



Urjavarán at Colombo



For the first time, an Urjavarán symposium was held by ISHRAE outside India at Hotel Taj Samudra, Colombo, Sri Lanka on October 18 and 19. The theme was Climate Change: Emerging Solutions. It was supported by ASHRAE Sri Lankan Chapter. The associate societies were Indian Green Building Council (IGBC), Fire & Security Association of India (FSAI), Indoor Air Quality Association (IAQA) and Green Building Certification Inc. (GBCI).

More than 140 delegates attended Urjavarán in Colombo.



National President C. Subramaniam addresses Urjavarán in Colombo

Annual General Meeting

Goa Hosts AGM

The AGM of ISHRAE for the Society Year 2018-19 was held at Taj by Vivanta, Panaji, Goa on September 7.

Minutes of last year's AGM were passed, and the audited accounts were adopted. Shilpan Shah was appointed the auditor for 2018-19.

IPP Vishal Kapur presented the highlights of the year gone by. President C. Subramaniam outlined his Vision and plans for 2018-19.

The Nominating Committee for 2019-20 was constituted. As per a decision of the Board of Governors, six past presidents along with the President and President-elect comprise the Nominating Committee. Accordingly, the members are C. Subramaniam, Vikram Murthy, Vishal Kapur, Sachin Maheshwari, K. Ramachandran, D. Nirmal Ram, Dipak Barma and Sushil Choudhury.

Santosh Naik, President-elect of Goa Chapter, proposed the vote of thanks.



National President C. Subramaniam addresses the AGM, flanked by Amit Goel, National Secretary



President-elect Vikram Murthy speaks at AGM



Youth@ISHRAE

About 50 members from all over India attended a three-day Leadership program at Jim Corbett National Park, organised by Youth@ISHRAE.

Participants pose for a group photo at Jim Corbett National Park

REFCOLD INDIA 2018: Leading the Transformation



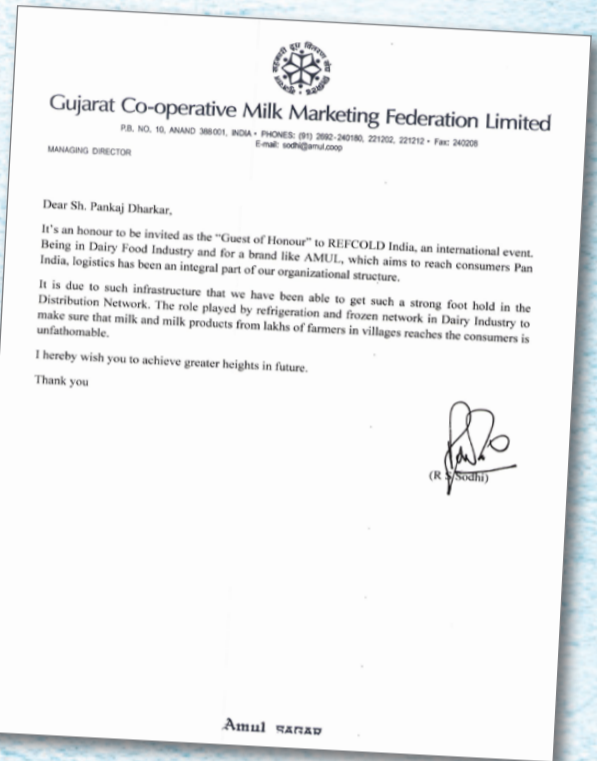
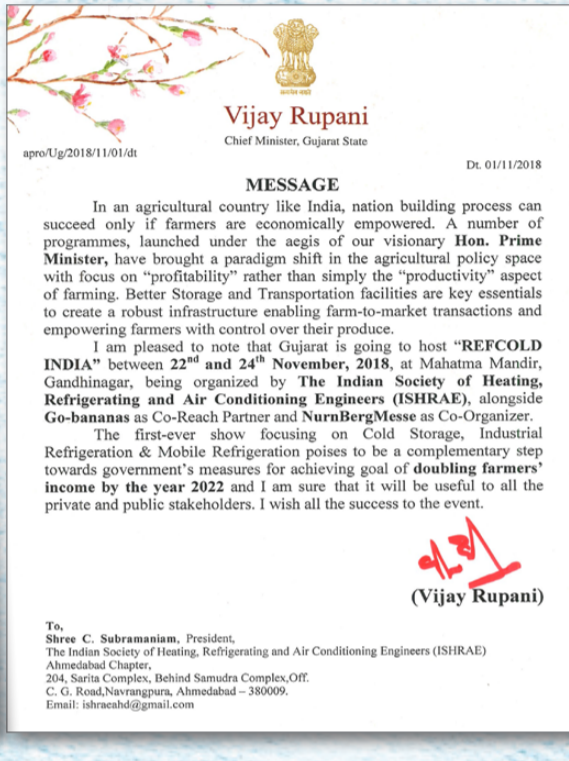
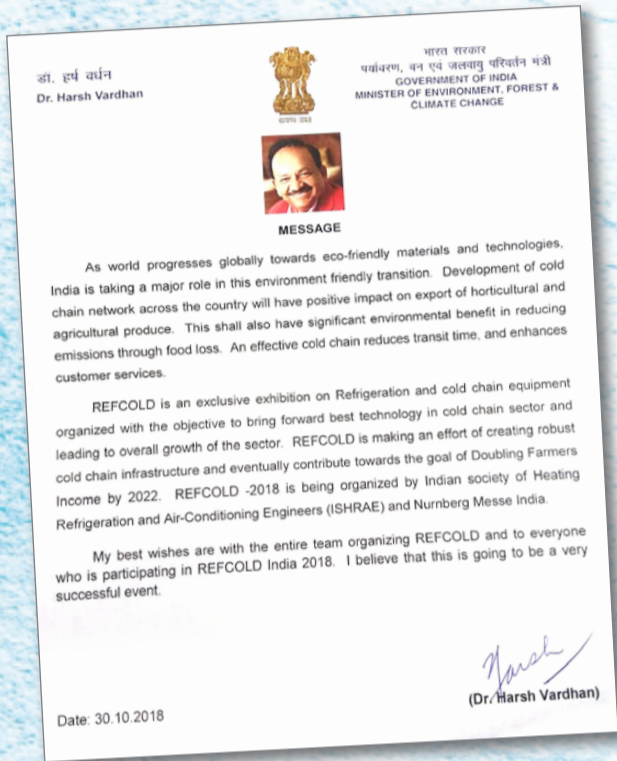
REFCOLD India is an initiative of ISHRAE and NürnbergMesse India, who have been actively working towards the growth of Refrigeration and Cold Chain industry with the objective to bring forward the best technology solutions and increase the overall growth of this sector. The event will cover all the sections of the refrigeration and cold chain industry and bring all the stakeholders

together under one roof. It will also provide a platform to the global investment community to connect with stakeholders in the Refrigeration and Cold Chain sector in India.

The Cold Chain Industry is developing at a fast pace in India due to a shift in focus from increasing the production to better storage and transportation facilities for perishable commodities. The industry

has now become an integral part of the supply chain industry comprising of refrigerated storage and refrigerated transportation. Owing to the rising need for infrastructure to reduce wastage, the cold chain industry in India is estimated to grow at a CAGR of 19% during the period 2017-2022.

Messages of support for REFCOLD India 2018 are pouring in.



ISHRAE Certification Program

Mumbai Chapter has planned ICP for Cleanrooms from November 14 to 17. The faculty members are V. Krishnan, Sasidharan Menon, Shankar Rajasekharan and Prashant Desai.

The course contents are:

- ISO and relevant standards
- Filtration, filter testing and cleanroom testing
- Air distribution and air flow patterns
- Airlocks, pressure gradients and air changes
- Cleanroom protocols, gowning, cleaning and disinfection

Guidelines for Reports in eNews

- The deadline for receiving reports is the last day of the relevant period. For example, for publication in the November-December issue, the deadline is December 31.
- Please send or copy reports of events to news@ishraehq.in
- Please send a Word file containing a brief report of the event: **what, when, where, who** and any other relevant information. **Pdf and ppt files must be avoided.**
- Relevant photos in jpg format should accompany the report. Each photo should have a **caption describing the occasion and giving the full names of persons** in the photo from left to right. Only first names or only last names are not enough. (In case of large group photos, e.g. a batch of 20 participants in a training program, all names are neither feasible nor necessary. Key names would suffice in such cases.)
- In addition to the jpg files, photos may also be copy-pasted on the Word file at relevant places, with captions below each photo.
- **News related to student and K12 activities may be sent to youth@ishraehq.in and v.thakur@ishraehq.in respectively, for publication in Student Connect and K12 Activity Newsletter.**

ISHRAE Reaches Out to Students and Children

So as to take ISHRAE's engagement with students and children to the next level, HQ has started newsletters devoted exclusively to activities related to these target groups. Student Connect is a newsletter meant for members of Student Chapters, and K12 Activity Newsletter is targeted at children from Kindergarten to Std. 12.

eNews wishes both the publications a huge success in their endeavors.

Chapters and Sub-chapters may, in future, send news related to student and K12 activities to the following email addresses:

- Student activities:** youth@ishraehq.in
K12 activities: v.thakur@ishraehq.in



National Programs

Goa Celebrates TechFest

The Carnival and TechFest are the two annual events that Goa looks forward to every year. Taking forward last year's focus, the theme for TechFest Goa 2018 was 'HVACR & Cold Chain for Inland, Coastal and Marine Industry'. It was held on September 7 at Vivanta by Taj, Panaji. Organised by ISHRAE Goa Chapter as a National Program, it was supported by ASHRAE Mumbai Chapter, and by several Associate Societies – Fire & Security Association of India (FSAI), Indian Green Building Council (IGBC), Indian Plumbing Association (IPA), Awesome, and Refrigeration & Air Conditioning Trades Association (RATA). The symposium was partnered by LG, Aeropure, Sterling Duro Enterprise, and Inner Engineering. The Convenor was Hemant Bhandare, National Vice-Chair – Programs.



Lighting the lamp (L to R): Hemant Bhandare, Pradeep Rawat, Manoj Pandey, Capt. Jai Kumar and C. Subramaniam

The lamp of knowledge was lit by Hemant Bhandare, Chief Guest Pradeep Rawat (Chairman, National Shipping Board), Goa Chapter President Manoj Pandey, Capt. Jai Kumar (Nautical Advisor to Government of India, and Secretary – National Shipping Board), and ISHRAE National President C. Subramaniam.



President Manoj Pandey welcomes the delegates

President Manoj Pandey welcomed the delegates at the commencement of the proceedings.



National President C. Subramaniam

C. Subramaniam took the stage to speak about ISHRAE, its Vision and Mission, key objectives, Women in ISHRAE, Youth@ISHRAE and other activities.



Chief Guest Pradeep Rawat

Delivering the keynote address, Pradeep Rawat spoke about the major paradigm shift in India's economic policy from socialism to growth-led development, characterised by efficiency, entrepreneurship and organisation (E²O). He predicted that India will be one of the most developed nations in the world within the next one to two decades. Paying a tribute to the HVAC&R industry, he said that innovations in this industry have truly brought a revolutionary change in the quality of life.

In his presentation on *Sagarmala – an Overview*, Pradeep Rawat elaborated the government's initiatives in the marine sector under the Sagarmala umbrella, which would revive the country's status as a maritime nation and add about 3% to its GDP in the next 10 years. It is a Rs. 16,00,000 crore project involving port-based development, with a layout of Rs. 4,00,000 crore for modernisation of ports. He mentioned that 115 parameters of the project are being tracked regularly. The ambitious project includes rail and road connectivity to ports, dry ports in the hinterlands, use of rivers as internal waterways, skilling program for fishermen and providing them modern boats. He invited ISHRAE to make a presentation to the government outlining what can be done in this field.



Kapil Singhal

Kapil Singhal (Director, BP Refcool) made a presentation on *Refrigerants Update – Regulations and Technology*.



Kamlesh Mehta

Kamlesh Mehta (Director, Citizen Industries) spoke about *Air Side Equipment for Marine Applications*.



Kedar Patki

Product presentations were made by Ashish Chaudhury for LG, Kedar Patki for Aeropure, Sajiv Philips for Sterling Duro, and Amisha Madan along with Ravindra Deshpande on the product lines handled by Inner Engineering. Amod Dikshit made a presentation on ACRES India 2019, and Yogesh Thakkar (Convenor, REFCOLD India 2018) introduced REFCOLD.



Arvind Surange

In the post-lunch session, Arvind Surange delivered a presentation on *Sustainable Cold Chain – Need of the Day*, in which he gave an idea of the scale of India's perishable produce – including 164 million MT of milk and 200 million MT of fruit and vegetables (highest and second highest in the world, respectively). The cold chain comprises cold stores, pack houses and precooling, controlled atmosphere stores, processing, freezing and storage plants, air conditioned or ventilated storage, distribution centres, supermarkets and other retailers, and refrigerated transport.

He outlined the emerging technologies in cold chain – refrigerants (the arrival of CO₂ in India, and R723 blending to reduce the toxicity of

ammonia), low charge ammonia systems, DX ammonia systems (already commissioned in Karnataka, Navi Mumbai and Sholapur), CO₂ refrigeration systems (with a limitation on use in the high-ambient regions of India), absorption refrigeration systems, waste heat recovery systems, solar photovoltaic cells, bio-gas plants, and PE structures. He ended the presentation by enumerating the features of a Green cold chain project.



Mukund Ranade

In the final session, Mukund Ranade spoke about *Jet Refrigeration for Nuclear Submarine Air Conditioning*. He showed that jet refrigeration is a better system than steam jet refrigeration for submarines, especially for nuclear submarines. It is also suitable for bus air conditioning, in view of the availability of waste heat.

Santosh Naik, President-elect – Goa Chapter, proposed the vote of thanks.

Kolkata Chapter all set for RACON 2018

Kolkata Chapter is organising its flagship annual event RACON on December 7 and 8 at Hotel Novotel, Newtown, Kolkata. RACON is the largest conference in the East on Heating, Ventilation, Air Conditioning and Refrigeration and other Building Services, expected to be attended by more than 450 delegates from across the country and neighbouring countries. This year's theme is *Next Generation Technologies for Buildings and Industrial Services*. Eminent speakers from India and abroad will present their papers on the Conference theme.



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News in Brief

Bhopal Sub-chapter Chartered



C. Subramaniam administers the oath to Bhopal CWC



Vivek D. K. with C. Subramaniam

National President C. Subramaniam presented the charter to Bhopal Sub-chapter President Vivek D. K. on October 24. The new Sub-chapter has been formed under the guidance of Indore Chapter, and has about 40 members.

Trivandrum and Coimbatore Get Elevated

Two Sub-chapters – Trivandrum and Coimbatore – are on the way to becoming full-fledged Chapters. This is a result of their increased membership base, activity levels and the reach of ISHRAE to the industry in these locations. Their parent Chapters are Kochi and Chennai respectively.

Tech Talk on AutoCAD in Mumbai



Tirupati Naik explains AutoCAD

ISHRAE Mumbai Chapter, along with ASHRAE Mumbai Chapter, organised a practical session on AutoCAD 3D as a part of the Tech Talk series on October 26. It was supported by RATA and AWESOME. The faculty was Tirupati Naik, an experienced professional in the field of AutoCAD for drafting and designing of engineering drawings.

Mumbai Holds Tech Talk on Vapour Compression Chillers



Mragesh Gowda being felicitated

ISHRAE Mumbai Chapter, along with ASHRAE Mumbai Chapter, held a Tech Talk on Vapour Compression Chillers, supported by RATA and AWESOME, on October 19. The program covered PH diagram, basic chiller components, refrigerants, types of chillers, starters, VFD application, efficiency, and chiller selection vs. plant selection. The speaker was Mragesh Gowda, who is heading the commercial business vertical at Kirloskar Chillers Private Limited.

Mumbai Chapter Supports Indian Plumbing Conference



Indian Plumbing Conference in progress

Indian Plumbing Association (IPA) organised its 25th Conference and Exhibition on October 25-28 at Nehru Centre, Worli. It was supported by ISHRAE Mumbai Chapter.

Product Presentation in Mumbai

ISHRAE Mumbai Chapter, along with ASHRAE Mumbai Chapter, organised a product presentation on Fu Sheng make variable speed semi-hermetic screw compressor with variable Vi technology and application, on October 11. It was supported by RATA and AWESOME. The presentation covered India IPLV/ISEER Star rating requirement, working principle of variable Vi structure with VFD screw compressor, and performance and application.

Mumbai Holds Tech Talk on Electrical Distribution and Control

ISHRAE Mumbai Chapter, along with ASHRAE Mumbai Chapter, held a Tech Talk on Understanding Electrical Distribution and Control Systems for HVAC Equipment on October 12. It was supported by RATA and AWESOME. The program covered basic concepts, safety, inputs required to plan SLD and dimension components, future of HVAC equipment in the context of IoT, and self-monitoring of electrical switchgear and components outside IBMS. The speaker was Devindra S. Mankoo, a Principal Consultant for MEP Design Services with 40 years of experience in electrical system design for industrial, commercial and educational institutes.

Five-Module Training by FSAI on BAS

Fire and Security Association of India (FSAI) – Mumbai Chapter is conducting a five-module training course across the year on Building Automation Systems. It is being supported by ISHRAE Thane and Mumbai Chapters.

Module 3 was conducted on October 6 at Hotel Satkar Grande, Thane. The topics in-

cluded Introduction to Electrical Engineering, Components of Building Distribution Systems, Standby Power Supply Equipment, Power Quality Management, Lighting Management, Earthing System, Lighting Protection System, and Importance of Energy Management System.

Training on Negotiation Skills in Mumbai



Suparna Majumdar shares her expertise in negotiating skills

ISHRAE Mumbai Chapter, along with ASHRAE Mumbai Chapter, organised a full day training program on Negotiation Skills for Managerial Effectiveness on October 6, supported by RATA and AWESOME. The faculty was Suparna Majumdar, a senior human resource professional with 24 years of experience, who has effectively managed change and diversity across large corporates and entrepreneur-driven companies in different stages of evolution and maturity.

Mumbai Chapter Supports Session on Enhancing Health and Well Being

Indian Green Building Council (IGBC) conducted a session on Enhancing Health and Well Being through Built Environment on September 14 at Godrej Auditorium, Vikhroli, Mumbai. It was supported by ISHRAE Mumbai Chapter. The session was attended by participants from different sectors of the building industry such as architects, developers, corporates, engineers, IEQ consultants, HVAC consultants, interior designers, landscape consultants, lighting consultants, Green building facilitators, and Green product/equipment manufacturers.

Tech Talk on Cooling Water and Chilled Water Treatment in Mumbai

ISHRAE Mumbai Chapter, along with ASHRAE Mumbai Chapter, held a Tech Talk on HVAC Cooling Water and Chilled Water Treatment, supported by RATA and AWESOME, on September 7. The program was conducted by S. M. Mahadik, who has 40 years of experience in open cooling water treatment, closed cooling water treatment, industrial and chemical cleaning, and water conservation/recycling.

The program covered best practices in pre-cleaning and passivation of cooling water and chilled water systems, open cooling water (condenser) systems, and closed cooling water (chiller/evaporator) systems.