



India Chapter

# ASHRAE INDIA CHAPTER

For the  
HVAC&R  
Industry

April - June 2015 | Volume 16 Issue 4

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

## BULLETIN

CELEBRATING

25  
years



# From the Editorial Desk

We once again begin a new Chapter Year 2015-16 with the installation ceremony held on 4th July. This is an unique year as the Ashrae India Chapter completed 25 years. It was a rare opportunity that the oath taking ceremony of the new office bearers was conducted by Hon'ble Dr. Prem C Jain who is also incidently one of the First Batch member of Ashrae India Chapter 25 years ago. We also had Mr. V K Wadhwa and Dr. R K Malhotra from the First Batch of Ashrae India Chapter members. The new incumbent Dr. Rajinder Singh who takes over from Mr. Sunil Kher, the new President presented his action plan for the year 2015-16. The outgoing president covered the programmes and achievements of 2014-15 by way of Power Point presentation. The oath taking ceremony was attended by various AIC members. So we start a fresh year with lot of planning and programmes through out the year.



- HVAC Design Training -Sep 14-18, 2015 Denver
- **RAL CRC -2015** - 2nd to 4th October ( Istanbul Turkey)
- Energy Modeling Conference - Sep 30-Oct 2, 2015 Atlanta Ge
- **Acrex India -2016**, 25th to 27th Feb-16, 2016 (Mumbai)
- **AIC TECH 2016**, 16th January, 2016 ( New Delhi)
- **ASHRAE Winter Conference**, January 23-27, 2016(Orlando, FL)
- **AHR Expo -2016**, 25th to 27th Jan (Orlando)
- **ASHRAE Annual Conference**, June 25 – 29, 2016,(St. Louis, MO)

## AIC Tech 2016

After the grand success of AIC Tech 2015.  
ASHRAE India Chapter is pleased to  
announce the launch of the third edition of its  
annual Conference AIC Tech 2016 to be held  
**Habitat Center, Lodhi Road, New Delhi,**  
**Date : 16th January, 2016.**

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Coordinator, ASHRAE India Chapter,  
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# Presidential Address

Dear Fellow members,

It's my great pleasure to take over as President of ASHRAE India Chapter. ASHRAE India Chapter has completed 25 years and progressed under the dynamic leadership of our Past Presidents. ASHRAE India chapter which started on 29 March 1990 was headed by Hon'ble Dr. Prem C Jain as our society's first President and through all these consecutive years it has progressed under the dynamic leadership of all our Past Presidents. I would request for their blessings. Our immediate past President Mr. Sunil Kher has created a benchmark during his term. I will try to carry the same spirit.

During the current year the main focus would be (Sustainability, Knowledge Dissemination, Innovation, Bridge a gap among Students and Industry and Energy Conservation).

This year as we have decided 'Spread knowledge' as our society's Slogan, so during the current year our main focus would be on Sustainability matters. Here taking forward the Sustainability activities undertaken by Mr. K.D. Singh we are planning to further take up the development of Solar Cold Storage Project. Also creating awareness towards sustainability concept in Colleges, Institutes and Industries is on the line of our plan.

Secondly, as the main motive of our society is dissemination of technical knowledge to industry at large and students, we would focus on the same for the stakeholders. To make this happen, we have planned to organize monthly workshops including distinguished lecturer (DL) programmes. We also plan to start ASHRAE India Chapter Certification Course, which would be weekend course useful for Industry people. We sincerely require the support of industry leaders for the same.

We also strive to aware Industry people and students about

Innovation and motivate them for Innovation work in Refrigeration and Air-Conditioning field and providing grant for Innovative Research projects, would also be on agenda.

AIC Tech Conference was started in the year 2014 to give a platform to national speakers from our Industry and Institutions. The conference has grown in its stature and AIC Tech 2015 was well acknowledged by both the partners and industry. We even had an international partner. We wish to organize AIC Tech 2016 on a larger platform and encourage speakers from our industry and Institutions to participate in it. We would also arrange to invite students to participate in AIC Tech 2016. This platform will help provide interactions among students and Industry. The date for the conference is 16th Jan., 2016 and I invite all members to attend the same.

Continuing with our efforts of promoting ASHRAE Student Branches, We plan to form four new student chapters in the current society year.

And finally none the less to mention that for any activity to be conducted successfully, revenue collection is a major part. I am thankful to our partners Lloyd Insulation, Advance valves, Astiva, Gripple, Lau Fan, UP Twiga, Danfoss, K-Flex, Daikin who have confirmed their support to the Chapter initiatives for the society year. I would request industry to come forward and support the Chapter. Here I also request my entire team and members to extend their support to achieve the set goals and keep our chapter banner flying high.

**Dr. Rajinder Singh**



## Dr. Rajinder Singh

Senior Faculty, Pusa Institute of Technology, New Delhi.

Experience: 27 Years in Refrigeration & Air-Conditioning field (12 Years Industrial and 15 Years as Faculty). Out of which 5 Years with Blue Star Ltd., 5 Years with Frick India Limited.

### MEMBERSHIP IN SOCIETIES

1. Member Core Committee (Cold Chain) National Horticulture Board (NHB).
2. Member National Centre for Cold Chain Development (NCCD).
3. Member Innovation & Creativity Cell IIT Delhi.
4. Life member ISHRAE. (Indian Society of

Heating Refrigerating and Air-Conditioning Engineers).

5. Member All India Technical Committee ISHRAE. (Indian Society of Heating Refrigerating and Air-Conditioning Engineers).
6. Certified Energy Auditor BEE.
7. Past Secretary & Chair Student Activities ASHRAE India Chapter.

### RESEARCH WORK:

AICTE Research Project in the field of Ice Slurry Refrigeration System, the latest technology in Refrigeration and Air Conditioning field towards Energy Saving. at Delhi College of Engineering, Delhi (Now DTU).

### ACHIEVEMENTS: AWARDS

Awarded with 1st position in Innovation in Refrigeration & Air-Conditioning category of the "7th Bry-Air Awards for Excellence in HVAC&R 2011-12" All India Basis in the field of Ice Slurry Refrigeration System.

### PUBLICATIONS FOR ASHRAE INDIA CHAPTER

1. Applied Psychrometry for Air-Conditioning Engineers.
2. Best Practices for Operation and Preventive Maintenance of HVAC Systems in Green Buildings.

### ASSOCIATIONS

1. Associated with IIE (ISHRAE).

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# NEW AIC COMMITTEE 2015-2016



Dr. Rajinder Singh  
(President)



Mr. K K Mitra  
(President Elect.)



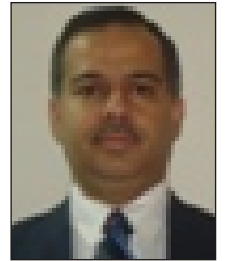
Mr. Sunil Kher  
(Imm. Past President.)



Mr. Indrajit Bhattacharya  
(Vice President)



Mr. Priyank S. Garg  
(Secretary)



Mr. Rajesh Sikka  
(Treasurer)



Mr. Dharmendra Rathore  
(BOG Member)



Dr. Varun Jain  
(BOG Member)



Mr. Ashu Gupta  
(BOG Member)



Mr. Kapil Kapur  
(BOG Member)



Mr. Pankaj Sareen  
(BOG Member)

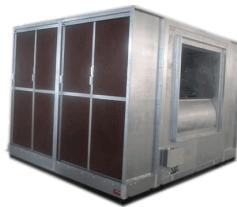


Mr. Vivek Maheshwari  
(BOG Member)



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# Commemorating "25" Years of The "ASHRAE INDIA" CHAPTER Silver Jubilee Year ASHRAE India Chapter Inaugurated on March 29, 1990

The year 2015, is indeed a memorable year in the history of The ASHRAE India Chapter, as it commemorates 25 very successful years of its existence in India.

This remarkable feat brings with it an interesting story of ASHRAE's origin and birth, creating wonderful memories for not only the stalwarts who worked hard towards laying the foundation of "ASHRAE" in India but also to the members who kept the spirit of the organisation live and would be an inspiration for the young budding AC&R engineers & students who aspire to take on the baton!

## 1980

The seed to bring to ASHRAE to India was sown in the year 1980 at New Delhi, on the initiative of the some like-minded and the then ASHRAE members under the leadership of Hon'ble Dr. Prem C. Jain (ASHRAE member since 1959), supported by Mr. Virendra K. Wadhwa (ASHRAE membership since 1969) and couple of others who formed "ISHRAE" (Indian Society of Heating Refrigerating & Air Conditioning Engineers) in the office of Hon'ble Dr. Prem C. Jain.

From here-on there was no looking back! Many AC & R engineers, professionals & educationist's from the industry, business & technology institution's joined "ISHRAE" and membership numbers grew steadily.

Meetings were held regularly at the residence of Hon'ble Dr. Prem C. Jain, S-126, Greater Kailash -II, New Delhi which became official address of "ISHRAE".

## 1982

"ISHRAE" was registered as a Society in the year 1982 with Hon'ble Dr. Prem C Jain, as the Founder President.

## 1988/89

The "ISHRAE" spirit spread its wings from the North India region to successfully bring on members from South, West & East region too. India's second chapter, after Delhi was formed at Bangalore in 1988 and the third one was inaugurated at Chennai on 13th August 1989 by "ISHRAE's" first "All India National President", Mr. V.K. Wadhwa. He handed over charge to Senior Consultant, Mr. R.V. Simha President 1990-1991 at the AGM held at Hotel Vasant Continental at New Delhi on 9th April, 1990.

While, ISHRAE was growing its membership, the Indian AC&R fraternity was trying hard, for affiliation with ASHRAE which was high on agenda. However, couple of attempts for association with ASHRAE were unsuccessful since a minimum no of 40 "ASHRAE" members were required from India.

The keenness to get ASHRAE to India reached its peak in 1989, when Mr. V.K. Wadhwa travelled to Bangalore in August, 1989 after Chennai Chapter inauguration and secured last 2 valuable signatures from ASHRAE Members at Bangalore to reach the figure of 40 All India ASHRAE Members.

## 1989

A formal application for formation of ASHRAE India Chapter was made to ASHRAE Headquarters at Atlanta USA in September 1989.

At the ASHRAE's Asia Pacific Conference at Kuala Lumpur Malaysia in October, 1989, which was attended by select ASHRAE Members from India, the

then ASHRAE President Mr. David S Butler Sr announced "Acceptance" of our application for formation of the ASHRAE India Chapter on the very first evening of the conference. This was indeed a pleasurable and delightful moment for the stalwarts present there Hon'ble Dr. Prem. C. Jain, Mr. Deepak Pahwa, Consultant Mr. Shah from Ahmedabad, Mr. T.Hari Rao and Mr. Virendra K. Wadhwa and others, who were attending the conference.

March 29, 1990

## Formation of the ASHRAE INDIA CHAPTER

ASHRAE President Mr. David S Butler Sr arrived at New Delhi with his Wife Mrs. Sharon Butler in March 1990. This was first ever visit to India by any ASHRAE President.

An impressive ceremony held at The Hotel Hyatt Regency Delhi, ASHRAE President Mr. David S. Butler Sr, inaugurated the ASHRAE India Chapter, presented "CHARTER of the India Chapter" and installed the Board of Governors and Members, in the Presence of Mrs. Sharon Butler, Dr. Peter. L.M. Heydemann (Counsellor Scientific and Technological Affairs, US Embassy in India), his wife Mrs. Margriem Saurbier Heydemann, Dr. J. Dhar (Advisor, Ministry of Science & Technology, Govt. of India), Mr. G.K. Khemani (Chief Engineer, CPWD) and his wife Mrs. Khemani, Mr. J. Padmanabhan (General Manager, MTNL), other Distinguished guests from the Government and Industry in India and ASHRAE Members along with their spouses. This Function also had the honour of hosting a very senior ASHRAE member from Denmark, Mr. Vanderwall.

In a brief address by Dr. Peter Heydeman, referred to the CFC issue and informed the audience about forthcoming workshop on CFC's being held under auspices of the Ministry of Environment, Govt. of India on April 9, 10 & 11, 1990. Dr. J. Dhar, welcomed the formation of ASHRAE India Chapter and hoped that it will bring better understanding.

ASHRAE President Mr. David S. Butler Sr. in his address drew attention to efforts being made by ASHRAE as a society, on Clean Indoor- Outdoor Air & Energy Conservation.

ASHRAE India Chapter, President Dr. Prem. C. Jain thanked ASHRAE and its President, Mr. David. S, Butler Sr. on formation of the ASHRAE, India Chapter, "A dream come true" and assured him of fulfilling the aims and objectives of the society.

The Board of Governors 1990-91 comprised of Dr. Prem C. Jain (President), Mr. Virendra K. Wadhwa (President Elect.), Mr. Nirmal C. Gupta (Vice-President), Mr. V.K. Rastogi (Treasurer) and the following members: Mr. M.M. Pande; Mr. M.H. Lullia; Mr. R.V. Simha; Mr. S.P. Aggarwal; Mr. N.C. Srivastava; Mr. Sandeep D Kumar.

The period 1980-1990 was indeed very fruitful for all ISHRAE & ASHRAE members and the AC & R engineering community, to finally bring ASHRAE to India. With this wish fulfilled, it's time now known to celebrate and cheer the 25th year anniversary of ASHRAE's arrival to India.

## July, 2015:

Installation of 26th President

In the AGM held on Saturday, July 4'2015 at the

India Habitat Centre, Hon'ble Dr. P.C. Jain installed Dr. Rajinder Singh as the 26th President in the Silver Jubilee year with the Board of Governors, members and the new team who would carry forward the great work done by the last 25 Presidents and bring in new ideas and concepts for the advancement of the ASHRAE India Chapter.



## PAST PRESIDENTS

The 25 Presidents starting with society year July, 1990 to June, 1991 have all done their task selflessly, sincerely and very effectively to bring us to this day of the Silver Jubilee year with great Pride and Satisfaction of Achievement.

ASHRAE India Chapter had the good fortune to have had prominent personalities from AC&R community as its Presidents each supported by all very talented and hard working BOG and members.

## The Presidents

S.No.	Name	Year
1	Dr. P. C. Jain	1990-1991
2	V. K. Wadhwa	1991-1992
3	Nirmal C. Gupta	1992-1993
4	V. Seshadri	1993-1994
5	Ashok Virmani	1994-1995
6.	R. V. Simha	1995-1996
7	Anil Maheshwari	1996-1997
8	Rakesh Wadhwa	1997-1998
9	Alok C. Tandon	1998-1999
10	N. Sivasankaran	1999-2000
11	Dr. R. K. Malhotra	2000-2001
12	N. S. Hukmani	2001-2002
13	Uma Shanker	2002-2003
14	Alok Bhardwaj	2003-2004
15	G. C. Modgil	2004-2005
16	Kapil N. Mehrotra	2005-2006
17	Richie Mitta	2006-2007
18	Sunil Gupta	2007-2008
19	Sushil K Choudhury	2008-2009
20	Ashish Rakheja	2009-2010
21	Anoop Ballaney	2010-2011
22	Rajnish Joshi	2011-2012
23	Dinesh Gupta	2012-2013
24	K.D. Singh	2013-2014
25	Sunil Kher	2014-2015
26	Dr. Rajinder Singh	2015-2016

(Current President)

This article would be incomplete without a mention for Late Mr. M.M. Pande who continued as a member for number of years and selflessly gave benefit of his experience and knowledge to all, always in a polite, calm and pleasant way. Indeed, he was a great human being and missed for his contributions to the society.

## A Few of the Many Milestones

The ASHRAE India Chapter office moved out of Dr. Jain's residence at GK-II to its own office at K-43, Kailash Colony, New Delhi-110048 in the year 1991. Chapter Bank Account was also opened in the same year. The ASHRAE India Library was set up in year 1992 with books, Standards, Audio-Video programmes etc. provided by ASHRAE. More information on formulative years 1990-91-92 is available in Newsletter (Black & White) of 1991 and 1992 now available in the library.

As on year 2015, there are a Total of 7 ASHRAE Chapters in India namely New Delhi, Bangalore, Chennai, Deccan, Ahmedabad, Mumbai and Pune with 2000 ASHRAE members and nearly 600 student members.

ASHRAE, India Chapter has won several awards from ASHRAE over the last 25 years, based on superior performance and on principles of management by objectives. We are confident this trend of recognition and rewards would continue this year and in the years to come.

One interesting and memorable award was given to the ASHRAE India Chapter in September, 1990 when in the year 1990-91 the President and the President Elect travelled to Richmond, Virginia, USA for the ASHRAE Region III, CRC, the first ever visit by the India Chapter. The Award title was unique and was called "THE SORE FOOT AWARD" in appreciation for the 'LONGEST DISTANCE TRAVELLED' to attend the CRC!

Another event, worth a mention is the very successful and memorable visit to Lahore, Pakistan in the year 2005 by the ASHRAE, India Chapter members on invitation by the ASHRAE, Pakistan Chapter.

"ACREX" annual the AC&R Industry Exhibition/Seminar created by ISHRAE has now moved on to becoming an international event with support from ASHRAE. The First ACREX was held in February, 1990 at Bangalore with superlative leadership efforts of Mr. S.V.Chari and Mr. Madhav Rao and all others.

ACREX celebrated its Silver Jubilee at Bangalore again in February, 2015, bringing on the Grandest ACREX show!

The ASHRAE, India Chapter has been host to almost all ASHRAE Presidents, year on year as also to ASHRAE Distinguished Lecturers, bringing latest technologies, innovations and education both to ISHRAE & ASHRAE members.

Credit for the annual "ACRECONF" by ASHRAE India Chapter goes out to Mr. Ashish Rakheja and for 'TECHMANTRA' to Mr. Sunil Gupta for their respective contributions.

Credits for Technical Education, Writing and Books goes to Mr. N.S. Hukmani, Mr. Gyan Modgil, Mr.Sushil K Choudhury, Prof Saluja and Mr. Seth of ISHRAE Education Institute.

## Special Mention

**Mr. Ashok Virmani, President 1994-95**, during the ASHRAE centenary year, reached the position of DRC (2011-2014) of the Region at large and then of ARC for 2014-15 with his sincere and dedicated work. He was also a Director in the ASHRAE Presidential Ad-Hoc committee. Mr. Virmani, has recently been made a 'Consultant' of the ASHRAE Development Economy Program for Education & Publication.

**Mr. Ashish Rakheja (President 2009-10)**, in addition to successfully running "ACRECONF" year after year held number of positions in ASHRAE technical committee. Mr. Rakheja, has recently been made a 'Consultant' of the ASHRAE Development Economy Program for Technology.

**Mr. Deepak Pahwa**, a stalwart, has been a backbone to the chapter in the Education & Research and an active member of ASHRAE Technical Committee. He is also a Past President of IACC.

**A Stalwart, Hon'ble Dr. Prem C Jain (Founder President, ASHRAE India Chapter)**, now a "Distinguished ASHRAE Fellow" has been a great inspiration and source of strength to all member, across India and continues to do so, with his knowledge, calibre, vision and most of all his everlasting selfless support. Despite being Chairman of the IGBC for a number of years now is so very busy promoting and spreading the 'Green Building Concept' in a big way, Dr. Jain still finds time for his commitment for ISHRAE and ASHRAE.

Compiled & Presented by  
**Virendra K Wadhwa**





# Annual General Meeting and Installation Ceremony of AIC BOG 2015 – 2016

The Annual General Meeting and Installation of the new BOG of AIC was held at The Theatre, India Habitat Center, Lodhi Road, New Delhi on 4th July, 2015. The oath to the new team was given by Hon'ble Dr. Prem C Jain. The ceremony was followed by the Chapter Silver Jubilee celebration.





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# JOIN ASHRAE

## 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 :

Mr. Dinesh Rawat,  
Coordinator, ASHRAE India Chapter,  
502, Plot No : 4 , DDA Building,  
Laxmi Nagar District Centre, Delhi - 110092,  
Tel . : +91 9136531422 Email : ashraeic@airtelmail.in

## 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](http://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](http://ASHRAExChange.org)
- Participate in your local chapter or regional meetings and events