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

## **ISHRAE Honours & Awards**

very year, ISHRAE honours members who work tirelessly to take it to greater heights and bring it glory. ACREX is the perfect backdrop for such recognitions.

The Lifetime Service Award this year was presented to Pankaj J. Shah from Bangalore Chapter.

V. Krishnan from Mumbai Chapter was presented the Exceptional Service Award.



V. Krishnan

The M. M. Pande Award for membership growth was conferred upon Yogesh Thakkar from Ahmedabad Chapter.

Dr. N. Kapilan from Bangalore Chapter received the Student Activities Award.

H. M. Jhangiani Journal Paper Awards were conferred upon K. Raghavan and Kishore Kalghatgi.



Yogesh Thakkar



Satish Ivengar

Employer Recognition Awards were presented to Blue Star for Thane Chapter and ETA for Bangalore Chapter.

Distinguished Service Awards were presented to Pallab Kar from Kolkata Chapter, Satish Iyengar from Bangalore Chapter, C. Subramanium from Bangalore Chapter and Adarsh Kaul from Mumbai Chapter.



C. Subramaniun

Regional Service Awards were presented to Nishant Gupta from Indore Chapter, G. Ramesh Kumar from Bangalore Chapter, Amitabha Sur from Kolkata Chapter and Gautham Baliga from Mumbai Chapter.

The following Chapter Service Awards were announced:

The following chapter service / wards were difficultied	
Nitin Deodhar	Pune
Bhaskar Mukherjee	Kolkata
Sidharth Cuncalienkar	Goa
A. Pandimurli	Bangalore
A. Madhukar	Bangalore
Shilpan Shah	Bangalore
A. Ravi	Thane
Vishal Kirtani	Goa
S. Nagaraju	Bangalore
Viresh Ruhal	Mumbai
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### **CHAPTER AWARDS FOR EXCELLENCE**

he eagerly awaited Chapter Awards for Excellence (CAFÉ) were presented during the National Board of Governors meeting at Le Meridien, New Delhi on February 22.



The jubilant Mumbai Chapter team receives the Best Chapter trophy



Bangalore Chapter exults with its Best Chapter trophy

Mumbai and Bangalore Chapters shared the Best Chapter Award – with Mumbai winning it for the fourth time in a row. Mumbai and Bangalore walked away with 4 and 3 awards respectively. Kolhapur-Sangli Sub-chapter won three awards.



Mumbai Chapter displays its tally of 4 trophies



Kolkata is the Best Chapter with 250-750 members



Thane receives the Best Chapter award for less than 250 members

The winners in various categories were:

#### Best Chapter/Sub-chapter

- Best Chapter with over 750 members: Bangalore and Mumbai
- Best Chapter between 250 and 750 members: Kolkata
- Best Chapter with less than 250 members: Thane
- Best Sub-chapter: Madurai
- Runner-up Sub-chapter: Meerut

#### K12 Activities

- Best Chapter with over 500 members: Bangalore
- Best Chapter with less than 500 members: Mysore
- Best Sub-chapter: Kolhapur-Sangli

#### Advocacy

- Best Chapter with over 500 members: Mumbai
- Best Chapter with less than 500 members: Kolkata
- Best Sub-chapter: Raipur

#### **Student Activities**

- Best Chapter with over 500 members: Mumbai
- Best Chapter with less than 500 members: Thane
- Best Sub-chapter: Meerut
- Runner-up Sub-chapter: Kolhapur-Sangli

#### Programs

- Best Chapter with over 500 members: Bangalore
- Best Chapter with less than 500 members: Thane
- Best Sub-chapter: Madurai
- Runner-up Sub-chapter: Coimbatore

#### Membership

- Best Chapter with over 500 members: Mumbai
- Best Chapter with less than 500 members: Goa
- Best Sub-chapter: Trivandrum
- Runner-up Sub-chapter: Kolhapur-Sangli

### **News in Brief**

#### C. N. Raghavendran Made Honorary Member

Eminent architect Padmashree C. N. Raghavendran (MD, C. Narayana Rao Consultants), has been conferred an Honorary Membership of ISHRAE during ACREX 2017. He is the second eminent personality to be honoured thus. This honour was bestowed upon Pawanexh Kohli in 2016.



Sachin Maheshwari presents the ISHRAE pin to C. N. Raghavendran

#### **Online Technical Forum Launched**

An Online Technical Form has been launched to facilitate exchange of technical information and to enable technical discussions between members of the ISHRAE fraternity. Sushil Choudhury (Chair, ISHRAE Technical Committee) launched the Forum during ACREX 2017.

#### Women in ISHRAE

A new wing of ISHRAE dedicated to ladies in the industry has been launched. Nivedita Jadhav, Sukanya, Yesha Choudhury, Dhwani and Aditi were present for the inauguration.

#### Book on Filters Released

An ISHRAE publication on the topic of filters was released during ACREX.

#### Release of Draft VRF Standard

The Draft VRF Standard prepared by ISHRAE and RAMA was released during ACREX. The two associations are now working jointly on the AHU Standard.



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

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#### **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 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 copypasted 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.

### **K-12 ACTIVITIES**

# **Kolkata Orphanage Students View a Slice of History**

Kolkata Chapter took the initiative to celebrate the 120th birthday of Netaji Subhas Chandra Bose on January 23 with children of an orphanage by taking them to Victoria Memorial and sharing with them information about the iconic leader and the historical monument.



Children from the orphanage with Kolkata Chapter members

#### **Raipur Holds STEM Program**

Raipur Sub-chapter organized a STEM based K-12 Program at Dr. Ram Manohar Lohia Govt. Higher Secondary School on December 22. More than 200 students participated. Sub-chapter Secretary Pratik Khandelwal, Treasurer Rajesh Sahu, Prof. D. Sanyal and K-12 Chair Dr. Meenakshi Rathore were present. The presence of Principal Vandana Ojha, other teachers and staff motivated the students.

The program started with a brief introduction of ISHRAE and its activities. Prof. D. Sanyal delivered a speech on career guidance and motivation. Rajesh Sahu demonstrated many STEM models, theorems and principles with the help of miniatures. It was a fun-learning activity. Some miniatures were gifted to the school lab. Twenty posters showing photographs and achievements of famous personalities and inventors were presented to the school. A memento was presented to the Principal.

# ISHRAE Institute of Excellence

# Advanced Engineering Diploma Course from IIE

An Advanced Engineering Diploma Course is being run by IIE in Delhi for the last several years. IIE has now launched another 4 month Advanced Engineering Diploma Program from January 9 at Bengaluru for fresh recruits and working professionals with 1-3 years experience. This will be extended to various IIE nodal centres across the country subsequently.

The program offers a rich curriculum with a blend of theory and practice, equipping the engineer for a qualitative and accelerated growth. It is designed to meet the expectation levels of end users, owners, designers, contractors, manufacturers and facility managers. The course comprises of 3 months (360 hours) of classroom training and 1 month (120 hours) of onsite practical training.

### ISHRAE CERTIFICATION PROGRAM

#### **Mumbai Conducts Service Level 1**

Mumbai Chapter conducted ICP AC Service Level 1 Module-1 on January 20 and 21. Eighteen delegates attended the program.



Ajitkumar Thampi addresses the students at ICP AC Service Level 1 Module-1

The program covered customer service – soft skills, thermodynamics and refrigeration cycle, and refrigeration components and controls. Ajitkumar R. Thampi was the faculty.

ICP AC Service Level 1 Module-2 was conducted on January 27 and 28. It was attended by 17 students. The course contents included safety, psychrometrics, electrical fundamentals, types and classification of HVAC systems, pressure testing, evacuation, charging, soldering, good installation practices, operation and maintenance and trouble shooting.

There were practical sessions also. Arvind Dhawan was the faculty.



Arvind Dhawan explains a topic at ICP AC Service Level 1 Module-2

Students pose for the camera with the faculty

### Kolkata Chapter Organises Service



ICP students and ISHRAE members pose for a group photo

A four-day program for service personnel under ICP Level I was held in Kolkata from January 18 to 21.

There were 28 participants including four who came all the way from Agartala. Four speakers volunteered their time and knowledge for the program. Prabir Kumar Sen taught basics of HVAC systems, thermodynamics and psychrometrics on the first day. On the second day, Dipak Barma took sessions on HVAC components, electricals and controls.

Suman Ghosh, who held the fort on the third day, gave lectures on installation, operation and maintenance including pressure testing, vacuumising, leak detection, soldering and charging. The faculty on day 4 was Prabir Das, who spoke about trouble shooting and good installation tips.

#### **ADVOCACY**

#### The Hindu Carries Vishal Kapur's Article

The Visakhapatnam edition of The Hindu, in its issue dated January 29, carried an article giving an overview of air conditioning written by National President-Elect Vishal Kapur.



Vishal Kapur's article in The Hindu

# Kolkata Chapter Educates State Electrical Engineers' Association

A seminar on 'Clean and Comfort Air in Public Buildings' was organized by State Electrical Engineers' Association, West Bengal on January 22 at Academic Building,



Prabir Kumar Sen addresses the audience on IAQ in air conditioned buildings



Manoj Chakrabarti talks about HVAC requirement in medical establishments



Prateek Dutta Ray explains AC equipment selection through optimum design

SSKM Hospital. Three senior members of Kolkata Chapter addressed the seminar. ISHRAE publications and membership forms were also displayed at the venue.

#### Kolkata Chapter Participates in Leadership Conclave



Panel discussion on decoding opportunities in progress

Adamas University, Barasat invited Kolkata Chapter to the Leadership Conclave 2017 held on February 10. The event, which started in 2014, brings together eminent professionals from industry on a common stage where they share their experience and knowledge pertaining to benchmarks and best practices in various organizations. It provides a platform for industry professionals and students to interact with panelists. This year, the keynote speaker was Ambarish Dasgupta, Partner – KPMG.

Utpal Biswas (President, Kolkata Chapter) and Prabir



Utpal Biswas and Prabir Sen being felicitated by Samit Ray, Chancellor, Adamas University

Kumar Sen (Member, IIE team) attended the panel discussion and explained how ISHRAE has been connected to students for many years and creates opportunities for them through Job Junction

### **PROGRAMS**

#### **Kolkata Chapter Arranges Product Presentation**

A product presentation of GP Spira and Seven Star Aircon was organized on February 3 at De Sovrani Hotel, Kolkata

Seven Star Aircon Ancillaries Pvt. Ltd. manufactures pre-insulated pipes. A metered dose of polyurethane foam (PUF) is injected in the annular space between the chilled water pipe and the outer jacket. PUF forms a homogeneous insulation around the pipe. The combination of pipe, insulation and jacket together constitutes a pre-insulated pipe.



S. Sriram, Director, Seven Star presenting the topic

GP Spira Duct Pvt. Ltd. manufactures pre-fabricated ducts. Longitudinal joints are factory formed and despatched to the site in L-shaped sections for easy transportation, site handling and storage, and to facilitate easy assembly at site. It also manufactures boxed-up ducts.

#### **VRF Mela Held at Surat**

RATA India, SAREA, ASDA, and ISHRAE Mumbai, Vapi and Surat Chapters held a VRF Mela on February 10 at President Banquet Hall, Surat. The objectives were to explain the opportunities available in the VRF market and help answer queries of trade members interested in expanding their services to VRF business, explain quality standards that need to be maintained in the business, and connect trade members to OEM brands and allied suppliers to help grow the business in an organized manner. Amod Dikshit and Mahesh Ram Kishore were the faculty members.

#### **DL Program at Raipur**

Raipur Sub-chapter conducted a DL program at NIT, Raipur on December 29. The topics covered were basics of refrigeration and air conditioning, and Green space and air quality in urban areas. It was attended by the Sub-chapter members, consultants, architects, engineering students, project owners and contractors, facility managers and professionals from the refrigeration, air conditioning and cold chain industry.

Among the Sub-chapter members present were President Nishesh Khare, Secretary Pratik Khandelwal, Treasurer Rajesh Sahu, Program Chair Vijay Dewangan, Marketing Chair Vikram Chowdhari, K-12 Chair Dr. Meenakshi Rathore, Membership Chair Dilip Mahobe and members Chunendra, Tarani Acharya, Meetesh, Shreyansh Dasani and D. Sanyal. Nishesh Khare delivered the keynote address and NIT Raipur Student Chapter President Akshaya Bomanwar delivered the vote of thanks. Dilip Mahobe introduced ISHRAE and made a presentation on ACREX 2017. The topics covered were 'Green Space and Air Quality in Urban Areas' by Dr. Katharina Lapin from Austria, and 'Basics of Refrigeration and Air Conditioning' by Anil Shukla (Past President).

#### **Vizag Conducts DL Program**

A DL programme was conducted by Visakhapatnam Chapter on the February 15 at Visakhapatnam Steel Plant.

#### **Adaptive Comfort Explained at Mumbai**

ISHRAE Mumbai Chapter, with support from ISHRAE Thane Chapter, ASHRAE Mumbai Chapter and RATA conducted a tech talk on Adaptive Comfort on February 6 at ISHRAE Mumbai Chapter office.



Surendra Shah addresses the delegates

The program was attended by 46 delegates including Committee members of the organizing associations. The faculty comprised Peter Rumsey and Surendra Shah.

#### **Product Presentations in Mumbai**

Mumbai Chapter held a product presentation on Insulation by Armacell India Pvt. Ltd. on January 3 at the Chapter office.

The first speaker was Anand Murthy, Technical Training Manager – APAC at Armacell. He was followed by Hiten Patel, Business Manager - Construction.

Another product presentation on Cooling Towers by Paharpur Cooling Towers was organised on January 6 at the same venue. The speaker was Vivek Gaonkar, a graduate Production Engineer and post graduate in Business Management, with experience of 23 years.

#### **Mumbai Demystifies KASH of Success**

Mumbai Chapter conducted a program titled 'KASH of Success' on January 11 at the Chapter office. It was attended by 24 delegates along with CWC members. The speaker was Ketan Gawand, a Kinder Brother International (KBI) certified Trainer and Moderator for the Journey to Excellence' module for top sales professionals. The topics covered were understanding our priorities, learning the art of self-introspection, understanding KASH (Knowledge, Attitude, Skills, Habits) that determines success in whatever we do, time-tested techniques to improve productivity, and getting things done from others.

#### **Understanding BAS in Mumbai**

Mumbai Chapter conducted a program on Understanding Building Automation Systems on January 13 at the Chapter office. It was attended by 25 delegates and CWC members. The faculty was Vinayak Athavale, a graduate in Instrumentation from Mumbai University with more than 25 years of experience in sales and marketing of HVAC controls, building automation and energy management systems.

The topics covered were: why controls, how they help in saving energy, types of controls, understanding input and output, DDC controls and selection based on I/O summary, levels of BMS, software and other features.

#### **Mumbai Gives Inputs to Architects**

Mumbai Chapter conducted a program on 'Working Together - MEP Inputs to Architects' on January 14 at the Chapter office. It was attended by 38 delegates along with CWC members. The faculty comprised Rajendra N. Joshi and Amod Dikshit. The topics covered were various services encountered in a building, provision for shafts and space for the services, entry/exit and vertical connectivity of services, issues in the indoor and outdoor planning of HVAC systems, basement and terrace services, dos and don'ts for critical systems, provisions in NBC for services, general CFO rules encountered, bylaws and regulations affecting services design, and interaction with participants on practical issues faced by them.

#### **Draft Building Code Decoded at Mumbai**

Mumbai Chapter conducted a program on 'Ventilation for Health and Safety and Provisions of Draft National Building Code (Revised)' on January 18 at the Chapter office. The program was supported by RATA and IGBC. It was attended by 25 delegates along with Committee members of ISHRAE and RATA. The faculty was Sushil K. Choudhury, Presidential Member of ISHRAE and MD of Blowtech Air Devices Pvt. Ltd., a leading manufacturer of HVAC&R fans and ventilation products in India.



Sushil Choudhury explains the revised NBC

#### **Mumbai Supports Retailer Training**

The 4th National Retailer Training Programme on Standards and Labelling was held on January 6 at The Emerald Hotel. It was organised by Bureau of Energy Efficiency (BEE) with National Power Training Institute (NPTI) to disseminate awareness among the retailers about star labelled appliances and their energy saving impact. It was supported by ISHRAE Mumbai Chapter and RATA.

The participants were addressed by Dr. S.K.Choudhary, Principal, NPTI, Faridabad; Saurabh Diddi, Energy Economist, BEE; Dr. (Prof.) Rajendra Kumar Pandey, Director General, NPTI; B. P. Pandey, Special Secretary, MoP and Director General, BEE; Dr. D.M. Lokhande, Professor/HOI, NPTI, Nagpur; V. K. Sinha, Associate Professor, NPTI, Nagpur; Dr. V. Vidyasagar, Deputy Director, NPTI, Nagpur; Preetam Singh, Asstt. Professor, NPTI, Nagpur; and Alka Yadav, Asstt. Professor, NPTI, Faridabad.

#### **Mumbai Holds Tech Talk on Fan** Selection

ASHRAE Mumbai Chapter along with ISHRAE Mumbai and Thane Chapters arranged a Tech Talk on Fan Selection on January 19.

Centrifugal fan is the heart of an Air Handling Unit. Optimum selection of a fan is critical for successful operation of the system with minimum operating cost. Proper static pressure considerations are important for optimum selection. For dynamic control of the fan, the selection becomes complicated. There is no magic fan that will result in the best efficiency, least cost and low noise over a wide operating range. The compromise should be well understood upfront. These points and various others affecting the selection, installation and operation of a fan were discussed during this open fo-

#### **Thane Seminar on Pharma HVAC**

A seminar on 'HVAC in Pharmaceuticals' was held on January 20 at Hotel Satkar Grande, Thane by ISHRAE Thane Chapter and ASHRAE Mumbai Chapter.

#### **Aurangabad Learns to Manage Projects**

Aurangabad Sub-chapter held a learning session on 'Managing Project through Learning, Unlearning and Learning' on January 28 at Hotel Baga International. Nandlal R. Singh, President, Mumbai Chapter was the faculty.

The key topics discussed were design management, estimation, stakeholder management, planning, execution and best practices, challenges and mitigation planning, coordination with other stakeholders and actionable points.

### **FELLOWSHIP**

#### **Ranchi Chapter Organizes Picnic**

Like every year, Ranchi Chapter organised its picnic cum family get together on January 22 at Gulab Watika, MECON Colony.



Family members at the picnic in Ranchi

Various games like musical chairs, bucket and ball, guess and housie were organised for the children and family members. Prizes were distributed to winners, along with confirmed participation prizes to each participating ISHRAE member.

The occasion was also utilised for adding new members and membership renewals. One new member was added, and eight renewals were done.

#### **Annual Picnic at Kolkata Chapter**



Kolkata Chapter family members at Vedic Resort



Bauls perform for Kolkata Chapter members

Kolkata Chapter organised its annual picnic at Vedic Village Resort on January 15. The highlight of the event was a performance by Bauls, a group of mystic minstrels from Bengal and Bangladesh. Bauls constitute both a syncretic religious sect and a musical tradition. Their music had a great influence on Rabindranath Tagore's poetry and music.

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### **STUDENT ACTIVITIES**

#### **Poornima Students Visit Saras Dairy**

Department of Mechanical Engineering, Poornima College of Engineering, Jaipur organized a visit to Saras Dairy on February 4. The objective was to make the students acquainted with refrigeration plant, milk pasteurization unit and boilers. Thirty students along with faculty coordinators Sobhag Bhandawat and Amit Mandal, Assistant Professors, participated.



Poornima CoE students at Saras Dairy

Vinod Gupta, Marketing Manager welcomed the students and faculty members. He explained the basics of milk pasteurization. Students learnt about various units of milk, butter, paneer, tetra packs and ghee. They learnt that the basic unit of the dairy is a village level milk producer's cooperative society with a capacity of 9-12 lakh litres per day. This unit provides a remunerative market to milk producers. It collects surplus milk from the producers and sends it to the dairy. The milk is weighed and samples are drawn for quality testing. Bulk Milk Cooler (BMC) is the equipment used in the milk procurement system to preserve the quality of milk by cooling it down to 4°C.

# Visit to Solar PV Plant by Poornima Students

Department of Mechanical Engineering, Poornima College of Engineering, Jaipur organized a seminar and visit to Solar PV Plant at Poornima University, Jaipur on February 6. The objective was to acquaint the students with the solar power plant, its components, design and types of solar PV. Twenty-two students along with faculty coordinator Sobhag Bhandawat, Assistant Professor, participated.



Poornima CoE students at solar PV plant

Ashish Raj, HoD, Electrical Engineering, Poornima University welcomed the visitors and coordinated the visit. Ashish Raj delivered a one hour lecture to the students, explaining the 100 kW capacity off-grid solar power plant consisting of 334 module each with a capacity of 300 W connected in series. All modules are inclined at 270 south latitude angle to gain maximum power from the sun. He also explained the inverter, array junction box, surge protection device, etc. The plant generates 1.5 lakh units of electricity every year.

### **Technical Talk by Kolkata Chapter**

Kolkata Chapter organized a technical talk for students at its office on Cornfield Road on January 27. The topic was Cleanrooms, and the speaker was senior ISHRAE member Subasish Dasgupta, who has an experience of 30 years in planning, design and execution of HVAC projects at Blue Star, Voltas, Suvidha Engineers and Aircon.

The talk covered air flow patterns, typical air changes practiced in the industry, air locks, clean room construction requirement and validation tests. Real life ex-



Subasish Dasgupta delivers the technical talk

amples from the pharmaceutical industry made the talk interesting. Around 22 students from IIEST Shibpur, IEM Kolkata and MCKV Institute of Engineering attended the event. Student Committee member Prof. Gunjan Kumar proposed the vote of thanks.

# Kolkata Student Chapter Visits HVAC Project Site

Student Chapter members of CV Raman College of Engineering, Bhubaneswar visited the project site at IIT Bhubaneswar on January 17, in association with Voltas. The purpose was to acquaint the students with practical aspect of the HVAC system, equipment and auxiliary systems of a commercial green building. Seven student members along with faculty in-charge Dr. Sachindra Kumar Rout and student coordinator Taraprasad Mohapatra, Assistant Professors, participated.

Ajit Singh, Project Manager, welcomed the students and faculty. He introduced the project scope and coordinated the visit. He explained the water connections, air handling unit, cooling tower, chiller and its piping, and the Building Management System. Students got the opportunity to familiarise with the equipment. The visit ended with a question-answer session.



CV Raman CoE students at IIT Bhubaneswar

Another visit to the same site was organized on January 25 for seven students accompanied by faculty in-charge Dr. Sachindra Kumar Rout.



Second batch of CV Raman CoE students at IIT Bhubaneswar

#### IEM Kolkata Students Visit Airport City Hotel

Kolkata Chapter in association with Universal Energy Solutions Pvt. Ltd. organized an HVAC project visit to the operational site of Airport City Hotel for its IEM Kolkata Student Chapter members on January 28. The purpose of the visit was to provide them real life exposure to a Ground+5 commercial building. Seven student members participated. Student Committee members Nilanjana Mukherjee and Prof. Suvanjan Bhattacharya, and Project engineer Abiran Das accompanied the students.



Students study outdoor unit fin arrangement

The hotel, located at Belgharia Expressway, uses VRF technology. It has 11 outdoor units at the roof, some of them connected with 2 outlet pipes and some with one outlet pipe. Students were given brief details of piping and insulation of the system.

The students were also taken to a hall at the roof with a separate HATT type air conditioning unit with

two outdoor and 8 indoor units for a total of 20 TR using R-22 refrigerant. Finally they were taken to the banquet hall and kitchen. The banquet hall has 5 indoor units of 11 TR. The system is non-VRV with canvas connection and continuous duct.



Kitchen air conditioning system

In the kitchen, a baffle filter is provided for exhaust, with an oil trap.

The well-coordinated and highly educative site visit ended with light snacks arranged by the hotel.

# Site Visit to Autohub for IEM Kolkata Students



IEM students at Autohub

Kolkata Chapter, in association with Universal Energy Solutions Pvt. Ltd., organized another HVAC project site visit to an under construction building of Autohub, Rajarhat for IEM Student Chapter members on January 28. The objective visit was to give them real life exposure to a commercial building air conditioning system of a Ground+11 commercial building. Seven student members participated along with Student Committee members Nilanjana Mukherjee and Prof. Suvanjan Bhattacharya and Project Engineer Abiran Das.

Students were shown and explained the working of ductable indoor and outdoor VRV units.

#### **Vizag Students Learn Role of Managers**



Student program at Pydah Koushik Engineering College



Student program at MVGR Engineering College

Visakhapatnam Chapter conducted two programs on February 20 on the topic 'Role of Engineers as Effective Engineering Managers' at Pydah Koushik Engineering College and MVGR Engineering College.