Report of
ISHRAE-RGIT Student Body
ACADEMIC YEAR JULY 2022 - MAY 2023

FACULTY CO - ORDINATOR:

Dr. Rajesh V. Kale   **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 needswith 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 knowledge to 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 withthe engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effectivepresentations, and give and receive clear instructions.

PO11 **Project management and finance**: Demonstrate knowledge and understanding ofthe engineering and management principles and apply these to one's own work, asa member and leader in a team, to manage projects and in multidisciplinaryenvironments.

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 MechanicalEngineering.
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 Mechanical Engineering.
4. To direct faculties in research and consultancy / advisory roles.
5. To establish strong linkages with well-known national and international technical institutes.
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 professionaldevelopment.
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 goodleadership 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 withappropriate consideration for the public health and safety, and the cultural, societal, andenvironmental considerations.

Program Specific Outcomes (PSOs)

PSO1:Successful Career and Entrepreneurship: Graduates will be able to understandthe 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.

MANJARA CHARITABLE TRUST
RAJIV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI

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Know Your Committee

Date: August 2022

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 it's benefits.

Our president gave a presentation and a brief introduction about ISHRAE and it's benefits then our Hod sir concluded the event.

<u>ISHRAE RGIT Student Chapter Installation Ceremony 2022-23</u>

After two years of inactivity due to COVID-19, the 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.

Briefs/Background of the event:
Installation of ISHRAE-RGIT student chapter was scheduled on 13-october-2022, in RGIT Seminar hall @ 11:00 am.

Invited chief guest:
Mr. Sachin Gupte (IMC Member)
Mr. Jayant k. Patekar (IMC Secretary)
Mr. Sandip Vardam (IMC Member)

Special invitees:
Dr. Sanjay Bokade

Dr. Rajesh Kale

Dr. Kiran Chaudhari

Insights of the event:
The stage was handed over by the host to the chief guest, Mr. Jayant Patekar, 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.
Mr. Jayant Patekar 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.
Later Mr. Sachin Gupte 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. The host concluded the event with a vote of thanks to all the dignitaries and the audience present.

(l-r) Mr. Sachin Gupte, Mr. Jayant Patekar, Dr. Rajesh Kale, Mr. Sandip Vardam

Ribbon Cutting ceremony

ISHRAE RGIT Team for 2022-2023

JAMBOREE 2023

Date : 28th January 2023
Venue : Saraswati College of Engineering, Kharghar

Program Overview :

JAMBOREE, organized by ISHRAE-Mumbai chapter at Saraswati College of Engineering, was a one-day event that showcased the talents and skills of students in various technical and cultural domains. Our ISHRAE-RGIT chapter did their best in all the competitions and was able to get a lots of applaud from audience and dignitaries.

The program aimed to provide a platform for participants to demonstrate their expertise, engage in healthy competition, and foster a sense of unity and camaraderie. The event was open to both college students and external participants, attracting a diverse audience. Altogether it was a well spend day.

Activities arranged under JAMBOREE fest are :
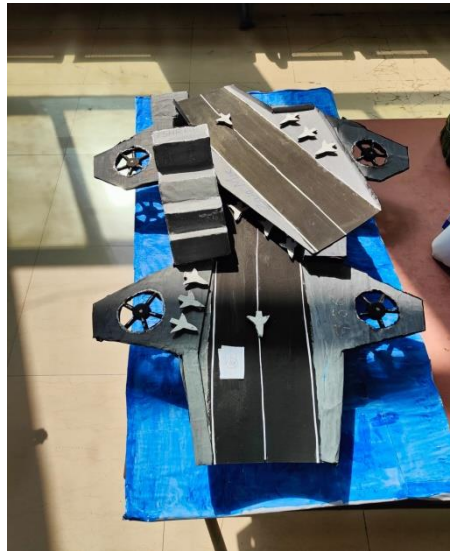
1. Technical Paper Presentation

The technical paper presentation was a prominent feature of JAMBOREE, offering participants an opportunity to showcase their research and technical knowledge. Students and researchers presented their papers on various topics such as emerging technologies, computer science, and engineering. The presentations were evaluated by a panel of experts who assessed the quality of research, presentation skills, and depth of knowledge. This event encouraged participants to delve into their chosen fields and stimulated intellectual discussions among attendees. RGIT-ISHRAE chapter members of second year also took part in it and presented the topic named 'structural analysis of Janney coupler'.

2. Best out of Waste

The "Best out of Waste" competition aimed to promote creativity and environmental consciousness. Participants were challenged to create useful and aesthetically pleasing objects using recycled or discarded materials, wherein our chapter made an aircraft carrier out of waste cardboard. The

competition showcased participants' ability to think innovatively and repurpose materials, highlighting the importance of sustainability.

3. Why Should I Hire You?

The "Why Should I Hire You?" event provided participants with a platform to showcase their communication and presentation skills in a professional setting. Participants were given the opportunity to simulate job interviews, where they had to convince potential employers of their suitability for a specific role. This event allowed participants to refine their interview techniques, gain valuable feedback, and enhance their chances of securing future employment.

4. Singing and Dancing Competition

JAMBOREE also included a singing and dancing competition, which celebrated the artistic talents of the participants. Individuals and groups showcased their vocal abilities and dance moves, captivating the audience with their performances.

5. Poster Competition

The poster competition provided participants with an opportunity to exhibit their artistic skills and creativity. Participants designed and presented posters on various themes, ranging from social issues to technological advancements. The competition allowed participants to convey messages

visually and attracted attention to important topics through eye-catching designs

6. Pot Painting

The pot painting event invited participants to showcase their artistic abilities on terracotta pots. Participants used different painting techniques, colors, and themes to create unique and visually appealing designs. Our chapter took part in it and did a very good job.

7. Quiz

The quiz competition tested participants' knowledge across various domains, including science, technology, culture, entertainment and current affairs. The competition comprised multiple rounds of challenging questions, encouraging participants to engage in strategic thinking and problem-solving. The quiz event not only promoted healthy competition but also provided an opportunity for participants to expand their knowledge and learn from their peers.

ISHRAE RGIT members at JAMBOREE fest 2023

IPR (Intellectual Property Rights)

Date : 28th February 2023

Intellectual Property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce.

Rajiv Gandhi Institute of Technology in collaboration with RGIT's MESA, ISHRAE RGIT, IIC & IP INDIA brings for you a Knowledgeable and Awareness Session on IPR (Intellectual Property Rights).

Guest Speaker : K. Narayanmurthy, Patent & Design Examiner Officer, NIPAM, Government of India.

Our guest Mr. K. Narayanmurthy

ACREX 2023

DATE : 14 -16th March 2023

ACREX is SOUTH ASIA'S LARGEST EXHIBITION ON AIR CONDITIONING, HEATING, VENTILATION AND INTELLIGENT BUILDINGS which Powers Global HVAC Supply Chain.

ISHRAE RGIT chapter members volunteered in ACREX 2023 and gained exposure towards HVAC industry and innovations. Our members learned about new innovations in HVAC industry and had conversation with Industry specialists. It was a great experience for our members.

Our committee members with Mr. Lalit Ingale at ACREX 2023

AQuest Finals 2023

aQuest is a student competition organised by ISHRAE and Powered by HITACHI every year, which is concluded with Grand Finale at ACREX INDIA, South Asia's largest Exhibition on Refrigeration and Cold Chain, Air-Conditioning, Ventilation and Intelligent Buildings Services.

aQuest – The ultimate engineering face off is inspired by famous Indian Television Show: Kaun Banega Crorepati and the hit American Game Show Jeopardy. The winners are awarded with exciting Cash Prizes.

aQuest was Organised by ISHRAE Mumbai chapter this year and was held at our college Rajiv Gandhi Institute of Technology. Our committee members with the help of Dr. Rajesh V. Kale and Dr. Kiran Chaudhari managed the event.
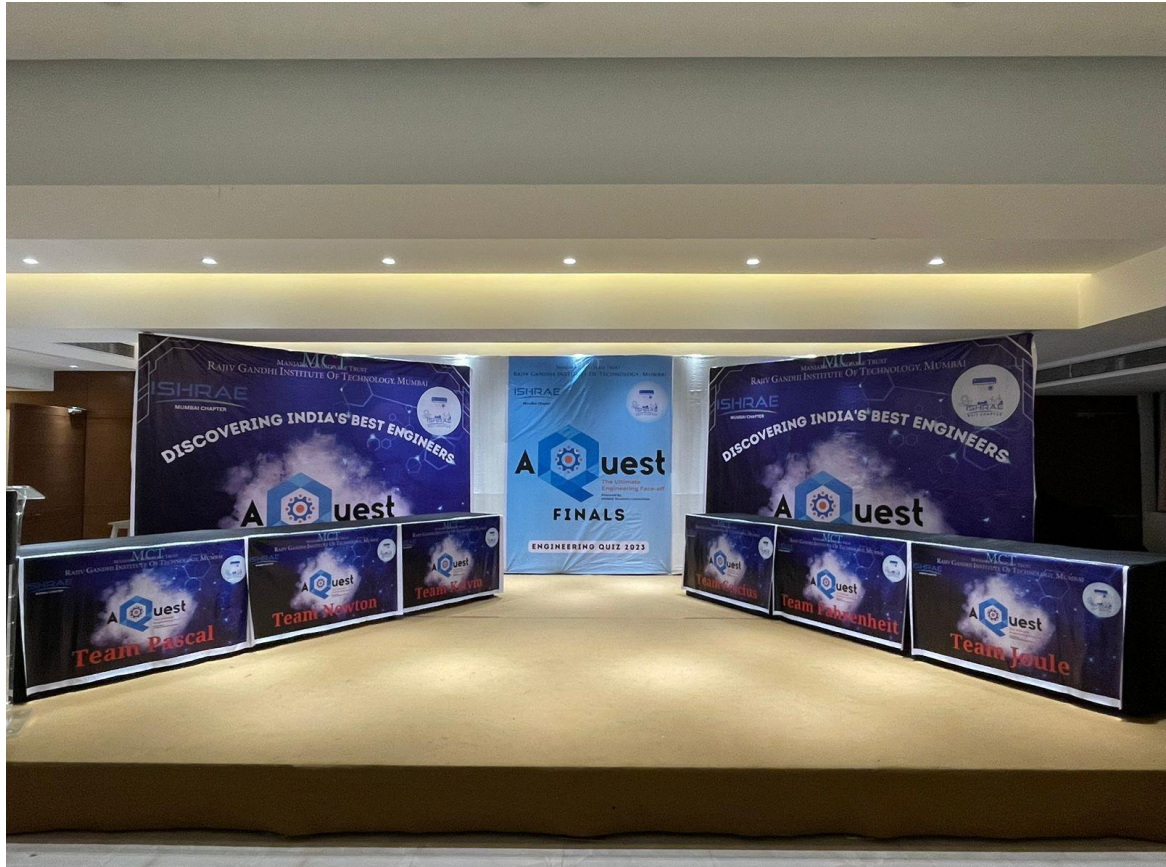
Our ISHRAE RGIT members with ISHRAE national committee members and other guests and Our HOD

aQuest final setup