



India Chapter



Ashrae Headquarters
Atlanta, USA



Ashrae India Chapter
New Delhi

ASHRAE INDIA CHAPTER

For the
HVAC&R
Industry.

BULLETIN

June, 2012 | Volume 13 Issue 4 | Editor : Sonali Dutta | Associate Editor : Nagesh Dutt

Presidential Message

Dear Friends

Thank you for your confidence in electing me as the President of this prestigious chapter for the year 2012-13 .

I am acutely aware what a great honour and responsibility is to be the President of the ASHRAE India Chapter .

Our chapter has been guided and led by stalwarts of HVAC industry over the years and it will be a challenging task for me to try and come anywhere near to their achievements bringing laurels to our chapter.

I am privileged to have a team of dedicated and committed colleagues in my BOG and feel confident that all of them will fully support and guide me in trying to fulfill the objectives and goals being set for the year.

Top most on my agenda is enhance the technical knowledge dissemination ... to see how we can share technical knowledge and expertise among our fellow members.

This will need to be enriched by bringing in experts in various fields. We have many members who are " Fellow " of ASHRAE and many others who serve on various TCs at ASHRAE .



With Mr Ashish Rakheja being the RVC - CTTC, I am sure we have his full support. With him guiding us , we should be able to form a strong technical base.

Ashish has given us goal of at least five DLs to come to our chapter. We will strive to achieve this goal.

We have also been talking for some time to establish some relevant Technical Committees in our chapter. I will like to pursue the same. Mr. Deepak Pahwa has been serving on few TCs at ASHRAE head Quarters for last several years and I can count on his guidance as we start on this activity.

However, it will be good if you can share where we can contribute with our research and expertise available in the chapter to set our priorities.

I will be shortly sharing with you goals being set by our various committees' chairs after our first BOG and looking forward to your support during the year.

Thank you once again for reposing your faith me

Mr. Dinesh Gupta
President

STOP PRESS

Ashrae India Chapter recognition by Ashrae Society

Awards received at RAL CRC 2012 at Abu Dhabi

- Full Circle Awards for Resource Promotion to Mr. K D Singh
- Challenge Goal for Resource Promotion to Mr. K D Singh
- 2nd in terms of PAOE points for Resource Promotion to Mr. K D Singh
- Best Resource Promotion chair to Mr. K D Singh
- President Start Award to Mr. Anoop Ballaney
- PAOE Award to Mr. Anoop Ballaney
- Chapter Service Award to Mr. Ashish Rakheja

Ashrae India Chapter recognition in Ashrae Society

Two key positions in RAL are presently being held by members of Ashrae India Chapter. These are Mr. Ashok Virmani, DRC, RAL and Mr. Ashish Rakheja, RVC CTTC.



Ashish Rakheja



Ashok Virmani

DAIKIN World's Leading Air Conditioners



Daikin Air Conditioner with Inverter Technology
A new record for energy-saving

With love, from Japan

3 Benefits of Inverter System

- Energy-saving
- Greater comfort with temperature control
- Quiet operation at low 22 dB sound level*



FX12S-32W1A / FX12S-32W1A

Techmantra 2012

"TECHMANTRA 2012", a 4 day residential conference with an interesting mix of Technical Presentations, Yoga & Meditation was held at Hotel Soaltee Crowne Plaza, Kathmandu, Nepal from 31st May to 3rd June, 2012. This was the third year in succession that the event was held overseas, after the grand success of Techmantra 2010 held at Pattaya, Thailand and Techmantra 2011 held at Genting Highland and Kuala Lumpur, Malaysia.

Techmantra 2012 was supported by TRANE as Platinum partner, Danfoss as Gold partner, Mitsubishi Electric, Waves Aircon and SRP Automation as Silver partner and A-Flex as partner for the Gala Evening.

The event was well attended by a number of eminent consultants, contractors, and manufacturers.



Annual General Meeting

The Annual General Meeting and installation ceremony of the new BOG (2012-2013) elected to serve ASHRAE India Chapter for the year 1st July, 2012 to 30th June, 2013 was held on 6th July, 2012 at

Magnolia, India Habitat Centre, Lodhi Road, New Delhi. The event was well attended by member. The new BOG was installed by Mr. Deepak Pahwa.



BOG (2012-13)



Mr. Dinesh Gupta
President



Mr. Rajnish Joshi
Immediate Past President.



Mr. K D Singh
President Elect.



Mr. Ashwani Jain
Vice President



Mr. Sunil Kher
Secretary



Mr. Prabhat Kumar Goel
Treasurer



Mr. Vivek Maheshwari
BOG Member



Mr. Pramod Dhir
BOG Member



Dr.-Ing. Jyotirmay Mathur
BOG Member



Mr. Subhasish Dasgupta
BOG Member



Mr. BPS Chadha
BOG Member



Mr. Priyank S. Garg
BOG Member

Committee Chairs (2012-13)

Mr. Rajinder Singh, CC Student Activities

Mr. Rajnish Joshi, CC Resource Promotion

Mr. Richie Mittal, CC Chapter Technology Transfer

Mr. Pramod Dhir, CC Membership Promotion

Mr. K.D.Singh, Co-Chair Membership Promotion

Mr. Ashish Rakheja, CC Honours & Awards

Mr. Anoop Ballaney, Historian

Ms. Sonali Dutta, Newsletter Editor

Mr. Nagesh Dutt, Newsletter Associate Editor

Mr. Rishabh Wadhwa, Homepage Editor

Mr. P K Goel, CC Reception Committee

Mr. Sunil Gupta, Chair Techmantra

GREEN CORNER: By: Ashish Rakheja & Ashish Jain

Being “Green” Often Means Being Healthy

In 1984, the World Health Organization released a report suggesting that up to 30% of new and remodeled buildings worldwide may be linked to symptoms of sick building syndrome. About a decade later, the green building movement began in the U.S. While many viewed the movement’s primary focus as minimizing the impact of buildings on the natural environment, the movement also focused on promoting healthy work environments. This article discusses how being “green” implies a focused approach towards both making outdoor and indoor spaces healthier.

A building can have both positive and negative effects on performance. Negative effects are associated with discomforts, distractions or health risks that interfere with peoples’ ability to do their work whereas positive impacts are associated with enhancing work performance, psychosocial well being, and health to enhance the overall performance. Based on some studies it is found that improved air quality could result in significant reductions in illness and absenteeism associated with respiratory disease, asthma and allergies, and sick building syndrome symptoms. Since enhanced indoor air quality is one of the major focus areas in green buildings so it can be one of the imperative factors considered by organizations striving to achieve higher efficiencies and productivity by enhancing performance.

Implications of Visual Comfort on Health

Performance enhancement is more likely to come from a different set of building features and attributes that affect performance. For instance, a direct effect would be glare on the computer screen that interferes with the ability to see written words or numbers whereas an indirect effect operates through an intermediate mechanism such as mood or motivation. A common example is the positive impact of daylighting on mood. The assumption is that daylight makes us feel good and therefore should make us more motivated to work.

Lighting that produces glare or visual discomfort is more likely to be associated with headaches and eye problems. Thereby, one of the perennial challenges in daylighting is providing an even distribution of diffused daylight across the building section. Glare due to direct solar penetration and due to the lack of luminous uniformity across the space distorts the perception of good indoor daylighting. Various simulations like daylight distribution studies; visual comfort and glare analysis are being conducted now days that help optimizing the buildings’ design to enhance performance and achieve visual comfort at the same time. These simulations evaluate building designs to identify potential concerns related to daylight distribution and provide solutions to ensure appropriate illumination of spaces.

It also assists designers in analysing potential areas receiving disturbing glare and providing solutions to control direct sunlight at visual task areas and to achieve balanced luminance on interior

surfaces within the space as shown in the images below of one of our IT building project where requirement was to achieve glare free daylight:

As per a field study of office workers, it is found that workers who had window views of nature felt less frustrated and more patient, and reported more overall life satisfaction and better health than workers who did not have visual access to the outdoors or whose view consisted of built elements only. The positive effects of nature may also extend to the immune system, thereby directly affecting human physical health.

Less Toxic Indoor Environment

In contrast to the enhancing effects, buildings can also have negative impacts on health due to poor ambient conditions, including noise, temperatures, air quality, and lighting. Uncontrollable noise or excessive temperature conditions have been linked to stress symptoms and irritability. Building attributes that directly influence health include air borne toxins and noxious chemicals associated with materials and finishing, cleaning products, and equipment; noxious and hazardous substances associated with work processes; and air borne pathogens associated with HVAC systems. Usage of paints and adhesives having low VOCs (volatile organic compounds); provision of fresh air in HVAC system; better filtration media in AHUs; installing monitoring devices for CO2 levels, temperature, humidity etc. are some of the widely used techniques that have been proved to be really useful in enhancing indoor air quality which is one of the core features of green buildings.

Active comfort maintenance has evolutionary origins, and research evidence shows that the ability of people to adjust the ambient environment to their own preferred levels may influence work performance.

Occupant Well-being

Well-being has to do with quality of work life, motivation, psychological state and social support. The research presented here suggests that impacts on well-being may come from a different set of features – such as presence of daylight and windows, opportunities for active and passive contact with nature, sensory change and variability, and opportunities for relaxed enjoyment of the environment.



Towards a cleaner life

Air Distribution Products Range

- Double/ Single Skin AHU.
- Air Washer Unit.
- Kitchen Scrubber Unit.
- Tube Axial Fans.
- Inline Fans.
- Air Distribution Products
- Air Movement Products.
- Fire & Smoke Control Devices.
- Silencers (Round/ Rectangular).



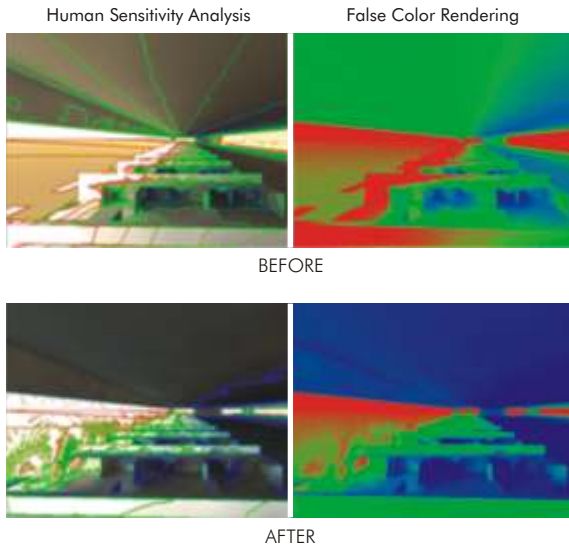
AIR FLOW PVT. LTD.

13/1090, Hardhian Singh Road, Karol Bagh, New Delhi - 110 005 (INDIA)

Ph.: 011-2875 1236, 4760 2222 (8 Lines), Fax : 011-2875 2267

E-mail : mail@airflowindia.net, airflow@del3.vsnl.net.in Website : www.airflowindia.net





Consequently, it can be observed that buildings that integrate the features and attributes of preferred natural settings are more likely to be supportive of human health and well-being than buildings which

lack these features. Hence over cost and efficiencies, it's time to also look at how buildings can contribute to organizational well being.

Many green buildings instinctively incorporate most of these preferred naturalistic features, with the assumption that they are good for people and for the environment. This implies that it will not be incorrect to say "Green often means being Healthy".



ASHISH RAKHEJA
M. Tech, IIT-Delhi
Chief Operating Officer
SPECTRAL



ASHISH JAIN
AIID, MPM, FAAPM,
LEED® AP (O+M), IGBC AP
Sustainability Sr. Consultant

Trane Thermography Service Improves HVAC System Reliability and Safety

New Delhi, India, July 16, 2012 – Heating, ventilating and air conditioning (HVAC) system performance plays a critical role in the operational efficiency of a building. A safe, reliable and efficient HVAC system is key to minimizing operational costs.

Trane, a leading global provider of indoor comfort systems and solutions and a brand of Ingersoll Rand, has launched the Thermography service to identify hidden problems in a chilled water system in order to improve overall HVAC system performance.

The new predictive service uses infrared thermal imaging to detect and diagnose the thermal emissions of different components in the chilled water system. An increase in heat could suggest electrical and mechanical issues that can lead to component failure, unplanned outages and safety issues.

Typical problems that Thermography can detect include loose electrical connections, current overloading, worn contactors, misalignment of shafts and belts and overheating of bearings.

"Thermography is an easy and proven way to inspect electrical and mechanical components of a chilled water system in a non-invasive manner, without disruption to system operation," explains Narinder Pal Singh, service and parts leader for the Trane commercial business in India. "Early detection of potential issues prevents costly system failures and unscheduled downtime. It also helps lower repair costs."

The Thermography service is carried out on a periodical basis determined by customer and system needs. A Trane technician takes thermal images of the electrical and mechanical components of the chilled water system while it is up and running.

The Trane expert reviews thermal images, both past and new, and produces a detailed report of the current status of the pictured components, including possible reasons for any anomalies.

Trane Thermography Service Improves HVAC System Reliability and Safety – 2

Customers will receive this report detailing the recommended repairs or improvements to avoid system failures and optimize reliability of the system.

Trane Thermography is offered as part of the Trane Care™ customized services for system reliability. Trane Care services also include the Oil Analysis, Vibration Analysis, Compressor R'newal™, Tube Testing and Exchanger Enhancement programs.

The Thermography service offering, along with other Trane Care services, supports the Trane High Performance Building approach. High performance buildings are safe, comfortable and efficient. They meet specific standards for energy efficiency, system reliability, environmental sustainability and occupant comfort and safety.

The Trane service offerings enable customers to improve reliability, efficiency and cost of ownership. This includes the Trane Select™ and Trane Controls predictive and preventive maintenance programs, Trane Care, Trane Rental and Trane Intelligent Services.

About Ingersoll Rand

Ingersoll Rand (NYSE:IR) advances the quality of life by creating and sustaining safe, comfortable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Schlage®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; secure homes and commercial properties; and increase industrial productivity and efficiency. Trane solutions optimize indoor environments with a broad portfolio of energy efficient heating, ventilating and air conditioning systems, building and contracting services, parts support and advanced control. Ingersoll Rand is a \$14 billion global business committed to a world of sustainable progress and enduring results. For more information, visit ingersollrand.com or trane.com.

ACRECONF ^{India}



ASHRAE
India Chapter

8 - 9 February 2013

India Habitat Centre, New Delhi, India
www.acreconf.org

Hurry !!!

Register yourself
at the fees of

2012

(conditions apply*)

360° VIEW ON EMERGING MEGA TRENDS IN BUILDING DESIGN

Broad Topics Of The Conference

BUILDINGS IN MIXED USE DEVELOPMENTS
BUILDING TECHNOLOGIES FOR 'LOW CARBON FOOTPRINT'
BACK TO THE ROOTS - IN BUILDING DESIGNS
DEVELOPING BUILDINGS FOR MODERN RETAIL
HIGH RISE RESIDENTIAL BUILDINGS AND COMPLEXES DESIGN
MODERN EDUCATION BUILDINGS
USE OF GREEN MATERIALS IN TODAY'S BUILDINGS
USE OF BIM AND OTHER ADVANCE TECHNIQUES IN BUILDING DESIGN
EFFECTIVE USE OF UNITARY HVAC SYSTEMS IN TODAY'S BUILDINGS
DESIGNING BUILDINGS FOR IT INDUSTRY AND DATA CENTRES
BUILDING TOWNSHIPS ALONG NEW CORRIDORS
HEALTHCARE RELATED BUILDINGS

2013

One Day - INR. 4000

Two Days - INR. 6000

2012

One Day - INR. 3000

Two Days - INR. 4500



Payment Can be made online @ www.acreconf.org,
Or through cheque / DD favouring "Delhi Chapter of ISHRAE ACRECONF INDIA"
Sent to: ACRECONF Secreteriat, C/o Attitude Events Pvt Ltd
431, Tower-B Spazedge, Sector-47, Sohna Road, Gurgaon-122002, India
Tele: +91 124 4969 830 Email: acreconf@indiattitude.com, website www.acreconf.org

- » *Offer Valid till 14th August 2012 and exclusively for Acreconf 2012 registrants
- » *To avail the special rate please enter the code below :
One Day Registration: ONEDAY2012
Two Day Registration: TWODAY2012

Event Partners

DIAMOND PARTNER

GOLD PARTNER

Event Management & Promotion





TRANE®

📍 Safety 📈 Comfort 📊 Efficiency

**CHILLERS FROM TRANE.
ALSO ON RENT NOW.**

dentsecomm/ingersoll/936/12

Loss of cooling, planned maintenance or special event; Trane is there for you.

Trane, a leading global provider of indoor comfort systems and solutions and a brand of Ingersoll Rand, provides chillers for temporary cooling, power generators and on-site services for concerts, exhibitions and other special events. With rental chillers from Trane, planned maintenance, renovation and improvements can proceed smoothly without any sweat.

The sectors where we provide chillers on rent are:

Hospitals & Pharmaceutical Companies | Hotels | Commercial Buildings & Corporate Houses | On-site services | Factories | Warehouses

Call us on Toll Free Number: 1800-102-7926 or email: infoindia@trane.com



Ingersoll Rand
Inspiring Progress™

Send in your nominations
Today

YOUR
INNOVATIONS
CAN WIN
YOU
A PLACE OF
PRIDE
AT THE

8th *Bry-Air* AWARDS
for Excellence in HVAC & R
2012-2013

For **Individuals • SMEs • Corporates • Students**

The Bry-Air Awards are presented annually to individuals or corporates who have made outstanding contribution to the HVAC & R industry in terms of innovations in Systems Design or Product Design.

Awards

There will be One Winner and One Runner-up for each of the following Awards:

- **Innovative Systems Design**
- **Innovative Product Design**
- **Innovative Project**
(For Students only)

Winners / Winning Teams get Trophy + Rs. 1,00,000
Runner-ups / Teams get Trophy + Rs. 50,000
Download details and nomination form by logging on to
www.bryairawards.com or
Email to bryairawards@pahwa.com

Bry-Air **BRY-AIR (ASIA) PVT. LTD.**

Sector 18, Gurgaon 122015 • Ph.: +91-9717004608, (0124) 4091111
E-Mail: bryairawards@pahwa.com • www.bryairawards.com

The Bry-Air Awards Evening on March 8th, 2013 will be held in conjunction with ACREX 2013 (March 7-9), Mumbai