Compiled and edited by Rakesh Kumar, Managing Editor, Air Conditioning and Refrigeration Journal

International Conference in Maldives



National President Vishal Kapur was invited to attend the Ozone2climate Technology Expo organized by United Nations Environment Program (UNEP), United Nations Development Program (UNDP) and the Government of Maldives at Male from August 14 to 16. ISHRAE was one of the supporting organizations of the event. A great opportunity for international advocacy!

Vishal Kapur delivered a technical presentation on Energy Efficiency in Buildings, and was a panellist for a panel discussion. The Minister of Environment, Maldives and officials including Director – Ozone Cell, CEO – Electronics Skill Council of India and the Indian



Vishal Kapur poses with other international delegates

ambassador were among the participants. On August 16, they organized South-South Co-operation Day, where they presented the Indian Construction and HVAC Story and what ISHRAE can do for Maldives. Discussions took place with the ministry on skill development programs and other educational initiatives. A Maldives delegation will visit ACREX 2018.

GST Demystified

ISHRAE HQ organised a webinar on GST by CA Ashish Garg on July 7 from 4 to 5 PM for the benefit of members. This was followed by the launch of a GST helpline through ISHRAE website, where CA Ashish Garg answers queries raised by members. Members may log in after visiting *gst. ishrae.in* or by clicking the GST banner on *ishrae.in*

Members can read the existing questions and answers already posted. If they have a different query, they can post it and get an answer. Generic queries to help plan the systems are welcome, not queries regarding HSN codes, etc. The helpline is open till September 30.

Joint Meeting in Delhi

National President Vishal Kapur had a joint meeting on July 20 with representatives of United Nations Environment Programme (UNEP), Ozone Cell – Ministry of Environment, Energy Efficiency Services Ltd. (EESL) – Ministry of Power and EDS. There were discussions on action plan for joint technician training workshops, HCFC phase-out knowledge dissemination, conference participation, O2C awareness-building and many others.

Mission Innovation Workshop

National President Vishal Kapur attended a Mission Innovation workshop organised by the Department of Science & Technology, Government of India on August 1 in Delhi. The topic of discussion was Affordable Cooling and Heating Technologies.

Meeting with BEE

Delhi was the venue for a meeting with Abhay Bakre, Director General of the Bureau of Energy Efficiency (BEE) on August 8. The discussion focused on how ISHRAE can engage with BEE to make India a more energy-efficient country. Ways were explored for co-operation in the fields of ECBC knowledge dissemination, technician training, technical partnership and advisory on select panels.

ISHRAE is Certified to ISO 9001: 2015

ISHRAE HQ has received a Certificate of Registration under ISO 9001: 2015 from QA Certification Services Pvt. Ltd. for its Quality Management System.

A laudable achievement and a moment of pride for all ISHRAE members!



Workshop on Low Energy Cooling and Ventilation for Indian Residences at CEPT



National President Vishal Kapur attended a workshop on Low Energy Cooling and Ventilation for Indian Residences (LECaVIR) at CEPT, Ahmedabad on July 18. The participants were from Loughborough University – UK, SE Controls, Alliance for Energy Efficient Economy, CEPT (formerly the Centre for Environmental Planning and Technology), ASHRAE Western India Chapter and ISHRAE. There was good interaction, and

ASHRAE Prepares for Developing Economies Conference in Delhi

ASHRAE, in partnership with ASHRAE India Chapter and ISHRAE, has planned a Developing Economies Conference on November 10 and 11 in Delhi.

time lines were defined.

The conference theme, 'Trends, Opportunities and Challenges for the Built Environment in Developing Economies,' provides a platform for interaction among designers, building professionals and policymakers from both developed and developing nations. "The conference offers a unique opportunity to listen and interact with experts from ASHRAE, and speakers from nearly 15 countries across the world who will deliberate on trends influencing the built environment," says Ashish Rakheja, Conference Chair.

Technical program tracks include Internet of Things (IoT); Energy-Water Nexus; International Experiences; Smart Cities; UN Environment; Indoor Air Quality (IAQ); and Tall Buildings. Experts will cover various aspects of each track. Some presentation titles are:

 Energy Resiliency and Sustainability for Smart Cities in Developing Economies

- The Use of a Hybrid Superefficient Cooling System for FIFA 2022 Stadium
- The Future of Energy Reduction
- Eco-labelling by UN Environment
- Water-Energy Nexus: A Strategy and Roadmap
- Internet of Things (IOT) in HVAC Built Environment
- Required Ventilation for an Acceptable Indoor Air Ouality
- Smoke Management Control and Active Fire Strategies for Tall Buildings

In addition to seminars, the conference includes panel discussions, study findings, networking events and special presentations from main supporters of the event including Blue Star, Hitachi and Kirloskar Brothers. Master speakers for the conference are Karan Grover, founding director of Karan Grover and Associates, and Gauranga Das, Director of Govardhan Eco Village.

For registration, complete program schedule, speakers and additional information, visit www.ashrae. org/Developing2017

July - August 2017

Mumbai Conducts Symposia on Healthcare

On July 7, The Leela was the bustling venue of Symposia – a national program conducted annually by Mumbai Chapter. The theme this year was Healthcare. The speakers were acknowledged leaders in their domains, and the appreciative audience of over 350 participants who filled the hall to capacity was witness to the tremendous popularity of the event.



Dr. Muzaffar Lakdawala addresses the audience on Changing Faces of Surgery

After the ceremonial lighting of the lamp, President Ajaj Kazi of Mumbai Chapter welcomed the gathering. Dr. Muzaffar Lakdawala, Laparoscopic and Obesity Surgeon of national repute from Saifee Hospital, made a presentation on Changing Faces of Surgery.



Ar. Hiten Sethi speaks on Hospital Design

Renowned architect Hiten Sethi was the next speaker, who talked about Hospital Design from an architect's perspective. He took the audience on an extensive tour of National Cancer Institute, a state-of-art facility at Nagpur.



Dr. Rohini Kelkar talks about Infection Control in Hospitals

Rohini Kelkar, the feisty Doctor from Tata Memorial Institute, made an impassioned presentation on Infection Control in Hospitals.



Siddharth Jain discusses IAQ and New **Technologies**

Siddharth Jain, Director, Zeco Environmental Solutions, gave a speech on Indoor Air Quality and New Technologies.



Anil Dev makes a presentation on Heat recovery in Chillers

Anil Dev, Chief Technology Officer & CEO (India), Climaveneta was the next speaker. He addressed the audience on Four-Pipe Systems & Heat Recovery in Chillers.



ISHRAE Mumbai Chapter President Ajaj Kazi lights the lamp of knowledge at Symposia as ASHRAE Mumbai Chapter President Viresh Ruhal looks on



Life Safety in Hospitals

Anubhav Guglani, Head - Schrack Seconet India, followed with a presentation on Fire & Life Safety in Hospitals.



Gautham Baliga wraps up the seminar with HVAC Designer's Role in Infection Control

Gautham Baliga, Head of Opal HVAC Engineers, had the last word with his presentation on HVAC Engineer's Role in Infection Control. This was followed by a panel discussion on the learnings of the day.



Rahul Pabalkar of AWESOME and Richie Mittal of ISHRAE sign an MoA

A Memorandum of Association was signed between ISHRAE and AWESOME during the day's proceedings.

Product presentations were made by program partners Air-Vision Technologies, K-Flex, Zeco and Climaveneta.



News in Brief

Ahmedabad Chapter organized a Technical Product Presentation on 'Critical Role of Valves in HVAC' at Hotel Hyatt on July 7.



Alaguraja S. P.

Kaori Takahashi

Alaguraja S. P. and Kaori Takahashi. More than 150 participants attended. Lucky draw winners received the ISHRAE Handbook.

Ahmedabad Chapter organized a technical talk on 'Basics of VRF Systems and Best Practices for Installation, Testing



Mahesh Gupta



A view of the large audience

and Commissioning' by Mahesh Gupta at Ahmedabad Management Association (AMA) on July 21, followed by high tea.

Mahesh Gupta is Technical Head for LG, responsible for designing VRF systems, product selection and critical application equipment design.

More than 105 participants attended the technical talk. Lucky draw winners received the ISHRAE Handbook.

ISHRAE Institute of Excellence (IIE) Delhi held a technical workshop on Hourly Analyses Programme (HAP) on July 22. The faculty was Shiv Kumar Batra, master trainer for LEED® AP and GRIHA.

Mumbai Chapter organised a demo cum training program on Smart Energy - an online hourly load and energy simulation tool - on July 29.

Mumbai Chapter conducted a Tech Talk on Filters and Filtration on August

Mumbai Chapter arranged a Tech Talk on Geothermal Technology on July 18. Kanad Banerjee, one among very few International Ground Source Heat Pump Association (IGSHPA®) accredited professionals in India, was the faculty.

Mumbai Chapter organised a Tech Talk on Air Measurement in Field on July

Deccan Chapter conducted a program on 'The Future of your Business - Digital Outreach by Word of Mouse' on July 29. K. Nandu - CEO, Client360 Cloud Enterprise – was the faculty.



K. Nandu

Deccan Chapter conducted a technical program on July 19 for R&B Engineers at Hyderabad on the topics of 'Emerging Trends in HVAC' and 'Energy Efficient Cooling Towers'. The speakers were Jenson Sebastian and Rajesh Verma, respectively.



Emerging Trends in HVAC

Various departmental engineers attended the program.

Indore Chapter organised a Technical Talk on 'New Trends in Refrigeration Industry' on July 15 at Indore Tennis Club. Pramod Jagtap -Deputy GM, Sales, Johnson Controls, Mumbai – was the speaker. There were about 50 participants.

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Mumbai Celebrates harit jal-vaayu



ISHRAE Mumbai Chapter, along with Indian Green Building Council (IGBC) and Indian Plumbing Association (IPA) Mumbai Chapter, organised the fourth edition of Harit Jal Vayu at The Leela on August 4. It was partnered by Astral Pipes, Kranti Group and Gauges Bourdon. The Chief Guest was V. Suresh. An enthusiastic audience numbering 295 applauded the speakers all the way.

The traditional lamp of knowledge to mark the beginning of the event was lit by Chief Guest V. Suresh; Gurmit Singh - National President, IPA and Executive Board Member - IGBC; Vishal Kapur -National President, ISHRAE; Ajaj Kazi - President, ISHRAE Mumbai Chapter and Sharat Rao - Chairman, IPA Mumbai Chapter.



Mihir Sanghavi, Treasurer, ISHRAE Mumbai Chapter conducted the proceedings with his usual aplomb. V. Suresh delivered the keynote address, in which he highlighted the huge responsibility for sustainable development that lies on the shoulders of builders, developers, consultants, regulators, architects, engineers and other stakeholders.



President Vishal Kapur, in his address, mentioned that 50% of India is going to be constructed in the next twelve years, and

green design practices incorporated at this juncture will impact the environment for the lifetime of the new buildings. He elaborated the activities and achievements of ISHRAE and outlined its future course. Ajaj Kazi welcomed the participants to this fourth edition of Harit Jal Vayu.



Gurmit Singh addressed the issue of sustainable built environment in his speech.



Sharat Rao spoke about the low per capita consumption in India juxtaposed against its high population, and emphasised development with sustainability. He mentioned that irrigation was the biggest water guzzler in India, and highlighted the need for adopting less water-intensive methods of irrigation as in Israel.



The first technical presentation was made by Gauranga Das, Life Coach and Mentor - ISKCON and Director,

Govardhan Eco Village (GEV) in Palghar near Mumbai, a favourite destination for sustainable tourism. In his electrifying presentation on 'Spirituality and Sustainability Hand-in-Hand, he spoke of the polarisation between Indian villages and cities. While villages are characterised by peace and poverty, cities are witness to prosperity and stress. With 80 crore Indians living in 6.5 lakh villages, a synergistic solution would be a win-win situation for both. His model involves eco-tourism, which would catalyse development in villages. His GEV, spread over 100 acres, is a fullsized prototype of this synergy (www. ecovillage.org). It is a zero-waste village, where the output of every process becomes the input for another process. The village attracts about 12,000 visitors per annum to its retreat, and this ecotourism acts as a catalyst for rural development.

The presentation brought the houseful audience to their feet in a spontaneous gesture; the standing ovation lasted for a quite a few minutes. A visibly overwhelmed Gurmit Singh conferred IGBC Fellowship on Gauranga Das and invited him as the Master Speaker for the forthcoming IGB Congress at Jaipur. Ashish Rakheja invited him as the Master Speaker for the forthcoming ASHRAE International Conference on Developing Economies at Delhi.



Ashish Rakheja, MD - Aeon Consultants, made a presentation on Net Zero Buildings – those that consume net zero energy, water and other resources. Among the trends he cited was evaporative cooling making a comeback in India. He mentioned that while the chiller market was going up in numbers, the tonnage was stagnant due to chiller sizes going down.



Deepak Gadhia

Deepak Gadhia of Gadhia Solar Energy Systems presented the Case Study of a Sustainable Community -Green Ashram (www.greenashram.com), which makes extensive use of solar energy.



Jagdeep Singh of Rosemex Ecotech made a presentation on Hybrid Geothermal Technologies, citing the case study of Honda Motorcycle and Scooter manufacturing facility.

There were product presentations by event partners Gauges Bourdon, Astral Pipes and Kranti Meters. The program ended with a lively panel discussion moderated by Sandeep Mehndiratta.



ma (not in the photo), Yogesh Shah, Deepak Gadhia, Singh, Jagdeep Singh, Sharat Rao, Ajaj Kazi and Amarendra Kulkarni, with moderator Sandeep Mehndiratta at the podium

ISHRAE Certification Program

Mumbai Chapter Conducts ICP - AC Design Level-1

ICP - AC Design Level-1 was conducted by Mumbai Chapter from July to September. Module 1, from July 25 to 29, covered basics of psychrometry, heat load and evaluation. Govind M. Lele and Sangita Jhangiani were the faculty.

Module 2, from August 10 to 12, covered overview of equipment, duct design with equal friction method, air distribution for constant volume mixing air systems and evaluation. V. Krishnan was the faculty.

Module 3, from September 7 to 9, covered ducting and insulation, and basics of water and refrigerant piping. Govind M. Lele was the faculty.

AC Service Level-1 in Mumbai

Mumbai Chapter conducted AC Service Level-1 during July and August.

Module 1, on July 14 and 15, covered customer service – soft skills, types and classification of AC systems, thermodynamics – refrigeration cycle, introduction to psychrometrics, and refrigeration components and controls.

Module 2, on August 4 and 5, covered oils, refrigerants, good installation practices, electrical fundamentals for HVAC, trouble shooting, AC plant maintenance, pressure testing, leak detection, vacumising and practical demonstration workshop. It was followed by an examination. Sanjay Nikam was the faculty.

July - August 2017

ADVOCACY

Ahmedabad Chapter Participates in 12th National Conference on **Indian Energy Sector**

Ahmedabad Chapter participated in a full day National Conference on Indian Energy Sector, organized by Saket Projects Ltd. The theme was 'Changing Rules of Indian Energy Sector - Empowering the Indian Economy'. It was held on July 14 at H. T. Parekh Auditorium, Vastrapur.



Lighting the lamp at the National Conference



Welcome address by D. L. Pandya, Conference Convener, Saket Projects Ltd.



Guest of Honour Shailesh Patwari, President, Gujarat Chambers of Commerce & Industry



Keynote address by Awadhesh Kumar Singh, President (Power Plant & Turbine), TCR Advanced Engineering Pvt. Ltd., Vadodara



Special address by S. R. Pandey, Legal Advisor, Gujarat Electricity Regulatory Commission

Ahmedabad Participates in Synergy with Energy

Ahmedabad Chapter participated in an advocacy program - Synergy with Energy - at Ahmedabad Management

Association (AMA), Vastrapur on July 15. The program was organized by Saket

The keynote address was given by Awadhesh Kumar Singh, President (Power Plant & Turbine), TCR Advanced Engineering Pvt. Ltd., Vadodara. A special address was given by S. R. Pandey, Legal Advisor, Gujarat Electricity Regulatory Commission (GERC), Gandhinagar.

Chennai Chapter Joins Hands with Rotary

Chennai Chapter participated in the installation ceremony of Sridhar Jr., a past president of the Chapter, as the incoming President of the Rotary Club on July 7 at Radisson Blu. Chapter President Seshadri T. R. was invited to speak about ISHRAE and its various activities, both technical and social. The event was attended by more than 200 delegates.



Seshadri T. R. speaks about ISHRAE at Rotary installation

Technovation 2017 at Vadodara

Vadodara Chapter, in Association with The Institute of Engineers (India), celebrated Technovation 2017 on August 19 and 26 in the premises of The Institute of Engineers (India), Ellora Park,

About 38 delegates were present on August 19, including Manan Vora (R.D. West-II), Himanshu Patel (Zonal Chair - Advocacy) and IEI officials Asit Shah -Chairman and N.P. Singh Brar – Honorary Secretary. The speaker was Viral Shah, Head - Training, Project, Design and Quality Control for Cold Chain, Emerson India. He talked about best practices in the HVAC field and safety precautions.

About 35 delegates were present on August 26. The speaker, D.D. Koranne, is **Customer Training & Product Manager** at GEA Refrigeration India Pvt. Ltd., Vadodara. He explained the latest trends in refrigerants.

Technical Seminar in Vadodara on HVAC in Association with

Vadodara Chapter, along with The Institute of Engineers (India), arranged a full day technical seminar on Basics of Heat Load Calculation and Types of Air Conditioning Systems on August 27 at the premises of The Institute of Engineers (India). The speakers were Abhay Date, Kumhersingh Dagur and K.L. Maheshwari. There were 22 participants.

News in Brief... contd.



Pramod Jagtap

The presentation covered new trends in the refrigeration industry and, more particularly, various forms of low ammonia refrigeration systems including CO₂ and ammonia cascade systems. It was attended by more than 50 participants including leading architects, MEP consultants, MEP contractors and end users from the hotel and infrastructure industries.

Indore Chapter conducted a technical talk on Basics of Air Conditioning for technicians at Indore Tennis Club on July 29. The speaker was Dr. Sharad Choudhary, IPP. About 40 participants attended. Chapter President Pankaj Tiwari welcomed the participants and introduced the speaker.



Dr. Sharad Choudhary

Certificates of participation were handed over to technicians by J. K. Vyas - President-elect, Suresh Chouhan past president, Ajeet Bargaley -Student Chair and Milind Ingole – CWC member.

Chennai Chapter conducted a half-day program on Overview of GST on July 1 at ISHRAE office. It was attended by more than 40 members.

Chennai Chapter conducted a full day seminar on District Cooling on July 15 at Hotel Feathers. Vinodh, Ananthakrishnan, Arun Thapliyal, Khera and Annaraj were the speakers. It was attended by more than 100 participants.



Seminar on District Cooling

Speakers from the Middle East and India – working professionals in district cooling projects - were part of the event. The participants were from HVAC industry, architects, facility managers and Andhra Pradesh government. The seminar concluded with panel discussions.

Chennai Chapter conducted a program on Fire Protection in HVAC Systems by H. Sriram on July 29 at Feathers - a Radha Hotel. Various fire protection systems, design aspects of fire protection in basement car parking and stairwell pressurization were explained with live examples. More than 60 participants attended.

Chennai Chapter conducted a program on Basics of Vapour Compression Cycle on July 22 at its training room. Sandeep Lokare was the speaker. The program was attended by more than 90 members.

Chennai Chapter arranged a product presentation by Mitsubishi Electric India on July 29 at Feathers - a Radha Hotel. A combined Mitsubishi Electric and Climaveneta (a part of Mitsubishi Electric) team jointly presented VRF and chillers. There were over 100 participants.

Chennai Chapter organised a K-12 drawing and elocution competition on water and power savings on July 8 at Panchayat Union Middle School, Madipakkam.

Over 60 students participated.



Panchayat Union students participate in drawing competition

Kalpakkam Sub-chapter organized a technical training programme for air conditioning and ventilation trainees, trade apprentices and contract workers on July 21 at IGCAR, Kalpakkam. About 65 delegates, along with 15 CWC members and staff members of DAE units at Kalpakkam, attended.

E. Mohanraj, Sub-chapter President, welcomed the gathering, followed by Faizan Ulla Khan, Training Chair. V. Rathnakumar, M. Deenadhayalan, N.S. Gopalakrishna, E. Mohanraj, Y. Ravi and B. Vijayavelu were the faculty.

Kalpakkam Sub-chapter

arranged a factory visit to NADI Airtechnics Private Limited in Thiruvallur District on July 22. A van was arranged and around 15 members visited the factory. Jayanthi from NADI welcomed the delegates, and Jaideep, Sr. Manager – Sales & Marketing, NADI introduced the company. He also explained the technical aspects of fan manufacturing and testing.

Student activities are being migrated to Student Connect, circulated to student members.

Guidelines for Reports in eNews

It is heartening to see the number of reports submitted for publication in eNews going up exponentially. It reflects the rising competition among chapters to carry out activities in line with the Society's objectives, and shows increasing member engagement.

Here are some simple and useful guidelines for your reports to ensure that your activities get the exposure they deserve:

The deadline for receiving reports is the last day of

the relevant period. For example, for publication in the September-October issue, the deadline is October 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. Word file is preferable to pdf or ppt.

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 programme, all names are neither feasible nor necessary. Key names would suffice in such cases.)

In addition to the jpg files, photos may also be copypasted into the Word file at relevant places, with captions below each photo.