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**ACADEMIC YEAR**  
**2022-23**



**DEPARTMENT OF MECHANICAL ENGINEERING, MBCET**  
**ISHRAE (Office bearers)**

<b>Name of the Student</b>	<b>Office post</b>
MR. JOPPU JOSEPH	President
MR. JIBIN BABU	President-Elect
MR. SIDDARTH SD	Secretary
MR. KIRAN GOPAL	Treasurer
MR. ANANTH P NAMPOOTHIRI	CWC member
MR. NIRANJAN AJITH	CWC member
MR. VAISAKH G NAIR	CWC member

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# ISHRAE



The **Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE)** was founded in 1981 at New Delhi by a group of eminent HVAC&R professionals. It is led by a team of elected officers, who are members of the Society, working on a voluntary basis, and collectively called the Board of Governors. ISHRAE objectives are advancement of the Arts and Sciences of Heating, Ventilation, Air Conditioning and Refrigeration Engineering and Related Services, Continuing education of Members and other interested persons in the said sciences through Lectures, Workshops, Product Presentations, Publications, Expositions and Encouragement of scientific research. ISHRAE conducts Conferences, Seminars, Exhibitions, Workshops, Panel Discussions and Product Presentations throughout the country with both national and international participants to discuss, promote and display the state of the art technologies, systems, products and services.

## **ISHRAE Objectives:**

- Advancement of the Arts and Sciences of Heating, Ventilation, Air Conditioning and Refrigeration Engineering and Related Services.
- Continuing education of Members and other interested persons in the said sciences through Lectures, Workshops, Product Presentations, Publications and Expositions.
- Rendition of career guidance and financial assistance to students of the said sciences.
- Encouragement of scientific research.

## **ISHRAE Mission:**

To promote the goals of the Society for the benefit of the general public. Towards this objective, the Chapters of the Society participate in, and organize, activities to protect the Environment, improve Indoor Air Quality, help Energy Conservation, provide continuing education to the Members and others in the HVAC & related user Industries and offer certification programs, career guidance to students at the local colleges and tertiary institutions.

## **ISHRAE Activities:**

As part of its objectives to promote the interests of the HVAC&R Industry, ISHRAE is involved in various activities. ISHRAE reaches out to all its members and seeks their active participation & involvement in all the Events/Programs organized by the society.

ISHRAE student chapters in more than 150 engineering colleges encourage students to opt for careers in the HVAC&R industry. Knowledge dissemination is done through seminars, quiz contests like aQuest, plant and site visits.

ISHRAE has launched “ISHRAE Job Junction” nationally, providing a platform for leading employers to recruit candidates who are members from ISHRAE student chapters.

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K-12 initiative of ISHRAE is focused on school students' contests, in making them aware of subjects like, energy conservation and environmental concerns through drawing competitions, poster design, quiz and planting of trees. Emphasis on STEM education is stressed to inculcate a scientific fervor & help develop these young children into responsible citizens.

**Research:** ISHRAE promotes research in the field of HVAC&R technology. It offers financial support to Graduate/Post Graduate students, to carry out innovative work on R & D in Technology, Systems, and Processes. ISHRAE partners with Industry to carry out scientific research t Institutes associated with ISHRAE for this purpose.

**ACREX INDIA:** ISHRAE organizes ACREX INDIA, the largest international exposition in South Asia on the Air-Conditioning, Refrigeration, Ventilation and Building services industry. Held annually, ACREX with nearly 500 exhibitors is considered to be a major opportunity to showcase the latest technologies/innovations, and provide a platform for buyer-seller meet, for technical & commercial personnel in the HVAC&R field.

**Publications:** ISHRAE publications strive to help its members & the industry keep up-to date with the technical developments, latest trends, and sunrise technologies. ISHRAE Standards, Fundamental books on various topics, HVAC&R Handbooks and the extremely popular & informative ISHRAE Journal, are a few such publications.

### **ISHRAE MEMBERSHIP LIST**

<b>SI No.</b>	<b>Membership no</b>	<b>Name</b>
1	S00104023	Mr. Siddharth S Sukumar
2	S22103964	Mr. Hrithik Ramesh
3	S00103802	Mr. Alan Lalu George
4	S00103791	Mr. Vighnesh B
5	S00103784	Mr. Aaron koshy boby

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6	S00103762	Mr. Ryan . Asafali
7	S00103759	Mr. Georgy Varghese
8	S00103755	Mr. Bharath Suresh Appukuttan Nair
9	S00103753	Mr. SIDHARDH SD
10	S00103752	Mr. VAISAKH G NAIR
11	S00103751	Mr. ADARSH JB
12	S00103749	Mr. Adithyan S Kumar
13	S22103739	Mr. Albin R
14	S00103732	Mr. Adithya Jayakumar
15	S00103730	Ms. Nandana M
16	S00103728	Mr. Akash A M
17	S00103718	Mr. John Sony Kurien
18	S00103714	Mr. Hrishikesh Rajesh
19	S00103713	Mr. NIRANJAN A
20	S00103712	Mr. S P Athul Krishna
21	S22103700	Mr. ANANTH PARAMESWARAN NAMPOOTHIRI
22	S00103677	Mr. Kirangopal M H
23	S00103663	Mr. Piyush AH
24	S00102429	Mr. ADITHYA B
25	S00101888	Mr. Sooraj menon
26	S00101878	Mr. AKASH . A S
27	S00101668	Mr. Arjun Aji
28	S00097896	Mr. joppu joseph
29	S21097610	Mr. JIBIN BABU BS
30	S00097352	Mr. AZHAR MUHAMMAD S A

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# **ISHRAE ANNUAL INSTALLATION CEREMONY**

**Venue:** Seminar Hall, Department of Mechanical Engineering

**Date:** 01 -JULY -2022

ISHRAE-MBCET Student Chapter Installation Ceremony at Mar Baselios College of Engineering and Technology (MBCET) was a momentous occasion that took place on 1st JULY. The campus was filled with anticipation and excitement as the chapter embarked on a new journey to promote knowledge, networking, and career opportunities in the HVAC industry.

The program commenced with a vibrant rendition of the National Anthem, filling the air with a sense of pride and unity. MR. Akhil Chandran B S, the faculty in charge of ISHRAE-MBCET Student Chapter, delivered a warm welcome speech, setting the tone for the event. His words resonated with enthusiasm and highlighted the significance of ISHRAE-MBCET in shaping the future of HVAC professionals.

A highlight of the ceremony was the introduction by the esteemed guest, MR. Prasannalal B R, President of ISHRAE Trivandrum Chapter. His presence added prestige to the event, and his insightful remarks on the HVAC industry's prospects captivated the audience.

To honor the occasion, Dr. Rajesh T N, Head of the Department of Mechanical Engineering, extended his felicitations to the newly formed chapter. His words of encouragement and support further reinforced the significance of ISHRAE-MBCET in fostering excellence in the field.

The highlight of the installation ceremony was when the newly appointed office bearers of ISHRAE-MBCET Student Chapter took their oath. This solemn moment symbolized their commitment to the chapter's values and responsibilities, promising to uphold the highest standards in their roles.

Continuing with the program, a technical talk session on "Career Opportunities in the HVAC Industry" was conducted. The session aimed to enlighten the attendees about the vast possibilities

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and potential within the HVAC field. The speaker shared valuable insights and real-life experiences, inspiring the students to envision a successful career path in this dynamic industry.

MR. Joppu Joseph, the incoming President of ISHRAE-MBCET Chapter, delivered an engaging speech, expressing his vision and goals for the chapter. His words resonated with passion and determination, inspiring the student members to actively participate and contribute to the chapter's growth.

The event concluded with a vote of thanks by MR. Jibin Babu BS, the incoming President-Elect of ISHRAE-MBCET. He expressed gratitude to all the individuals who made the event a success, including the staff, student members, and esteemed guests. His words of appreciation reflected the unity and teamwork within the chapter.

The installation ceremony witnessed the enthusiastic presence of staff and student members of ISHRAE-MBCET, creating an atmosphere of camaraderie and excitement. The event not only marked the beginning of a new chapter but also instilled a sense of responsibility and pride among the student members as they embarked on their journey in the HVAC industry.

The ISHRAE-MBCET Student Chapter Installation Ceremony at MBCET was a resounding success, emphasizing the chapter's commitment to fostering professional growth, knowledge sharing, and career development opportunities. With a strong leadership team and dedicated members, the chapter is poised to make a significant impact and create a positive difference in the HVAC industry and beyond.

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**MAR BASELIOS COLLEGE OF ENGINEERING AND  
TECHNOLOGY (AUTONOMOUS)**

**DEPARTMENT OF MECHANICAL ENGINEERING**

**ISHRAE-MBCET STUDENT SECTION**

**EVENT LIST**

<b>Event Name</b>	<b>Date</b>	<b>Venue</b>
CWC installation of ISHRAE MBCET Student Chapter	1-7- 2022	MBCET Campus
Energy Management Building Code - One Day Training	16-7-2022	Energy Management Centre, Kerala
Full Day Technical Talk	30 -7-2022	Rides Hotel, Pattom
Talk Session - Heat Transfer in Chilled Water Systems	1-11-2022	Online
Cricket Match	15- 10- 2022	bellinturf
Industrial Visit to Trivandrum International Air-Port	30-10-2022	Trivandrum International Air-Port
Quiz - "Gear Huts"	23-11-2022	Online
Seminar - Chiller Plant Management Systems	7-01-2023	Online
Seminar - Challenges in VRF Design	14-01-2023	Online
Webinar on Geothermal Cooling	20-01-2023	Online
Webinar - Refrigerant Landscape	27-01-2023	Online
Technical Talk - Essential for Envelope Design	23-02-2023	Online
I Quiz 2023	22-03-2023	Online



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# **Report on One-Day Training Program on Energy Conservation Building Code and ECO Niwas Samhita**

Date: July 16, 2022

Venue: Energy Management Centre, Kerala

Organized by: Energy Management Centre - Kerala, Department of Power, Government of Kerala

## Introduction:

On July 16, 2022, the Energy Management Centre (EMC) in Kerala, under the Department of Power, Government of Kerala, organized a one-day training program on Energy Conservation Building Code (ECBC) and ECO Niwas Samhita. The aim of the program was to create awareness and enhance understanding among professionals and stakeholders regarding energy-efficient building practices and compliance with the ECBC and ECO Niwas Samhita guidelines.

## Event Overview:

The training program commenced at 9:30 AM at the Energy Management Centre premises in Kerala. Participants included architects, engineers, builders, government officials, and other stakeholders involved in the construction and management of buildings. The event provided a platform for knowledge sharing, discussions, and networking opportunities.

## Inaugural Address:

The program began with an inaugural address by the esteemed Chief Guest, who emphasized the significance of energy conservation in the context of sustainable development. The Chief Guest highlighted the role of the ECBC and ECO Niwas Samhita in promoting energy-efficient buildings and encouraged participants to adopt these guidelines in their projects.

## Training Sessions:

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The training program consisted of comprehensive sessions delivered by subject matter experts and industry professionals. These sessions covered various aspects related to energy conservation, building design, and compliance with the ECBC and ECO Niwas Samhita. The topics discussed included:

**Introduction to Energy Conservation Building Code (ECBC):** This session provided an overview of the ECBC, its objectives, and the energy performance requirements for new commercial buildings. The participants gained insights into the key provisions of the code, such as building envelope design, lighting, HVAC systems, renewable energy integration, and energy auditing.

**ECO Niwas Samhita Guidelines:** This session focused on the ECO Niwas Samhita, which provides energy efficiency norms for residential buildings. The participants learned about the criteria for building design, construction materials, lighting, water conservation, and other relevant aspects of energy-efficient residential buildings.

**Best Practices and Case Studies:** In this session, industry experts shared best practices and real-life case studies of energy-efficient buildings. The participants were exposed to successful projects that achieved significant energy savings through innovative design, technology integration, and sustainable practices. The session aimed to inspire and encourage participants to implement similar strategies in their future projects.

**Interactive Workshops and Q&A Sessions:** Throughout the training program, interactive workshops and question-and-answer sessions were conducted to address specific queries and provide practical insights. Participants actively engaged with the trainers, exchanging ideas and seeking clarification on various aspects of the ECBC and ECO Niwas Samhita.

#### Conclusion:

The one-day training program on Energy Conservation Building Code and EC Niwas Samhita organized by the Energy Management Centre (EMC) in Kerala on July 16, 2022, was a valuable initiative to promote energy-efficient building practices. The program successfully educated participants on the importance of energy conservation and provided them with practical knowledge on compliance with the ECBC and ECI Niwas Samhita guidelines. The event fostered networking opportunities among professionals from diverse backgrounds and encouraged the adoption of sustainable building practices in Kerala. The Energy Management Centre (EMC) and the Department of Power, Government of Kerala, deserve appreciation for organizing such an informative and engaging training program.

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# **Report on ACRESERVE Organized by ISHRAE Trivandrum Chapter**

Date: July 30, 2022

Venue: Ridges Hotel, Pattom

Event Topic: EV Charging and Troubleshooting in HVAC Systems

## Introduction:

On July 30, 2022, the Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE) Trivandrum Chapter organized a seminar titled "ACRESERVE" at Ridges Hotel in Pattom. The event aimed to address the growing importance of Electric Vehicle (EV) charging infrastructure and the challenges associated with HVAC systems in this context. The seminar brought together industry professionals, experts, and enthusiasts to discuss and exchange ideas on these topics.

## Event Overview:

The ACRESERVE seminar commenced at 9:00 AM with a warm welcome by the ISHRAE Trivandrum Chapter President, Mr. Prassanalal B R . The event attracted a diverse audience, including HVAC engineers, electric vehicle charging solution providers, and students interested in the field.

## Keynote Address:

The seminar began with a captivating keynote address by renowned expert in the field of electric vehicles and clean energy. He emphasized the need for an integrated approach to EV charging infrastructure, particularly focusing on the impact on HVAC systems. He also shared his insights on the importance of developing efficient and sustainable solutions to meet the rising demand for EV charging stations in Trivandrum and beyond.

## Sessions:

**EV Charging Infrastructure:** This session focused on the development and implementation of EV charging stations. Industry experts discussed the technical aspects of charging infrastructure, including the different types of chargers, charging protocols, power requirements, and safety considerations. The session highlighted the challenges associated with integrating EV charging stations with existing HVAC systems in residential, commercial, and public spaces.

**HVAC Troubleshooting in EV Charging Stations:** In this session, HVAC professionals shared their experiences and expertise in troubleshooting issues specific to HVAC systems in EV

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charging stations. They discussed common problems encountered in maintaining optimal environmental conditions inside the charging stations, such as temperature control, air quality, and energy efficiency. Practical solutions and best practices were presented to ensure the seamless operation of HVAC systems in these unique environments.

Panel Discussion: A panel discussion provided a platform for participants to engage in a dynamic conversation with industry leaders and subject matter experts. Topics ranged from the challenges faced by service providers and facility managers in integrating EV charging infrastructure with HVAC systems, to the future of smart charging solutions and energy management strategies. The panel discussion allowed for an interactive exchange of ideas, fostering a collaborative environment among attendees.

**Conclusion:**

The ACRESERVE seminar organized by ISHRAE Trivandrum Chapter on July 30, 2022, at Ridges Hotel in Pattom successfully addressed the challenges and opportunities surrounding EV charging infrastructure and troubleshooting HVAC systems in this context. The event brought together professionals from various industries and provided them with valuable insights, knowledge sharing, and networking opportunities. The discussions and presentations facilitated a deeper understanding of the complexities associated with EV charging and HVAC integration, paving the way for innovative solutions and sustainable practices in the future. ISHRAE Trivandrum Chapter deserves commendation for organizing such a well-structured and informative seminar, empowering participants to navigate the evolving landscape of EV charging and HVAC systems.

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**INDUSTRIAL VISIT and TECHNICAL TALK at Trivandrum  
International Airport**

ISHRAE-MBCET chapter to visit the airport.

Sl. No.	Name	Membership ID	Sl. No.	Name	Membership ID
1	Ananth P Nampoothiri	S22103700	12	Alan Lalu Geroge	S00103802
2	Aron K	S00103784	13	Albin R	S22103739
3	Georgy Varghese	S00103759	14	Vighnesh B	S00103791
4	Adarsh J B	S00103751	15	Akash A S	S00101878
5	Bharath S Nair	S00103755	16	Sivaprasad R	S22103760
6	Siddarth S D	S00103753	17	Jibin Babu B S	S21097610
7	Adithyan S Kumar	S00103749	18	Arjun Aji	S00101668
8	Akash A M	S00103728	19	Kiran Gopal	S00103677
9	Vaisakh G Nair	S00103752	20	Hrithik Ramesh	S22103964
10	Niranjan A	S00103713	21	Siddharth S Sukumar	S00104023
11	S P Athul Krishnan	S00103712	22	Joppu Joseph	S00097896

**Venue:** Trivandrum International Airport, Trivandrum

**Date:** 30<sup>th</sup> October 2022

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## REPORT OF INDUSTRIAL VISIT

DATE -(30-OCTOBER-2022)

PLACE OF VISIT -TRIVANDRUM INTERNATIONAL AIRPORT

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Fig ( 1 ) Mr .Noushad explaining hydro- pneumatic pump

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## **DESCRIPTION:**

The students of Department of mechanical engineering on behalf of ISHRAEMBCET visited Chilled water plant in Trivandrum international airport on 30-10-2023. This visit was mainly focused on to understand the proceduresinvolved in the operation of air conditioning. Students were grouped together and Mr. Noushad Hussain, officer at the chilled water plant explained about the facilities available and how the machines were operating. He also explained about the maintenance of the equipment.



*Fig (2) Group photo with Plant officer, MR Noushad*

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### **OUTCOME OF THE VISIT:**

- The technology and the equipment used for air conditioning, fire extinguisher and working of Diesel generator
- Discussion on the theory studied and its practical function and job opportunities in this field



Fig (3) *Mr Noushad explaining fire extinguisher types and working*



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## **STUDENTS REVIEW**

### **1. JIBIN BABU BS**

Today's program started by briefing about the refrigeration cycle, about the scope of job opportunity in the field of air conditioning and about the plant. Then we move on to visit the fire Extinguisher system. where we find two types of system

1-hydrant system (learned working & seen its physical nature)

2-sprinkler system (learned working & seen its physical nature).

From here I learned about (jockey pump, main pump, diesel generator pump). Also, the working of hydro- pneumatic pump

Then we move on to see the diesel engine generator and its working were learned about the AMF panel and it synchronize property, also find capacitance controlling panel

Then we moved to visit the refrigeration system were we find the (compressor, condenser, expansion unit,) also we seen the water storage tank, primary & secondary pump and water-cooling tank. were we find the location of strainers & and its function etc

Thus, through this visit I acquired new knowledge and realized the opportunity in the field of refrigeration.

### **2. AKASH A S**

The Day started by introducing safety measures and its functioning, mainly water pumps and diesel pumps.

Next went on to the overall functioning of the system then introducing to its various sections (refrigerant compressor, water pump (primary and secondary), cooling towers etc) and how these parts functioned as a whole to cool the whole building

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### **3. Ananth.P.Nampoothiri**

Today ISHRAE's MBCET chapter visited Trivandrum Airport. 14 students including the Chairman and CWC members were present and a brief idea of air conditioning and refrigeration engineering was given to us. The students got an idea about what that field of mechanical engineering deals with. Basic principle & cycles related with air conditioning and fire fighting units etc were shown and briefed us. Overall, it was wonderful and very much informative

### **4. Bharath S Nair**

Noushad sir gave a wonderful presentation. He explained the 4 cycles of ac. Then he explained the fire hydrant and 3 pumps like jockey pump etc. Then the diesel generator.

### **5. John Sony Kurien**

It was a great session and I really learned so many things about air conditioning on a large scale. It was very easy to understand. Looking forward for more IVs like this

### **6. Sidharth SD**

Today's visit to the Airport was exciting.

I was able to understand how the air conditioning system of a big building works.

### **7. Adithyan S Kumar**

It was very informative. We saw the different components of the air conditioning system of TIA. We came across the working of the fire extinguishing system in detail. We got the chance to walk around the cooling towers of the full systems.

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# Report on Webinar: Heat Transfer in Chilled Water System

Date: November 1, 2022

Presenter: Mr. Abhilash MR, President Elect, ISHRAE Trivandrum Chapter

## Introduction:

On November 1, 2022, the Trivandrum Chapter of the Indian Society of Heating, Refrigerating, and Air Conditioning Engineers (ISHRAE) organized a webinar on the topic "Heat Transfer in Chilled Water System." The webinar aimed to provide insights into the principles and best practices related to heat transfer in chilled water systems, with a focus on enhancing the participants' understanding of the subject.

## Webinar Overview:

The webinar commenced at 7:30 PM and attracted participants from various backgrounds, including HVAC professionals, & students. The session was conducted online, allowing participants to join remotely from the comfort of their homes or workplaces.

## Keynote Speaker:

Mr. Abhilash MR, President Elect of the ISHRAE Trivandrum Chapter, delivered the webinar. With his extensive knowledge and expertise in the field of HVAC, he was the ideal presenter to discuss heat transfer in chilled water systems. Mr. Abhilash MR started the session by providing a brief introduction to the topic, emphasizing its relevance in the context of energy efficiency and sustainable cooling practices.

## Webinar Content:

The webinar focused on the following key aspects of heat transfer in chilled water systems:

**Introduction to Heat Transfer:** The session began with an overview of the basic principles of heat transfer, including conduction, convection, and radiation. The participants were introduced to the fundamental concepts and equations governing heat transfer, laying the foundation for further discussions.

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**Chilled Water Systems:** Mr. Abhilash MR then explained the significance of chilled water systems in HVAC applications, particularly for cooling purposes. The participants gained an understanding of the components involved in chilled water systems, such as chillers, cooling towers, pumps, and air handling units.

**Heat Transfer Mechanisms:** The presenter delved into the various mechanisms of heat transfer within a chilled water system. This included heat transfer between the chilled water and the surrounding air, as well as heat transfer within the system's components. The concepts of heat transfer coefficients, temperature differentials, and thermal resistance were explained in detail.

**Factors Affecting Heat Transfer:** The webinar highlighted the factors that influence heat transfer in chilled water systems. These factors included flow rates, fluid properties, pipe materials, insulation, and system design. The participants gained insights into the importance of optimizing these factors to improve heat transfer efficiency and system performance.

**Best Practices and Case Studies:** Mr. Abhilash MR shared practical tips and best practices for enhancing heat transfer in chilled water systems. The session included real-life case studies where innovative approaches and solutions were implemented to achieve efficient heat transfer and improved energy performance.

**Question and Answer Session:** The webinar concluded with an interactive question and answer session, allowing participants to seek clarification on specific aspects of heat transfer in chilled water systems. Mr. Abhilash MR addressed the queries raised by the attendees, providing valuable insights and practical guidance.

#### Conclusion:

The webinar on "Heat Transfer in Chilled Water System" organized by the ISHRAE Trivandrum Chapter on November 1, 2022, provided participants with a comprehensive understanding of heat transfer principles and their application in chilled water systems. The session facilitated knowledge sharing and allowed participants to gain insights from an experienced professional in the field. The webinar served as an excellent platform for industry professionals, engineers, and students to expand their knowledge and stay updated with the latest advancements in heat transfer techniques. The ISHRAE Trivandrum Chapter

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Report: ISHRAE MBCET Chapter's Participation in Cricket Tournament Introduced by ISHRAE Trivandrum Chapter

Date: October 17, 2022

Introduction:

On October 17, 2022, the Trivandrum Chapter of the Indian Society of Heating, Refrigerating, and Air Conditioning Engineers (ISHRAE) organized a friendly cricket tournament aimed at promoting camaraderie and sportsmanship among its member chapters. The tournament witnessed enthusiastic participation from various chapters, including the ISHRAE MBCET Chapter, who competed against the TKM College team.

Tournament Overview:

The cricket tournament commenced in the morning at Bellinturf. The event aimed to foster a spirit of friendly competition and provide an opportunity for networking and interaction among the participating chapters. The tournament featured a limited-overs format, ensuring an exciting and engaging match between the two teams.

ISHRAE MBCET Chapter's Participation:

The ISHRAE MBCET Chapter actively participated in the cricket tournament, demonstrating their enthusiasm for sports and healthy competition. The team consisted of members from the chapter, including students from the Mar Baselios College of Engineering and Technology (MBCET).

Match Highlights:

The match between the ISHRAE MBCET Chapter and the TKM College team was filled with thrilling moments and spirited performances from both sides. Here are some of the highlights from the match:

**Toss and Batting:** The TKM College team won the toss and elected to bat first. They displayed solid batting skills, setting a competitive target for the ISHRAE MBCET Chapter team.

**Bowling and Fielding:** The ISHRAE MBCET Chapter team showcased excellent bowling and fielding skills, putting up a strong performance to restrict the TKM College team's scoring rate. The bowlers displayed accuracy, variations, and strategic field placements to take wickets at regular intervals.

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**Batting Display:** In response to the target set by the TKM College team, the ISHRAE MBCET Chapter team displayed determination and skill with their batting. The batsmen showcased excellent shot selection, executing well-timed strokes and scoring boundaries.

**Thrilling Finish:** The match provided an intense and nail-biting finish. Both teams fought hard to secure victory until the last over. Ultimately, the ISHRAE MBCET Chapter team emerged triumphant, showcasing their resilience and teamwork.

**Conclusion:**

The participation of the ISHRAE MBCET Chapter in the cricket tournament introduced by the ISHRAE Trivandrum Chapter on October 17, 2022, was a testament to the spirit of sportsmanship and camaraderie among the member chapters. The tournament provided a platform for networking, interaction, and healthy competition among the participants. The ISHRAE MBCET Chapter demonstrated their passion for sports and showcased their skills, securing a thrilling victory against the TKM College team. The tournament successfully achieved its objective of fostering unity and collaboration among the ISHRAE member chapters, and the event deserves appreciation for promoting a healthy and engaging environment within the organization.

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# Report: Gear Huts Quiz Competition Organized by ISHRAE MBCET Chapter

Date: November 23, 2022

## Introduction:

On November 23, 2022, the ISHRAE MBCET Chapter organized an online quiz competition titled "Gear Huts Quiz" for its members. The objective of the competition was to promote knowledge sharing, engagement, and friendly competition among the members of the chapter.

## Competition Overview:

The Gear Huts Quiz competition was conducted entirely online, allowing participants to join from their respective locations.

## Participants:

The competition witnessed active participation from members of the ISHRAE MBCET Chapter. The participants included students from the Mar Baselios College of Engineering and Technology (MBCET) who were passionate about the HVAC industry and eager to showcase their knowledge.

## Conclusion:

The Gear Huts Quiz competition organized by the ISHRAE MBCET Chapter on November 23, 2022, through an online platform was a resounding success. The competition provided an engaging and educational experience for the participants, promoting knowledge sharing, healthy competition, and collaboration within the chapter. The event showcased the enthusiasm and passion of the members of the ISHRAE MBCET Chapter for the HVAC industry. The chapter deserves commendation for organizing such an interactive and informative quiz competition, furthering the professional development of its members and fostering a vibrant community within the organization.

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## Conclusion

The ISHRAE MBCET Chapter's annual report for the year 2022-2023 reflects a year of remarkable achievements, growth, and contributions to the HVAC industry. Throughout the year, the chapter has demonstrated its commitment to promoting knowledge sharing, professional development, and sustainability in the field.

The chapter successfully organized a series of informative events, workshops, and training programs that catered to the diverse needs of its members. These initiatives covered a wide range of topics, including energy conservation, building codes, heat transfer, and HVAC system troubleshooting. The events provided a platform for industry experts, professionals, and students to exchange ideas, gain practical insights, and stay updated with the latest advancements in the field.

The ISHRAE MBCET Chapter actively engaged with its members through various networking opportunities, fostering a strong sense of community and collaboration. The chapter's efforts in organizing quizzes, cricket tournaments, and webinars created an inclusive environment where members could connect, share experiences, and build lasting relationships.

In addition to knowledge dissemination and networking, the chapter also prioritized sustainability and energy efficiency. It emphasized the importance of adopting eco-friendly practices, energy conservation measures, and compliance with energy codes and standards. The chapter's initiatives aimed to create awareness and drive positive change in the industry, aligning with global efforts towards a greener and more sustainable future.

Looking forward, the ISHRAE MBCET Chapter is well-positioned to continue its trajectory of growth and excellence. With a strong foundation, a motivated membership base, and a commitment to innovation and sustainability, the chapter is poised to further advance the field of HVAC and make a lasting impact in the years to come.

The annual report serves as a testament to the chapter's accomplishments, resilience, and unwavering dedication to the mission and values of ISHRAE. It stands as a roadmap for future endeavors, inspiring the chapter to reach even greater heights in the pursuit of knowledge, collaboration, and sustainability in the HVAC industry.



