

ACCIIVES NEWSLETTER

For Built Environment Industry

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

Presidential Message

Dear Esteemed ASHRAE Members and Distinguished Readers,

I am pleased to share updates on the programs held in February 2025.

The ASHRAE India Chapter organized a Distinguished Lecturer (DL) session with ASHRAE DL Mr. Esteban Baccini on the topic "VPF Systems." I would like to express my sincere gratitude to all the participants for making the session a resounding success. For the benefit of those who could not attend, we have included a detailed summary of the session, which captures the key takeaways and technical insights shared by Mr. Baccini.



In addition to the main session, AIC also facilitated a special expert talk by Mr. Baccini at the Dronacharya Group of Institutions student branch. The session focused on "Building Equalizer Systems and Variable Primary Flow Systems for HVAC", offering students and faculty a deep dive into practical HVAC system design and energy-efficient solutions. The interaction was highly appreciated by the students and the faculties.

We truly appreciate the continued support and involvement of our ASHRAE community. It inspires us to keep organizing quality programs and learning opportunities.

Thank you once again for your participation. Together, we are building a stronger and more connected community.

Warmest Regards,

Arundhati Singh Khanna President, ASHRAE India Chapter

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DL Session: 04

Date: 24th February 2025

Venue: The Orion Plaza, Kalka Ji, New Delhi



The ASHRAE India Chapter organized a Distinguished Lecture (DL) session on the topic "VPF Systems", presented by ASHRAE DL Mr. Esteban Baccini. The session was attended by 45 professionals from the HVAC industry.

The event focused on the working and benefits of VPF systems in modern HVAC design. Mr. Baccini shared useful insights and practical examples, making it a highly informative session for all participants.

The session was also attended by AIC President Ms. Arundhati Singh Khanna, Vice President Mr. Abhishek Jain, BOG Member Ms. Vandana Kapuria, SA Co-Chair Mr. Mohit Bansal, YEAs Mr. Amit Kumar and Mr. Abraham Philip, showing strong support from chapter leadership.

The event was sponsored by Grundfos Pumps Pvt. Ltd. A special thanks to our CTTC Chair Mr. Gaurav Mathur for successfully organizing this valuable session.















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Summary of Guest Lecture by Distinguished Lecturer Mr. Esteban Baccini on "VPF Systems" at Orion Hotel Nehru Palace 24 Feb 2025

Mr. Esteban Baccini delivered an insightful lecture on Variable Primary Flow (VPF) systems, discussing key aspects of compressor work, compression efficiency, and chiller configurations.

Key Discussion Points:

1. Compressor Work and Compression Efficiency:

Explained the concept of compressor work (lift) and its impact on system performance.

Discussed compression efficiency, including the Affinity Laws, which relate speed, flow, and power in centrifugal systems.

Compared fixed-speed vs. variable-speed compressors in terms of AHRI turndown, particularly for constant outdoor temperature conditions.

2. Chiller Configurations:

Covered the differences between parallel vs. series chillers, analyzing their operational efficiency.

3. Variable Primary Flow (VPF) Systems:

Highlighted the simplicity of VPF systems, where only one distribution pump (or pump set) moves water throughout the system, in contrast to multiple pumps in primary/secondary systems. Explained how flow varies across loads, pumps, and chillers, with chilled water control valves and a bypass valve ensuring minimum evaporator flow requirements are met.

4. Chiller Staging:

Discussed chiller staging strategies for optimizing system efficiency and performance.

Overall, the lecture provided a comprehensive understanding of VPF systems, emphasizing their efficiency, reduced pumping requirements, and better flow management compared to traditional decoupled primary/secondary systems.

Author: Mr. Mohit Bansal,

Asst. Professor at ABES Engineering College, Ghaziabad SA Co-Chair, ASHRAE India



Expert Lecture: 02

Date: 24th Feb 2025

Venue: Dronacharya Group of Institutions, Greater Noida

The ASHRAE India Chapter organized an expert lecture at "Dronacharya Group of Institutions" for students on the topic "Building Equalizer System and Variable Primary Flow Systems for HVAC" by ASHRAE Distinguished Lecturer Mr. Esteban Baccini.

Around 50 students attended the session along with the faculties. Mr. Baccini explained the students the working of these systems and helping them to learn how they improve energy efficiency in buildings.

The event was also attended by AIC Vice President Mr. Abhishek Jain and Student Activities Co-Chair Mr. Mohit Bansal, who encouraged students. It was an engaging and informative session that inspired students.



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