



AIC TIMES

NEWSLETTER

For
Built
Environment
Industry

Volume 36 Issue 1 | Mr. Pankaj Gupta, Newsletter Editor

Presidential Address



ABHISHEK JAIN

President
ASHRAE India Chapter
Society Year 2026–27



Dear Members and Readers,

It gives me immense pleasure to share with you the latest edition of the ASHRAE India Chapter Monthly Newsletter, which captures the enthusiasm, achievements, and initiatives of our Chapter over the past month.

The period, since our last issue, has been marked by several significant activities, including the AGM & Installation Ceremony for Society Year 2026–27, the 2nd BOG Meeting, a motivational session for students at GNIOT College, Greater Noida, a webinar on Building Automation Systems, the installation of a new Student Branch at Dr. Akhilesh Das Gupta Institute of Professional Studies, and an industrial visit to the Zomato cold storage facility at Mundka. These initiatives reflect our continued commitment to technical excellence, student engagement, professional development, and knowledge sharing, in alignment with our theme of “Engineering Tomorrow.”

Engineering Tomorrow: Empowering Ideas and Retrofitting Legacy for a Sustainable India. Let us begin by freezing the specifications for CFD parameters and boundary layers for car park ventilation and fire outbreak scenarios. Suggestions and technical inputs from our members & readers are welcome.

I am pleased to announce the launch of a new “Classroom Series” in our monthly newsletter, led by our Student Activity Chair, Dr. Rajinder Singh. I encourage our members and students to make the most of this valuable learning initiative.

This edition of “The Stalwart’s Perspective” features an insightful article by Shri Sanjay Dubey, IAS, Additional Chief Secretary, Urban Development Department, Government of Madhya Pradesh. The newsletter also features two insightful technical observations contributed by Mr. Sunil Kumar Gupta, adding further value to our knowledge-sharing efforts. I sincerely appreciate his contribution to the ASHRAE community.

Looking ahead, we have an exciting calendar of activities planned for September and October 2026, including two ASHRAE Distinguished Lecture sessions by Donald Collier and Bruce Lindsay on 9 September 2026—one at Bennett University and the other at India Habitat Centre, New Delhi. We will also have a Women in ASHRAE programme towards the end of September, the 6th Edition of the N.C. Gupta Memorial Inter-College Football Tournament in October, along with several technical, student-focused, and online programmes. I invite all our members to actively participate in and support these initiatives.

I am excited to share that we have achieved 20% membership growth over the last two months. I sincerely appreciate the efforts of our Membership Chair, Mr. Sandeep Goel, and all members who have contributed to this achievement.

Finally, I am delighted to announce that AIC-Tech Conference 2026 is planned for 2027. The conference will provide an excellent platform for industry professionals, experts, academicians, and students to come together, exchange knowledge, discuss emerging technologies, and explore opportunities for collaboration in the HVAC&R sector. I look forward to your active participation and support in making AIC-Tech 2026 a grand success.

Let us continue to “Change the Game: Retrofitting for Resilience” through knowledge, innovation, collaboration, and collective action with our theme Engineering Tomorrow: Empowering Ideas and Retrofitting Legacy for a Sustainable India.

Annual Sponsors SY 2026-27



AGM & Installation Ceremony 2026–27: A New Chapter of Leadership and Excellence



ASHRAE India Chapter successfully hosted its Annual General Meeting (AGM) & Installation Ceremony for Society Year 2026–27 on 31st July 2026 at the India Habitat Centre, New Delhi. The event brought together ASHRAE leaders, senior members and industry professionals to celebrate the achievements of the previous Society Year and welcome the new leadership team.

The ceremony commenced with the traditional Lamp Lighting Ceremony, followed by the National Anthem, setting the tone for an evening of reflection, recognition, and renewed commitment.

Installation of the New Leadership

The Chapter expressed its sincere gratitude to Mr. Ashish Rakheja, President Elect, ASHRAE for serving as the Installation Officer and formally installing the leadership team for Society Year 2026–27.

The event was honored by the presence of distinguished ASHRAE Region XV leaders, including Mr. Pankaj Dharkar, DRC; Mr. Richie Mittal, ARC; Mr. Ashu Gupta, Regional Treasurer; and Mr. Pankaj Sareen, RVC H&A. Their presence added significance to the occasion and reinforced the strong connection between ASHRAE India Chapter and Region XV.





Celebrating the Previous Year's Achievements

Mr. Sandeep Goel, Immediate Past President, presented an overview of the Chapter's accomplishments during Society Year 2025-26.

Following the presentation, Mr. Abhishek Jain, President, ASHRAE India Chapter for Society Year 2026-27, shared his vision and roadmap for the year ahead, emphasizing continued growth, collaboration, innovation, and greater engagement with members and the HVAC&R fraternity.



The proceedings were smoothly conducted by Mr. Ashish K Jain, who served as the Master of Ceremony.

Recognizing Contributions and Commitment

Senior Members were felicitated for their valuable contributions to the Chapter.

The Chapter acknowledged the contributions of Office Bearers Mr. Ashish Gupta, Mr. Paresh Mishra, and Mr. Waliullah Siddiqui, along with Committee Chairs Mr. Abid Husain, Mr. Deepak Gupta, Mr. Gaurav Mathur, Mr. Kapil Kapur, Dr. Vaibhav Jain, and Mr. Sanjeev Kumar.



A special acknowledgment was also presented to Mr. Uma Shanker for his generous USD 500 contribution towards Research Promotion (RP) during the previous Society Year. His contribution reflects the spirit of giving and supporting ASHRAE's mission of advancing research and knowledge in the industry.



Launch of the 6th Edition of the Inter-College Football Tournament

Another major highlight of the evening was the launch of the 6th Edition of the ASHRAE India Chapter Inter-College Football Tournament.

The launch was preceded by an exclusive message from ASHRAE President Ms. Sarah E. Maston, P.E., BCxP, LEED AP, extending her support and best wishes for the tournament.



The tournament sponsors were felicitated during the launch ceremony in recognition of their valuable support. The Chapter also acknowledged and appreciated its Annual Sponsors from the previous Society Year for their continued partnership and contribution towards the Chapter's activities.

ASHRAE India Chapter extends its heartfelt gratitude to Kirloskar Brothers Limited, the Event Partner, for its valuable support in making the AGM & Installation Ceremony a memorable and successful event.



The evening concluded with a heartfelt Vote of Thanks delivered by Mr. Waliullah Siddiqui, expressing gratitude to all dignitaries, members, sponsors and volunteers whose support contributed to the success of the ceremony.

ASHRAE India Chapter looks forward to an exciting and impactful Society Year 2026-27.



Motivational Lecture at GNIOT Group of Institutions



14th August 2026



GNIOT Group of Institutions, Greater Noida

ASHRAE India Chapter organized a Motivational Lecture at GNIOT Group of Institutions, Greater Noida, on 14th August 2026, aimed at encouraging students to explore professional opportunities, develop leadership skills, and actively engage with the HVAC&R industry.

The session was delivered by Mr. Abhishek Jain, President, ASHRAE India Chapter, and Dr. Mohit Bansal, Student Activity Chair, who interacted with the students and shared valuable insights on professional growth, industry expectations, and the importance of continuous learning.

They highlighted how platforms such as ASHRAE provide students with opportunities to learn from industry experts, build professional networks, participate in technical programs, develop leadership skills, and stay connected with the latest developments in HVAC&R.

The lecture was attended by more than 50 students & faculties.



2nd BOG Meeting of ASHRAE India Chapter SY 2026–27



ASHRAE India Chapter conducted its 2nd Board of Governors (BOG) Meeting for SY 2026–27 on 17th August 2026 at The Grand Orion, Kailash Colony, New Delhi, in a hybrid mode.

The meeting was attended physically by Officer Bearers Mr. Abhishek Jain, Mr. Ashish Gupta, Mr. Paresh Mishra, and Mr. Waliullah Siddiqui, Mr. Rajnish Aggarwal and several BOG Members, Committee Chairs and Co-Chairs, including Mr. Abid Husain, Dr. Rajinder Singh, Mr. Gaurav Mathur, Mr. Sandeep Goel, Mr. Mayank Chauhan, Mr. Parth Mehrotra, Ms. Sheeba Siddiqui, and Mr. Rajesh Bangera. Members who joined the meeting virtually Mr. Pankaj Gupta, Dr. Vaibhav Jain, Dr. Mohit Bansal, Mr. Rajesh Sharma, Mr. Ankit Anand, and Mr. Vikas Verma. Mr. Mohit Sharma, a student from ABES Engineering College, also attended the meeting.

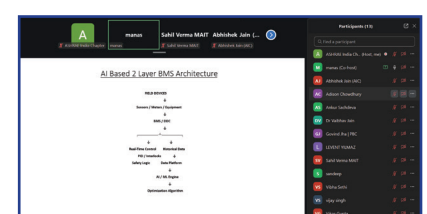
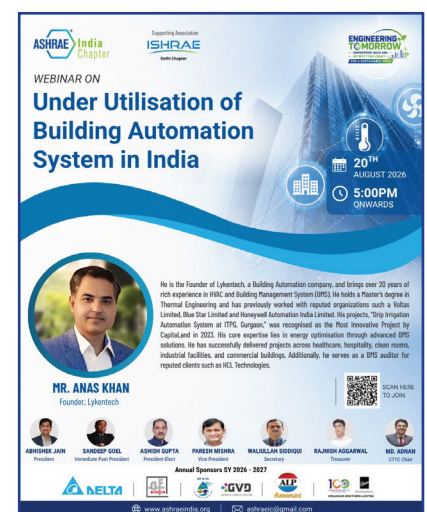
The meeting focused on reviewing the programmes conducted during the previous month and discussing plans for upcoming technical programmes, student activities, and other Chapter initiatives. The members shared valuable inputs and discussed strategies for strengthening Chapter activities and member engagement.

Webinar on Under Utilization of Building Automation System in India

ASHRAE India Chapter organized a webinar by Mr. Anas Khan, Founder, Lykentech, on “Under Utilization of Building Automation System in India” on 20th August 2026.

The session highlighted the current scenario, challenges, and opportunities in effectively utilizing Building Automation Systems to enhance building efficiency, energy performance, and operational effectiveness.

The webinar was attended by 50 participants, who benefited from the valuable insights shared by the speaker.

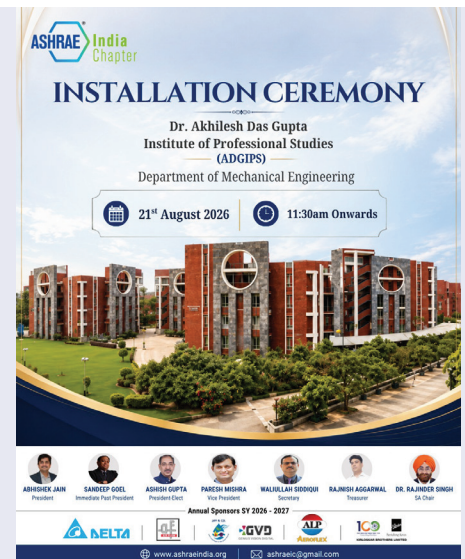


Installation of New Student Branch at Dr. Akhilesh Das Gupta Institute of Professional Studies

ASHRAE India Chapter installed a new Student Branch at Dr. Akhilesh Das Gupta Institute of Professional Studies on 21st August 2026.

The installation ceremony was attended by Dr. Rajinder Singh, Student Activity Chair, and Mr. Ranjit Mondal from the AIC Secretariat. The event provided an opportunity to introduce students to ASHRAE and encourage them to actively participate in technical and professional activities.

The ceremony was attended by more than 30 students & faculties from the College. ASHRAE India Chapter congratulates the new Student Branch and looks forward to its active participation and continued growth.



Industrial Visit to Zomato Cold Storage Warehouse



25th August 2026



Mundka, Delhi

ASHRAE India Chapter organised an industrial visit to the Zomato Warehouse Plant, a cold storage facility set up by Daikin Air Conditioning, at Mundka, Delhi, on 25th August 2026.

The visit was attended by more than 65 students from various ASHRAE India Student Branches, providing them with valuable practical exposure to cold storage systems, refrigeration technology, and their industrial applications.

Special thanks to our Refrigeration Chair, Dr. Vaibhav Jain and Refrigeration Menor, Mr. Ashish Gupta for organising and coordinating this informative industrial visit and providing students with an excellent opportunity to gain practical knowledge and industry exposure.

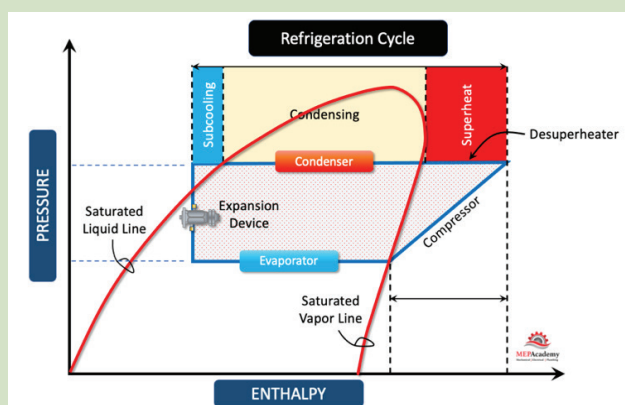
The visit was also attended by Mr. Ankur Sachdeva, Student Branch Advisor, Dronacharya Group of Institutions and AIC Secretariat.



Important Facts

It is possible to reduce kW input for water chilling systems substantially.

For example, if we require 1000 TR water chilling capacity. Use 700 TR vapor compression chiller consuming abc kW power. It will have approximately abc kW high temperature super heat horn. Using this high temperature heat operate Lithium Bromide vapor absorption chiller 300 TR without requiring extra power and obtaining 1000 TR total capacity.



The device used to recover high temperature super heat is called Desuperheater located between the compressor outlet and condenser inlet. It can be used for air or water cooled, big or small, DX or non-DX, packaged or split, refrigeration systems.

More applications of Desuperheater include reheat for controlling humidity, hot water generation for kitchen, toilet etc.

Sunil Kumar Gupta

B. Tech. Mechanical Engineering

IIT Delhi 1971

UPCOMING EVENTS

ASHRAE India Chapter

ASHRAE DISTINGUISHED LECTURE

Energy Audit 101 – Teaching Engineering Students the Basics Using ASHRAE Building EQ as a Teaching Platform

ASHRAE DISTINGUISHED LECTURE

09TH SEPTEMBER 2026

BENNETT UNIVERSITY, TECHZONE II, GREATER NOIDA

BRUCE B. LINDSAY
President and CTO Lindsay & Associates

Bruce B. Lindsay is President & CTO of Lindsay & Associates, with over 30 years of expertise in thermal energy storage, energy efficiency, HVAC engineering, and energy management. He has held senior leadership and technical positions with organizations including Trans, Johnson Controls, CALMAC, EPI, and the Gas Research Institute. Bruce has extensive experience in energy-efficient cooling and heating systems, refrigerant management, thermal energy storage, and performance contracting. A longtime ASHRAE contributor, he has served in leadership roles across several technical committees and currently serves as Program Chair of ASHRAE TOLB and President of the ASHRAE Space Coast Section. He is a Certified Energy Manager, Professional Engineer, and ASHRAE Life Member, and was recognized with the 2020 USIBC Best of Green Schools - Transformation Award for his contributions to energy efficiency and sustainable building practices.

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ASHRAE India Chapter

ASHRAE DISTINGUISHED LECTURE

INVITATION

DON COLLIVER

ASHRAE DISTINGUISHED LECTURE

PROFESSOR EMERITUS
University of Kentucky

TOPIC: Whole Life Carbon – Issues and Guidance

9th September 2026 | 7:00 PM onwards
followed by dinner

Magnolia Hall, India Habitat Centre

1500+ GST Non members
Free Entry for Members

Donald "Don" Colliver has been involved in the energy usage and efficiency of buildings for over 45 years. He is Professor Emeritus of the Bioprocess Engineering Department, University of Kentucky. He was formerly Director of Graduate Studies in the BEE Department and Director of the Kentucky Industrial Assessment Center. He is a licensed Professional Engineer in the Commonwealth of Kentucky. He was the ASHRAE Society President in 2002-2003. As a result of his initiatives and leadership, ASHRAE launched the Advanced Energy Design Guide and he served as the leader of this project for ten years. Subsequent to his service as ASHRAE President he has served as Co-Chair of the National Engineers Week, and is currently Vice-Chair of the ASHRAE Foundation. Don was chosen to be the initial Co-Chair of the ASHRAE Task Force for Building Decarbonization and has served as Vice Chair. He is an ASHRAE Fellow and recipient of the Andrew T. Bopp Service Award. Professionally Don has conducted and managed extensive research in energy usage in buildings and industrial facilities, solar energy, air infiltration and ventilation, building codes, the analysis of climatological data for determination of design weather conditions, and decarbonization of buildings. His team developed the first urbanization design weather data that was published in the 1987 ASHRAE Handbook - Fundamentals. Don has lectured in 20 countries with his teaching emphasis in solar PV systems design, indoor environmental control, industrial energy auditing, building energy modeling and analysis, decarbonization, and sustainable design. He served as Director of the KY Industrial Assessment Center from 2010-2020 and participated in over 90 energy assessments in industrial facilities. November 2018 he designed and installed a ground-mounted 102kW solar photovoltaic system for his house which has resulted in a maximum monthly electric bill of \$25 since then. He was awarded a doctorate from Purdue University and is a father, politician, and a retired soccer referee.

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The Stalwart's Perspective

Thank you, ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) India team and its communications chair Mr. Pankaj Gupta, for inviting me to give my views for ASHRAE India Chapter newsletter in relation to your theme of this society year "Engineering tomorrow- Empowering ideas. As Indian economy grows, demand of air-conditioning & refrigeration will increase exponentially, so will the impact on environment.

We have to tread our path very cautiously such that growth is achieved responsibly and sustainably. This requires adoption of new technologies that are minimally polluting, more efficient and less energy intensive. Ministry of Environment & Forestry has laid out a 20-year road map to achieve it sustainability. Responsibility now lies with organization like ASHRAE to educate, all its members, users, designers & contractors for adoption of minimal impacting tech Retrofitting Legacy for a sustainable India".

Data Centers (DC) have rapidly emerged as the backbone of India's digital economy, and the engineering choices we pursue today around power, cooling, water, and carbon will define the competitiveness of this sector for decades to come. As AI workloads reshape the thermal and energy profile of these facilities, the HVAC&R fraternity will be called upon to move beyond its traditional role as a service provider and step forward as a true infrastructure strategist, look for after alternative technologies that demand less electricity & water like coolant etc.

We plan to generate 20,000 MW of green power by 2030, positioning the state as a leader in India's renewable energy transition. We are now building floating solar projects with battery storage on water bodies to generate solar energy while having minimum disruption and displacement. We have also introduced incentives of additional FAR for green rated buildings. This has generated enough interest in Developers and Buildings. Even existing buildings has scope of improvement and therefore I urge your members to educate society on maximizing efficiently.

In our state we have also taken initiatives like "Aahar", which minimizes food wastage by providing surplus food to the underprivileged, and "Vidhyadaan", a volunteer-led program that brings community expertise into government school classrooms. ASHRAE's K-12 initiatives can be undertaken for such programs of our state and we look forward for that.

I would like to congratulate your incoming team for society year 26-27 of ASHRAE India chapter under leadership of Mr. Abhishek Jain and would like to convey wishes and heartiest congratulations to Mr. Ashish Rakheja for being nominated as President Elect of ASHRAE, USA (globally) which indeed is a proud moment for ASHRAE India.

Wishing you all ASHRAE members the very best.



Sanjay Dubey

Sanjay Dubey, a 1993-batch IAS officer, is currently the Additional Chief Secretary of Urban & Housing Development,, Government of Madhya Pradesh (GoMP).

He is a British Chevening Scholar and an alumnus of IIT, Delhi and the London School of Economics (UK), Harvard University, USA and Queensland University, Australia. He is a visiting faculty at LBSNAA Mussoorie and IIM Indore.

He has served as the Principal Secretary to departments of Urban & Housing Development, Energy & Renewable Energy, Labour and Home.

He has authored numerous papers and publications related to health, education, law and order, and IT, which have been presented at national and international conferences. Additionally, he is a certified ESG specialist.

As a dedicated philanthropist, he founded and led nonprofit organizations such as the Indore Society for Organ Donation, aiming to promote organ donation, "Aahar" for food donation with minimal food wastage, and "Vidhyadaan" for volunteer-led education support.

He has received several prestigious national awards for exemplary leadership, including the Prime Minister's Excellence Award, the President's Award for contributions to especially abled children, and the Chief Minister's Award for leadership and innovation.

FUNDAMENTALS OF HEAT TRANSFER AND THERMODYNAMICS FOR REFRIGERATION AND AIR-CONDITIONING ENGINEERS

1.1 TEMPERATURE

Temperature is the thermal potential of a system.

When a cup of hot tea is left on the table, after some time it cools off and a glass of chilled water eventually warms up. This means when a body is brought into contact with another body, which is at a different temperature (thermal potential); heat is transferred from the body at higher thermal potential to the one at lower thermal potential until both bodies attain the same temperature. At that point, the heat transfer stops, and the two bodies are said to have reached thermal equilibrium.



Fig.1.1 Temperature

1.1.1 TEMPERATURE SCALES

The temperature scale used in the SI system is the Celsius scale and in FPS system, the scale used is Fahrenheit scale. On the Celsius scale, the ice and steam points are assigned the values of 0°C and 100°C, respectively. The corresponding values on the Fahrenheit scale are 32 °F and 212°F. A more useful temperature scale in thermodynamics is the absolute temperature scale. The lowest attainable temperature on this scale is absolute zero. The absolute temperature scale in the SI is the Kelvin scale which is designated by K. The reading of a thermometer with a Celsius scale, however, will approach

-273.15°C. Therefore a temperature of - 273. 15°C corresponds to an absolute temperature of 0 K. The Kelvin scale is related to the Celsius scale by:

$$T (K) = T (°C) + 273.15 \quad (1)$$

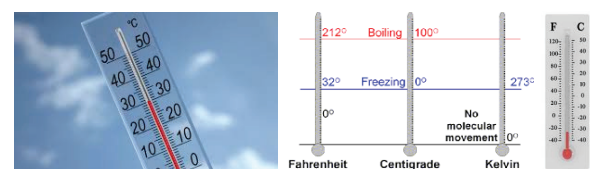


Fig.1.2 Temperature Scales

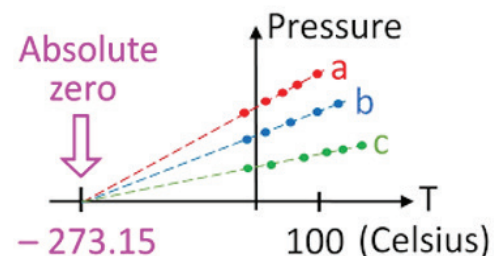


Fig.1.3 Absolute Temperature Scale (The Kelvin Scale)



Dr. Rajinder Singh's Classroom
(Chair-Student Activities & Sports)

This classroom Series initiative has been started with the objective of strengthening the theoretical knowledge of engineers from the industry in the field of Refrigeration & Air-Conditioning. It will also be beneficial for students interested in this field. This initiative will continue as a regular feature in our monthly newsletter. We are starting with the fundamentals of Heat Transfer and Thermodynamics.

ASHRAE INDIA CHAPTER

INVITES YOU TO JOIN ASHRAE



TECHNICAL RESOURCES

Access the world's largest library of HVACR related technical information, Members get:

- ASHRAE Journal
- HPB Magazine
- ASHRAE Handbook (for Member and Associate grade members)
- ASHRAE Technology Portal
- Science and Technology for the Built Environment
- Discounts in the Bookstore
- Building EQ Portal
- 90.1 Portal

PROFESSIONAL NETWORK

Grow your network at the local, regional, and international level, both in-person and online.

- 199 Chapters within 15 Regions keep members connected at the local level through meetings and events.
- Society Conferences and Chapter Regional Conferences provide networking and unparalleled learning opportunities.
- Connect with members across the globe on social media.

CAREER & PROFESSIONAL DEVELOPMENT RESOURCES

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- YEA Leadership Programs
- ASHRAE Jobs
- Certifications



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Mr. Sandeep Goel
Chair-Membership Promotion
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4. Social Media Outreach.



Reader Feedback

ASHRAE India Chapter Bulletin Newsletter wants ideas from readers on what you would like to see in future newsletters.

Tell us what you think.

Members interested to send their technical articles are requested to send the same at ashraeic@gmail.com