



January - February 2016

ISHRAE NEWS

Linking ISHRAE Chapters Across India

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

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 the reports to help **eNews** become a powerful catalyst of chapter activities:

- The deadline for receiving reports is the last day of the relevant period. For example, for publication in the March-April issue, the deadline is April 30.
- 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 do in such cases.)
- In addition to the jpg files, photos may also be copy-pasted into the Word file at relevant places, with captions below each photo.
- While "a picture is worth a thousand words", **only pictures** do not constitute a report. A Word file describing the event must accompany the pictures.

Honours & Awards

Every year, ISHRAE honours members who work tirelessly to take it to greater heights and bring it glory.

Regional Service Awards (RSA) were presented during the Curtain Raiser at ACREX India 2016 on February 24 at ITC Maratha in Mumbai. Sudhir Sinha, Chair, Honours & Awards Committee, along with K. Ramachandran, National President and Sachin Maheshwari, President-Elect presented the awards. The recipients of RSA were S. V. Venkatachalam, Alex Cyriac and Raja Sriram (South Zone). Student Activities Achievement Award was conferred upon Utpal Biswas (East Zone).

The top awards for 2015 were presented during the ACREX Awards Night on February 25 at JW Marriott, Sahar. Sudhir Sinha, K. Ramachandran and Sachin Maheshwari presented the awards.

Lifetime Service Award was presented to IPP D. Nirmal Ram. Exceptional Service Awards were presented to Pankaj Shah (South Zone) and Dipak Barma (East Zone).

M. M. Pandey Award was presented to G. Ramesh Kumar (South Zone) for membership development.

Distinguished Service Award was presented to Sushil Choudhury (North Zone).

National BoG Held in Mumbai

The last meeting of the National Board of Governors for 2015-16 was held at the newly opened Taj Santa Cruz, Mumbai on February 24, on the eve of ACREX India 2016.

Raveendra Shetty, President of the host chapter, welcomed the delegates. K. Ramachandran spoke about the year gone by. He was grateful for the full support received during his tenure. He also spoke about the concerns – membership (especially renewals and sustenance), some chapters and sub-chapters being inactive, and a disconnect between the HQ and chapters in certification and some other programs.

All the Chairs presented reports of their activities. Job Junction has been one of the more successful pro-

grams. The website www.searcho.org was launched.

ASHRAE President David Underwood attended the meeting for some time, and addressed the members.

Motions were moved in line with the agenda. An important motion that was carried provides



Pankaj Dharkar introduces ASHRAE President David Underwood

for waiving past dues from members renewing their membership after a lapse of time. Another motion that was passed provides for fourth year student members to be admitted as ISHRAE members without paying admission fees.

Nandlal Singh, President-Elect of the host Mumbai Chapter, proposed the vote of thanks.



National Secretary Kapil Purandare, President-Elect Sachin Maheshwari, National President K. Ramachandran, National Treasurer Vishal Kapur and HQ Secretary Ashwini Mehra on the dais during National BoG

Chapter Awards for Excellence

The eagerly awaited Chapter Awards for Excellence (CAFÉ) were presented during the National Board of Governors meeting at Taj Santa Cruz, Mumbai on February 24.



The jubilant Mumbai Chapter team receives the Best Chapter trophy

Mumbai Chapter walked away with the top honours for the third year in a row. The winners in various categories are shown on the right.

Award Category	Awardee
Best Chapter - Overall Performance - Category 1 (above 750 members)	Mumbai
Best Chapter - Overall Performance - Category 2 (250 – 750 members)	Ahmedabad
Best Chapter - Overall Performance - Category 3 (below 250 members)	Vadodara
Best Sub Chapter - Overall Performance	Madurai
Best Chapter - Membership Activity	Vadodara
Best Sub Chapter- Membership Activity	Coimbatore
Best Chapter - Program Activity	Mumbai
Best Sub Chapter - Program Activity	Raipur
Best Chapter - Student Activity	Chennai
Best Sub Chapter - Student Activity	Coimbatore
Best Chapter - K 12 Activity	Mysore
Best Sub Chapter - K 12 Activity	Agra
Best Chapter - Advocacy Activity	Mumbai
Best Sub Chapter - Advocacy Activity	Ludhiana

ISHRAE CERTIFICATION PROGRAM

Mumbai Conducts ICP-AC Service Level 1

Mumbai Chapter conducted ISHRAE Certification Program (ICP) AC Service Level 1 during January. The faculty was Sekhar Ram.

Module I was conducted on January 22 and 23; Module II was conducted on January 29 and 30.



Sekhar Ram conducts ICP at Mumbai

Launch of e-Journal

We are happy to announce the launch of your own *Air Conditioning and Refrigeration Journal* in digital form. Hard copies will continue to be printed and despatched as before. The January-February 2016 issue of *e-Journal* will be available as a soft copy online to bona-fide ISHRAE members shortly. Please watch your inbox for a password-protected link. All the subsequent issues will be available two weeks after the despatch of hard copies. Happy browsing!

Installation Special Issue

We shall bring you a report on the installation of National BoG for 2016-17, during ACRECONF 2016 in New Delhi on March 18, in the March-April 2016 issue of *eNews*, along with installation ceremonies of various Chapters and Sub-chapters.

Delhi Chapter Hosts Ventconf 2016

Delhi Chapter organized its annual one day conference on ventilation branded Ventconf on January 15 at Epicentre, Gurgaon. It was attended by more than 300 delegates.

The agenda included technical papers on Particulate Matter PM_{2.5}, Creating Comfort in Offices through Natural Ventilation, Fire and Smoke Control in Modern Buildings, Hybrid

Ventilation, Natural Ventilation in Commercial and Industrial Buildings, and NBC Codes and Standards. The papers were presented by renowned national and international speakers.

During the concluding session, stalwarts from the industry Anil Maheshwari, Pratap Gidvani and Anil Bajjai were felicitated. *Comprehensive HVAC System Design*, a book by N.C. Gupta, was launched.



Dignitaries on the dais during inauguration



National President K. Ramachandran lights the lamp



K. Ramachandran addresses the inaugural session



Launch of N. C. Gupta's book

Ahmedabad Hosts 10th Confluence

ISHRAE Ahmedabad Chapter and ASHRAE Western India Chapter organised a seminar on *Energy Efficient Technologies in HVAC Systems* under the banner of Confluence on December 26.

The inaugural ceremony saw Pankaj Dharkar (Past National President, ISHRAE), Ashok Patel (IPP-ASHRAE WIC), Kamalesh Mehta (President, ASHRAE WIC) and Aakash Patel (President, ISHRAE Ahmedabad Chapter) lighting



Pankaj Dharkar lights the lamp

the traditional lamps.

The topics covered included Latest Trends in Energy Efficient Chillers, Applying Chilled Beams in Hot and Humid Climate, Role of VFD in Energy Conservation, Energy Efficient Cooling Tower Design, Energy Efficient Pumping in Radiant Cooling Systems, Contribution of IBMS in Improving Energy Efficiency, and Next Level in Energy Efficient Motors.

ASHRAE DL at Ahmedabad

A technical seminar on *Retro-Commissioning for Energy Savings* by ASHRAE DL Hoy R. Bohanon was organised by Ahmedabad Chapter at Ahmedabad Management Association on January 19.



Hoy Bohanon being felicitated by R. C. Patel, CTC, ASHRAE-WIC

Hoy Bohanon described retro commissioning and explained how a process can save energy, some aspects of an energy saving retro-commissioning application, what guidance is available from ASHRAE guidelines, what are the types of savings and what are the critical components to assure that savings are realized.

In all, 30 delegates including students attended the seminar.

National Workshop on Advancement in Refrigeration and Air-Conditioning at Guwahati

Guwahati Sub-chapter organised a national workshop on *Advancement in Refrigeration and Air-Conditioning* on February 13. Blue Star and LG Electronics were the partners.

Presentations were made by Prof. S. Srinivasa Murthy, IISc. Bangalore on Polygeneration: Improving Efficiency of HVAC system; Prof M.P. Maiya, IIT Madras on Cooling Tower Based Thermally Activated Building for Thermal Comfort; Prof K. Srinivasan, IIT Guwahati on Energy Conservation in Refrigeration and Air Conditioning using Off-peak Electricity and Off-cycle Capacity; Prof. P. Muthukumar, IIT Guwahati on Metal Hydride Based Heating and Cooling System; Anuj Kumar, Manager R&D, LG Electronics on Advancements in Conventional Vapor Compressor Systems and Advance Technologies in Variable



Participants pose for a group photo

Refrigerant Flow Systems; and Dhananjay Singh, Dy. Manager Sales, Blue Star on New Range of Energy Efficient Products/Technology.

Amarendra Goswami, President, Guwahati Sub-chapter welcomed the guests and made a brief presentation about ISHRAE and its activities in the country. Chief Guest Prof. P. Mahanta, Dean of Faculty Affairs, IIT Guwahati ex-

pressed his gratitude for organising the event at IIT campus and announced the approval for opening a student chapter at IIT Guwahati. Prof. P. Muthukumar, President-Elect, Guwahati Sub-chapter proposed the vote of thanks.

A large number of engineers, HVAC professionals, scholars and students from IIT Guwahati participated in the workshop. There were 77 participants.

Seminar on Green Building Material at Guwahati

Guwahati Sub-chapter organised a Seminar on *AAC Block as Green Building Material* on January 9, in collaboration with K.D. Infra. The Chief Guest was A.C. Bordoloi, Commissioner and Special Secretary (PWD), Building and NH, Assam.

Amarendra Goswami, President, Guwahati Sub-chapter welcomed the guests and made a brief presentation about ISHRAE and its activities in the country. A.C. Bordoloi shared his experience about AAC blocks as building material.

Presentations were made by Dr. N.P. Rajamane, Head - Centre for Advance Concrete Research, SRM University and Dr. Indu Siva Ranjani G, Asstt. Prof., IIT Guwahati.

A large number of engineers, HVAC professionals, architects, academicians, builders and consultants participated in the event. There were 65 participants.



Welcome speech by President A. Goswami

Program on Radiant Cooling System Design in Mumbai

Mumbai Chapter organised a training program on *Radiant Cooling System Design* on January 8. The faculty comprised Fenil Kapadia and Jabish Joy, Uponor Liaison Office India. The topics covered were Introduction to Radiant Cooling Technology, Radiant Cooling System Design, Radiant Cooling Hydraulic Design, Radiant Heating Design, Control Strategy, and Installation, Testing And Commissioning.

Product Presentation by Ecosyss Ecological Systems in Mumbai

ISHRAE Mumbai Chapter in association with ASHRAE Mumbai Chapter held a product presentation on *Introducing German Technology for Water Purification and Softening* by Ecosyss Ecological Systems Pvt. Ltd. on January 22 at The Orchid.

Seminar on Integration of Demand Control Ventilation and IAQ at Mumbai

ISHRAE Mumbai Chapter along with the ISHRAE Chapters of Mumbai and Thane organized a seminar on *Integration of Demand Control Ventilation and IAQ* on January 15 at The Mirador.

The main speaker was ASHRAE Distinguished Lecturer from the USA, Hoy Bohanon PE, LEED AP, BEAP.

The other speakers were Dr. Roshni Udyavar, Architect and Head, Rachana Sansad's Institute of Environmental Architecture; and Sanjeev Rastogi from the Service Specialist Group at Blue Star.

Program on Duct Design at Surat



Viren Dubal speaks on duct design

Surat Chapter organised a workshop by Viren Dubal on January 9 on *Duct Design*. Thirty members participated.

Vadodara Organises Seminar on Cleanrooms



Speaker B. Gautham Baliga being felicitated

A technical seminar on *Air Conditioning of Cleanrooms for Pharmaceutical Industry* by B. Gautham Baliga was held at Surat on January 30.

It was attended by 38 participants including HVAC contractors and members of pharmaceutical industries. Rajesh Vyas, Regional Director - West II; Nilesh Patel, President; Rajesh Shah, Immediate Past President; Has Mukh Patel, President-Elect; Manish Dandekar, Treasurer; D.D. Koranne, Chapter Program Chair and Shirang Puntambekar, Program Chair were present. The session was interesting and was enjoyed by the participants.

Lecture on VFDs at Chennai

ISHRAE - ASHRAE Technical Lecture Series 2, on the topic *Fundamentals and Applications of Variable Frequency Drives*, was conducted at Anna University on January 8. The speaker was Ramesh Pandurangan. There were 48 participants.

The speaker started with the basic construction and theory behind VFDs and went on to explain its applications and limitations. There was a very energetic Q&A session. Past President Mansoor Bhavnagarwala felicitated the speaker.



Ramesh Pandurangan addresses the audience

The program was organised as a free technical program for members of ISHRAE and ASHRAE Chennai Chapters. It was well received by the audience.

Chennai Program on Considerations in Design and Construction of AC Railway Coaches

Chennai Chapter organised a program on February 12 at Cosmopolitan Club by P. Balasundar, Dy. CME, Integral Coach Factory, Chennai.

This program was the 3rd in the ISHRAE - ASHRAE Technical Lecture Series. There were 47 participants including many senior members and past presidents.



P. Balasundar speaks on Considerations in Design and Construction of Air Conditioned Railway Coaches

Trivandrum Organises Technical Talk on Special Valves for Chillers

A technical talk on *Special Valves for Chiller Applications* was delivered at Trivandrum Hotel on January 12 by Chinnappa Reddy, MD, CR Valves. The programme was well received by the audience of forty five members including four past presidents of Thiruvananthapuram Sub-chapter. President Dr. N. Asok Kumar introduced the speaker



Chinnappa Reddy speaks on special valves for chiller applications

to the audience and past president Mohan Kumar proposed the vote of thanks.

Basic Thermodynamics for HVAC Engineers at Kolkata

Kolkata Chapter organised a talk on *Basic Thermodynamics for HVAC Engineers* by Prof. Samir Kumar Saha on February 6.

The fundamental laws of thermodynamics were explained and their applicability in day to day working was discussed. There were 13 participants.



Prof. Samir Kumar Saha speaks on basic thermodynamics

Urjavarán at Raipur

Urjavarán provides a platform where green minds come together to share and discuss their domain knowledge. It is organized by ISHRAE in tier II and III cities across India. Raipur Sub-chapter organised Urjavarán 2015-16 on the theme *Buildings for Future* on February 6 at Hotel Babylon Inn. It was supported by CREDA Chhattisgarh Raipur, Fire & Security Association of India (FSAI), Indian Green Building Council (IGBC) and ASHRAE Western India Chapter.

The event convener was Dilip Kumar Mahobe, founder President, ISHRAE Raipur Sub-chapter. The Chief Guest was Shailendra Shukla, CEO, CREDA Chhattisgarh. The key speakers were Shailendra Shukla, Ar Gurpreet Shah, Amit Kakkar, Ar Jasdeep Gandhi and D. Sanyal. About 90 delegates attended the program. Builders, MEP consultants and contractors, interior designers, architects, Green building professionals, research scholars and academics were among the participants.

FELLOWSHIP AND BONDING

Badminton Tournament at Chennai

Chennai Chapter organised a badminton tournament for ISHRAE members on January 10 at Venus Sports Club, ECR. There were 24 participants.



A doubles match in progress



The winners with their trophies

Vadodara Chapter Celebrates Diwali

Vadodara Chapter arranged a Diwali get-together at Solace Park on December 19 with games, cricket, badminton, soccer and dinner.

ADVOCACY

Seminar on Fire & Life Safety of Storages and Warehouses at Thane

ISHRAE Thane Chapter and FSAI, supported by ASHRAE Mumbai Chapter, organised a full day seminar on *Fire & Life Safety of Storages and Warehouses* on January 16 at Hotel United 21.

Jan Jagruti Abhiyan at Vadodara

Vadodara Chapter participated in Jan Jagruti Abhiyan organised by the management of Shree T.R. Patel School on January 11. More than eight societies supported the event, including Rojgar Adhikari Kendra, Lions Club of Manjalpur, Gujarat Forest Department, Lok Vigyan Kendra, Health Centre, Wild Life activists, Gujarat Rajya Nashabandhi and Abkari Khatu.



Jan Jagruti Abhiyan

Hasmukh Patel – President-Elect, Manish Dandekar – Treasurer and William Jacob – Vice Chair, Student Activity were present.

Advocacy Program at Trivandrum

A talk on *Life Style Diseases* was delivered at Govt. High School, Sreekariyam, Trivandrum on January 11 by Dr. Srinivasan Kannan. This program was arranged as part of the advocacy programme of Trivandrum Sub-chapter in collaboration with a faculty from Sree Chitra Tirunal Institute for Medical Sciences and Technology. The programme was informative and interactive, and well received by the audience of fifty five members including four executive members of the Sub-chapter.

President N. Asok Kumar introduced the speaker to the audience and President-Elect Ajaya Kumar Ghosh proposed the vote of thanks.

The talk covered non-communicable diseases and their prevention, the importance of lifestyle such as physical exercises, food habits and control over diet. It also

included information on the influence of drug abuse including tobacco and alcohol. It was based on the STEPS approach of WHO on non-communicable diseases.

Talk in Mysore on Energy Efficient AC Systems

Mysore Chapter organized a technical talk on *Design of Energy Efficient Air Conditioning Systems* on February 6, in collaboration with Institution of Engineers (India), Mysore Local Centre. H. S. Sateesh, President, Mysore Chamber of Commerce and Industry was in the Chair. The talk was well attended by office bearers and members of both ISHRAE and IEL.

The speaker, A. Ramesh is a member of Mysore Chapter of ISHRAE and a retired deputy director and head of food engineering at The Central Food Technological Research Institute (CFTRI) – a CSIR National Laboratory. He highlighted the energy situation in the country and the share of HVAC industry in energy expenditure, and the need for designing plants that consume minimum of energy. He went through various steps in the design of the plants, indicating the potential for energy saving. He cautioned designers against over-design and explained how it leads to energy wastage. He explained the salient features of design or selection of key components like compressors, ducting, air handling units, fans and chilled water units.

He introduced the audience to the recent concepts of variable volume and variable refrigerant flow, midnight purging, energy wheels and devap technology. He explained the vital role played by automation, instrumentation, variable frequency drives and others in energy conserving design. Finally, he emphasised that however efficient the design may be, the results can be realised only with proper installation, operation and maintenance of the plant. The talk was followed by a lively question and answer session in which a large number of members participated.



A. Ramesh addresses the audience

JOB JUNCTION

Indore Organises Job Junction

Indore Chapter organised a successful Job Junction on February 12 and 13 at Acropolis Technical Campus. A total



A view of the Job Junction

of 220 students from 10 institutes participated, of which 30 students were selected or shortlisted for the next round by 13 participating companies including Voltas, Blue Star, Sterling & Wilson, Sevcon and Cristopia.

The Chief Guest was Gaurav Sojatia, Chairman, Acropolis Group of Institutions. The event was conducted by Atul Bharat and Murali of Acropolis in close coordination with ISHRAE Indore team.

K-12 PROGRAMS

Jaipur Creates Energy Awareness

Jaipur Chapter undertook a K-12 activity for Class 6 to 10 students at Dhannuka Vidhyalaya, Keshav Vidhyapeeth on December 30. It consisted of a talk and presentation on Energy Awareness.

The talk covered energy conserva-



Tree plantation at Brahmchari Ramanuj Kanya Vidhyalaya

tion, renewable energy sources, water conservation, environment pollution by coal and other fossil fuels, electricity generation from different sources, air pollution prevention, basic understanding of heating systems, refrigerators and ACs. Career guidance and information about ISHRAE was also provided.

Another talk on energy awareness was conducted on January 29 at Brahmchari Ramanuj Kanya Vidhyalaya, and an energy awareness talk with drawing competition at Paldi Meena Govt. School on January 30. A painting competition with tree plantation was held at Brahmchari Ramanuj Kanya Vidhyalaya on January 30.

K-12 Activity at Indore

Indore Chapter organised a K-12 Activity – scientific model presentation and hands-on, at Government Girls School, Nehru Nagar on January 16. As many as 400 students participated.

Principal Rajni Jadaun was the Chief Guest. The activity was conducted by Priyanka Yadav, K-12 Activity Chair.



Principal Rajni Jadaun gives away a prize as Priyanka Yadav looks on

Ahmedabad Conducts K-12 at Five Schools

Ahmedabad conducted K-12 programs at Vidya Bharati Foundation near Shalby Hospital on January 2; Pearl Special Need Foundation Trust on January 18; Helpline Education Home on January 24; Vidya Bharati Foundation, Krishnadham on January 28; and Gokul Awas on January 30.

The activity was conducted by Sejal Patel. Pouches containing pencils, erasers, sharpeners, etc. were distributed to students. About 140 students attended in all.

K-12 Activities by Trivandrum Sub-chapter

A program titled *Domestic Energy Conservation* was carried out at Govt. Girls' High School, Pettah, Trivandrum on January 28. This was the 3rd K-12 program organized by the Sub-chapter. Dr. N. Asok Kumar, President of the Sub-chapter, engaged the students



President Dr. N. Asok Kumar interacts with students at Pettah



President Dr. N. Asok Kumar interacts with students at Kulathoor

with demonstrations. K-12 Activity Chair N. Mohan Kumar also participated.

Another program titled *Energy for the Future* was carried out at Govt. High School, Kulathoor, Trivandrum on January 29. This was the 4th K-12 program organized by the Sub-chapter.

STUDENT ACTIVITIES

Presentation Skills Training at Mumbai



Student volunteers imbibe presentation skills

Rajan Gaonkar of Johnson Controls conducted a training program on *Presentation Skills* for students of VJTI, Sardar Patel College of Engineering, Don Bosco Institute of Technology, LTCOE, PIIT, SCOE, SJ CET, SCOE, VCET and VIVA College. The program was organized through ISHRAE and was well received. It was mainly for student volunteers for ACREX 2016, and was conducted on two Saturdays (January 30 and February 6) for approximately 90 students.

Mumbai Holds Jamboree 3

The annual technical event of Mumbai Chapter for students, Jamboree 3, took place on January 9 at Saraswati College of Engineering, Kharghar.

It was a fun event, comprising technical paper presentation, Tech Klick, T-shirt design, mock interview, poster design, games and a seminar related to HVAC.

DL on Indoor Air Quality at Poornima College, Jaipur

Department of Mechanical Engineering of Poornima College of Engineering, Jaipur organized a DL on *Indoor Air Quality: Best Practices for Design, Construction and Commissioning* on January 18 in association with ASHRAE and ISHRAE. It was delivered by Hoy Bohanon, President, Hoy Bohanon Engineering PLLC, USA.

The objective was to make the students and faculty acquainted with indoor air quality, and fundamentals of ventilation design, construction and commissioning.

Rahul Singhi, Asst. Director, Poornima Foundation, Dr. Om Prakash Sharma, Director PCE, Prof. D.S. Kumani and Shailendra Kaser, HOD, Mechanical Department, PCE along with the faculty members of Mechanical Engineering were present.



Hoy Bohanon lights the traditional lamp

Rahul Singhi welcomed Hoy Bohanon. Dr. Om Prakash Sharma, in his opening remarks, highlighted the significance of ventilation and IAQ related to the health and comfort of building occupants. Understanding and controlling common pollutants indoors can help in reducing risk of indoor health concerns.

Shailendra Kaser proposed the vote of thanks. More than 200 students from Mechanical Engineering discipline of the group institutions attended the lecture.

Poornima COE Visits Carrier at Gurgaon

Department of Mechanical Engineering, Poornima College of Engineering, Jaipur organized a visit to Carrier Air-conditioning and Refrigeration Ltd., Gurgaon in association with ASHRAE and ISHRAE on February 4. The basic purpose of the visit was to make the students acquainted with refrigeration technology, various types of air-conditioners and refrigerators, manufacturing process, refrigerants, chillers etc.



Students pose for a group photo

36 members of ASHRAE and ISHRAE student chapters of Poornima College and 14 students of MNIT, Jaipur participated along with faculty coordinators Shailendra Kaser (Assistant Professor, Mechanical Department, PCE), Sobhag Bhandawat (Assistant Professor, Mechanical Department, PCE) and Priyank Kaushik (Engineering Analyst, Kamal Cogent Energy Pvt. Ltd., Jaipur).

Vadodara Organises Industrial Visit for DDU

Vadodara Chapter organized a visit for Dharamsinh Desai University Student Chapter to IC ICE Make Refrigeration Pvt. Ltd. on January 9.

Students witnessed the manufacturing process of deep freezers, cold room panels, mobile refrigerated containers and other products.

Hasmukh Patel – President Elect, Manish Dandekar – Treasurer, William Jacob – Student Activity Vice Chair-



Students being briefed during the industrial visit

Elect and 43 students along with 2 faculty members attended.

Talk on Insulation at Vadodara



Dhiren Vyas talks on insulation

Vadodara Chapter organised a technical talk on *Basics and Selection of Insulation* by Dhiren Vyas at Charusat Student Chapter on January 21. Around 60 students and 2 faculty members were present.

Basics of Cooling Towers at Vadodara



Rajesh Shah explains the basics of cooling towers

Vadodara Chapter arranged a technical talk on *Basics of Cooling Towers* at PIT Student Chapter on February 6. The talk was conducted by Rajesh Shah – Immediate Past President. More than 70 students were present. Nilesh Patel – President, Hasumukh Patel – President-Elect and Manish Dandekar – Treasurer attended the session.

Vadodara Arranges Industrial Visit for PIET

Vadodara Chapter arranged a visit to Baba Entrepreneurs for PIET Student Chapter on February 18, to witness the process of cream and butter manufacturing. Around 36 students participated, along with one faculty member.



PIET students learn about cream and butter manufacturing

Nilesh Patel – President, Manish Dandekar – Treasurer and Jigar Bhalavat – Membership Chair were present.

Talk on Fundamentals of AC&V at Vadodara

Vadodara Chapter arranged a technical talk on *Fundamentals of Air Condi-*

tioning and Ventilation at Parul Institute of Engineering & Technology on February 20.



Durgesh Shah addresses PIET students

The talk was delivered by Durgesh Shah (CWC member and Head, Mechanical Group, Alstom Ltd.). The session was informative and interactive. More than 60 students and faculty members attended the talk. Hasumukh Patel – President was present during the session.

Ahmedabad Conducts aQuest 2016 Semi-finals

The second semi-final of the National Engineering Students Technical Quiz Competition, aQuest 2016, for North and West regions was organized by Ahmedabad Chapter on January 22 at Ravi Shankar Raval Kala Bhavan.

Rajen Vyas (RD West-II), B. Gautham Baliga, Ashok Patel (IPP – ASHRAE WIC), Kamal Mehta (President – ASHRAE WIC), Deepak Arzare (Student Vice Chair) and Aakash Patel (President – ISHRAE Ahmedabad Chapter) were present. The host was Dr. Ojas Raval of Comedy Factory, and Prof. Hardik Shukla (Student Chair Ahmedabad) coordinated the event. Arvind Vegda, ISHRAE's own rock-star, enlivened the atmosphere during the interludes.

A total of 25 teams participated. Ahmedabad, the winning team and Indore, the first runner up were selected to battle it out in the final round during ACREX 2016 at Mumbai.



Ahmedabad team wins the semi-finals

Rakesh Juneja and Shenaz Gandhi from Hitachi also cheered the students. Kamal Mehta of Citizen Industries offered jobs to both members of the winning Ahmedabad team.

The audience of more than 400 included ISHRAE members, Student Chapter members, faculty coordinators and professors.