

ACREX India 2017

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RISING INDIA: ENTERPRISING & COOL
Witness 'Global Cooling'

South Asia's Largest Exhibition on
Refrigeration & Cold Chain, Air Conditioning
Ventilation and Intelligent Buildings

RISING INDIA: ENTERPRISING & COOL
Witness 'Global Cooling'

ACREX India 2017

Hall
9

Organiser:
ISHRAE

Event Producer:
DRNB MESSE

Enclosed By
ASHRAE

Good Cooling
Technology

ACREX India 2017: a Ringside View

ACREX India 2017

By **Rakesh Kumar**
Managing Editor, ISHRAE Journal

ACREX India is an annual celebration of the achievements of HVAC&R industry, showcasing its innovations, technical expertise and manufacturing prowess. It is also a platform for networking between the industry players from India and abroad. Recognised as the largest exhibition of air conditioning, ventilation, refrigeration and building services in South Asia and the sixth largest in the world, it is more than an exhibition. It is an array of events that flow seamlessly across each other, leaving you breathless yet rejuvenated. And it is a valuable brand that epitomizes the spirit of the industry.

Inauguration

The event was inaugurated on the morning of February 23 with the lighting of the traditional lamps of knowledge by dignitaries. In addition to ISHRAE President Sachin Maheshwari, National Steering Committee members and Host Committee members, there were celebrities who came from all over the world for the occasion: Timothy Wentz (ASHRAE President), Jeff Littleton (Vice President, ASHRAE), Didier Coulomb (Director General, IIF-IIR), Andy Ford (Past President, CIBSE), Frank Hovorka (Treasurer, REHVA), Jaap Hogeling (Editor-in-Chief, REHVA Journal), Prof. Okumiya (President, SHASE, Japan) and several others. Heads of many Indian associations also graced the occasion: Dr. Prem C. Jain (IGBC), Rajendra Mittal (AIACRA), Neeta Sharma (IAPMO), Paras Sirohia (RATA), Richie Mittal (IGSHPA), Sudhakaran Nair

(IPA), Gurmeet Singh (RAMA), Pankaj Dharkar (FSAI) and many others. There was a good sprinkling of industry captains like Vir Advani (Blue Star), M. Gopi Krishna (Voltas), Arun Bhatia (UT) and Rajesh Premchandran (Danfoss).



ISHRAE President Sachin Maheshwari and President-Elect Vishal Kapur light the lamp of knowledge



ASHRAE President Timothy Wentz and REHVA Treasurer Frank Hovorka at the inauguration

This year, ISHRAE was instrumental in bringing together all the major associations in the field of building solutions under the umbrella of Build Fair Alliance (bfa), resulting in five major exhibitions being held simultaneously at one venue for the first time – ISH India powered by Indian Plumbing Association, glasspro INDIA, FensterbauFrontale India, FSIE (Fire and Security India Expo) and ACREX India.

The Curtain Raiser

On the eve of inauguration of ACREX India 2017, a Curtain Raiser was held at Le Meridien, New Delhi on February 22 in the presence of a large number of distinguished professionals from the industry. The theme was 'Realonomics: New Direction for Real Estate in Changing Environment'. Carrier-Toshiba was the event partner.

ACREX 2017 Chair Ashish Rakheja welcomed the delegates and thanked the partners for their support. He acknowledged the international guests present. ISHRAE President Sachin Maheshwari welcomed the participants. Arun Bhatia (MD, Climate Controls & Security, India, UTC) set the tone by introducing the concept of a VUCA (Volatility, Uncertainty, Complexity, Ambiguity) world. Chirag Baijal (Director, Commercial Sales, Climate Controls & Security, India, UTC) made a presentation on 'The Impact of Green Buildings on Cognitive Function'.



Ashish Rakheja Sachin Maheshwari Arun Bhatia

The high point of the evening was a panel discussion on Realonomics. Neeraj Bansal of KPMG India was the moderator. The panelists were Arun Bhatia, Amit Oberoi from Colliers India, Abhin Abhichandani from STUP Consultants, Ishtiaque Ahmed from Department of Industrial Policy and Promotion (DIPP), Velan C. from Tata Realty Infoparks, Deepak Uppal from Vatika Hotels and Virendra Gupta from CBRE.



Arun Bhatia, Amit Oberoi, Abhin Abhichandani, Ishtiaque Ahmed, Neeraj Bansal, Velan C., Deepak Uppal and Virendra Gupta during the panel discussion

There were several concurrent events like workshops, seminars and interactive panel discussions, meetings with domestic and international associations, signing of MoUs, meeting with industry captains and book releases. The evenings glittered with events like the Curtain Raiser, ACREX Awards Night and ACREX Hall of Fame Night. And there was the immensely popular student event aQuest.

Awards were presented for contributions to ISHRAE activities. N. Sivasankaran, Chair, Honours & Awards Committee of ISHRAE, along with Sachin Maheshwari and Vishal Kapur, President-Elect, ISHRAE presented the awards.

H. M. Jhangiani Journal Paper Awards were presented for the two best articles that appeared in the *Journal* during 2015. K. Raghavan of Johnson Controls and Kishore Kalghatgi, HVAC Consultant were the recipients.



K. Raghavan



Kishore Kalghatgi

The event ended with a presentation on SEARCHO (a search tool for HVAC&R businesses developed by ISHRAE) by Nishant Gupta (National Secretary, ISHRAE) and Shami Bhardwaj (Chair, Marketing, ISHRAE), and a vote of thanks by Sajid Desai (CEO - Nürnberg Messe India).

The Exhibition



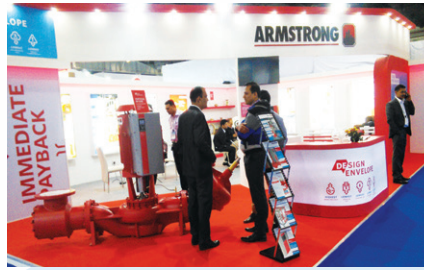
Aeropure displayed its new control panel for UV systems (Watmizer) used in air handling units that can be integrated with BMS, and its new product TB Rakshak.



Air Flow received the ACREX award for UL Listed Axial Flow Fan in the Special Category for Technology Developed in India.



Armacell India showcased its range of thermal and acoustic insulation products.



Armstrong Fluid Technology is a global player in the fluid flow and control equipment for HVAC, fire and water based process industries. It showcased its new chiller plant controller, along with fluid flow and control equipment including pumps, advanced controls, fire pump packages and pressure boosting systems.



Blowtech Air Devices displayed its fans, ventilation products, air purifier and fan air performance test chamber.



Blue Star displayed its new AHRI certified water-cooled screw chiller configured series with single/double compressor, with capacity up to 100 TR for use with R134A, made in its Wada plant.



Blue Cold Refrigeration displayed its range of refrigeration systems and heat exchangers like condensing units, fin and tube evaporators and shell and tube evaporators.

Workshops and Seminars

Workshops conducted by domain experts are a regular feature of the ACREX program schedule. The inauguration of workshops was held in the forenoon of the first day of ACREX. Voltas was the Knowledge Partner this year.



Sachin Maheshwari, Tim Wentz, M. Gopi Krishna and Frank Hovorka light the lamp to inaugurate the workshops

Sachin Maheshwari, Ashish Rakheja and Sunil Gupta (Chair - Workshops, ACREX) addressed the audience. This was followed by the release of *Uniform Mechanical Code – India, Illustrated* published by IAPMO.



Release of Uniform Mechanical Code

The workshops were spread over 3 days, beginning February 23. The topics covered included Tall Buildings, Healthcare and Standards.

Concurrently, there were seminars on topics as diverse as Legionella Control to IEQ and Energy Analytics to Green Secondary Refrigerant, interspersed with interactive panel discussions.



BP Refcool displayed its compact vacuumising-charging unit made in India suitable for workshops, using a two-stage vacuum pump with non-return valve, suitable for charging all refrigerants by weight.



Carrier showcased its new all-in-one AquaEdge Puretec 19 DV centrifugal chiller with Puretec refrigerant, Greenspeed intelligence and Smartview controls.



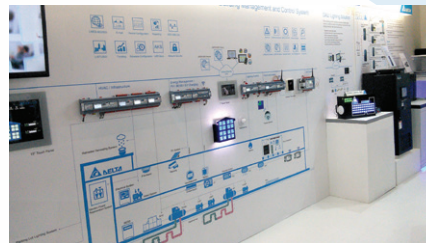
Cruise Appliances displayed its range of air conditioners, air conditioning equipment, components, accessories and controls.



Daikin Air-conditioning India is a fully owned subsidiary of Daikin Industries of Japan, a global leader in commercial and residential air conditioning systems and the pioneer of VRV technology. Its manufacturing facility at Neemrana supplies room air conditioners, ductable splits, VRV units and chillers to the Indian market.



Danfoss was the winner for Optyma Plus Inverter in the Energy Saving in Refrigeration category of ACREX awards. It has a variable speed scroll compressor for use with R404A, and an inbuilt diagnostic module. The new patented Colibri electronic expansion valve was also displayed.



Delta Power Solutions won the ACREX award for Loytec Building Automation Solution in the Innovation in Building Automation category.



ebm-papst won the ACREX award in the Green Product category for EC Radi-PacGen 2. It displayed its range of compact fans, centrifugal fans, axial flow fans, tangential fans, gas blowers, hot air blowers, motors and drive systems.



Edgetech was the runner-up for its Vertical AHU in the Energy Saving category of ACREX awards, as well as in the Special Category for Technology Developed in India for its Filtration Unit.



Emerson Climate won the ACREX award for Horizontal Scroll Compressors in the Innovation category.



Ensavior Technologies showcased its expertise in chilled water thermal energy storage systems, HVAC and plumbing products, fire fighting equipments, ventilation and IAQ.



Flakt Woods showcased its new Centriflow 3D plug fan with centrifugal plus axial mixed flow with permanent magnet motor, speed controller and heat sink. It also displayed its Denco Happel products for precision air conditioning now made in India; Resicon (Semco) heat recovery wheel; and AMCA certified aerofoil blade fan with pad motors.



Frick India displayed a wide range of reciprocating and screw compressors and refrigeration equipment like product coolers, condensers, pressure vessels and electrical and automation systems.

aQuest – the Ultimate Engineering Face-off

The fourth edition of aQuest, an all-India student quiz competition in which a large number of ISHRAE student chapters across India participated, was a part of the bouquet of events that comprised ACREX India 2017. Johnson Controls-Hitachi was the Quiz Partner.

With the tagline ‘The ultimate engineering face-off’, its preliminary rounds were held by various ISHRAE chapters among student chapters across the country. The final round had a compelling format that held the participants as well as the house-full audience spellbound for a full three hours. It alternated between serious quizzing, questions to the audience and pure entertainment by ISHRAE’s very own rock star Arvind Vegda. Gautham Baliga, Nitin Naik and Prashant Desai from ISHRAE planned and executed the event.

Deepak Arjare (Student Chair, ISHRAE) made the opening remarks. V. K. Seth addressed the audience. Ashish Rakheja appreciated JCI-Hitachi India supporting all rounds of the competition down to every college, quarterfinals, semifinals and the Grand Finale. V. Krishnan introduced the audience to aQuest.



Gurmeet Singh addresses the aQuest audience

Gurmeet Singh, Senior Vice President at JCI-Hitachi India, informed the audience that the company operates in an industry that is large and growing. It inducts 20-25 fresh engineers every year. He exhorted the students to have a close look at the company, and join it if they have the aptitude and the inclination.

A quiz competition was held in the social media on the sidelines of the main contest, in which over 10,000 students participated. The winner of the social media contest, Pranab Morchpure, was nominated on the panel of ‘Wise Guys’ – one of the lifelines available to the contestants. The other panel members were Tim Wentz (ASHRAE President), Peter Simmonds (ASHRAE DL), Jeff Littleton (Vice President, ASHRAE), Prof. A. K. Ahluwalia (an eminent professor) and Dr. Rajendra Singh (Pusa College of Engineering).



The panel of Wise Guys



aQuest in progress

The quizmaster was Nitin Arora, a thorough professional who conducted the event with élan. He explained the format of the quiz and the rules of the game.

In addition to the semifinal round winners – two teams from LBRCE (Vijaywada) and one each from MIET (Meerut) and KIT (Kolhapur) – there were two wild card entries: losing quarterfinalists selected by draw of lots – IET (Indore) and IEM (Kolkata).



The winning team breaks into a jig with the quizmaster

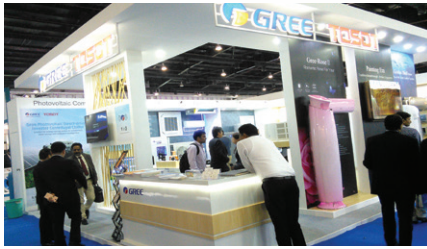
Himanshu Dhiman and Karun Singhal from MIET (Meerut) won the quiz and were presented a cheque for Rs. 50,000. Debdut Bosu and Soumik Chakraborty from IEM (Kolkata) were the first runner-up, and went home with Rs. 30,000. The third prize of Rs. 20,000 was won by Lokesh Mannapu and Krishna Virinchi (LBRCE Vijaywada).



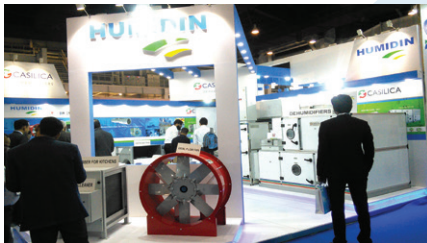
Yuva Jagaran features aQuest winners from Meerut

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Gree is one of the largest Chinese players in the air conditioner and electrical appliances market. It showcased its wide range of ACs and other appliances.



Humidin showcased its range of dehumidifiers, dry scrubbers for kitchens, electrostatic air cleaners, axial flow fans and centrifugal fans.



Ice Make Refrigeration is a manufacturer of commercial and industrial refrigeration equipment. It displayed its refrigeration equipment for dairy, ice cream, food processing, fruit ripening, horticulture, hotel, pharma, logistics, plastic and chemical industries.



ISHRAE had a prominent stall to showcase its publications and merchandise, and to facilitate enrolment of new members.



Johnson Controls was the ACREX awards runner-up in the Innovation in Building Automation category for Metasys. It showcased its wide range of brands including Amaron, Hitachi, York, Metasys, Frick, Sabroe, Tyco, Ruskin, Titus, Lau and Rolastar.



Johnson Controls-Hitachi Air Conditioning India (formerly Hitachi Home & Life Solutions India) is an Ahmedabad based manufacturer of a wide range of products like window and split air conditioners, chillers, ductable ACs, VRF systems and telecom AC equipment. In addition, it undertakes turnkey HVAC projects. It also trades in refrigerators, air purifiers and washing machines. Its range of HVAC products was displayed in its booth.



Kelley Metrial Handling Equipment India, a subsidiary of 4Front Engineered Solutions of the USA, showcased its HVLS fans and loading dock equipment.



Kirloskar Chillers is a manufacturer of chillers and heat recovery equipment. It showcased its AHRI certified chillers, vapour absorption machines and several other products.



LU-VE Group is a Milan based group specialising in air cooled heat exchangers, certified as 'Eurovent Certify-all' for its entire range of unit coolers, air cooled condensers and dry coolers. Its recent acquisition of Spirotech Heat Exchangers gives it a firm foothold in India.



Nicotra India, a joint venture between Nicotra Gebhardt and Caryaire Equipments India, displayed its wide range of centrifugal and axial fans for air conditioning, ventilation, smoke extraction, kitchen exhaust, etc. It showcased its recently launched Smart Fans that can be monitored and controlled by a PC.

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Interview – Sridar Narayanswami

The *Journal* interviewed Sridar Narayanswami, VP and MD at Emerson’s Commercial & Residential Solutions Platform, India



Sridar Narayanswami

Journal: What has been the focus of Emerson in the last one year in India?

Sridar Narayanswami: Emerson has focused on new refrigerants like R410, and partnering with potential customers to develop compressors for ducted R32 AC systems. It has introduced new technologies for railway air conditioning. Mumbai’s first air conditioned train has completed its test run with Emerson compressors, and we are developing horizontal compressors for Mumbai Metro. We have also focused on speed modulation with inverter technology. And we now have a fully equipped R32 test lab.

J: What have been your activities in the field of refrigeration?

SN: We have developed niche products like condensing units for transport refrigeration using R134A. For the cold chain industry, we are moving from smaller capacity condensing

units to large cold storages with single and multiple compressors, and racks of 100 HP and above – all built locally at the Cold Chain Center at Chakan.

Bulk milk coolers need to chill milk to less than 4°C in two hours. We have developed technology to chill milk in two stages – to 10°C in the first stage, and to 4°C in the second stage.

J: Are you adding manufacturing capacity to cater to the growing cold chain market in India?

SN: After the success of our Cold Chain Center at Chakan, we have opened our second such center in India at Gurgaon (Haryana). It has facilities for simulation, training, project design, and troubleshooting help for semi-hermetic compressors.

J: What has Emerson done to support ‘Make in India’?

SN: We have designed and made in India 5,00,000 compressors in the last two years. We are also exporting compressors to the Middle East with improved energy efficiency; our reciprocating compressors have the highest efficiency in the world.

Presidential Luncheons

ISHRAE President Sachin Maheshwari hosted a luncheon with fraternal associations on February 23, and another with industry captains on February 24.

During the luncheon with associations, ISHRAE President welcomed the heads of 19 worldwide associations and several domestic associations present, and briefed them on the activities of ISHRAE. Sushil Choudhury, Chair – Apex Advocacy Committee and Ashwini Mehra, Executive Secretary also addressed the audience. MoUs were signed with RATA and IAPMO during the meeting.

During the luncheon with industry captains, ISHRAE President welcomed the large number of heads of leading companies in the HVAC&R and building automation industries present, and thanked them for their support to ISHRAE’s activities – financial and otherwise. D. Nirmal Ram, Chair – ISHRAE Institute of Excellence, apprised the audience of training activities, ISHRAE Certification Program – classroom based and online, Advanced Engineering Diploma course



Sachin Maheshwari signs MoU with Neeta Sharma, President, IAPMO India



Sachin Maheshwari and Paras Sirohia, President, RATA, sign MoU

and blue-collar workers’ program to support the industry. He requested the industry to avail of these opportunities by getting their engineers certified and employing the diploma holders who suit their needs. He suggested that the exhibitors might donate the exhibited



Luncheon meeting with industry captains in progress

products for training purpose instead of taking them back.

Nitin Deodhar, member, ISHRAE Technical Committee, apprised the audience of the research promotion activities of the Committee, trying to bring about industry-academia partnership. He exhorted the industry to provide inputs to the Committee by identifying problem areas that need to be researched. President-Elect Vishal Kapur mentioned that the research being promoted is generic, not product-based. Chirag Bajjal (Director, Commercial Sales, Climate Controls & Security, India, UTC) suggested the formation of self-nominated committees for products. The meeting was interactive, and suggestions came from quite a few participants.

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Nutech Engineering, a manufacturer of air handling units, air washers, heat recovery units, treated fresh air units and HVLS fans, displayed its range of products.



Paharpur Cooling Towers, a six decade old company, is one of the largest cooling tower manufacturers in the world. It displayed a sample of its wide range of cooling towers, air cooled heat exchangers and air cooled condensers.



Patton Refrigeration, which has just been appointed distributor for Bitzer in India, had its stall inaugurated by Gianni Parlanti (Chief Sales & Marketing Officer, Bitzer), seen in the picture with (l to r) S. K. Gagneja (MD, Patton India), Sameer Handa (Managing Director, Beijer Refrigeration – the parent company of Patton) and Harvinder Singh (MD, Bitzer India).



Pidilite specialises in insulation adhesives, coatings, sealants and solvent cements, which were displayed in its stall.



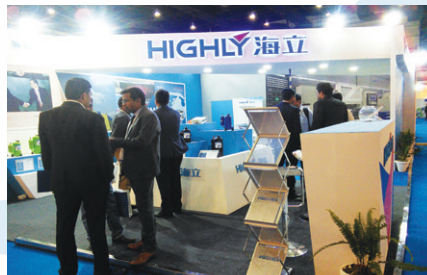
Rechi Precision Co. is a Taiwan based manufacturer of fixed and variable speed rotary compressors for air conditioners, brushless DC motors, AC-DC motors and heat pump water heaters. Its wide range of compressors was showcased in its booth.



Saarthak Refrigeration displayed its Colt screw chillers and compressors for low temperature applications such as pharmaceutical and chemical plants, for use with ammonia and R22.



Sevcon India, which specialises in system engineering, marketing, installation, service and execution of turnkey HVAC projects, showcased its range of solutions.



Shanghai Hitachi is a large manufacturer of rotary compressors for air condi-

tioners. Its Indian manufacturing facility at Ahmedabad has a production capacity of 2 million compressors per annum. It showcased its range of rotary compressors for R22, R32 and R410A made in India, as well as other compressors sourced from its plant in China.



Siemens won the ACREX award in the Energy Saving category for its Demand Flow. Its Building Technologies Division showcased its range of controls for heating, ventilation and refrigeration applications, fire detectors and accessories and energy efficient building solutions.



Snowman Group of China owns Snowkey and Refcomp brands and the SRM technology for screw compressors. It introduced its semi-hermetic compressors for ammonia and R22. It also showcased Refcomp reciprocating and screw type semi-hermetic compressors, SRMtec open type screw compressors for ammonia and HFCs, and Snowkey ice makers and ice machines.



Spirotech Heat Exchangers, now a part of LU-VE Group, displayed its range of fin and tube type condenser and evaporator coils.

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ACREX Awards Night

ACREX Awards of Excellence are presented annually for products displayed in the exhibition for excellence in various categories. The awards function was in the evening of February 23 in the IEML lawns. Daikin was the Partner in Excellence, and Kanwal Jeet Jawa, MD and CEO, Daikin Air-conditioning India was the host of the evening.



Ashish Rakheja addresses the audience at ACREX Awards Night

All those who had worked tirelessly to make ACREX India 2017 a resounding success were recognized for their efforts. ACREX 2017 Chair Ashish Rakheja commenced the event by giving an overview of the heights achieved by ACREX this year. All the event partners were recognized, followed by the 22 members of the Host Committee. Then came the felicitation of international guests.

Sachin Maheshwari aptly called ACREX an industry festival – of the industry, by the industry. He traced the journey of ISHRAE during the last one year under his stewardship.

K. J. Jawa committed to continue supporting the endeavors of ACREX.

Women in ISHRAE: A new wing of ISHRAE dedicated to ladies in the industry was launched on this occasion. Nivedita Jadhav, Sukanya, Yesha Choudhury, Dhvani and Aditi were invited on the dais for the inauguration.

Release of Book on Filters: An ISHRAE publication on the topic of filters was released during the event.

Online Technical Forum: Sushil Choudhury (Chair, ISHRAE Technical Committee) launched the Online Technical Form to facilitate exchange of technical information and to enable technical discussions between members of the ISHRAE fraternity.

Launch of ACREX 2018: D. Nirmal Ram, Chair – ACREX 2018, made a presentation on the event, scheduled to be held at Bengaluru from February 23 to 25, 2018.

The evening was enlivened by the scintillating performance of the dance academy Zenith during the interludes, which had the audience tapping their feet.

ACREX Awards of Excellence

Awards were presented for the best exhibits in the expo. The Jury for the awards comprised Jagdeep Singh, Abid Husain, Virendra Gorade, Kapil Singhal, Jayesh Deshpande and Sanjay Goel. The awards were presented in seven categories:

Innovation

Emerson Climate won the award for Horizontal Scroll Compressors.

The runner-up was Ziehl Abegg, for ZA Blue-fin Centrifugal Impeller Fan.

Green Product

The award went to ebm-papst for EC Radi-Pac Gen 2 .

Energy Saving

Siemens received the award for Demand Flow.

Edgetech was the runner-up for Vertical AHU.

Energy Saving in Refrigeration

Danfoss was the award winner for Optyma Plus Inverter.

Innovation in Building Automation

Delta Power Solutions won the award for Loytec Building Automation Solution.

Johnson Controls was the runner-up for Metasys.

Special Category for Technology Developed in India

Air Flow received the award for UL Listed Axial Flow Fan.

Edgetech was the runner-up for Filtration Unit.

Indoor Air Quality

Alfaa UV bagged the award for UltraCoil.

Alfaa UV received the Acrex Award of Excellence for the second time in a row for Indoor Air Quality. Last year it received the award for UltraDuct.



Alfaa UV receives the ACREX Award

Due to low temperature and humid condition, bacteria grow rapidly on cooling coils and are carried to the occupied space. When a UVGI system is installed downstream of the cooling coil, it changes the DNA of the bacteria so that they cannot reproduce. This reduces the microbial count in indoor air. In addition, since the coils get cleaned, cfm increases resulting in energy saving. UVGI systems can also be incorporated in the duct. In hospital OTs and pharma Cleanrooms, when installed before HEPA filter, they enhance the life of the filter. Intensity and dosage can be worked out based on the type of virus and bacteria to be eliminated.

Memoranda of Understanding

ACREX 2017 was the perfect backdrop for renewing fraternal links with associations in India and abroad, and for forging new relationships. MoUs were signed with Emerson, IAPMO, RATA and several other associations.



Sachin Maheshwari and Sridar Narayanswami sign MoU for Emerson Online University and postgraduate research grants

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ACREX Hall of Fame Night

ACREX Hall of Fame is a recognition instituted by Danfoss India and ISHRAE to celebrate the excellence achieved in conserving energy by commercial buildings in the Indian subcontinent. The Hall of Fame was introduced at ACREX 2016 for the first time. In its second edition in 2017, a sub-committee of ISHRAE headed by Sushil Choudhury (Chair, ISHRAE Technical Committee) shortlisted the entries, which were then evaluated by the Jury. The Jury for 2017 comprised Dr. Ajay Mathur (Director General, The Energy Research Institute – Chairman of the Jury), Dr. Prem C. Jain (Chairman, Indian Green Building Council), C. N. Raghavendra (MD, C. NarayanaRao Consultants), V. Suresh (former CMD, Housing and Urban Development Corporation), Manit Rastogi (Architect), Ashish Rakheja (Chairman, ACREX India 2017), Sachin Maheshwari (President, ISHRAE), Sushil Choudhury and Nagahari Krishna (Danfoss).



Ashish Rakheja (Chair, Standards – ISHRAE), Sudhir Sinha, Gurmeet Singh (President, RAMA) and Sachin Maheshwari release the Draft VRF Standard

The evening of February 24 began with the release of the Draft VRF Standard prepared by ISHRAE and RAMA. The two associations are now working jointly on the AHU Standard.

Rajesh Premchandran, Vice President – Danfoss, set the tone for the evening by speaking about sustainability, the energy scenario, urbanization and air and water quality. He emphasized that 70% of tomorrow's buildings are yet to

be built. Technologies to achieve energy efficiency are already available. As much as 38% of the total reduction in emissions can come from energy savings.

He disclosed that this year there were about 50 nominations for the Hall of Fame, of which 10 were shortlisted by the Technical Committee. Most of the nominees were Platinum rated buildings, with one being a net zero energy building. He acknowledged the massive efforts made by the Technical Committee and the Jury to sift through the applications and data to select the ultimate inductee.



Rajesh Premchandran



Ashish Rakheja



Sachin Maheshwari



Pawanexh Kohli

Ashish Rakheja, in his address to the gathering, said that a lot of technical excellence is happening today in India. Sachin Maheshwari mentioned that the response this year was much better than last year. Pawanexh Kohli, Chairman – NCCD and Honorary Member of ISHRAE,

averred that engineering tomorrow is about innovation, and is holistic and global. An audio-visual introducing the top 10 nominees was played for the audience.

Top Ten Nominations

- Capgemini
- Paharpur Business Centre
- CARBSE
- Delhi Metro
- JW Marriott Mumbai Sahar
- Indira Paryavaran Bhawan
- Infosys EC-53 Campus
- Reliance Data Centre 2
- Bosch
- Ramanujam IT City

Dr. Prem C. Jain and Ravichandran Purushothaman (President, Danfoss India) recognized the Technical Committee members Sushil Choudhury, Dr. R. Saravanan, Abid Husian, N. S. Chandrasekhar, Nitin Deodhar and Shankar Deshpande. They also recognized the Jury members.



Felicitations of Jury members

In the absence of Dr. Ajay Mathur, Dr. Prem C. Jain delivered the keynote address. He complimented all the ten shortlisted buildings for brilliant innovations. Operational data for one year – necessarily a computer output – was analyzed. The final verdict was unanimous. Talking about his role as the Chairman of IGBC, he mentioned that India has 4.5 billion square feet of green buildings, and by 2022, when she celebrates 75 years of independence, she will have 10 billion square feet of green buildings to rank as the world leader.

A coffee table book featuring the top ten buildings, specially prepared



Systemair specialises in air distribution products, air handling units, fans, fire safety products, car park ventilation, tunnel ventilation, air curtains, fan heaters and chillers. It has two manufacturing facilities in India among its 24 factories worldwide. Its Greater Noida factory is a LEED Platinum certified green building, and houses an R&D centre that has a sound and air performance test rig conforming to AMCA 210-07.



Tecumseh Products India is a large manufacturer of HVAC compressors and condensing units. It exhibited its range of compressors.



Testo India is a subsidiary of Testo AG, a leading manufacturer of portable electronic testing and measuring instruments. It showcased its range of instruments for temperature, humidity, dew point, pressure, air velocity, RPM and sound; data loggers, wireless data monitoring systems, flue gas analysers and thermal imagers.



Thermax is a Pune based manufacturer of absorption chillers used in process cooling and air conditioning, using steam, hot water, exhaust gases and other fuels. It showcased its triple effect exhaust driven absorption chiller, evaporative condenser and dry cooler.



Thermolab Scientific Equipments, which supplies stability chambers and pharma cold rooms, displayed its pharma cold room.



Trane, a leading global provider of indoor comfort systems and services and a brand of Ingersoll Rand, showcased its next generation technology like air-cooled and water-cooled chillers, VRF systems and Air-Fi™ wireless technology. Some of the key technologies and products on display were VFD air-cooled screw chiller Sintesis™ certified by Eurovent; Series E™ centrifugal machines in an extended capacity range above 1300 TR up to 4000 TR (50 Hz) with refrigerant HFO-1233zd(E); Air-Fi™ wireless technology for building automation systems; unitary commercial products including AMS III-mini VRF, Genvue full

Inverter series with AHU kit and ducted splits; and unitary residential HW4 and HW3 hi-wall split series.



Voltas is an engineering company belonging to the Tata Group, and one of the oldest HVAC&R companies in India. Its activities include MEP projects, HVAC&R contracting and manufacture of cooling appliances.



Zamil Air Conditioners India is a subsidiary of the Saudi Arabia based Zamil Industrial Investment Co. (ZIIC), with its head office in New Delhi. It provides turnkey solutions for projects like district cooling, hotels and tall buildings, and manufactures products for residential and commercial air conditioning.



Ziehl-Abegg was the runner-up in the Innovation category of ACREX Awards for ZA Blue-fin Centrifugal Impeller Fan. It displayed fans and controllers for diverse applications like air conditioning, refrigeration, cleanrooms, transformer cooling, wind energy and railways. ❁