



India Chapter

ASHRAE INDIA CHAPTER

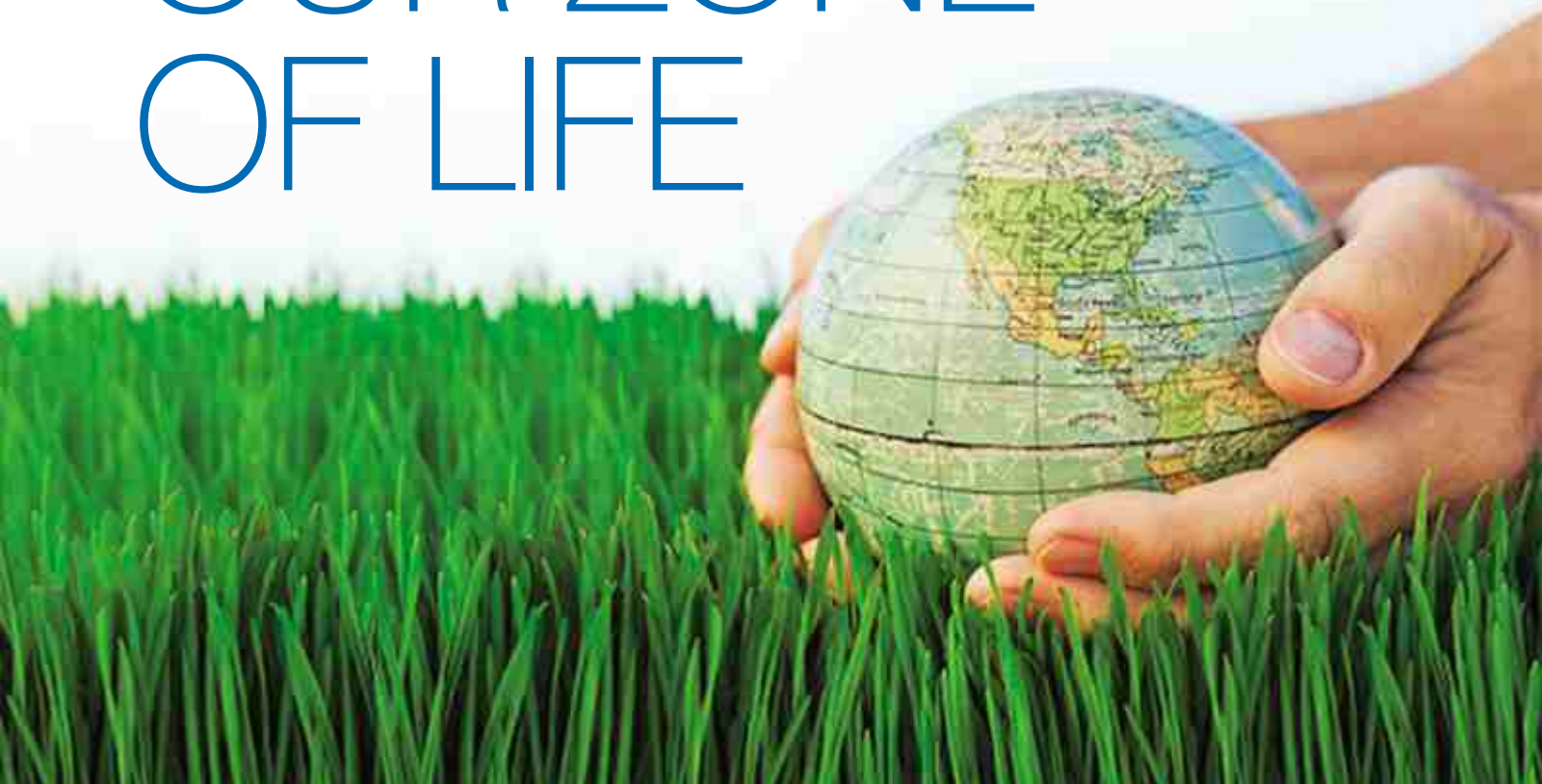
For the
HVAC&R
Industry

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Editor : K.K. Mitra, Associate Editor : Dinesh Rawat | Chapter President : Dr. Rajinder Singh

BULLETIN

AIMING TO
REDRESS
OUR ZONE
OF LIFE



R22 Phase out



Refrigeration technology plays an important role in present society as it help to improve the comfort of human beings and preservation of food. These technological advances that contribute to human comfort, they are also threatening the environment through ozone depletion and global warming. Ozone layer efficiently screens all the harmful ultraviolet rays of the sun by absorbing most of the dangerous ultraviolet B (UV-B) radiation. Exposure to increased UV-B radiation can lead to incidents of eye damage, skin cancer, reduce rates of plant growth, upset the balance of ecosystems, and accelerate the risk of disease. Refrigerants based on halocarbons are a group of compounds consisting of both carbon and at least one of the halogens (fluorine, chlorine, iodine, and bromine). They are responsible for

Ozone depletion. It is known that one chlorine atom can destroy 100,000 ozone molecules. The second major environmental issue is GWP, which is due to the absorption of infrared emissions from the earth, causing an increase in global earth surface temperature. The problem is not with refrigerants inside the system, but with their release to the environment. Two major environmental problems have resulted in a series of international treaties demanding a gradual phase out of halogenated fluids. As per the Montreal Protocol 1989, the most environmentally harmful refrigerants, such as CFCs have been banned since 1995. HCFC will be phased out by developed countries in 2020 and for developing countries in 2030.

Suggestive alternatives to R22 are R134a, R290, R407C and R410A. R134a required larger compressor and unsuitable for most of the refrigeration application. The major disadvantage of R290 is flammability. It shows unsuitability for adopting it as per an alternative to R22 due to safety concern. As per the literature survey, R407C is found the best candidate as a drop in substitute for R22 and R410A for new design.



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Chapter Activities



Workshop on AUTOMOBILE AIR CONDITIONING & TROUBLE SHOOTING by Mr. U.S. Jadon, Chair, Student Activity and UTILITY OF AIR CONDITIONING & REFRIGERATION IN DAILY LIFE and AIR CONDITIONING DESIGN by Dr Rajinder Singh, President ASHRAE India Chapter was held on 3rd Nov., 2015 at ASHRAE UPES STUDENT CHAPTER Dehradun

Department of Mechanical Engineering, Poonima College of Engineering, Jaipur organized an Exhibition visit (Smart Cities) at Jaipur Exhibition & Convention Center, Jaipur in association American Society of Heating, Refrigerating and Air Conditioning Engineers Student Branch on Dec 11, 2015



Meeting Of Board Of Governors Of ASHRAE India Chapter was held on 11th Dec., 2015 at The BASEL Banquet of Hotel Swissotel, Kolkata during RACON.

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Note: You may register up to 24 hours prior to an online course. Courses are in US Eastern Time.

Combined Heat & Power: Creating Efficiency through Design & Operations

Mon, March 28, 2016 – 1:00 pm to 4:00 pm EDT

Commissioning Process & Standard 202

Wed, March 30, 2016 – 1:00 pm to 4:00 pm, EDT

Advanced High-Performance Building Design

Mon, March 23, 2016 – 1:00 pm to 4:00 pm EDT

IT Equipment Design Evolution & Data Center Operation Optimization

Wed, April 6, 2016 – 1:00 pm to 4:00 pm, EDT

Complying with Standard 90.1-2013: HVAC/Mechanical

Wed, April 13, 2016 – 1:00 pm to 4:00 pm, EDT

Laboratory Design: The Basics and Beyond

Mon, April 18, 2016 – 1:00 pm to 4:00 pm, EDT

Standard 188-2015 – Successfully Managing the Risk of Legionellosis

Mon, April 25, 2016 – 1:00 pm to 4:00 pm, EDT

Air-to-Air Energy Recovery Applications: Best Practices

Wed, April 27, 2016 – 1:00 pm to 4:00 pm, EDT

Instructor: Paul Pieper

Fundamental Requirements of Standard 62.1-2013

Mon, May 2, 2016 – 1:00 pm to 4:00 pm, EDT

Instructor: Hoy Bohanon

Variable Refrigerant Flow System Design & Applications

Mon, May 16, 2016 – 1:00 pm to 4:00 pm, EST

Instructor: Dermot McMorrow

The following courses are comprised of two parts. Registrants must attend both parts in order to receive CEU/PDH credits.

Exceeding Standard 90.1-2013 to Meet LEED® Requirements

Part 1: Mon, April 11, 2016 – 1:00 pm to 4:00 pm, EDT

Part 2: Wed, April 20, 2016 – 1:00 pm to 4:00 pm, EDT

Operations & Maintenance of High-Performance Buildings

Part 1: Tue, May 17, 2016 – 1:00 pm to 4:00 pm, EDT

Part 2: Wed, May 18, 2016 – 1:00 pm to 4:00 pm, EDT

ASHRAE HVAC Design Training

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HVAC Design: Level I – Essentials - Registration is \$1,264 (\$1,009 ASHRAE Member)

Gain practical skills and knowledge in designing and maintaining HVAC systems that can be put to immediate use. The training provides real-world examples of HVAC systems, including calculations of heating and cooling loads, ventilation and diffuser selection using the newly renovated ASHRAE Headquarters building as a living lab.

HVAC Design: Level II – Applications - Registration is \$854 (\$699 ASHRAE Member)

HVAC Design: Level II — Applications provides instruction on HVAC system design for experienced HVAC designers and those who complete the HVAC Design: Level I – Essentials training. The training provides information that allows practicing engineers and designers an opportunity to expand their exposure to HVAC systems design procedures for a better understanding of system options to save energy.

Visit www.ashrae.org/hvactraining to register.



YEA Leadership International 2015

Goa, India, 11 Dec – 13 Dec

The YEA Leadership International 2015 event was held in Goa, India from December 11-13, 2015. The event was began at 2PM (14:00) on Friday, December 11, 2015, and ended at 1PM on Sunday, December 13, 2015. The event was held at the **Royal Orchid Beach Resort** in Goa

The workshop was conducted by **Ms Tricia Evans, Business Coach and Writer**. Tricia Evans trained as a Coach at Ashridge Business School in UK in 1991, and was the first Business Coach in the UAE. She has coached 5,500+ at Middle to Senior Management level.

The 3 days sessions were mainly focused on

- Understanding the big picture.
- Identify where you are right now and where you wanted to be.
- How Leaders are different from Managers.
- Understand the impact of personalities on progress.
- Behavior & Patterns.
- The cash flow quadrant.
- Mapped out our key responsibilities.
- Stages of Team Development.
- Maturity Model.
- Understanding team dynamics.
- How to prioritise our work.
- How to stand out.
- How the platform of LinkedIn is beneficial for us.

YLI, Goa...in my words!

Firstly, Thank you so much ASHRAE India Chapter for nominating me for YLI, Goa. It was a great opportunity for me. I landed in Goa at 1:15pm on 11 Dec 2015. Then I booked a taxi for Royal Orchid Hotel in which event was going to be start. I reached on time, the hospitality of hotel was quite good. The event was started at sharp 2:00 pm. Initially, I was bit confused that what will happen in these 3 days but as I met with all people (around 20 attendees) who came from USA, UK, Greece, Lebanon, Sri Lanka, Kuwait, Singapore and India (other chapters). I felt lucky to represent India Chapter there.

All the three days were full of various activities and sessions of Ms. Tricia Evans. I personally learnt a lot from this workshop.

Apart from this, The breakfast, lunch and

dinner were fantastic. On the second day of event, we went to near by market for shopping and Martin's Corner for dinner. We also met with Mr. Nitin Naik there and enjoyed a lot with him.

To be frank, I was the youngest one in all the YEA who were present there. It was a great pleasure for me

Tricia, our coach, appreciated me a lot at the last day because I'm so active on LinkedIn from my college days and it meant a lot to me. I learnt various things from the stories of other people.

After attending YLI, I got to know that there are a lot of things for YEA in ASHRAE. I do recommend that every YEA must attend this type of workshops once.

Success is not an accident, it's a decision & a process.

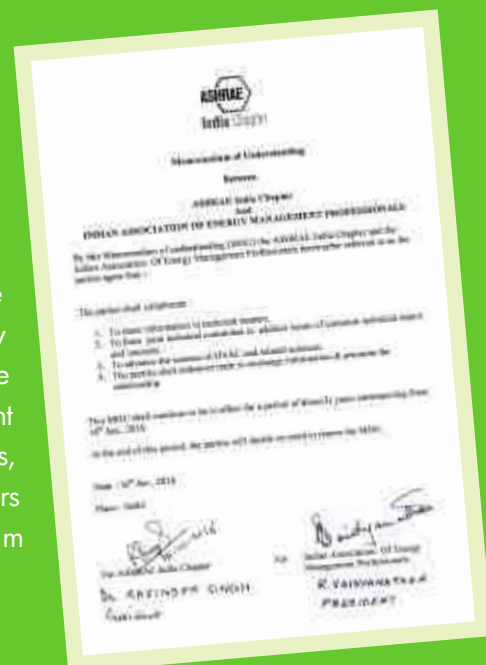
Article by Mr. Anuj Gupta





AIC TECH 2016

ASHRAE India Chapter organised the third edition of it's Annual mega conference 'AIC Tech 2016' on 16th Jan., 2016. The venue for the conference was Gulmohar, India Habitat World, Lodhi Road New Delhi. The conference theme was 'Sustainability in Practice – Turning Ideas into Reality'. The speaker for the conference were Mr. Hoy R. Bohanon Jr., P.E. , ASHRAE Distinguished Lecturer, Dr. Om Taneja, PD.PE, Fellow ASHRAE, Mr. Dinesh Gupta, President, BryAir (Asia) Pvt. Ltd., Mahesh Kumar (Manager – Marketing & HVAC Systems) , U.P.Twiga Fiberglass Limited and Mr. Shailesh Nigam, Dy. General Manager-Applied Business Daikin Airconditioning India Pvt. Ltd. Dr. Rajinder Singh, President ASHRAE India Chapter gave the welcome address and Mr. K K Mitra, President Elect., made the vote of thanks. Mr. Dharmendra Rathore, BOG members was the master of ceremony for the conference. The event was supported by U.P.Twiga Fiberglass Limited and Daikin Airconditioning India Pvt. Ltd. as Gold partners. The Memorandum of understanding (MOU) between ASHRAE India Chapter and Indian Association Of Energy Management Professionals was also signed during the event. Announcement of book launch by Mr. N C Gupta titled 'Comprehensive HVAC System Design' was held. The event was attended by Architects, Consultants, HVAC Engineers, Contractors, Suppliers and faculty representation from Engineering colleges and students.





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MEMBERSHIP

WHO ARE ASHRAE MEMBERS?

Members are represented by consulting engineers, mechanical contractors, building owners, employees of manufacturing companies, educational institutions, research organizations, government, architects, students or anyone concerned with HVAC&R for the built environment.

WHICH MEMBER TYPE IS RIGHT FOR YOU?

ASHRAE has three grades of membership awarded to applicants based on their experience and participation in the industry. Before you apply and select a member grade, we encourage you to visit the ASHRAE website to see the member grades and their corresponding member benefits. Prices shown are in US currency.

Member (\$90)

Available to anyone with 12 years or more ASHRAE approved experience in the HVAC&R industry.

Associate Member (\$90)

Available to anyone with less than 12 years of ASHRAE approved experience in the HVAC&R industry.

Affiliate Member

(\$54 first year, \$74 second, \$95 third)

Affiliate grade is for individuals who are new to ASHRAE (no previous membership in ASHRAE) and are age 30 or younger. It provides a great beginning for young professionals who wish to become involved in ASHRAE. (Does not include the annual member benefit of the ASHRAE Handbook).

For ASHRAE membership contact :

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MEMBER BENEFITS AND RESOURCES

PUBLICATIONS & RESOURCES

- ASHRAE Handbook (Available to Members and Associates) in CD format, as well as the Handbook Online, which provides online access to the most recent 4 volumes of the Handbook series.
- Digital subscription to the monthly ASHRAE Journal and quarterly High Performing Buildings magazine
- e-Industry and eSociety electronic newsletters
- Access to members-only resources through ASHRAE.org, including the ASHRAE Journal and ASHRAE Research archives
- Discounts on over 300 of the industry's leading technical publications

PROFESSIONAL EDUCATION AND CAREER DEVELOPMENT

- Discounted registration for education courses through the ASHRAE Learning Institute, as well as ASHRAE certification programs
- Earn PDHs/CEUs/AIA LUs to maintain your professional designation/license with courses, seminars, and webcasts
- Gain industry knowledge, communication, and management skills by participating in ASHRAE technical programs or committees
- Post jobs or seek employment utilizing www.ASHRAEjobs.com

NETWORKING

- Connect locally, regionally and internationally with over 53,000 members in over 170 chapters worldwide
- Learn, share, and grow at the Annual and Winter Conferences, on ASHRAE technical committees, and ASHRAExChange.org
- Participate in your local chapter or regional meetings and events