

# ISHRAE MSU VADODARA CHAPTER

Activities Summary  
2022 - 2023



# ISHRAE

Vadodara Chapter

Prepared By:  
ISHRAE MSU CWC 2022-23

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# Installation ceremony of ISHRAE MSU Vadodara chapter



The Re-Installation of ISHRAE MSU Vadodara student chapter was done on **4th August 2022** at Mechanical Engineering Department, FTE, MSU. The event began with inspiring words of ISHRAE Vadodara Chapter President Mr. Jigar Shah. ISHRAE Vadodara Chapter (IVC) Past President Mr. Jigar Bhalavat was the installation officer, who conducted the Oath Taking ceremony. Mr. Manan Vora was the guest of honor. We all ISHRAE MSU members are very thankful to Mr. Manan Vora for sponsoring IVAT Scholarship and teaching some lessons in a joyous way. ISHRAE Vadodara chapter Student Activity Chair Dr J. R. Mehta, who is the instrumental person to conceive and conduct the IVAT test announced the results and applauded the winners.

# ISHRAE MSU Vadodara Chapter CWC 2022-23



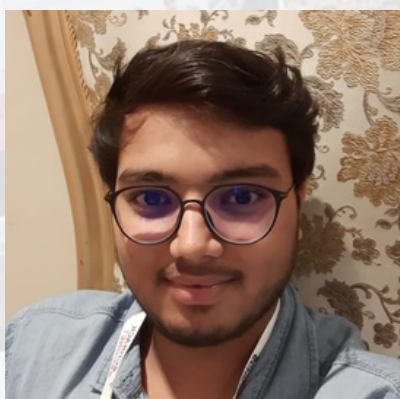
Abhishek Sonawane  
President



Tirth Joshi  
President-elect



Chetan Nakum  
Secretary



Vraj Modi  
Treasurer



Aman Dattani  
CWC Member



Milan Karkar  
CWC Member



Satvik Banagundi  
CWC Member



Raulji Rajdipsinh  
CWC Member

# Industrial Visit to PMP Climate Technologies



An Industrial Visit to PMP Climate Technologies, Por was organized by ISHRAE-MSU Vadodara student chapter on 4/08/2022, 4:00 pm onwards. Mr. Prakash Bhanderi, the director of the company gave a brief introduction to the HVAC Industry and the product profile of the company. Then, the Technical Director Mr. Mohit Vanparia gave a detailed factory tour, showcased all the machines, and gave a live demonstration. This was a knowledge-gaining and inspiring visit for all ISHRAE-MSU Vadodara student Members, around 30 in strength.

# Industrial Visit to Comed chemicals



ISHRAE Vadodara chapter arranged a visit to Comed Chemicals, a capsule manufacturing company at Rania on 17th September. Around 70 student members took benefit of the visit. They practically witnessed the working of a water chilling plant, AHU, boiler, air compressors, etc., which was a great learning experience! Thanks to the management of the company and IVC president Jigar Shah sir for initiative and arrangements

# Industrial Visit to Ablaze Scientific works



An industrial visit to Ablaze scientific works was organized by the ISHRAE Vadodara chapter on 3rd January 2023.

Students from ISHRAE Vadodara chapter colleges joined the visit.

Upon reaching the venue, Jigar Shah sir explained the uses of HVAC&R in industries and the importance of the HVAC&R field. Mr.

Jvanil Joshi, the proprietor of Ablaze Scientific Works explained the work they do in the field of Lab equipment and R&D.

Jvanil Sir interacted with the students about shell and tube-type heat exchangers asking various questions and explaining single and multi-pass shell and tube-type heat exchangers. Students showcased the heat exchangers made of glass for research purposes and also were shown the method to manufacture the heat exchanger from glass using various processes.

# Industrial Visit to Unique Airtech



ISHRAE MSU Vadodara student chapter arranged an industrial visit to “Unique Airtech” Makarpura on 21 February 2023. 30 students from the 3rd year and 40 students from the 2nd year Mechanical Engineering course participated in the visit.

Dr. J. R. Mehta from Mechanical Engineering Department guided the students during the visit. The students could see the actual products about which they study in theory and thus greatly helped them build their engineering understanding and acumen.



# Expert Technical talk on Refrigeration is everywhere



A technical lecture and orientation to ISHRAE was organized by the ISHRAE-MSU Vadodara student chapter on 16/07/2022, Saturday, from 10:00 to 11:30 am. Mr. Jvanil Joshi spoke on the subject of “Refrigeration is Everywhere”. Dr. J. R. Mehta, student activity chair, IVC informed students about the activities carried out by ISHRAE. Mr. Jigar Shah, President IVC explained the scope of the HVAC&R industry and how students can get benefits on the ISHRAE platform. Around 30 students took advantage of this session. We thank the above speakers as well as Lt. (Dr.) Piyush Gohil, HoD, Mechanical Engg. Dept., FTE, MSU for gracing the occasion and encouraging us.

# Expert Technical talk on Awareness about competitions organised by ISHRAE for students



On 23rd August, ISHRAE MSU Vadodara Chapter conducted an online expert talk on "Awareness about competitions organized by ISHRAE for students" where Mr. Hardik Shukla, CWC member ISHRAE Ahmedabad Chapter guided us through the competitions and hackathons that ISHRAE organizes every year. Mr. Rohit Dave who has an experience as a jury member in some of the hackathons shed light on how the students should present themselves and their design/product in any competition or hackathon.

# Expert Technical talk on Heating, Ventilation and Air Conditioning (HVAC)




On 27th September, 11:00 - 14:00, the **Training and Placement Cell of the Faculty of Technology and Engineering, MSU** conducted a seminar on Heating, Ventilation, and Air Conditioning (HVAC) and Training for Interviews for students of all engineering fields. We are thankful to Mr. Mayank Anand who is Assistant General Manager, Head of the building services department at L&T, Chiyoda along with his colleagues explained how every engineer, irrespective of their field can contribute to the HVAC Industry. Along with HVAC, they also shed light on how students can positively and enthusiastically sit for interviews and give their best.

# Expert lecture on Heat exchangers by Mr. Himanshu Shah



ISHRAE-MSU Vadodara student chapter at Mechanical Engineering Department organized an expert lecture on "Heat Exchangers - Types and Applications" on 24/03/2023 by Mr. Himanshu Shah. Mr. Himanshu Shah shared his vast experience explaining various applications of heat exchangers in different types of industries. He even demonstrated the constructional details and working of plate heat exchangers. The lecture was thus very useful for the students, around 40 of them took benefit of this.

# ISHRAE HVAC Hackathon



**ISHRAE HVACR HACKATHON**

**SOLAR ENERGY IN HVAC&R**

Hackathon will help to establish networks among students, experts, and professionals. This event can be used for job/recruitment fairs and allow the students to assess their abilities and find ways to accomplish the tasks and how they work in a team, A novel method to enhance the image of ISHRAE and get into the innovative, tech-savvy, technology-minded people in this area.

**KEY FEATURES -**

**Theme/Subject Area of Competition:**  
**Solar Energy in HVAC&R-**

- Solar based portable refrigeration units
- Solar Air-conditioning units
- Sustainable approach in cold storage Design
- An IoT-Based Smart Controlling System of Air Conditioner for High Energy Efficiency
- Smart home Automation and Building management system

**EVENT GUIDELINES -**

- Only for ISHRAE Student Members
- No registration fee for ISHRAE members and Team  
(Max Team size will be 3 to 4 Members permitted)

**PROCESS OF SCREENING/ SELECTION**




- Online submission of ideas
- **First level screening:** 3 teams / chapter
- **Second level Screening:** Regional / Zonal Level Round
- **Zone wise:** 3 Winners from each Zone (21 Nos)  
**Zonal Winners:** ₹ 5,000/team and Certificate) (Cash Price + Publications)
- **Final:** National Event – During Last week of Feb 2023
- Top 21 teams has to present the work in front of juries (Academic + Industries) in final event

For further queries regarding the event, kindly e-mail us at [shuklahardik2@gmail.com](mailto:shuklahardik2@gmail.com)

**TENTATIVE SCHEDULE FOR HACKATHON**

Activity	Deadline for Submission
Primary Concept & Abstract Submission/Presentation at Chapter level	Up to 15 <sup>th</sup> September 2022
Scrutiny & Short listing of Maximum Three entries at Chapter level	Up to 30 <sup>th</sup> September 2022
Detail Project Document and Actual Work Report Submission/Presentation at Zonal level	Up to 31 <sup>st</sup> October 2022
Scrutiny & Short listing of Maximum Three entries at Zonal level	Up to 25 <sup>th</sup> November 2022 (Could be done during REFCOLD - 2022)
Final Submission Of Work & Presentation	Till February 2023 (last week or could be done during ACREX-2023)

**Prize Money for Final Event:**

	<b>Winner : ₹ 1 Lakh</b> (Cash Price + Publications)
	<b>1st Runner up : ₹ 75000</b> (Cash Price + Publications)
	<b>2nd Runner up: ₹ 50000</b> (Cash Price + Publications)

**Submit your entries on [v.thakur@ishraehq.in](mailto:v.thakur@ishraehq.in)**

ISHRAE MSU members get ready for HVACR Hackathon... Showcase your knowledge, skills, and talent at the National level along with other perks. Feel free to have a look at the topics for Hackathon and the tentative schedule.

# Winning the regional level of ISHRAE HVACR Hackathon on Solar Energy

Sl. No	Zone	Chapter Name	Institute Name	Title	Name of the Team Leader	Membership No.	Mobile	Email	Rank	Prize Money
1	East	ISHRAE Kolkata Chapter	JADAVPUR UNIVERSITY	Solar Based Portable Refrigeration Unit	Niloy Sen	S00105429	9038757461	<a href="mailto:niloySen605@gmail.com">niloySen605@gmail.com</a>	1	5000
2	West 1	ISHRAE Nagpur Chapter	S.B. Jain Institute of Technology Management and Research	Refrigeration	Kunal Nimkar	S00102257	7776911920	<a href="mailto:nimkark2@gmail.com">nimkark2@gmail.com</a>	1	5000
3	West 1	ISHRAE Kolhapur-Sangli Sub chapter	Sharad Institute of Technology, College of Engineering, Yadrav	Sustainable approach and retrofit of sports wheelchair for comfort	Mr. Suraj Jaysing Lal	S00103086	9404211827	<a href="mailto:surajal20189@gmail.com">surajal20189@gmail.com</a>	1	5000
4	West 1	ISHRAE Pune Chapter	College of Engineering, Pune (Technological University)	Solar Air Conditioning	Jaydatt Avinash Jaybhaye	S00105753	7028202474	<a href="mailto:jaybhayeja19.mech@coep.ac.in">jaybhayeja19.mech@coep.ac.in</a>	3	5000
5	West 2	ISHRAE Vadodara Chapter	The Maharaja Sayajirao University of Baroda	Solar Air Conditioning Units	Tirth Joshi	S00103927	9427621371	<a href="mailto:tirthjoshi212@gmail.com">tirthjoshi212@gmail.com</a>	1	5000
6	West 2	ISHRAE Indore Chapter	Devi Ahilya Vishwavidyalaya, Institute of Engineering & Technology	Smart Home Automation and Building Management System	Mr. Nikhil James George	S00101761	8103715275	<a href="mailto:christianog789@gmail.com">christianog789@gmail.com</a>	2	5000
7	West 2	ISHRAE Indore Chapter	Acropolis Institute of Technology and Research, Indore	Solar Based Portable Refrigeration Unit	Mr. lakshya rathore	S00102828	8827500175	<a href="mailto:kanhiya2301@gmail.com">kanhiya2301@gmail.com</a>	3	5000
8	South 1	ISHRAE Mysore Chapter	VIDYAVARDHAKA COLLEGE OF ENGINEERING	SOLAR BASED PORTABLE REFRIGERATION UNIT	SWATHI N SWAMY	S00103696	6362194230	<a href="mailto:20me0124@vvve.ac.in">20me0124@vvve.ac.in</a>	1	5000
9	South 1	ISHRAE Mysore Chapter	Maharaja Institute of Technology Mysore	Solar air conditioning for traffic cops	M Sharath Babu	S00102550	8123049755	<a href="mailto:sharathbabum27@gmail.com">sharathbabum27@gmail.com</a>	2	5000
10	South 1	ISHRAE Bangalore Chapter	NITTE MEENAKSHI INSTITUTE OF TECHNOLOGY	An IOT based smart controlling system of air conditioner for high energy efficiency	M Nachiketh Raj	S00102995	9986499712	<a href="mailto:nachikethra25@gmail.com">nachikethra25@gmail.com</a>	3	5000
11	South 2	ISHRAE Madurai Chapter	Thiagarajar College of Engineering	Solar based farm level cold storage for Floriculture	DEEPIHASHINI K	S00102757	9361647192	<a href="mailto:deepihashini@student.tce.edu">deepihashini@student.tce.edu</a>	1	5000
12	South 2	ISHRAE Chennai Chapter	Easwari Engineering College	Microcooling Of Helmet Using Solar Thermo Electric Generator	Mr. S. Sriram	S00104682	7395950633	<a href="mailto:s.sriramsara7395@gmail.com">s.sriramsara7395@gmail.com</a>	2	5000
13	South 2	ISHRAE Chennai Chapter	Easwari Engineering College	Solar based Portable Refrigeration units – (Portable Solar Mini Refrigerator for Vaccines and Drugs)	Mr. YO HIT.K	S00104557	9003073987	<a href="mailto:yohit123@gmail.com">yohit123@gmail.com</a>	3	5000

The team of two of our third-year Mechanical Engineering students; **Tirth Joshi** and **Satvik Banagundi**, under the mentorship of **Dr. J R MEHTA**, won the regional level competition in the ISHRAE HVACR Hackathon on Solar Energy in HVACR (prize money Rs. 5000). Their team was one of the 13 teams selected for national-level finals which were held in the month of March 2023.

# Chapter Level Aquest Quiz offline round



The chapter-level Aquest quiz competition for the ISHRAE Vadodara chapter was organized at Kalabhavan Auditorium by the ISHRAE MSU Vadodara student chapter.

Earlier an online quiz was conducted, where **18 teams** from MSU, DDU, NUV, GECEB, and SVIT participated. Out of these, **7 teams**, from MSU, DDU, and GECEB were shortlisted for the offline round conducted.

- **MSU team (Abhishek and Malhar) won the first prize**
- **DDU team (Neel and Rohan) were first runners up**
- **MSU team (Rajdeepsinh and Satvik) were the second runners up.**

# First runners-up at National Level Aquest Quiz Competition



**Abhishek Sonawane** and **Malhar Nityanand** from 4th-year Mechanical Engineering course competed in the Aquest finals at Mumbai and secured 1st runner-up position. They were awarded with a trophy and **prize money of ₹20,000**.



# Words of ISHRAE Members and Experts

**Dr. Jignesh R. Mehta**

**Our Honored Mentor, Student Activity Chair at IVC, Assistant Professor at Mech. Engg Department, MSU**

One of the big deficiencies in current Engineering Education is that the students remain “कूपमंडूक” as told in Sanskrit. They do not get exposure to the outside world and platform where their skills can be finessed. ISHRAE is one such platform which helps students get exposure to their future professional field by activities like industry visits, expert lectures from industry experts, internship and much more. ISHRAE arranges national and international level activities like AQuest quiz, National Student Design Competition (NSDC) and HVAC&R Hackathon to name a few! Students can hone their skills and put their theoretical knowledge into practice by participating in these activities. ISHRAE-MSU Vadodara chapter is incessantly doing these activities from year 2013 and helping students in grooming their career and boosting their professional prospects. You are also welcome to become an ‘ISHRAE’ite and travel the path to success with us!



**Lt. Dr. Piyush Gohil**

**Head, Mechanical Engineering Department, Faculty of Technology and Engineering, MSU**



I am happy to see the amount of interest of our ISHRAE-MSU Vadodara Student Chapter, who actively conducted and managed various activities and events for the year 2022-23. This shows the positive and imaginative energy of our students and their mentors. They are proudly publishing the annual reports for the year 2022-23 in order to show to the outside world, and to remind the denizens of Mechanical Engineering Department, Faculty of Technology & Engineering, the progress which they have made so far. I wish they intend to continue presenting the talent and creativity.

**Abhay Soni**

**Past President and President-elect MSU Chapter 2020-22**

I still remember the first time I learnt about ISHARE and my only instinct was a platform to connect with industries and have industry visits. The 2 years of me as a student member was a period of knowledge and experience gain for me through numerous technical webinars and industry visits. ISHRAE provided me a platform to connect with HVAC&R industry professionals. I got to experience current innovations and technology presentations. Along with academics, hosting events and quiz competitions across chapters enhanced my soft skills a lot. I will always be grateful to Dr. J.R. Mehta Sir for his guidance and support. Thank you ISHARE for a wonderful experience and still in connect!



**Abhishek Sonawane**

**President and President-elect MSU Chapter 2021-23**



I was President-elect and President of Ishare Vadodara- MSU chapter. It was a wonderful experience where I got to learn many things and exposure to many industries involved in HVAC&R. In the same period, I took part in the Ishare AQuest quiz competition, which was spectacular, as I won at the chapter level and got a chance to compete at the National level. I came in the 1st runner-up position, which was a proud moment for family, friends. I would also like to add our mentor Dr. J. R. Mehta had worked very hard and actively took part for the technical talk and industry visits.

Lastly, it was a great experience being a part of such a wonderful organization.

# Words of Immediate Past President, IVC Mr. Jigar Shah

Last year was tremendous for our ISHRAE Vadodara Chapter and our MSU student chapter did it marvelously well under the able leadership of Mr. Abhishek Sonawane & Mr. Tirth Joshi with the guidance of our mentor Dr. Jignesh Mehta.

It was a great experience working with the young minds and learning from them how to use the technology and make our things easy & fast. They made some flyers and the MSU yearly bulletin, so nicely and well organized which motivated me to get our IVC 1st bulletin out.

MSU team did brilliantly well by organizing various seminar, arranging industrial visit and apart from that begging the 2nd price at Aquest and for Hackthon on all India level making IVC so proud of them.

We IVC are always so proud of MSU team and they are our wings in spreading and taking the ISHRAE MOTO further and inspiring the student to take up this field as their professional carrier. Mr. Tirth & his team organize the chapter level Aquest round so well and transparently that all our student chapter were pleased.

I hope the same will be continuous on YOY basis under the able leadership & guidance of Dr. Jignesh Mehta to his student and student gain all kind of knowledge from ISHRAE and come out with flying colours in their life.

My whole heartily wishes for them and I am sure their futures are bright as they are bright to enlighten our society and so it is rightly said that the 21st century is of India.

God Bless You !

Thanks & Regards,  
For ISHRAE Vadodara Chapter

Jigar Shah  
Immediate Past President 23-24.



# ISHRAE Student Membership & IVAT Scholarship Test

ISHRAE which is Indian Society of Heating, Refrigeration and Air Conditioning Engineers' offers a huge platform for students pursuing their undergraduate and post graduate program.

Students first need to register themselves on ISHRAE website to purchase the 1/2/3 year(s) membership. Once the student completes the above step they will receive a membership approval email from ISHRAE. The ISHRAE student members can then take advantage and participate in all activities organized and performed by ISHRAE HQ, ISHRAE Vadodara chapter and ISHRAE MSU Vadodara chapter.

Enroll today as ISHRAE student member at: <https://www.ishraehq.in/> (Students should select student membership)

If any student requires any guidance for membership purchase or has any other inquiry they can contact the CWC of ISHRAE MSU Vadodara chapter.

ISHRAE Vadodara chapter would like to attract meritorious students for membership to make their own as well as future of HVAC&R industry brighter. So, IVC decided to offer scholarship in the form of providing partial (50%) fee reimbursement for the students who join ISHRAE.

So, ISHRAE VADODARA APTITUDE TEST (IVAT) was introduced. The scholarship is given according to the cut-off marks as well as the participation and IVC consideration. In 2022-23, 9 students of 3rd year Mechanical engineering and 2 students of 4th year Mechanical engineering were awarded with the scholarship.

# Special Thanks to all Members (SY 2022-23)

Mr. Hiren Shah  
Secretary, IVC

Mr. Jigar Shah  
President, IVC

Mr. Himanshu Shah  
President-elect, IVC

Mr. Jigar Bhalavat  
CWC, IVC

Mr. Manan Vora  
Past President, IVC

Mr. Prakash Bhanderi  
Treasurer, IVC

Mr. Mohit Vanparia  
PMP Climate  
Technologies

Mr. Hardik Shukla  
CWC, ISHRAE  
Ahmedabad chapter

Mr. Rohit Dave  
International  
Motivational Speaker

Mr. Mayank Anand  
Assistant G.M., L&T

Mr. Jvanil Joshi  
Director, Ablaze  
Flameproof & Automation

Mr. Dixit Sir  
Professor, DDU

Our Honored Mentor  
Dr. Jignesh R. Mehta

Lt. (Dr.) Piyush Gohil  
Head, Mech Engg., MSU

Mr. Tirth Joshi  
President-elect, ISHRAE  
MSU

Mr. Abhishek Sonawane  
President, ISHRAE MSU

Mr. Chetan Nakum  
Secretary, ISHRAE MSU

Mr. Aman Dattani  
CWC, ISHRAE MSU

Mr. Vraj Modi  
Treasurer, ISHRAE MSU

Mr. Milan Karkar  
CWC, ISHRAE MSU

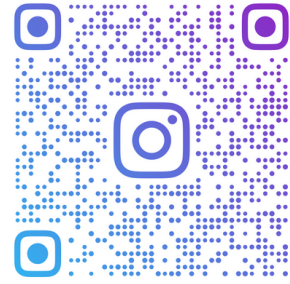
Mr. Satvik Banagandi  
CWC, ISHRAE MSU

Mr. Raulji Rajdipsinh  
CWC, ISHRAE MSU



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