear Sponsors,

We extend our sincere gratitude to you for your continued support and partnership with the ASHRAE Falcon Chapter. Your unwavering commitment has been pivotal in helping us fulfill our mission and make meaningful contributions to the HVAC&R community.

At the ASHRAE Falcon Chapter, we are devoted to advancing the fields of heating, ventilation, air conditioning, and refrigeration while concurrently championing sustainability, energy efficiency, and environmental stewardship. Our vision aligns with ASHRAE's global objectives and resonates with the broader HVAC&R industry.

Your sponsorship plays an integral role in enabling us to carry out our mission effectively. Thanks to your generous support, we have been able to organize and host a multitude of educational events, including seminars, workshops, and conferences. These platforms facilitate knowledge sharing, foster professional growth, and keep our members and the HVAC&R community at large informed about the latest industry trends and best practices.

Once again, we extend our heartfelt appreciation for your sponsorship. Your involvement is instrumental in the success of the ASHRAE Falcon Chapter, and we look forward to further strengthening our partnership in the coming years.

Warm regards,



Sponsors





























ASHRAE Sponsorship: Amplifying Impact and Mutual Benefits

Sponsorship Opportunities

2023 - 2024

Sponsoring ASHRAE opens up a world of benefits for organizations looking to make a significant impact in the HVAC&R industry. By partnering with ASHRAE, sponsors gain access to a wide range of opportunities for brand exposure, industry recognition, and networking with top professionals and decision-makers.

The funds provided through sponsorship play a vital role in supporting ASHRAE's mission and initiatives. ASHRAE utilizes these funds strategically to advance research and development, drive innovation, enhance educational programs, and foster knowledge exchange within the industry.



"Partner with us and Engage with our 800+ Members through our Social Media Channels & Email Communication."

SPONSOR BENEFITS

FEATURES	BRONZE AED 4,000	SILVER AED 6,000	GOLD AED 10,000	PLATINUM AED 15,000
Free membership for a year			1 Membership	3 Memberships
Sponsorship Announcement on Social Media Handles	1 time	2 times	3 times	4 times
Sponsorship Listing on Webpage	2 months	4 months	6 months	12 months
Sponsorship Listing on Newsletter	1 publication	2 publications	3 publications	4 publications

For further inquiries regarding sponsorship opportunities, please reach out to *Mr. Mehiar Asfari*, Webmaster and Chair of the Social Media Committee at ASHRAE Falcon Chapter.

M. Mehiar Asfari



Communications Chair, Webmaster of ASHRAE Falcon Chapter Mobile/ WhatsApp: +971 52 789 2777 m.asfari@ashraeuae.org







CHAPTERS' REGIONAL CONFERENCE





The Chapters Regional Conferences (CRCs) are conducted biannually during autumn and spring, presenting a remarkable occasion for chapters and members to convene, engage, and foster regional connections. These conferences encompass a diverse range of workshops, technical sessions, technical tours, speeches by Society officers and staff, as well as regional award ceremonies. CRCs serve as an effective local platform that enables numerous members to actively engage in regional activities.

Chapters Regional Conferences (CRCs) are held each fall and spring and offer A wonderful opportunity for chapters and members to meet, interact, and socialise on a regional level. These conferences offer workshops, technical sessions, technical tours, addresses by Society officers and staff, and regional award presentations. CRCs provide an effective local option for many members to actively participate in regional activities.









This year, Sri Lankan chapter hosted the CRC for ASHRAE RAL from Oct 5-8 in Colombo, Sri Lanka. Official Visitors from the society included Ginger Scoggins (President SY23-24), Dennis Knight (President Elect SY23-24), Bill McQuade (Tresurer SY23-24), and Ashish Rakheja (Vice-President SY23-24)







Chapters Regional Conferences (CRCs)

October 2023

Colombo, Sri Lanka





CRC in Colombo, Sri Lanka

In October 2023, ASHRAE Region-At-Large convened its Chapters Regional Conference (CRC) at the esteemed Cinnamon Grande Hotel in Colombo, Sri Lanka. Hosted by the Sri Lankan chapter of Region-At-Large, the event spanned from the 5th to the 8th and attracted around 200 delegates from diverse chapters within the region. The CRC featured a series of impactful training sessions and social events that fostered collaboration and camaraderie among participants. Notably, ASHRAE Falcon Chapter was well-represented, with 12 delegates contributing to the success of the conference.

The ASHRAE Falcon Chapter team achieved commendable milestones during the CRC. Notably, the chapter successfully met the High Five Challenge Goal on the ASHRAE Society Level, showcasing its dedication to the organization's overarching objectives. Additionally, the team received prestigious recognition, including the Presidential Award of Excellence conferred to Moiz Ashraf. Furthermore, individual excellence was acknowledged with the Chapter Service Award presented to Mr. Liju Eapen and Moiz Ashraf. These achievements underscore ASHRAE Falcon Chapter's commitment to excellence and service within the ASHRAE community.

YEA DECARBONISATION CHALLENGE 2023

During the CRC, a new challenge fund had been introduced by the President, which included a competitive grant program aimed at helping members and chapters implement decarbonization projects at the chapter level. Grants ranging from \$1,000 to \$10,000 were available, and the application process opened in August, with applications due by November. Winning applicants were invited to the winter and annual meeting conferences for recognition by the President in 2024



Furthermore, the Building EQ Energy Genius Award application process was opened, recognizing excellence in the assessment of building energy performance with the goal of promoting sustainability and energy efficiency.

CRC Business meeting

The CRC Business meeting was held on October 6th and 7th. The meeting kicked off with a comprehensive discussion of committee reports, and reports from all the chapters under RAL.

After the discussions on the reports, the meeting moved on to the motions session, which was initiated by Bassel Anbari. During the session, 15 motions were moved and 1 petition was filed, before a panel of 28 voting members. The minutes of the meeting were minuted by delegates from the ASHRAE Falcon Chapter.

Awards



"Presidential Award of Excellence" (SY22-23)



Goal, High Five, Challenge Goal RP Campaign (SY22-23)



"Chapter Service Award" Moiz Ashraf (AFC BOG)



"Chapter Service Award" Liju Thomas (AFC BOG)





CRC TRAINING SESSIONS

REFRIGERATION TRAINING

Mr. Harshal Surange, serving as the Chair of the Refrigeration committee for ASHRAE Region at Large (RAL), delivered a comprehensive presentation on the critical subject of refrigeration. During his address, Mr. Surange passionately encouraged all ASHRAE chapters to proactively engage in advancing refrigeration technology. He emphasized the practical application of this technology in chapter events, advocating for diverse approaches such as webinars, workshops, industry visits, student activities, and participation in global initiatives like World Refrigeration Day.

Sharing valuable insights from the Cold Chain Conference held in Dhaka, Bangladesh, Mr. Surange outlined the success of the event and provided guidance on how other RAL chapters could replicate similar impactful gatherings in their respective regions.

The meeting culminated with a discussion highlighting the vital role of refrigeration in ensuring food security. Mr. Surange specifically addressed the significance of ammonia as a refrigerant, underlining its crucial contribution to industry decarbonization goals. This discourse emphasized the strategic importance of aligning refrigeration practices with broader sustainability objectives within the business realm.



CTTC TRAINING

The Chapter Technology Transfer Committee (CTTC) session was skilfully conducted under the leadership of Mr. Osama Khayata, who holds the position of Regional Vice Chair (RVC) CTTC. During the session, Mr. Khayata underscored the paramount importance of CTTC in the context of the chapter, region, and broader society. He emphasized ASHRAE's role and responsibility within the HVAC&R industry to effectively disseminate knowledge across all levels.

Mr. Khayata explored comprehensive details regarding category awards, the significance of 52 PAOE category points, and the critical aspect of establishing SMART MBOs (Management by Objectives) in a timely manner to maximise points. Furthermore, he outlined strategies for planning chapter-allocated/unallocated Distinguished Lectures (DL), orchestrating multi-chapter visits, and adhering to protocols when hosting local events.



Noteworthy is Mr. Khayata's meticulous compilation of information from various ASHRAE platforms, which he consolidated into a single website. This platform serves as a valuable resource for users seeking to swiftly access, learn, and apply CTTC knowledge. Throughout the session, Mr. Khayata seamlessly integrated digital technology, employing QR codes for attendance, facilitating session feedback, and fostering engagement with the audience and session guests. This exemplifies his commitment to leveraging digital tools for a more streamlined and interactive experience.

HISTORIAN TRAINING

Mr. Atilla Bıyıkoğlu, serving as the Regional Historian for ASHRAE Region at Large (RAL), conducted a comprehensive training session on historical documentation within the heating, ventilation, air conditioning, and refrigeration (HVAC&R) domain. Emphasizing the significance of recording the history of pertinent events, Mr. Bıyıkoğlu explored the intricacies of documenting Presidential Award of Excellence (PAOE) points H1 to H17. He stressed the critical importance of timely completion of Chapter Information Questionnaires (CIQ) to harness associated benefits.

The session further covered the criteria for the Gold Ribbon and Lou Flagg Historical awards, providing insights on how respective chapters could strategically target and pursue these accolades.

In essence, the session was highly informative, shedding light on the pivotal role of a Historian in a chapter's life. Mr. Bıyıkoğlu underscored the value of capturing and archiving detailed information, transforming historical data and artifacts into potent memoirs and references for future years of the chapter. This training elucidated how preserving a chapter's history serves as a cornerstone for its ongoing success and legacy.









SA TRAINING

The Student Activities Training, led by Dr. Yash Shukla, RAL RVC Student Activities, was highly engaging. Dr. Shukla effectively fostered interactivity throughout the session. The meeting explored key areas, including raising awareness of ASHRAE within the student community, strategies for recruiting members from K-12 and post-high school, and the promotion of industry mentorship for student support. In addition to these focal points, the session explored diverse methodologies for increasing student membership and provided insights into the prerequisites for establishing a new student branch. Emphasizing the significance of cultivating a student branch leadership community within each chapter, the training session also covered upcoming grant and scholarship application deadlines.





YEA TRAINING

The YEA training session at CRC provided a platform for in-depth discussions on crucial topics. One of the focal points was the delineation of membership targets for each chapter under the RAL umbrella, fostering a strategic approach to growth and engagement. The session also explored comprehensive insights into available scholarships and programs offered by the society, emphasizing opportunities for professional and educational advancement. Participants gained valuable knowledge on accumulating PAOE points, including insights on how to enter, the various types of events eligible for points, and strategies for maximizing participation. Furthermore, the training session covered essential aspects such as the procedures for logging in and accessing membership data, empowering Young Engineers in ASHRAE with the tools necessary for effective chapter management and impactful engagement within the society.

GAC Training

During the recent Chapters Regional Conference (CRC), Mr. Ahmed Bolbol, Regional Government Affairs Committee Region At Large for ASHRAE Region at Large (RAL), led a comprehensive training session focused on GAC responsibilities, mission statement, and the 23-24 Public Policy Priorities for GAC leaders. The session underscored the significance of key GAC activities, including the implementation of public policy priorities at all government levels and the development of ASHRAE's capacity to be effective across all regions. Specific points of emphasis included supporting sustainable building practices, advocating for building decarbonization to mitigate climate change, and ensuring the orderly and safe phasedown of high-GWP HFC refrigerants, along with endorsing the adoption of the latest edition of ASHRAE's Energy Standards into building codes.

Additionally, Mr. Bolbol highlighted the criteria for the Government Affairs Awards, designed to recognize individuals who demonstrate outstanding efforts in national, state, provincial, or local government on technical issues vital to ASHRAE. Attendees found the session to be highly informative, providing valuable insights into the pivotal role of a GAC and equipping participants with the knowledge and tools necessary for effective advocacy and engagement.





RP Training

Amidst the vibrant atmosphere of the Chapters Regional Congress (CRC) hosted by ASHRAE Region-At-Large (RAL) in Colombo, Sri Lanka, Mr. Moiz Ashraf took the helm, guiding attending chapters through an enriching Research and Promotion (RP) training session. This comprehensive training was a focal point, offering attendees crucial insights into active engagement in RP initiatives, underlining the tangible benefits, and providing avenues for meaningful contribution. Mr. Ashraf, a seasoned leader in the field, underscored the vital role of collaboration and community betterment. During the session, the spotlight shone on various funds, notably the Education Funds, designed to uplift and enhance the ASHRAE community. Mr. Ashraf passionately encouraged participants to contemplate contributing to these funds, recognising the power of collective commitment in advancing knowledge and expertise.

This CRC event proved to be more than a gathering; it was a dynamic platform where understanding and active participation in RP initiatives across chapters were not only encouraged but celebrated. The spirit of collaboration, the pursuit of excellence, and the shared commitment to the ASHRAE community's growth reverberated throughout this enriching experience.







SHARE WITH ASHRAE

Article on Improving Occupant health and well being by "Mohammad Murtaza"

"Human-Centric Design: The Role of MEP Systems in Improving Occupant Health and Well-being"













Designing buildings with the occupant's health and well-being in mind is a growing trend known as human-centric design. This approach aims to create spaces that support the physical, mental, and emotional needs of the people who use them. Mechanical, electrical, and plumbing (MEP) systems are crucial in achieving this goal by providing the necessary indoor environmental conditions that promote occupant comfort, health, and productivity.

Indoor environmental quality (IEQ) is a key component of humancentric design, and poor IEQ can have severe consequences on occupant health and productivity. For instance, poor indoor air quality (IAQ) has been linked to a range of health problems, including respiratory and cardiovascular diseases, headaches, fatigue, and allergies. Moreover, studies show that poor IEQ can decrease productivity by up to 10%.

MEP systems play a vital role in improving IEQ by providing adequate ventilation, air filtration, and humidity control. Mechanical ventilation systems remove pollutants from indoor air and bring in fresh outdoor air to dilute any contaminants, while air filtration systems remove particulate matter, allergens, and other airborne pollutants. Additionally, humidity control systems prevent the growth of mold and bacteria, improving overall air quality.

Thermal comfort is another critical aspect of IEQ that can affect occupant health and productivity. Uncomfortable temperatures can lead to decreased work output and increased discomfort. HVAC systems, a subset of MEP, help to maintain optimal thermal comfort conditions by providing heating and cooling as well as air movement systems that prevent stagnant air.

Lighting is also a crucial component of human-centric design that can affect occupant health and productivity. Lighting systems can be designed to provide appropriate levels of illumination that reduce eye strain, improve mood, and support the circadian rhythm. Furthermore, studies have shown that poor lighting can negatively affect productivity, with poor lighting conditions reducing productivity by up to 6%.

Acoustics is another essential aspect of IEQ that can affect occupant health and productivity. High levels of noise pollution can lead to stress, anxiety, and fatigue, while also impacting an occupant's ability to communicate and concentrate. MEP systems can help to control noise levels by providing sound insulation and sound-absorbing materials. Additionally, studies show that poor acoustics can reduce productivity by up to 10%.

Moisture control is also a critical aspect of IEQ that MEP systems can assist in managing. Excessive moisture can lead to mold growth, which can cause respiratory problems, allergies, and other health issues. Proper moisture control through adequate ventilation, humidity control, and waterproofing systems can prevent these issues from occurring.

Implementing human-centric design in building projects involves a collaborative effort between designers, engineers, and building owners. The following are some strategies that engineers can use to implement human-centric design in their projects:

- Early engagement: Engaging with the design team early in the project development phase can ensure that MEP systems are designed to support occupant comfort, health, and well-being.
- Building simulation: Using building simulation software can help engineers to evaluate different design options and determine the best strategies for improving indoor environmental quality.

"Building Insights and Expertise: Innovations and Best Practices in Building Service Engineering".







THE 9 FOUNDATIONS OF A HEALTHY BUILDING



- Coordination with other building systems: MEP systems should be designed to work in coordination with other building systems, such as lighting and acoustic systems, to create a holistic approach to human-centric design.
- Incorporation of smart technologies: Incorporating smart technologies, such as sensors and controls, can help to optimize MEP system performance and ensure that occupant comfort is maintained while minimizing energy consumption.
- Integration of renewable energy sources: The integration of renewable energy sources, such as solar and wind, into MEP systems can help to reduce the building's carbon footprint and create a more sustainable building.
- Implementation of natural ventilation: Natural ventilation systems can be used to provide fresh air to the occupants, reduce energy consumption, and improve indoor air quality.

- Use of non-toxic building materials: Using non-toxic building materials, such as low VOC paints, can help to create a healthier indoor environment by reducing indoor air pollution.
- Incorporation of biophilic design elements: Incorporating biophilic design elements, such as plants, natural light, and natural materials, can help to reduce stress, improve mood, and enhance cognitive function.

In conclusion, designing buildings with the occupant's health and well-being in mind is becoming increasingly important, and human-centric design provides an approach to achieving this goal. MEP systems play a critical role in creating indoor environmental conditions that support occupant comfort, health, and productivity. By prioritizing indoor environmental quality, designers, engineers, and building owners can create spaces that promote occupant health and well-being, resulting in happier, healthier, and more productive occupants.

Implementing strategies such as early engagement, building simulation, coordination with other building systems, incorporation of smart technologies, maintenance and commissioning, integration of renewable energy sources, natural ventilation, use of non-toxic building materials, incorporation of biophilic design elements, and monitoring and feedback, can help engineers to implement human-centric design in their projects.

Overall, incorporating human-centric design principles in building projects can improve the physical, mental, and emotional well-being of occupants, while also reducing energy consumption and minimizing environmental impacts. By prioritizing occupant health and well-being, designers and engineers can create buildings that not only meet the functional requirements but also contribute to the overall quality of life of the occupants.

Article by



Mohammed Murtaza

YEA Chair, ASHRAE Falcon Chapter ARVC - YEA, Region-At-Large

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"Building Insights and Expertise: Innovations and Best Practices in Building Service Engineering".



Are you interested in featuring your article in the newsletter?

Get in touch with us.

Click here to get the Contact Details









ASHRAE Global Training Centre

"Delivering High Quality - Intensive & Customised Courses"

The ASHRAE Global Training Center (GTC) in Dubai, offers a variety of full-day and multi-day courses to help you stay in the forefront of HVAC&R technology. GTC offers MENA training relevant to the needs of Middle East, Africa & South Asia practitioners. Courses are customized and scalable, accounting for climate, culture, suppliers, energy sources, prices, codes and construction practices.

GTC offers authoritative technical instructor-led training presented at:

- · ASHRAE GTC in Dubai
- · Companies (upon request)
- Other industry meetings/conferences (upon request)
- · ASHRAE online course series
- · ASHRAE Chapter (upon request)
- Through Local Associations (upon request)

Available Instructor-Led Courses

- · Air-to-Air Heat Recovery Fundamentals and Applications (MENA) 6hrs/1 day
- · Commercial Building Energy Audits (MENA) 6hrs/1 day
- · Commissioning Process in New and Existing Buildings 6hrs/1 day
- · Designing for IAQ: Complying with Standard 62.1 (MENA) 6hrs/1 day
- · Designing High-Performance Healthcare HVAC (MENA) 6hrs/1 day
- · District Cooling for Designers and Owners (MENA) 6hrs/1 day
- · Emerging Trends and Sustainable Design in Refrigeration and Cold Chain (MENA) 3hrs/0.5 day
- Effective Energy Management in New and Existing Building (MENA) 6hrs/l day
- · The Future of Refrigerants: Challenges and Opportunities (MENA) 6hrs/1 day
- · HVAC Design: Level I—Essentials (MENA) 18hrs/3 days
- · HVAC Design: Level II—Applications (MENA) 12hrs/2 days
- · Improving Existing Building Operation (MENA) 12hrs/2 days
- · Standard 90.1: HVAC/Mechanical Design and Appendix G (MENA) 6hrs/l day
- · Understanding Standard 189.1-2014 for High-Performance Green Buildings (MENA) 6hrs/1 day
- · Variable Refrigerant Flow Systems: Design and Applications (MENA) 6hrs/1 day
- · High Performance Healthcare Facilities Design: Complying with ANSI/ASHRAE/ASHE standard 170-2017 (MENA) 6hrs/1 day
- Humidity Control I: Design Tips and Traps (MENA) 3hrs/0.5 day
- · Humidity Control II: Real-World Problems & Solutions (MENA) 3hrs/0.5 day
- Designing Toward Net-Zero Energy Commercial Buildings (MENA) 3hrs/0.5 day

ASHRAE Certifications















ASHRAE certifications provide numerous benefits to professionals in the building industry. Firstly, they validate and enhance individuals' knowledge and skills, establishing their expertise in specific areas such as building design, performance, and operations. These certifications also demonstrate a commitment to professional development and staying current with industry best practices. ASHRAE certifications can enhance career opportunities and advancement, as they are recognized globally and respected by employers, clients, and peers. Additionally, certification holders gain access to a vast network of professionals, educational resources, and ongoing support from the ASHRAE community. Overall, ASHRAE certifications offer a pathway to professional growth, credibility, and success in the building industry.

Did not find the course you need? Get in touch with us and let us know!

At ASHRAE, we are dedicated to continually enhancing our training courses and expanding the variety of offerings. We welcome your valuable thoughts, suggestions, and feedback on the training programs and certifications we provide. Feel free to reach out to Ayah Said at ASHRAE GTC Dubai.









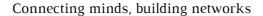
Chapter Activity Highlights

July23-Nov23

YEA Meet & Greet

Dubai & Abu Dhabi

July & September 2023





Celebrating the Success of ASHRAE Falcon Chapter's YEA Meet and Greet Event: A Remarkable Gathering of Young Engineers! The event brought together a diverse group of young engineers who enthusiastically embraced the power of learning and collaboration. Engaging discussions, interactive sessions, and opportunities to join technical committees fostered an inspiring atmosphere.





Are you a young engineer on the brink of graduation, seeking to embark on a professional journey in the HVAC&R industry?



The ASHRAE Smart Start program for graduating student members is a specialized initiative that provides valuable resources and support to students interested in pursuing a career in the HVAC&R (Heating, Ventilation, Air Conditioning, and Refrigeration) industry. It's the best way for ASHRAE student members to receive the many benefits of Associate grade membership after finishing university. SmartStart is a 3-year program that allows Student members to transfer to Associate grade membership at a rate that is recent-graduate friendly.

*Please note that the SmartStart program is only for current ASHRAE Student members who have been a Student member for at least one year.

YLI, GALWAY

August 2023

Ireland

Exploring leadership and diversity

Members from AFC participated the YLI event. In that transformative event, they explored the world of leadership, personality traits, and the art of understanding people from diverse perspectives. The 3-day program was packed with invaluable insights that had already begun to shape their approach to leadership. The highlight of the event was undoubtedly the exceptional facilitator, Tricia Evans. Her expertise as an experienced Business Coach, Group Facilitator, and Team Coach truly made each session shine. From discussions on "Manager vs. Leader" to gaining insights on aligning and focusing Leadership Teams, Tricia's guidance was instrumental in enhancing their leadership toolkit.





Regional Planning Event

August 2023

Islamabad, Pakistan

Navigating the future

The Regional Planning Event, which took place from August 4th to 6th, was as an extraordinary gathering of brilliant minds united by a common goal - driving impactful changes and fostering innovation. The event's insightful discussions and invaluable networking opportunities were said to have further ignited the attendees' passion for effective and sustainable development. From August 4th to 6th, YEA chair from AFC had the privilege of representing as the Assistant Regional Vice Chair (ARVC) for Sub Region 1. The role comes with immense responsibility, and representatives can gain honor in contributing to their region's strategic planning and growth.







MENA COOL EVENT

Conrad Hotel, Abu Dhabi

September 2023



Exploring the latest trends!

In September, at the Conrad Hotel Abu Dhabi, AFC members had the privilege of participating in the MENA Cool Event. Among the diverse range of topics discussed, the spotlight that caught their attention was on the theme of maintenance. Maintenance, as termed by experts, was described as more akin to a meticulously designed strategy to ensure seamless operations while conserving resources. What was particularly noteworthy, as reported, is how this thoughtful approach seamlessly aligns with sustainability and energy efficiency, contributing to a greener planet.





Unveiling Insights from the MENA Cool Forum 2023: During the panel, experts explored collaboration, technology, technician certification, and the role of building owners in ensuring sustainable cooling. The discussion also highlighted the shift towards value-based maintenance services through Key Performance Indicators (KPIs).

HVAC-R training event at the Daikin Academy & Webinar

JAFZA







ASHRAE Falcon Chapter - UAE - AFC and Daikin Middle East and Africa recently collaborated to organize a webinar focusing on "Greener Hot Water Production Using Chillers and Heat Pumps." The session, expertly presented by Mr. Lorenzo Cipriani, explored crucial subjects, including current hot water generation methods, the role of refrigerant cycle machines in hot water production, and the efficiency of water heating. We express our gratitude to Daikin Middle East and Africa, the ASHRAE Falcon Chapter team, the engaged participants, and Osama Mohammed, P. Eng., for their valuable contributions to this informative event.





The recent HVAC-R training event was successfully hosted by the Daikin Academy Training Center in Dubai. Thanks to our ASHRAE Falcon Chapter members' dedication and engagement, the day was tremendously successful. Our YEA members' enthusiasm and active participation made this event a resounding success. Seeing our community's commitment to professional development and staying at the forefront of industry trends is heartening. This event marks the inception of an ongoing series of training sessions to be conducted at their esteemed facility.

Seminar on VRF latest innovations

Rotana, Dubai

"Improving indoor comfort with AI and wind free"

ASHRAE Falcon Chapter and Samsung Gulf hosted a technical Seminar on the topic "VRF latest innovations: Improving indoor comfort with AI and wind free" We are grateful to Majd Awad for sharing his knowledge and experience with us. We extends its gratitude to Mr. Ayman AI Hamalawi for his generous support of the Seminar. The organization expresses heartfelt appreciation to all attendees for their active participation, insightful questions, and vibrant discussions. The attendees' enthusiasm and dedication to enhancing overall system efficiency in the HVAC industry contributed to making the Seminar a memorable experience for everyone involved.

October 2023













STUDENT ZONE

The ASHRAE Falcon Student branch has earned recognition as one of the most dynamic student branches within the ASHRAE RAL. In recent years, the student community has organized numerous technical events, including diverse workshops and project competitions on behalf of the ASHRAE community. Additionally, the ASHRAE Falcon Student community has successfully secured the ASHRAE Undergraduate Program Equipment Grant, amounting to USD 15,000, over the course of several years.



Project 1: Humidification-dehumidification system for water desalination and indoor thermal comfort

Team Members: Jatin Chouhan & Prashant Sreekumaran Nair

Project Guide: Dr. Sampath Suranjan Salins

Branch: Manipal Academy of Higher Education, Dubai Campus

This project aims to achieve the following objectives:

- 1. Design and construct a desalination unit utilizing humidification and dehumidification (HDH) techniques.
- 2. Investigate the fresh water production rate and other desalination performance parameters by varying air Reynolds number (Re) and water flow rate.
- 3. Characterize the air psychrometric properties at the outlet of the system, equipped with a venturi device, to assess compliance with necessary thermal comfort conditions and avoid ventilation thermal loads.

The desalination unit features a humidifier with Celdek 7090 packing to enhance water-air contact and water hold up. Helical coils in the dehumidification section induce the condensation process, producing fresh water while cooled and dehumidified air is ciculated to the room. A 800W heater separates pure water from saline water, and an 80W micro diaphragm pump supplies fresh water inside the coils. A blower with a capacity of 520W and 1760 rpm provides air to the humidification system with variable airflow rates. Collector tanks on each side collect fresh water and brine. The entire unit is insulated and arranged on a wooden frame.



Project 2: Hydropurification System

Team Members: Haider Raza, Mohammad Mavia Khan, Mohamed Raiz & Muhammad Zunair

Project Guide: Dr. Chithirai Pon Selvan

Branch: Curtin University, Dubai Campus

Course Parks

Course Parks

Fine

Layer 5

Course Parks

Course Fine

The project aims to achieve the following objectives.

- 1. Addressing Water Scarcity: The Hydropurification project seeks to address water scarcity by purifying and reusing greywater, a significant part of UAE's wastewater.
- 2. Efficient Water Purification: The project aims to develop a highly effective water purification system, removing 99.99% of contaminants from greywater, providing clean, reusable water for various purposes except drinking.

The Hydropurification project intends to tackle global water scarcity by purifying and repurposing 75% of UAE's wastewater, known as greywater. This innovative system, with a four-layer approach, removes 99.99% of pathogens, contaminants, pesticides, and herbicides. It is versatile, scalable, and applicable from households to entire communities, excluding drinking water. The process involves microfiber filtration, slow sand filtration, UV light treatment, and granulated activated carbon. The project received prestigious awards, including National Runner-Up at the James Dyson Award 2023 and recognition from ASHRAE Falcon Chapter, and is a finalist for funding in the Expo Live University Innovation Programme.

Are you interested in featuring your project data in the newsletter? Please get in touch with us.

<u>Click here to get the Contact Details</u>







FIND THE SCHOLAR IN YOU!

Student Grants & Scholarships

Engineering Technology Scholarship Project Grants

Technology Conference Travel grants

Application Deadline

December 1st

December 15th

September 30th



https://www.ashrae.org/communities/student-zone/scholarships-and-grants



"Fostering a vibrant community of learning, networking, and professional development"

The close collaboration between the YEA and the Student Activities teams is crucial for smoothly coordinating a range of exciting events. This strong partnership facilitates dynamic synergy, combining resources and diverse talents to craft impactful and enriching experiences for all participants. Together, they cultivate a vibrant community that promotes learning, networking, and professional development for aspiring engineers and students.

Celebrating Engineer's Day

Manipal Academy of Higher Education, Dubai Campus

September 2023

Get to know the industry's heartbeat

In celebrating Engineer's Day at Manipal Academy of Higher Education - Dubai Campus, an exceptional event unfolded at Manipal University Dubai, orchestrated by ASHRAE Falcon Chapter in collaboration with the Society's Young Engineers. The occasion stood as a true testament to the spirit of innovation and excellence in engineering. Expert speakers Rahaf Aloudeh and Mohammed Shamroukh graced the event, offering their insights and making it an enlightening experience for all participants. Noteworthy was the seamless synergy between the presentations, highlighting the meticulous planning and dedication of the speakers that set this event apart.







Graduate Seminar Series

RIT , DUBAI



Embarking on an exploration of the dynamic HVAC and building services realm, the Graduate Seminar Series at Rochester Institute of Technology, Dubai (RIT Dubai) proved to be a remarkable experience. Hosted by ASHRAE Falcon Chapter, this insightful session explored into the latest innovations and strategies shaping the future of heating, ventilation, air conditioning, and building services. Attendees had the invaluable opportunity to gain insights and interact with leading experts in the field. The event was a testament to the commitment to knowledge elevation, keeping participants at the forefront of advancements in sustainable & efficient building technologies.













ASHRAE Membership

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GET TO KNOW YOUR COMMITTEE MEMBERS

2023-2024

	ASHRAE Falcon Chapter BOG in ASHRAE Region-At-Large (RAL)					
No.	Designation	Name	Email Address			
1	Regional member Council Representative (RMCR)	Mr. Bassel Anbari	banbari@ashraeuae.org			
2	Officers Advisory Committee (OA) Co-Chair	Wil. Dassel Allball				
3	RAL Financial Support and Fund Raising Committee Co-Chair	Dr. Ahmed Alaa Eldin Mohamed	ahmed.alaa@ashraeuae.org			
4	Commercialism / Webinar Policy Committee (CWP) Chair	Mr. Mohamed Altayeb Ibrahim	mibrahim@ashraeuae.org			
5	Auditing Committee (AC) Chair	Mr. Liju Thomas	liju@ashraeuae.org			
6	Regional Vice Chair (RVC) Chapter Technology Transfer (CTTC)	Mr. Osama Khayata	osama@ashraeuae.org			
7	Honors & Awards Committee (H&A) Member	Mr. Moiz Ashraf	moiz@ashraeuae.org			
8	Chapters Regional Conference (CRC) Member	Mr. Amr Adel Galal	Amr.galal@ashraeuae.org			
9	Young Engineers in ASHRAE (YEA) Assistant Regional Vice Chair Sub-Region 1 (ARVCI)	Mr. Mohammed Murtaza	murtaza@ashraeuae.org			

ASHRAE Falcon Chapter BOG's: 2023-2024					
No.	Designation	Name	Email Address		
1	Chapter President	Mr. Amr Adel Galal	Amr.galal@ashraeuae.org		
2	President-Elect	Mr. Abdallah Mahmoud	amahmoud@ashraeuae.org		
3	Vice President	Dr. Ahmed Alaa Eldin	ahmed.alaa@ashraeuae.org		
4	BOG	Mr. Liju Thomas	liju@ashraeuae.org		
5	BOG	Dr. Ebrahim S Al-Hajri	ealhajri@ashraeuae.org		
6	Treasurer	Mr. Mohamed Altayeb Ibrahim	mibrahim@ashraeuae.org		
7	Chapter Secretary	Ms. Rahaf Aloudeh	rahafaloudeh@gmail.com		
8	BOG	Mr. Moiz Ashraf	moiz@ashraeuae.org		

ASHRAE Falcon Chapter Committee Chairs: 2023-2024				
No.	Committee	Chairperson	Email Address	
1	Finance (Auditing)	Mr. Mohamed Eltaieb Ibrahim	mibrahim@ashraeuae.org	
2	Government Affairs	Mr. Abdelmoneim Eid Mohammed	Engfeastl@yahoo.com	
3	Student Activities	Dr. Chithirai Pon Selvan	pon.selvan@curtindubai.ac.ae	
4	Chapter Technology Transfer	Mr. Mohamed Sakallah	msakallah@ashraeuae.org	
5	Historical Committee	Mr. Mohammed Shamroukh	mohammedshamroukh@gmail.com	
6	Honors and Awards	Mr. Bassel Anbari	banbari@ashraeuae.org	
7	Membership Promotion	Mr. Mohammad Daoud	daoud@ashraeuae.org	
8	Nominating	Mr. Bassel Anbari	banbari@ashraeuae.org	
9	Newsletter Editor	Mr. Sreejith Sanal Kumar	sreejith.sanal14@gmail.com	
10	Webmaster/ Social Media	Mr. Mohammed Mehiar Asfari	mehiara@hotmail.com	
11	Refrigeration Committee	Mr. Mohamed Sakallah	msakallah@ashraeuae.org	
12	Research Promotion	Mr. Moiz Ashraf	moiz@ashraeuae.org	
13	Young Engineers in ASHRAE (YEA)	Mr. Mohammed Murtaza	murtaza@ashraeuae.org	
14	Communication	Mr. Ibrahim Hassanien	ibrahim.hesham@alliedconsultants.ae	
15	Sustainability Committee	Mr. Vladimir Limin	vladimir@salimus.com	





Q1 - Which ASHRAE standard corresponds to indoor thermal comfort?

ASHRAE Standard that deals with indoor thermal comfort:

- 1. ASHRAE 90.1
- 2. ASHRAE 55
- 3. ASHRAE 62.1
- 4. ASHRAE 62.2

Q2 - A value that describes the degree of insulation provided by an article of clothing:

- 1.CLO value
- 2.R-Value
- 3.U-value

Q3 - The index that provides The index that provides an estimate of how many occupants in a space would feel dissatisfied by the thermal conditions: an estimate of how many occupants in a space would feel dissatisfied by the thermal conditions:

- 1. PPD
- 2.PMV
- 3.CLO
- 4.IAQ

Q4 - Which of the following needs most 'people outdoor air rate'?

- 1. Dayroom
- 2. Lecture halls
- 3. Libraries
- 4. Sickroom / Clinic

Q5 - The HVAC industry can align to decarbonization goals by:

- 1. Using low GWP refrigerants
- 2. Using high GWP refrigerants
- 3. Not using refrigerants

I - 2D .

4 - 4Q .

e - 6D •

1 - 2D •

. QI - 2

:s19wenA







Testimonials



EvaStudent Member
Curtin University, Dubai Campus

Becoming part of ASHRAE Falcon Chapter in 2022 marked a pivotal journey. Progressing from treasurer to secretary within our vibrant Curtin University Dubai student chapter has been transformative. Receiving recognition certificates strengthened my dedication, especially after participating in conferences and volunteering. With unwavering support from Curtin Dubai ASHRAE Student Branch, I dared to dream and applied for the travel grant. Now, as I prepare to attend the 2024 ASHRAE Winter Conference in Chicago, I realize this isn't just an event – it is a life-altering experience. ASHRAE shapes not just my academic path but has become an integral part of my journey toward personal and professional excellence.

I am really glad to be part of ASHRAE Falcon chapter. I joined ASHRAE as a student member and seamlessly transferred to an associate member through YEA SmartStart initiative in 2023. Needless to say, I received much support from ASHRAE during my academic life. It helped me build a strong foundation in the HVAC and building services field. However, I am delighted to receive same support even now. I am thankful to YEA for the scholarships provided to YEA members, and I am happy to be a recipient of the same. The knowledge gained from taking HVAC Design Course by Global Training Centre (GTC) greatly aids me in my internship projects pertaining to HVAC&R



Krishna Ajith

AFC Special Events Committee Member
2023-2024



Biji Sara Binu
Student Member
MAHE . Dubai Campus

Being an ASHRAE student member has been a transformative experience for my professional journey. ASHRAE has been instrumental in providing diverse learning opportunities, including seminars, distinguished lectures, and participation in project competitions. The organization also offers avenues for applying for travel grants and undergraduate scholarships, contributing immensely to my professional development. The sense of community within ASHRAE has been a constant source of motivation. Collaborating with professionals and peers has not only honed my teamwork and leadership skills but has also provided a platform for mentorship, guiding me in making informed career decisions.

In essence, being an ASHRAE student member goes beyond just a membership—it's a dynamic experience that combines learning, networking, and professional growth, making it an indispensable asset for anyone aspiring to excel in their field.



Share your expertise, inspire your peers, and be featured in our upcoming newsletter. Your testimonials illuminate the excellence of our community.

"Let your voice be heard!"

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"Your voice matters! Reach out to us for contributions, comments, suggestions, and more."



Contact Sreejith Sanal

Newsletter Editor - ASHRAE Falcon Chapter



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Acknowledging our contributors and supporters.

We would like to extend special thanks to all the members of ASHRAE Falcon BOG and all Active ASHRAE Falcon members for their unwavering support.





