

ACCIIVES NEWSLETTER

For Built Environment Industry

Volume 35 Issue 1

Dr. Om Taneja, Newsletter Editor, and Dr. Rajinder Singh, Co-Editor

Presidential Message

Dear Esteemed ASHRAE Members and Distinguished Readers,

As we approach the conclusion of the Society Year 2024-25, I am filled with immense pride to share our chapter's achievements.

On 20th June 2025, AIC organized an installation ceremony for our new student branch at DIT Dehradun. A very special thank you to Dr. Rajinder Singh for his exceptional efforts in establishing four new student branches this year.

AIC organized a sustainability initiative "Distribution of Matka (Earthen Pots)", which ran from 23rd to 28th June 2025. These traditional water coolers offer an eco-friendly, electricity-free way to enjoy naturally cooled water in this scorching heat in the most health efficient way.



I would like to take this opportunity to heartily congratulate Mr. Ashish Rakheja on being honored with the Exceptional Service Award. This prestigious recognition is a testament to his unwavering dedication and long-standing contributions to ASHRAE from the Society. AIC is proud of you Ashish Rakheja. We stand behind you as you take your rightful place as Treasurer at the Society in USA.

In line with our focus on student development and industry collaboration, AIC organized a Student Placement/Internship Drive on 28th June 2025. A special thank you to all the participating companies for supporting our young talent.

I am pleased to announce the upcoming N.C. Gupta Memorial 5th Edition of the Inter-College Football Tournament.

As my presidential tenure comes to an end and i hand over the baton to the well deserving Sandeep Goel, i would like to express my sincere gratitude to all the BOG members, Chapter Officers, Supporting Societies, each and every member of this great chapter whose dedication and hard work has made this year a remarkable success. Your contributions have left a lasting impact that form the legacy of ASHRAE India Chapter and are the building blocks for future teams to build on.

A special thanks to our sponsors, your support has been crucial to the success of our programs throughout the year. I am equally grateful to our senior members for their invaluable guidance and to the secretariat for their unwavering support.

I wish our incoming President, Mr. Sandeep Goel and his new team great success for the year ahead. We are excited about the fresh perspectives and renewed energy they will bring to the chapter.

Thank you all for a truly memorable and successful year.

Warmest Regards,

Arundhati Singh Khanna President, ASHRAE India Chapter

Annual Partners SY 2024-25











A nnouncement

SACRED WATERS, SUSTAINABLE FUTURES: THE KASHI CONFLUENCE

VENUE: TAJ GANGES, VARANASI, AND TAJ NADESAR PALACE

Conference Partners











Conference Speakers

We have five confirmed speakers so far:



MR. MATTHEW D. GLASSER
Urban law and policy analyst
International Advisory
Committee member at the
Centre for Land Governance,
Indian Institute of Human
Settlements.



MR. SPENCER LOW

Google's cross-functional sustainability leader in

Asia Pacific



MS. ANGELI PATEL
Executive Director of the
Berkeley Center for Law
and Business



MS. SILVIA R. FREGONI
Title Research at U.C.
Berkeley School of Law



MR. SATISH KUMAR
President and ED of the
Alliance for an Energy
Efficient Economy (AEEE)

With this conference taking on the shape and size of what it is becoming, AIC was advised to shift it forward to match the dates of the dignitaries. Because of the necessary Government connect in order to align the goals of the Conference to the outcome, and to see our vision through, the dates for this Conference at Kashi have been shifted forward to merge with the Developing Economies Conference scheduled for April 2026.

We took the feedback across the board for more time to be given to its planning and participation and with that in mind, we look forward to hosting our Kashi Confluence in the new Calendar year. We will confirm the dates in time.

We are very grateful to our hotel partners, Taj Ganges and Taj Nadesar and The Brijrama Palace for their support and we are happy to confirm that these locations stand confirmed for the Developing Economies Conference.



Installation of New Student Branch DIT Dehradun

Date: 20th June, 2025

AIC successfully organized installation ceremony of its new Student Branch DIT Dehradun in Online mode. 40 students attended with their faculties.











AIC Sustainability Program "Distribution of Earthen Pots"

Date: 23rd to 28th June, 2025

As part of its continued commitment to sustainable development, ASHRAE India Chapter (AIC) successfully conducted a week-long sustainability initiative "Distribution of Earthen Pots" from 23rd to 28th June, 2025.

This unique program focused on promoting the traditional and eco-friendly practice of using Matkas (earthen pots), a natural, electricity-free method of cooling drinking water. This healthy initiative saw enthusiastic participation from members across multiple cities.



















AIC Placement/Intership Drive

Date: 28th June, 2025

Venue: The Orion Plaza, Nehru Enclave, New Delhi









ASHRAE India Chapter organized a Placement/Internship Drive providing a valuable platform for students to connect with industry professionals and explore employment opportunities.

The event witnessed enthusiastic participation from six reputed companies ALP Aeroflex, Airflow Pvt. Ltd., Sevcon India Pvt. Ltd., Acrex Engitech Pvt. Ltd., Bliss Refrigeration Pvt. Ltd., and Truestar Airsystems Pvt. Ltd. who engaged in one-on-one interactions and interviews with aspiring candidates. A total of 46 students from various Student Branches, attended the drive.

The participating companies appreciated the quality of candidates and commended ASHRAE India Chapter for its efforts in organizing such a meaningful event.









Webinar: 5

Date: 29th June, 2025

ASHRAE India Chapter Organised an insightful webinar on the topic of " Environment Control System (ECS) and Tunnel Ventilation System (TVS) for Underground Metro Stations". The Session was presented by Mr. Mayank Chauhan, Dy. General Manager at National High Speed Rail Corporation, BOG Member and YEA Co-Chair ASHRAE India. The webinar garnered the participation of 35 attendees, who greatly appreciated the valuable content shared.







Summary of the Webinar "ECS & TVS in Underground Metro Stations"

1. Overview

The Environment Control System (ECS) and Tunnel Ventilation System (TVS) are critical for ensuring passenger comfort, safety, and effective ventilation in underground metro stations and tunnels.

2. Environment Control System (ECS)

a) Purpose

 To provide air-conditioning for public/non-public zones, fresh air supply, heat removal, and smoke extraction.

b) Design Conditions:

- External (Summer): 42°C DB / 22.4°C WB.
- Internal: Platform/Concourse 27°C & 55% RH, BOH – 24°C & 55% RH.

c) System Components:

- Chillers (Air/Water-cooled), AHUs, FCUs, Cooling Towers.
- Fans: Fresh Air, Exhaust, Smoke Extraction, Pressurization.

d) Modes of Operation:

- Open System: This mode is operational in winters when the cooling requirement is not there. Therefore, only AHU is operated to maintain fresh air supply inside the station area.
- Closed System: This mode is operational in summers when cooling requirement is there. The hot air captured by TEF (Trackway Exhaust Fans) is supplied to AHU which further delivers air-conditioned air to platform and concourse, in this mode some amount of fresh air is also mixed with the AHU supply air.

e) Cooling Load Calculations:

 Separate for platform, concourse, and BOH based on occupancy, equipment, and fresh air loads.

3. Tunnel Ventilation System (TVS)

a) Purpose:

 Maintain airflow for normal, congested, and emergency operations.

b) Design Standards:

 As per NFPA-130: Air temp ≤ 60°C, visibility ≥ 10m, noise < 92 dBA.

c) Major Assumptions:

- 20 MW heat release for train fire.
- SCADA-based semi-automatic control from OCC.

- Dual power feed, no passenger trains at sidings.
- Ensure passenger safety during fire incidents.

d) System Components:

 Tunnel Ventilation & Booster Fans, Dampers, Nozzles, Compressors, Attenuators.

e) Modes of Operation

There are three operational modes of a tunnel ventilation system (TVS)

- 1. Normal Mode: Natural airflow.
- Congestion Mode: Fans operate to manage heat and air movement.
- 3. Emergency Mode: Fire conditions; extraction of smoke, safe evacuation paths.

In normal mode the TVF are not working. Only the draught release dampers are opened to reduce the air draught felt by passengers on the platform due to an incoming train.

Congestion mode means a train is stuck inside a tunnel and cannot move. Now TVS are switched on of both the stations and the end of the tunnel. One TVS works in supply mode and other works in exhaust mode (push – pull operation). This is done to remove the heat generated due to the working air conditioning units of the train.

Emergency means when a train has caught fire and is stuck inside a tunnel and cannot move. Now TVS are switched on of both the stations and the end of the tunnel. One TVS works in supply mode and other works in exhaust mode (push – pull operation). This is done to remove the heat and supply fresh air to the passengers. Advantage of push – pull operation is that the smoke moves towards the exhaust TVS and hence the passengers being evacuated can avoid smoke and move towards the smoke free zone.



Author: Mr. Mayank Prakash Chauhan

Dy. General Manager, NHSRCL

BOG Member & Co-Chair YEA Committee,

ASHRAE India Chapter



Date: 30th June, 2025

Venue: The Grand Orion, Kailash Colony, New Delhi.



ASHRAE India Chapter's 12th Board of Governors (BOG) Meeting was held on 30th June 2025. During the meeting, the programs conducted in June and upcoming initiatives were discussed.

The meeting was attended by AIC Office Bearers Ms. Arundhati S. Khanna, Mr. Rajesh Jain, Mr. Abhishek Jain, Mr. Ashish Gupta, Mr. Paresh Mishra, BOG Members Mr. Gaurav Mathur, Mr. Deepak Gupta, Mr. Waliullah Siddiqui, Committee Members Mr. Abid Husain, Dr. Rajinder Singh along with the AIC Secretariat.

A highlight of the meeting was the appreciation to Dr. Rajinder Singh, Student Activities Chair, for his outstanding contributions throughout the Society Year. His efforts in engaging student branches were deeply applauded by all attendees.

Special recognition was also given to Mr. Deepak Gupta, Research Promotion (RP) Chair, for exceeding the Research Promotion target in Society Year 2024–25, a milestone achievement for the Chapter.

A heartfelt congratulations and gratitude was extended to Ms. Arundhati S. Khanna, for her visionary leadership and impactful initiatives throughout her presidential tenure.

A CHIEVEMENTS



Career Opportunities with ASHRAE

ASHRAE's mission is to serve humanity by advancing the arts and sciences of heating, ventilation, air-conditioning, refrigeration, and their allied fields. ASHRAE's vision is healthy and sustainable built environment for all.



If you are seeking a job in the engineering field or searching for the most qualified engineers, the ASHRAE job board offers the most qualified opportunities and candidates. Engineers can set up a personal account for job searches, manage resumes, and create alerts for new job postings. Employers can set up corporate accounts to post new jobs, review resumes, and manage security.

Reach us at https://jobs.ashrae.org/



Click here for more information:

Upcoming Events



ASHRAE INDIA CHAPTERINVITES 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

Develop personally and professionally with continuing education, certification and leadership programs.

- ASHRAE Learning Institute & eLearning
- Free PDHs from Annual Webcast
- YEA Leadership Programs
- ASHRAE Jobs
- Certifications

Member	
\$170	

Associate Member \$170

Affiliate Member

Student Member \$15

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

<u>Tell us what you think.</u>