

Report of **ISHRAE-RGIT Student Body** ACADEMIC YEAR JULY 2023 - MAY 2024

FACULTY CO - ORDINATOR:

Dr. Kiran Chaudhari

Program Outcomes (PO) Engineering Graduates will be able to: Engineering

- **PO1 knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- **PO2 Problem analysis**: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO3 Design/development of solutions**: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO4** Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- **PO5** Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- **PO6** The engineer and society: Apply reasoning informed by the contextual knowledgeto assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- **PO7** Environment and sustainability: Understand the impact of the professionalengineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- **PO8 Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **PO9** Individual and team work: Function effectively as an individual, and as a memberor leader in diverse teams, and in multidisciplinary settings.
- **PO10** Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- **PO11 Project management and finance**: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- **PO12** Life-long learning: Recognize the need for, and have the preparation and ability toengage in independent and life-long learning in the broadest context of technological change.

Department of Mechanical Engineering

Vision

To create competent technical professionals in Mechanical Engineering with ethical behaviour and environment consciousness.

Mission

- 1. To provide contemporary and cutting-edge technical education in Mechanical Engineering.
- 2. To provide an ambience which nurtures research ideas in futuristic domains of Mechanical Engineering.
- 3. To initiate project based learning and practical exposures in the area of MechanicalEngineering.
- 4. To direct faculties in research and consultancy / advisory roles.
- 5. To establish strong linkages with well-known national and international technicalinstitutes.
- 6. To promote the culture of imbibing environmental care and eco-friendly designs.
- 7. To become a department of aspiration & choice.

Program Educational Objectives (PEOs)

PEO1: To prepare the stakeholder to exhibit leadership qualities with demonstrable attributes in lifelong learning to contribute to the societal needs.

PEO2: To make ready the stakeholder to pursue higher education for professional development.

PEO3: To help the stakeholder to acquire the analytical and technical skills, knowledge, analytical ability attitude and behavior through the program.

PEO4: To prepare the stakeholders with a sound foundation in the mathematical, scientific and engineering fundamentals.

PEO5: To motivate the learner in the art of self-learning and to use modern tools for solving real life problems and also inculcate a professional and ethical attitude and good leadership qualities.

PEO6: To prepare the stake holder to able to Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Program Specific Outcomes (PSOs)

PSO1:Successful Career and Entrepreneurship: Graduates will be able to understand the social-awareness and environmental wisdom along with ethical responsibility to havea successful career and to sustain passion and zeal for real-world applications using optimal resources as an entrepreneur.

PSO2: Hobbies and Career: Graduates have nurtured their hobbies which are useful intheir specific chosen career.

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1.	Know Your Committee	August 2023
2.	ISHRAE RGIT student chapter installation ceremony	08 th September 2023
3.	Webinar	15 th September 2023
4.	K-12	16 th October 2023
5.	Industrial Visit	18/19 th January 2024
6.	Jamboree 2024	20 th January 2024
7.	Industrial Visit	26 th January 2024

Know Your Committee

Date: August 2023

In the month of August 2022 ISHRAE RGIT chapter organized a Know Your Committee (KYC) event for the direct second-year students and third year students, the motive behind this event was to introduce the newcomers to the ISHRAE committee and its benefits.

Our president gave a presentation and a brief introduction about ISHRAE and its benefits then our HOD sir concluded the event.

ISHRAE RGIT Student Chapter Installation Ceremony 2023-24

ISHRAE RGIT Student Chapter was once again installed and has been given the opportunity to help the students increase their knowledge and prepare them for life after graduation. The event marked the formal inauguration of the Student Chapter and aimed to bring together students, faculty, and professionals interested in the field of Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC&R).

Briefs/Background of the event:

Installation of ISHRAE-RGIT student chapter was scheduled on 08september-2023, in RGIT Conference room 4:00 Pm.

Invited chief guest:

Mr. Nasir khan (President Mumbai Chapter)

Mr. Sanjay Verma (IMC Member)

Mr. Sandip Vardam (IMC Member)

Special invitees:

Dr. Sanjay Bokade

Dr. Rajesh Kale

Dr. Kiran

Insights of the event:

Welcome Address: The event began with a warm welcome address by Zain, Secretary of the Ishrae RGIT Student Chapter. Zain extended a hearty welcome to all the attendees, including the Guest, faculty members, students, and industry professionals present at the ceremony.

Then we had national anthem (song) then the event starts with lighting of lamp.

Lighting of the Lamp (Saraswati Vandanam): To invoke positivity and enlightenment, a traditional lamp lighting ceremony was conducted by Mr. Nasir khan, Mr. Sanjay Verma, and Mr. Sandip Vardam, symbolizing the beginning of a new chapter in the field of HVAC&R.

Inaugural Speech: A notable guest speaker, Mr. Sanjay Verma, a renowned expert in the HVAC&R industry, delivered an inaugural speech emphasizing the significance of student involvement in Ishrae RGIT Student Chapter activities and their role in shaping the future of the industry.

Mr. Sanjay Verma sir also introduced the audience to various benefits such as interaction with the professional industry personnel, grants offered by ISHRAE, access to ISHRAE's E-journals.

Then the stage was handed over by the host to the chief guest, Mr. Nasir khan who gave detailed insights about ISHRAE and the ASHRAE community, right from its establishment to its functionality and its beneficial effects on society.

He discussed the importance of the HVAC industry in various fields, the Aims and objectives of ISHRAE, explained the energy scenario and HVAC and various initiatives such as competition, webinars, I. V's, and the placements that ISHRAE provides.

Later Mr. Sandip Vardam sir was called upon the stage to share his ideas and thoughts. With his charming and interactive personality, approached the Audience and encouraged them, and made our audience understand the need for HVAC by giving the example of HVAC in Data centers.

Also, he explained the national-level exhibition "ACREX" and emphasized the importance of the growing development in the HVAC sector in the coming years. He urged the students to be a part of ISHRAE and explore the endless opportunities the HVAC industry has to offer.

Lastly our mechanical department head Dr. Rajesh Kale shared his experience and thanked the respective chief guest for being part of this installation event.

Then we had special ceremony of oath taking and signifying their commitment to ISHRAE's values and objectives.

Then we proceed for cake-cutting ceremony. This has symbolized the sweet journey that lies ahead for our new chapter.

The host concluded the event with a vote of thanks to all the dignitaries and the audience present.



(Mr. Nasir khan, Mr.Sanjay Verma, Mr. Sandip Vardam)

Webinar on Startup Opportunities in HVAC & R Industries

The online webinar on "Startup Opportunities in HVAC & R Industries" was a significant event. Hosted by Shubham yelve, the webinar aimed to shed light on the vast potential for startups in the Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC & R) industries. This webinar aims to provide valuable insights into the opportunities, challenges, and trends in these industries, offering a platform for knowledge exchange and networking.

Briefs/Background of the event:

Online webinar on "Startup Opportunities in HVAC & R Industries" was scheduled on 15-september-2023, at 7:00 Pm.

Invited Speakers:

Mr. Rohit Dave (Ex. Manager G.S.F.C. Ltd.Baroda)

Prof. Hardik. A. Shukla (M.E. (Mechanical) Cryogenic Engineering, From

L.D.C.E., Gujarat University)

Faculty in charge:

Dr. Kiran Chaudhari

Opening Remarks (Event Overview)

The event began with a warm welcome address by Shubham yelve, Member of the Ishrae RGIT Student Chapter. Shubham extended a hearty welcome to all the attendees, including the Guest, faculty members, students, and industry professionals present at the Webinar. Who emphasized the importance of innovation in the HVAC & R sectors?

Then we had national anthem (song).

Mr. Rohit Dave an industry expert, provided a comprehensive overview of the current market trends in the HVAC & R industries. This included the growing Demand for energy-efficient solutions, the shift towards eco-friendly refrigerants, and the impact of smart technology on the industry with help of his PPT. Several successful startup founders were invited to share their journeys and experiences in

MANJARA CHARITABLE TRUST RAJIV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI The HVAC & R sector. They discussed their challenges, strategies, and the key factors that contributed to their success.

Mr. Rohit Dave, sir a venture capitalist, discussed the investment landscape for startups in HVAC & R. He highlighted the areas that investors are most interested in, such as smart HVAC solutions, renewable energy integration, and sustainable refrigeration technologies

Mr. Rohit Dave, sir delved into the regulatory framework governing the HVAC & R industries. This included discussions on environmental regulations, safety Standards, and the importance of compliance for startups.

He also explored the latest technological advancements in HVAC & R, including Iota integration, artificial intelligence for predictive maintenance, and green

Refrigeration solutions.

Sir also gave us 2 simple formulas

Give me more then you are paid for, you'll grow more, grow faster, more knowledge

Take initiative when u ask or initiative, u get more work and your career will go faster and you'll achieve more success.

Sir last words were, Duniya mean 3 baat yaad rakho, Jeet jasbaat and junoon (Winning, humbleness, involvement, passion)

Prof. Hardik. A. Shukla sir share his ideas and thoughts. He also gave us the short information on startup opportunities in HVAC & R industries, are witnessing substantial growth, driven by factors such as urbanization, climate change Concerns, and a focus on energy efficiency.

Startups can thrive in these industries by focusing on innovation, especially in Areas such as smart technology, renewable energy, and environmentally friendly refrigerants.

Investors are actively seeking opportunities in startups that offer innovative solutions to address the evolving needs of the HVAC & R sectors.

Understanding and adhering to regulatory requirements is crucial for startups to gain market credibility and ensure safety and environmental responsibility.

MANJARA CHARITABLE TRUST RAJIV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI Embracing the latest technologies, such as IoT and AI, can give startups a Competitive edge and improve the efficiency and sustainability of HVAC & Rsolutions.

Sir Also, explained the upcoming competition of ISHRAE like National student design competition, student research project grant, Hackathon etc. sir also talked about the full process how the competition is going to happened, also the winning amount.

Also, he explained the national-level exhibition "ACREX" and emphasized the importance of the growing development in the HVAC sector in the coming years. He urged the students to be a part of ISHRAE and explore the endless opportunities the HVAC industry has to offer.

"I want to extend my heartfelt gratitude to all the esteemed members of ISHRAE, including our dedicated President and Students Activity Chair, for making this webinar a resounding success. Your support and leadership have been invaluable in providing our community with insightful knowledge and fostering a spirit of learning. Thank you for your commitment to our organization."

WORK SUMMARY:

• Assisting with the planning, preparation, and organization of events was handled by the entire team (from technical to hosting).

•Learned about the key requirements, duties, responsibilities, and skills that are required for managing an event.

- Assisting with the planning, preparation, and organization of events.
- Everything was up tight and smooth.

This Activity mapped with PO7, PO8, PO10, PO12 & PS01









Webinar on Startup Opportunities in HVAC & R Industries images



RGIT CHAPTER

STEM K-12 Activity 2023-24 Conducted by ISHRAE Mumbai chapter in collaboration with ISHRAE RGIT Student Chapter

Topic: World Food Day Date: 16th October 2023 Time: 10:00 AM

Venue: Vesawa Vidyamandir School, Yari Road Andheri west, MumbaiMaharashtra 400061

Note-Taker:

Mr. Sushant Ghurup (President, ISHRAE RGIT Student Chapter)

Mr. Saurabh Keluskar (Vice-President, RGIT MHSSCOE StudentChapter)









On Occasion of **WORLD**



October 16, 2023

ISHRAE RGIT CHAPTER presents K12 activity

Venue:- Vesawa Vidyamandir School, Yari road, Sai Nagar, Versova, Andheri West, Mumbai, Maharashtra

Time: - 8 am onwards

Nasir Khan President

rle Prof. Saho ec K12 Chai

Prof. Sahab Dabir Dr. Kirau K12 Chair, IMC Facu

Chaudhari Advisor, Dr. Rajesh Kale Faculty Advisor, ISHRAE RGIT President, President, ISHRAE ROM CUAPTER



"Food Safety"

"Energy Conservation" "Activity 26°C"

<u>Motivational Talk</u>

"Water is life, Water is food"



Theme:- World Food Day Prizes + Certificate for 3 winners



ISHRAE RGIT Student Chapter Present **k-12** (world food day). This event gave us the opportunity to help the students increase their knowledge and prepare them for life after graduation. The event marked the formal k-12 (world food day) and aimed to bring together students, faculty, and professionals interested in the field of Energy conservation, Ac'26, Heating, Food safety, Ventilation, Air Conditioning, and Refrigeration (HVAC&R). The activity took place at, Vesawa Vidyamandir school, Yari Road Andheri west, Mumbai Maharashtra 400061. The prime motive of the event was to inculcate the knowledge about the World food day Sources in the young minds.

GLIMPSES OF THE ACTIVITY:









MINUTES:

- The K-12 chair ISHRAE Mumbai chapter and the Core Committee members of ISHRAE RGIT chapter reached the Vesawa Vidyamandir school, Yari Road Andheri west, Mumbai Maharashtra 400061.
- The session started with the National Anthem.
- The ISHRAE RGIT chapter Zain, Treasurer gave a brief ideato the students about ISHRAE and what it does.
- The event began with **TECH TALK** on **Energy conservation** by the members of ISHRAE RGIT (Rohit, Vignesh, Shubham).
- Ac'26 was one of our main topics of our event which was explained by Eshank, Saurabh.
- Then we had interactive session with student by having quiz on k-12 (world food day) which was according to general knowledge of the student.
- After the quiz we had game with student like emoji guessing, jumble words, K-12 question, speech on k-12 about world food day.
- Then we had Motivation talk on k-12 on by Zain, Siddhi. In which zain explained about the Water is life, water is Food, food is life.
- Q&A session started after the presentation. The students answering the questions correctly were given Chocolates as a token of appreciation.
- winner list of quiz in which **RAJ SINHA** secure the first price, **SHUDHANSHU CHAUDHARY** secure the second price, and **PRUTVI CHOHAN** secure the third price.
- A group photo of the ISHRAE committee was taken after the session.

CONCLUSION: ISHRAE RGIT student delivered the session in a wonderful way. The students actively participated and showed interest. The event was a great success.



1. Introduction:

The industrial visit to Auro Engineering Company was organized by Rajiv Gandhi college of engineering on 18-January-2024, at 11:00 am. Auro Engineering Company is a leading player in the field of Auro Engineering Company manufactures and exporters of all types of heating and cooling coils for Air conditioners (window, split, precision, rooftop, dehumidifiers and humidifiers), AHUs, Package Units, FCUs, Chillers, Dryers, Cold Storages, Refrigeration Products etc. The objective of the visit was to provide students with practical insights into the workings of a prominent industrial establishment and to enhance their understanding of theoretical concepts learned in the classroom.

2. Company Overview:

Auro Engineering Company, established in 1986, is located at Auro Engineering Company F 3 / 4 Ansa Industrial Premises Saki Vihar Road Opposite Piknik hotel Sakinaka. The company specializes in heating and cooling coils for Air conditioners (window, split, precision, rooftop, dehumidifiers and humidifiers), AHUs, Package Units, FCUs, Chillers, Dryers, Cold Storages, Refrigeration Products etc. It has a strong reputation for delivering high-quality products/services and has been a key contributor to the growth of the industry.

3. Reception and Introduction:

Upon our arrival, we were warmly welcomed by the company representatives. An introductory session was conducted by Ninad Dalvi, who provided an overview of the company's history, mission, and its current standing in the industry. This set the tone for the visit and gave us valuable context.

MANIARA CHARITABLE TRUST Manjara charitable trust Rajiv gandhi institute of technology, mumbai

4. Factory Tour:

The highlight of the visit was the comprehensive tour of the manufacturing facility. The production floor was well-organized, and we witnessed the entire manufacturing process from raw material input to the final product assembly. The state-of-the-art machinery and equipment used by the company showcased its commitment to modern technology and efficiency.

5. Quality Control and Assurance:

We had the opportunity to learn about the company's rigorous quality control measures. The quality assurance team explained the various testing procedures and protocols implemented to ensure that the products meet the highest standards. This insight into quality management practices was enlightening for the students.

6. Interaction with Engineers and Staff:

During the visit, we had the chance to interact with engineers and other staff members. They generously shared their experiences, challenges faced, and the innovative solutions they have implemented. These interactions provided valuable perspectives on the practical aspects of working in the industry.

7. Environmental and Safety Measures:

Auro Engineering Company places a strong emphasis on environmental sustainability and safety. The measures taken by the company to minimize its environmental impact and ensure the well-being of its workforce were impressive. This aligns with the growing global focus on corporate social responsibility.

MANIARA CHARITABLE TRUST Manjara charitable trust Rajiv gandhi institute of technology, mumbai

8. Conclusion:

The industrial visit to Auro Engineering Company proved to be an enriching experience for all participants. It bridged the gap between theoretical knowledge and practical application, offering valuable insights into the real-world operations of a successful industrial establishment. We express our gratitude to Auro Engineering Company for their hospitality and willingness to share their expertise with us.

9. Acknowledgments:

We would like to extend our thanks to Ninad Dalvi and all the staff at Auro Engineering Company who made this visit possible and memorable.

10. Recommendations:

Based on our visit, we recommend that future industrial visits be organized to similarly enlightening establishments. This will continue to provide students with practical exposure, enhancing their understanding of industrial processes and technologies.



Industrial Visit Report: Auro Engineering Company by ISHRAERGIT





1. Introduction:

The industrial visit to Auro Engineering Company was organized by [Your Institution] on 19-January2024 at 11:00 am. The objective of the visit was to provide students with practical insights into the manufacturing processes, quality control, and technological advancements employed by Auro Engineering Company in the field of HVAC & R.

2. Company Overview:

Auro Engineering Company, established in 1986, is a leading player in the HVAC & R sector. The company specializes in heating and cooling coils for Air conditioners (window, split, precision, rooftop, dehumidifiers and humidifiers), AHUs, Package Units, FCUs, Chillers, Dryers, Cold Storages, Refrigeration Products etc. With stateof-the-art facilities and a commitment to innovation, Auro Engineering Company has earned a reputation for delivering high-quality products and services.

3. Plant Tour:

During the visit, students were given a comprehensive tour of the manufacturing plant. The tour covered various departments, including:

Production Unit: Witnessed the manufacturing processes and observed the use of advanced machinery and automation systems.

Quality Control Department: Learned about the rigorous quality control measures implemented to ensure the precision and reliability of the products.

Research and Development (R&D) Section: Explored how Auro Engineering Company stays at the forefront of technology and innovation in the industry.

Logistics and Supply Chain: Understood the efficient logistics and supply chain management strategies employed by the company.

4. Technologies and Innovations:

Auro Engineering Company showcased several cutting-edge technologies and innovations, such as: Condenser/Evaporator Coils, Chilled Water/Hot Water Coils, Direct Expansion DX Coils, Cold Diffuser Coils, Steam Coils, Fan Coil Units, Curvature Coils, Heat Exchangers

5. Interaction with Professionals:

Students had the opportunity to interact with professionals from variousdepartments. Engaging discussions were held on industry trends, challenges, and career opportunities. The professionals shared their experiences and insights, providing valuable advice to the students.

6. Key Takeaways:

The industrial visit to Auro Engineering Company proved to be highly informative and educational. Key takeaways include:

- Understanding the practical applications of theoretical concepts learned in the classroom.

- Insight into the real-world challenges faced by the industry and how they are addressed.

- Exposure to the latest technologies and innovations in the field of HVAC & R.

7. Conclusion:

The visit to Auro Engineering Company was a valuable experience, offering students a glimpse into the operations of a leading player in the HVAC & R sector. It reinforced the importance of bridging the gap between academic knowledge and practical application.

8. Acknowledgments:

We express our sincere gratitude to the management and staff of Auro Engineering Company for their warm hospitality and willingness to share their expertise with the students.

9. Recommendations:

Based on our visit, we recommend that future industrial visits be organized to similarly enlightening establishments. This will continue to provide students with practical exposure, enhancing their understanding of industrial processes and technologies.



JAMBOREE 2024

Introduction

JAMBOREE 2024, hosted by Fr .c. Rodrigues Institute of Technology Vashi, marked a pivotal moment in the convergence of innovation, excellence, and collaborative spirit within the realm of engineering and technology. This annual event, now in its 9th year, continues to serve as a platform for budding engineers, researchers, and technologists to showcase their talents, exchange ideas, and foster a community dedicated to pushing the boundaries of scientific knowledge and practical application.

Spanning across several days, JAMBOREE 2024 brought together participants from diverse backgrounds, including students, academicians, industry professionals, and enthusiasts. The event featured a rich tapestry of competitions, presentations, workshops, and insightful talks, all geared towards nurturing creativity, promoting sustainable practices, and preparing future leaders in the field of technology.

Event Flow

1. Technical Paper Presentation

The inaugural event of JAMBOREE 2024 was the Technical Paper Presentation, a cornerstone for participants to present their research and findings on a wide array of technical topics. Each presentation was meticulously prepared, emphasizing innovation, clarity, and technical depth. Participants, ranging from undergraduate students to seasoned researchers, showcased their expertise in fields such as electrical engineering, mechanical engineering, computer science, and more.

The Technical Paper Presentation session set a high standard for academic excellence and set the tone for the subsequent events, inspiring participants to delve deeper into their respective fields and contribute meaningfully to the advancement of knowledge.

2. Mock Interview

Following the Technical Paper Presentation, participants engaged in the Mock Interview session, a simulation of real-world job interviews designed to assess their readiness for professional careers. Conducted by seasoned professionals from industry and academia, these interviews provided participants with invaluable insights into the expectations of potential employers and the necessary skills to succeed in competitive job markets.

The Mock Interview session focused on evaluating participants' communication skills, technical knowledge, problem-solving abilities, and professional demeanor. Participants were challenged with hypothetical scenarios and technical questions relevant to their field of expertise, encouraging them to think critically and articulate their ideas clearly under pressure.

3. Technical Quiz

The Technical Quiz, a highlight of JAMBOREE 2024, tested participants' knowledge across a spectrum of technical domains, ranging from fundamental principles to cutting-edge innovations. Designed to be both challenging and engaging, the quiz featured multiple rounds with escalating difficulty levels, ensuring a fair and competitive environment for all participants.

Questions encompassed various branches of engineering and technology, including but not limited to electronics, software development, materials science, and environmental engineering. Participants competed individually or in teams, demonstrating their expertise through rapid-fire responses and strategic thinking.

The Technical Quiz not only served as a platform for intellectual stimulation but also fostered camaraderie among participants as they collaborated to solve intricate problems and celebrate shared achievements.

4. Poster Presentation

Simultaneously, the Poster Presentation session unfolded, showcasing visually compelling displays of research projects, technical innovations, and experimental findings. Participants creatively designed posters that succinctly conveyed their research objectives, methodologies, results, and conclusions to a diverse audience of judges, peers, and industry professionals.

Participants engaged in lively discussions, explaining their posters in detail and addressing queries from judges and fellow attendees. The Poster Presentation session encouraged interdisciplinary exchange and sparked meaningful conversations about emerging trends, challenges, and opportunities in various branches of engineering and technology.

Poster Making Competition Results:

- 1st Prize: Shubham Yelve
- 2nd Prize: Aditi Pisat



1st Prize: Shubham Yelve

MANJARA CHARITABLE TRUST RAJIV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI 2nd Prize: Aditi Pisat





5. CAD War

CAD War, an exhilarating competition within JAMBOREE 2024, showcased participants' proficiency in Computer-Aided Design (CAD) software and their ability to transform conceptual designs into precise digital models. Teams or individuals competed in timed challenges that tested their creativity, technical skills, and attention to detail.

Participants were tasked with designing and modeling complex structures, mechanical components, architectural layouts, or innovative products using CAD software suites such as AutoCAD, SolidWorks, or CATIA. The competition emphasized the importance of accuracy, efficiency, and innovation in the design process, highlighting the role of CAD technology in modern engineering practices.

Judges evaluated entries based on criteria such as design aesthetics, functionality, adherence to specifications, and the feasibility of implementation. CAD War not only provided participants with hands-on experience in digital design but also fostered a spirit of healthy competition and collaboration among aspiring engineers and designers.

6. Best Out of Waste

Promoting sustainability and creative reuse, the Best Out of Waste competition challenged participants to repurpose everyday materials into functional and aesthetically pleasing products. Participants demonstrated their ingenuity by transforming discarded items into innovative solutions that addressed practical needs or showcased artistic flair.

Entries ranged from upcycled furniture and household gadgets to ecofriendly accessories and artistic installations. Judges evaluated submissions based on creativity, utility, sustainability, craftsmanship, and overall impact. The competition encouraged participants to think innovatively about waste reduction and environmental conservation while highlighting the potential of recycled materials in product design and manufacturing.

Best Out of Waste Competition Results:

• 1st Prize: Vignesh Misal, Ridhesh Jethwa, Maahi Chitre



Best Out of Waste underscored the importance of sustainable practices in engineering and technology, inspiring participants to consider the environmental footprint of their innovations and explore creative avenues for reducing waste in a resource-constrained world.



1st Prize: Vignesh Misal, Ridhesh Jethwa, Maahi Chitre

7. iShare Talks

The culminating event of JAMBOREE 2024 was iShare Talks, a series of insightful presentations and discussions featuring distinguished speakers, industry experts, and thought leaders from around the globe. iShare Talks covered a diverse range of topics, including technological trends, industry insights, entrepreneurial journeys, and the future of innovation in engineering and technology.

Attendees had the opportunity to engage directly with speakers through Q&A sessions, panel discussions, and networking breaks, fostering meaningful connections and knowledge exchange across different sectors of the engineering and technology landscape. iShare Talks reinforced the importance of continuous learning, adaptability, and visionary thinking in shaping the future of technological innovation.

ISHRAE Talks Competition Results:

• 2nd Prize: Maahi Chitre



2nd Prize: Maahi Chitre

Overall Achievements:

• ISHRAE RGIT CHAPTER stood 3rd in JAMBOREE 9th edition, scoring a total of 7 points across various competitions and events.



MANJARA CHARITABLE TRUST RAJIV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI Industrial Visit Report: Sunrise Process Equipment -Store Department

Date of Visit: 26/03/2024

Location: Sunrise Process Equipment, Tarapur M.I.D.C., Boisar Khaira, Maharashtra 401501

Introduction:

The industrial visit to Sunrise Process Equipment was focused on exploring various aspects of the store department, including production, manufacturing of stainless-steel MS, reactor receiver tanks, production quality, processes, and inspection procedures, especially pertaining to titanium in-house and third-party inspections.

1. Store Department Overview:

- Production Manufacturing:

- The production floor showcased an organized setup for manufacturing stainless steel MS and reactor receiver tanks. The processes were streamlined, indicating efficient production management.

- Quality and Process:

Quality control measures were evident throughout the production line, emphasizing adherence to industry standards and ensuring product reliability.

- Process documentation and SOPs were visibly implemented, reflecting a systematic approach to production.

2. Titanium Inspection:

- In-house Inspection:

- The in-house inspection process for titanium components was robust, incorporating rigorous testing protocols to verify material quality and integrity.

- Third-Party Inspection:

- External agencies were engaged for third-party inspections, highlighting the company's commitment to ensuring product excellence through independent assessments.

3. Enquiry Qualification and Design Approach:

- The visit included insights into the qualification process for inquiries, showcasing how design approaches evolve and undergo changes until finalization.

- Collaborative efforts between engineering teams and clients were observed, emphasizing iterative design refinement based on client specifications and feedback.

4. Machine Shop:

- Drilling Machine and Welding Drill:

- The machine shop demonstrated advanced drilling and welding capabilities, with the flexibility to accommodate design changes seamlessly.

- Prototyping and customization were evident, showcasing the ability to adapt to evolving design requirements.

5. Rolling Machine and Testing:

Chemical Filter and Welding Testing:

The rolling machine section showcased precision engineering for manufacturing chemical filters, complemented by thorough welding testingprocedures.

Non-destructive testing methods such as DP (Dye Penetrant) testing and ultrasonic testing were prominently utilized to ensure weld integrity and productreliability.

6. Test Certification and Lab Testing:

- Sample Lab Testing:

- The company's sample lab facilitated comprehensive testing, including thickness measurements, to validate product specifications.

- Test certifications from reputable companies underscored the commitment to quality assurance and compliance with industry standards.

Conclusion:

The industrial visit to Sunrise Process Equipment's store department provided valuable insights into their production, manufacturing, quality control, inspection procedures, machine shop capabilities, and testing protocols. The meticulous

approach to design, production, and testing reflects the company's dedication to delivering high-quality products to its clientele.











