



# Newsletter



Bridging the UAE's vision for sustainable development. Together, we shape a greener future!

ASHRAE Falcon Chapter

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.







### THANK YOU ASHRAE MEMBERS!

Thank you for your unwavering dedication and contributions to our mission. Your commitment to advancing HVAC excellence and sustainability in the UAE is what makes our chapter thrive. Together, we are not just a community but a powerful force for positive change in our industry.

We appreciate each of you and look forward to continuing our journey together!











#### Abdallah Mahmoud, Chapter President (SY 2024-25)

Abdallah Mahmoud holds a Master of Science in Building Services and is a member of ASHRAE. He is the President of the ASHRAE Falcon Chapter and the Vice President of Service Business at Siemens Industrial LLC in the UAE. With extensive experience in Energy Efficiency, Automation, and Digital & Smart Buildings, Abdallah is committed to leading our chapter toward its strategic goals.

#### PRESIDENT'S MESSAGE

Dear ASHRAE Falcon Chapter members,

As we step into a new season, I wanted to take a moment to express my gratitude and share some reflections on our chapter's journey. This past year has been a testament to the strength, dedication, and spirit of our members. As we also embark on a new society year, I am thrilled to welcome each of you to what promises to be an exciting and impactful journey ahead. With the start of this new year, we have a fresh slate of opportunities to explore, challenges to tackle, and goals to achieve together.

Reflecting on our past successes, it is clear that our chapter thrives because of your dedication, passion, and active participation. Each one of you plays a crucial role in driving our mission forward, and I am confident that, with your continued support, we will build on our achievements and reach new heights.

Our last year events, workshops, and initiatives have showcased the incredible talent and commitment within our community. From thought-provoking seminars to impactful networking opportunities, each endeavor has highlighted our collective drive to push the boundaries of HVAC&R excellence.

I'm particularly proud of how we've come together to support each other and advance our shared goals. Your engagement and contributions are what make our chapter thrive, and I am genuinely excited about the future as we continue to innovate and grow.

This year, we have an array of engaging events, educational programs, and collaborative projects planned. I encourage you to stay engaged, take advantage of these opportunities, and contribute your unique perspectives. Your involvement not only enriches our chapter but also propels the HVAC&R industry toward greater innovation and excellence.

Thank you for your unwavering support and dedication. Together, we are not just members of ASHRAE; we are a vibrant community making a difference in our field.

Here's to a year filled with growth, success, and continued camaraderie!

#### Abdallah Mahmoud

President, ASHRAE Falcon Chapter











#### Amr Adel Galal, Past President (SY 2023-24) & Treasurer

Amr Adel Galal, Past President and current Treasurer of the ASHRAE Falcon Chapter (2023/2024), is a seasoned engineering leader with 18 years in HVAC and energy solutions across the Middle East. With degrees in Electrical Engineering, International Business, and an MBA, he specializes in digitalization, IoT, and energy optimization, championing sustainable practices and industry innovation through ASHRAE.

#### PAST PRESIDENT'S MESSAGE

Dear ASHRAE Falcon Chapter Members,

I extend my heartfelt appreciation to each member of the Board of Governors for an exceptional Society Year 2023-2024. Through your dedication, hard work, and collaborative spirit, our chapter has reached new heights, as demonstrated by the notable achievements and recognition earned. The prestigious RAL and Society awards presented at the RAL CRC in Karachi are particularly commendable, reflecting the high standards of excellence we all strive to uphold.

These accomplishments are a testament to the strength of our shared vision, the quality of our initiatives, and, above all, the passion you bring to your work. I am deeply proud of everything we have achieved together as a chapter, knowing that these successes pave the way for even greater opportunities ahead.

To the current Chapter BOG and leadership team, I wish you every success as you build upon the foundations we have laid. I am confident that with your guidance and commitment, the ASHRAE Falcon Chapter will continue to thrive and make a meaningful impact within our community. Please know that my full support remains with you, and I am excited to see the new milestones we will achieve together.

Warm regards,

Amr Adel Galal
AFC Vice President and Treasurer









#### 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,









## **CHAPTER REGIONAL CONFERENCE**

October 2024



#### **About CRC**

The Chapters Regional Conferences (CRCs) are conducted biannually during autumn and spring, presenting remarkable occasion for chapters and members to convene, engage, and foster regional connections. These conferences encompass a diverse range 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.



#### CRC in Karachi, Pakistan

Karachi hosted ASHRAE's RAL CRC 2024, welcoming delegates from 20 countries for a blend of technical insights and cultural immersion. The event featured key highlights, including tech talks on sustainable HVAC solutions, interactive forums, and training sessions led by experts in areas such as Government Affairs, Membership Promotion, Research, and Diversity & Inclusion. The Falcon Chapter brought the largest delegation, securing several awards, including the YEA Award of Individual Excellence. A milestone MOU with the Pyramids Chapter emphasized a commitment to regional collaboration and sustainable innovation, showcasing ASHRAE's dedication to advancing HVAC practices and community across the MENA region.

The CRC 2024 offered a robust lineup of training sessions across ASHRAE portfolios, covering technical management, public advocacy, member engagement, and fundraising. Led by experts like Osama Khayata, Ahmed Bolbol, and Eman Sherif, topics included mentoring students, supporting young engineers, digital outreach, and fostering Diversity, Equity, and Inclusion (DEI). These sessions enriched participants' skills in leadership, technical knowledge, and community inclusivity, aligning with ASHRAE's goals for chapter excellence and professional development.





#### **Pioneering Regional Excellence**

#### ASHRAE Falcon Chapter & ASHRAE Pyramids Chapter Sign MOU

ASHRAE Region At Large is excited to announce a significant partnership milestone as the ASHRAE Falcon Chapter and the ASHRAE Pyramids Chapter formalize their collaboration through a newly signed Memorandum of Understanding (MoU). This strategic alliance is designed to foster regional expertise, drive innovation, and support sustainable development within the MENA region. This MoU embodies our joint dedication to driving excellence and impact across the MENA region, setting a powerful example for global partnerships in the built environment. We look forward to this collaboration as a cornerstone for achieving new heights in industry standards and environmental responsibility. Let's work together to shape a sustainable future to +meets the demands of today and tomorrow.













#### Hall of Fame - CRC

Awards and Recognition:

Falcon Chapter won the highest number of awards among participating chapters, including:

- YEA Award of Individual Excellence : (Mohammed Murtaza)
- · Chapter Service Awards
- Special Recognition Awards for leadership and innovation
- · Collaborative efforts: Signing of MoU with the Pyramids Chapter
- · Largest Delegation : The Falcon Chapter made history with the largest delegation of 16 members, earning the Travel Award. Notable attendees were present







This distinguished delegation highlights the Falcon Chapter's commitment to ASHRAE's mission and their strong representation at the conference.







# REGIONAL PLANNING MEETING August 2024



#### **About RPM**

A Regional Planning Meeting for ASHRAE regions is a gathering or conference designed for the leaders, members, and volunteers from different ASHRAE chapters within a specific region to discuss and plan regional activities, strategies, and initiatives. These meetings play an important role in the overall functioning of ASHRAE by aligning the efforts of various chapters with the society's broader goals.

#### Review of Regional Goals and Objectives:

The meeting often begins with a review of the region's performance and progress in meeting ASHRAE's goals. This includes evaluating membership growth, educational initiatives, technical activities, and the effectiveness of past events..



These meetings help ensure that ASHRAE's goals are consistently met across all regions and that members receive the resources and support they need to advance the built environment.



#### Planning for Future Initiatives:

The planning meeting looks ahead to the upcoming year, setting objectives for the region in terms of membership, technical programs, public awareness, and educational outreach. It may also involve planning for ASHRAE-sponsored events like the Winter and Annual Conferences.

#### Feedback and Improvement:

Regional meetings often include a session for gathering feedback from participants on how ASHRAE can improve its regional operations and programs. This feedback is valuable for refining processes and addressing member concerns.





## **CHAPTER HIGHLIGHTS**

Aug - November 2024

#### SIEMENS EXPERIENCE CENTRE VISIT

#### OCTOBER 2024





In collaboration with Siemens, the ASHRAE Falcon Chapter's YEA team organized a technology visit to the Siemens Expo Office, offering young engineers an in-depth look at the cutting-edge advancements shaping the future of the industry. The visit was further highlighted by the presence of RAL RVC YEA representative Ms. Eman Sherif, who engaged with participants, discussing the latest trends in smart technologies, automation, and sustainable solutions. This experience provided the YEA team with valuable exposure to Siemens' innovations, reinforcing their understanding of emerging technologies and inspiring their contributions to the HVAC and energy sectors.



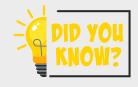
#### **WORLD COLD CHAIN EXPO 2024**

#### OCTOBER 2024

The inaugural session of the World Cold Chain Expo 2024 opened with engaging discussions focused on government support and global collaborations within cold chain networks. Following this, Eng. Abdallah Mahmoud, President of the ASHRAE Falcon Chapter, delivered the keynote address. The Chapter is proud to be a Supporting Partner at the World Cold Chain Expo 2024. Our participation underscores the vital role of refrigeration systems in sectors beyond comfort, including food safety, medical, and industrial applications. The 2022 ASHRAE Handbook offers valuable insights into the technologies that enable efficient cooling, freezing, and storage.







"Did you know that ASHRAE certifications recognize expertise across several key areas in building systems and energy management?"

These certifications cover energy auditing, building energy assessment, refrigeration, HVAC design, sustainability, and indoor air quality, helping professionals demonstrate their proficiency in optimizing building performance and promoting energy efficiency and environmental sustainability.





#### YEA SEMINAR FOR STUDENTS

#### OCTOBER 2024



A guest lecture titled "Introduction to Building Services" was delivered by Eng. Mohammed Murtaza, our Regional Communication Chair, for students of Manipal Academy of Higher Education, Dubai Campus. The session provided an overview of essential building services, highlighting their importance in creating efficient, sustainable, and comfortable environments. Eng. Murtaza shared his expertise, offering valuable insights into HVAC, electrical systems, and other critical infrastructure that supports modern buildings.

#### WEBINAR ON CHD CERTIFICATION

#### OCTOBER 2024



The ASHRAE Falcon Chapter hosted a webinar on September 19th titled "All About ASHRAE CHD Certification." The session was led by Eng. Osama Khayata, President Elect. & MEP Director at Swank Development Real Estate Developers, Dubai, UAE. The webinar provided valuable insights into the ASHRAE CHD certification, helping participants understand its significance and the benefits it offers to professionals in the industry.

#### YEA MEET AND GREET

#### OCTOBER 2024

The YEA Greet & Meet event was organized to provide young engineers with a valuable networking opportunity while encouraging their active participation in technical committees. This event served as a platform for connecting aspiring professionals and fostering collaboration, inspiring them to take on more responsibilities within the technical community.







#### **Empowering Young Engineers!**

An exclusive feature of Young Engineers in ASHRAE (YEA) is its unique **Mentorship-Driven Innovation Lab**, where young engineers can collaborate directly with industry leaders on real-world challenges in building systems and energy efficiency. This initiative pairs emerging professionals with seasoned experts, empowering them to co-create solutions that address both current and future needs of the HVAC&R industry. Through this exclusive program, YEA members gain unparalleled access to cutting-edge projects, early career leadership roles, and the chance to influence the next wave of technological advancements in sustainable building practices.





#### STUDENT DEBATE CONTEST

**NOVEMBER 2024** 



#### Clash of ideas; voices of change!

It is with great pride that we reflect on the successful ASHRAE Falcon Chapter Student Debate Competition, organized under the leadership of the YEA (Young Engineers in ASHRAE) and Student Activities committees. This inaugural event, centered on the theme of Sustainability and Decarbonization, was a remarkable platform for emerging leaders to discuss and debate pivotal global topics.

The competition aligned perfectly with the ASHRAE Society President's theme: "Empowering Workforce Development: Building a Sustainable Future." With the participation of over 7 universities across the UAE and more than 30 panelists, it showcased innovative ideas and perspectives on the future of sustainable development.

This event not only provided an opportunity for lively intellectual exchange but also reinforced ASHRAE's commitment to fostering collaboration, driving innovation, and shaping a sustainable future in the built environment. A heartfelt congratulations to all participants for their outstanding contributions and thought-provoking insights! This competition is a true testament to the passion, dedication, and innovation of the next generation of engineers.









#### A series of insightful webinars!

Multiple Chapter webinars featuring expert speakers who discussed industry trends and professional growth.

### **Keeping Doctors Cool & Happy!**



ASHRAE Falcon chapter organised a Distinguished Lecturer Webinar "Keeping Doc's Cool, Dry and Happy in the OR... Can I do it With What I've Got?". It was held on August 15th, 2024. The speaker of the DL session was ASHRAE Disntinguished Lecturer - David Schurk, who is also Instructor for the Humidity Control I & II professional development training courses. We thank Mr. David Schurk for sharing his valuable expertise. We also thank our chapter CTTC team and other involved committee members for successfully organising the webinar.

#### **Energy Efficient HVAC Systems Design**

Dr. Marwa Zaatari, a leading expert in indoor air quality and building sustainability, presented a webinar on Energy Efficient HVAC Systems Design. Dr. Zaatari covered the latest trends and technologies for optimizing HVAC systems to reduce energy consumption while improving indoor air quality. She discussed best practices for designing HVAC systems that not only ensure comfort but also promote the health and well-being of building occupants. This session was ideal for professionals interested in sustainable design and integrating energy-efficient HVAC systems into their projects.

# The Advanced Energy Design Guide for Zero Energy Office Buildings

This webinar was presented by ASHRAE Distinguished Lecturer Daniel Nall on 28 September. Daniel explored the key concepts from the Advanced Energy Design Guide for Zero Energy Office Buildings.

The session explored into best practices for designing office buildings that achieve zero energy consumption. Participants learned about the latest technologies, strategies, and design principles aimed at reducing energy usage while ensuring occupant comfort. The webinar also covered how to integrate renewable energy sources, energy-efficient systems, and sustainable building practices to create office buildings that produce as much energy as they consume.



#### High-Performance Building Design

ASHRAE Distinguished Lecturer Prof. Thomas M. Lawrence presented on 5 October at for a session on High-Performance Building Design. The webinar focused on the principles and methodologies behind designing buildings that are not only energy-efficient but also provide a high level of occupant comfort, health, and productivity. Topics included advanced building systems, sustainable materials, and strategies for optimizing energy use while enhancing performance. Prof. Lawrence provided valuable insights into the integration of cutting-edge technologies and design innovations for creating buildings that meet the demands of both energy efficiency and performance.





## **TECHNICAL ARTICLE**

#### Soiling Effects on Solar Photovoltaic Performance in the MENA Region



# ASSESSING ENVIRONMENTAL FACTORS AND CLEANING STRATEGIES FOR ENHANCED ENERGY GENERATION!

# What could potentially affect solar generation in hot and arid areas such as the MENA region?

In the envisioned low-carbon future, solar power is crucial for electricity generation. The 2024 MESIA Solar Outlook Report projects that the MENA region will have an installed capacity of **40 GW of solar power by 2024 and 180 GW by 2030**. However, solar photovoltaic (PV) electricity production depends on variables like solar irradiation, module temperature, humidity, and ambient temperature.

Poor air quality affects both health and solar panels. High levels of air pollutants can significantly reduce incoming radiation by scattering and absorbing sunlight. Particles on panels absorb and backscatter incident solar radiation, decreasing energy transmittance. The soiling effect, i.e., performance loss due to panel soiling, varies by environment. In dusty areas like the Middle East, power losses can range from 20% to 70%, while areas with regular precipitation typically see losses of less than 5%.

#### Why is this so?

Severe Desert Climate: The MENA region faces frequent dust storms, high temperatures, and minimal precipitation. Countries like Saudi Arabia and Iraq are among the world's dustiest, leading to quick accumulation of dust on PV panels, which reduces sunlight reaching solar cells. For example, Kuwait experiences about 255 dusty days annually, challenging solar energy generation.

**High Dust Intensity:** The Arabian Desert contributes to high airborne dust and particulate matter concentrations. Only  $10~\text{g/m}^2$  of dust can cause a 34% reduction in a photovoltaic panel's maximum power output.

Lack of Monitoring and Forecasting: The MENA region lacks adequate systems to monitor and forecast soiling levels and their impact on PV performance. Developing a dynamic Dust Atlas and a network of monitoring stations is necessary.

Cleaning and Maintenance Challenges: Traditional water-based cleaning methods are problematic due to water scarcity. Thus, effective cleaning techniques with minimal water and cost are key, especially in hot, dry, and dusty regions where manual cleaning is challenging.

Did you know the economic impact of soiling is significant, with annual losses reaching €4-7 billion in 2023 due to increased installations in soiling-prone areas? Currently, there's no "one size fits all" solution, but efforts include location-specific cleaning, automated systems, and monitoring technologies.

In conclusion, dust accumulation and air pollution challenge the MENA region's solar energy goals. However, advancements like Longi Green Energy's new 2024 world record for crystalline silicon solar module efficiency with its hybrid passivated back contact (HPBC) 2.0 module at 25.4% offers hope. This breakthrough underscores the need for innovation. Collaborative efforts, investment in research, and sustainable practices are necessary for the growth and efficiency of solar power.



Article by,

**Megna Rajagopal**Clean Energy Market Research Analyst
Solarabic

Article on "Soiling Effects on Solar Photovoltaic Performance in the MENA Region"







## **ASHRAE GLOBAL TRAINING**

Delivering Intensive, High Quality & Professional Training



## Why HVAC Engineers Need Professional Training Now More Than Ever!

The dynamic nature of the HVAC industry necessitates that engineers are constantly in the loop of what industry practices are.ASHRAE Global Training, previously ASHRAE Global Training Center, was established in 2017 to create and deliver regularly scheduled high-quality curricula-based training that is conveniently available and relevant to the needs of practitioners in the Middle East, Africa and parts of Asia.

#### Is it for me?

ASHRAE courses are tailored to render knowledge for budding HVAC engineers to experienced professionals. ASHRAE Global Training Centre offers a variety of half-day, full-day and multi-day courses to help you stay in the forefront of HVAC&R technology. Topics include HVAC Design, Energy Audits, Commissioning, District Cooling, Decarbonization and more.

For the complete list, visit ashrae.org/AGT/Course-Catalogue



ASHRAE is an approved Continuing Education provider for the American Institute of Architects (AIA) and a USGBC Education Partner. All courses are approved for AIA and GBCI hours.

#### How can you attend ASHRAE Global Training Courses?

















## I'M ASHRAE CERTIFIED. WAIT, WHAT IS THAT?

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.

















Gain industry-recognized expertise, open doors to new opportunities, and become a leader in your Industry!

"Contact ASHRAE's own officer and Global Training Personnel for Dubai, Ayah, to learn more about ASHRAE Global Training!"



Ayah Said +971 4 309 7945 globaltrainingcenter@ashrae.org







# BOARD OF GOVERNERS SY 2024 - 2025

| ASHRAE Falcon Chapter BOG's: 2024-2025 |                            |                      |                          |  |
|--|----------------------------|----------------------|--------------------------|--|
| No.                                    | Designation                | Name                 | Email Address            |  |
| 1                                      | Chapter President          | Mr. Abdallah Mahmoud | amahmoud@ashraeuae.org   |  |
| 2                                      | President-Elect            | Mr. Osama Khayata    | osama@ashraeuae.org      |  |
| 3                                      | Vice President             | Dr. Ahmed Alaa Eldin | ahmed.alaa@ashraeuae.org |  |
| 4                                      | Vice President / Treasurer | Mr. Amr Galal        | Amr.galal@ashraeuae.org  |  |
| 5                                      | BOG                        | Mr. Liju Thomas      | liju@ashraeuae.org       |  |
| 6                                      | BOG member                 | Mr. Basel Anbari     | bassel@intercool.ae      |  |
| 7                                      | ASHRAE Delegate            | Mr. Abdallah Mahmoud | amahmoud@ashraeuae.org   |  |
| 8                                      | ASHRAE Alternate           | Mr. Moiz Ashraf      | moiz@ashraeuae.org       |  |
| 9                                      | Chapter Secretary          | Mr. Mohammed Murtaza | murtaza@ashraeuae.org    |  |

| ASHRAE Falcon Chapter Committee Chairs: 2024-2025 |                                     |                              |                              |  |
|---|-------------------------------------|------------------------------|------------------------------|--|
| No.   | Committee                           | Chairperson                  | Email Address                |  |
| 1   | Government Affairs                  | Mr. Abdelmoneim Eid Mohammed | Engfeastl@yahoo.com          |  |
| 2   | Student Activities                  | Dr. Chithirai Pon Selvan     | pon.selvan@curtindubai.ac.ae |  |
| 3   | Chapter Technology Transfer         | Mr. Jyoti Prakash Srivastava | jpsrivastava@ashraeuae.org   |  |
| 4   | Finance (Auditing)                  | Mr. Amr Galal                | Amr.galal@ashraeuae.org      |  |
| 5   | Honors and Awards                   | Mr. Liju Thomas              | liju@ashraeuae.org           |  |
| 6   | Membership Promotion                | Mr. Mohammad Daoud           | Eng.m-daoud@hotmail.com      |  |
| 7   | Nominating Committee                | Mr. Bassel Anbari            | banbari@ashraeuae.org        |  |
| 8   | Young Engineers in ASHRAE (YEA)     | Mr. Mohamed Faizal           | mohamedfaizal421@gmail.com   |  |
| 9   | DEI Committee                       | Mr. Osama Khayata            | osama@ashraeuae.org          |  |
| 10  | Communication / Publicity Committee | Mr. Mohammed Mehiar Asfari   | mehiara@hotmail.com          |  |
| 11  | Webmaster/ Social Media             | Miss. Krishna Ajith          | krishnaa.ajith27@gmail.com   |  |
| 12  | Newsletter Editor                   | Mr. Sreejith Sanal Kumar     | sreejith.sanall4@gmail.com   |  |
| 13  | Historian                           | Mr. Mohammed Shamroukh       | shamroukh@ashraeuae.org      |  |
| 14  | Refrigeration Committee             | Mr. Osama Al Masri           | osama.almasri@gmail.com      |  |
| 15  | Reception Committee                 | Mr. Mohamad Fakhoury         | mohamad.fakhoury@hotmail.com |  |
| 16  | Research Promotion                  | Mr. Noman Qamar              | noman.qamar@cvshvac.com      |  |
| 17  | Sustainability Committee            | Mr. Vladimir Limin           | vladimir@salimus.com         |  |
| 18  | Special Events / CRC Committee      | Mr. Abdallah Mahmoud         | amahmoud@ashraeuae.org       |  |
| 19  | Women in ASHRAE                     | Ms. Samar Hassan             | smmhassan658@gmail.com       |  |





## **ASHRAE MEMBERSHIP BENEFITS**

# CONTRIBUTE

Participation on Technical and Project Committees is a great way to share knowledge, connect with peers, and make a difference in the industry.



**Technical Committees:** Members of ASHRAE's 100+ Technical Committees are responsible for developing and supervising research projects, preparing text for ASHRAE Handbooks, and much more.



**Project Committees:** Project Committee members develop the standards and guidelines for ASHRAE that influence the industry and can become adopted into codes, and legislation. There are 80 active research projects.

To inquire about project committees contact standards.section@ashrae.org.



**Fun Fact!** Since 1959, ASHRAE has invested \$147 Million in today's dollars on research projects, grants and awards.







# LEARN



**ASHRAE offers 900+** Professional Development Hours (PDHs) of instruction, ranging from 1-hour web-based courses to 5-days of instructor-led HVAC design and operation training.



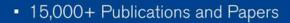
#### **6 ASHRAE Certification Programs**

- 6 programs
- 2200+ certifications earned to date



**2200+ Certifications earned to date in:** Energy Assessment | Energy Modeling | Commissioning | Healthcare Facility Design | High Performing Building Design | Building Operations

# **ACCESS**







- 119 Standards and Guidelines
- ASHRAE Handbook Members receive an annual copy of the ASHRAE
   Handbook each June. New Members and Associates receive a complimentary 12
   month subscription to the Handbook Online.
- ASHRAE Journal the peer-reviewed monthly magazine.
- High Performing Buildings quarterly magazine features case studies of today's efficient buildings.
- Advanced Design Guides written to achieve 30-50% higher energy savings than levels set in Standards 90.1-1999 or 90.1-2004.









# Contact Us

"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 Active members of ASHRAE Falcon members for their unwavering support.





