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RAJIV GANDHI INSTITUTE OF TECHNOLOGY

AERORGIT REPORT JULY 2023- APRIL 2024

The purpose of AeroRGIT, the SAE student chapter at Rajiv Gandhi Institute of Technology, is to enhance the knowledge base of its members who are Aeromodelling enthusiasts, and to provide its members access to SAE International programs and services globally, enabling them to practice world class standards in productivity and quality.

SAE International is a professional organization with over 138,000 members globally. Apart from its standardization efforts, SAE International also devotes resources to projects and programs in STEM education, professional certification, and collegiate design competitions.

SAEINDIA is a membership organization founded in 1994 and in 2003 SAEINDIA became an affiliate of SAE International. Today, the President of SAE INDIA is Dr. R.K. Malhotra and has a membership count of more than 40,000 members around India.

Website SAE INTERNATIONAL: http://www.sae.org
Website SAE INDIA: http://www.saeindia.org
Faculty Advisor for AeroRGIT: **Dr. RAJESH V. KALE**

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OUR VISION

To inspire and empower the next generation of aerospace engineers and innovators by providing hands-on experience and fostering a passion for exploration.

OUR MISSION

- **Educate and inspire: To provide students with a comprehensive understanding of aerospace principles through practical projects and workshops.**
- **Develop skills: To equip students with the technical skills and problem-solving abilities necessary for success in the aerospace industry.**
- **Foster innovation: To encourage students to think creatively and develop innovative solutions to aerospace challenges.**
- **Promote collaboration: To foster a collaborative environment where students can work together to achieve common goals.**
- **Represent the university: To represent the university at local, regional, and national competitions and events.**
- **Community outreach: To engage with the local community through outreach programs and educational initiatives.**

LIST OF EVENTS AND WORKSHOPS CONDUCTED BY AERORGIT

SR NO.	EVENT NAME	DATE	SPEAKER/ANCHOR
1	Inauguration ceremony of World Space Week (WSW)	4 OCT 2023	Ms. Aishwarya Gupta (Member)
2	WSW Day1: XFLR Session	4 OCT 2023	Mr. Aditya Wavale (President)
3	WSW Day 2: Understanding Aerodynamics	5 OCT 2023	Mr. Aditya Wavale (President)
4	WSW Day 3: Quiz Competition	6 OCT 2023	Mr. Sahil Dhamane & Ms. Isha Ahire (Members)
5	WSW Day 4: Airbuzz Pilot Career Guidance	9 OCT 2023	AirBuzz speaker
6	WSW Day 5: The Treasure Hunt	10 OCT 2023	Mr. Shreyash Datta & Ms. Shrestha Jhilla (Members)
7	RC Plane and Drone Demo Session in School.	21 OCT 2023	Mr. Aditya Wavale (President) & Mr. Anish Sandaye (Treasurer)
8	PCB Workshop	15 OCT 2023	Collaboration event with IETE RGIT.
9	Stargazing 2024	12^{th} – 14^{th} JAN	AERO RGIT & ON THE BANK CAMPING
10	SAE DDC 2024 – Workshop	6^{TH} – 7^{TH} JAN 2024	TEAM AERORGIT
11	SAE DDC2024 – Manufacturing	FEB –APRIL 2024	TEAM AERORGIT

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WORLD SPACE WEEK

INAUGRATION CEREMONY

Date: 4th OCT 2023
Time: 9:30 am onwards.
Speakers: Ms. Aishwarya Gupta **(**Member, AeroRGIT**)**
Lead: Pranav, Sahil.

On 4th October, AeroRGIT celebrated the inauguration ceremony of World Space Week which was held with great enthusiasm and grandeur at the R.G.I.T seminar hall. The event was graced by the presence of esteemed dignitaries, including respected Principal Sir, Dr. Sanjay Bokade, Heads of Departments (HoDs), and the President of AeroRGIT. The ceremony marked the beginning of a week-long celebration of space science and technology, aimed at inspiring and educating students about the wonders of the universe.

The event commenced with a warm welcome extended to the Principal, the HoDs, and the President of AeroRGIT. The audience, comprising students, faculty, and distinguished guests, greeted the dignitaries with applause as they took their seats on the dais.

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Following the welcome address, the felicitation ceremony began. The convener of AeroRGIT, Dr. Rajesh Kale sir, felicitated the Principal of RGIT Dr. Sanjay Bokade sir, presenting him with a bouquet and a token of appreciation for his continuous support and guidance. Subsequently, the President of AeroRGIT honored the Vice Principal Dr. Sanjay

Then, respected Principal sir delivered an inspiring speech, highlighting the significance of World Space Week and its role in promoting space science education. He commended the efforts of AeroRGIT in organizing the event and encouraged students to actively participate in the week's activities. He emphasized the importance of fostering a spirit of curiosity and innovation among the students, which are crucial for the advancement of space technology.

The convener of AeroRGIT followed with his speech. He shared insights into the advancements in space technology and the opportunities it presents for young engineers and scientists. He motivated the students to pursue their passion for space science and contribute to the nation's space missions.

The President of AeroRGIT then took the stage to outline the flow of the week and provide details about the various events planned. He described a series of lectures, workshops, and competitions aimed at engaging students and enhancing their knowledge of space science. The President expressed his gratitude to the faculty and students for their support in making the event possible and encouraged everyone to make the most of the opportunities provided during the week.

The ceremony concluded with the inauguration of the new AeroRGIT logo. The principal, accompanied by the President of AeroRGIT, unveiled the logo amidst cheers and applause from the audience. The new logo symbolizes the aspirations and vision of AeroRGIT, reflecting its commitment to excellence in the field of aerospace engineering.

The inauguration ceremony set a positive tone for World Space Week, leaving the audience excited and motivated for the upcoming events. The successful launch of the new AeroRGIT logo marked a significant milestone for the organization, symbolizing a new era of innovation and progress.

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DAY 1: XFLR SESSION

Date: 4th OCT 2023
Time: 2:30 pm Onwards.
Speakers: Mr. Aditya Wavale **(**President, AeroRGIT**)**
Lead: Mandar.

Every year, the annual gathering, hosted by AeroRGIT comes alive with excitement as it celebrates World Space Week. The highlight of the ceremony was the much-anticipated revelation of the new AeroRGIT logo, in presence of Principal and all HOD's including students from various domains, and distinguished dignitaries and faculty members. Further Principal debuted his speech on embarking the journey through time, tracing the rich history of AeroRGIT and its remarkable achievements defining the essence of occasion, followed by Kale sir's speech who shed light on the importance of World Space Week determining the effort to explore and discover new things in aerospace and beyond. Finally, the President addressed the collective effort and dedication of all members involved in the planning and execution of the event. With gratitude, he acknowledged the creativity, passion and hard work that went into decorating the institution and organizing a varied range of activities of events. He highlighted the importance of teamwork, collaboration, and inclusivity in realizing the vision of World Space Week, emphasizing the role of each member in contributing to its success.
The entire AeroRGIT community was vibrant as it celebrated World Space Week in its own unique way which included various events of workshops, seminars, and competitions to deepen their understanding of space science.

On the first day of Space Week, AeroRGIT hosted a seminar in the seminar hall featuring Aditya Wavale as the speaker. He demonstrated airfoil analysis and wing designs using XFLR, a professional software for aerodynamic analysis where users could perform detailed analysis, such as determining lift and drag characteristics, studying airflow patterns, and simulating the performance of aircraft components etc. enabling a comprehensive understanding of how different wing designs affect aircraft behaviors.
Attendees gained insights into dynamic analysis techniques and tested wing stability through simulations.
The session concluded with individual analysis by participants, marking an insightful start to Space Week's exploration of aerospace technology and innovation.

Overall, the seminar provided a hands-on learning experience on fundamentals of aerodynamic along with wide range of design options and evaluate their impact on the significance of advanced software tools like XFLR.

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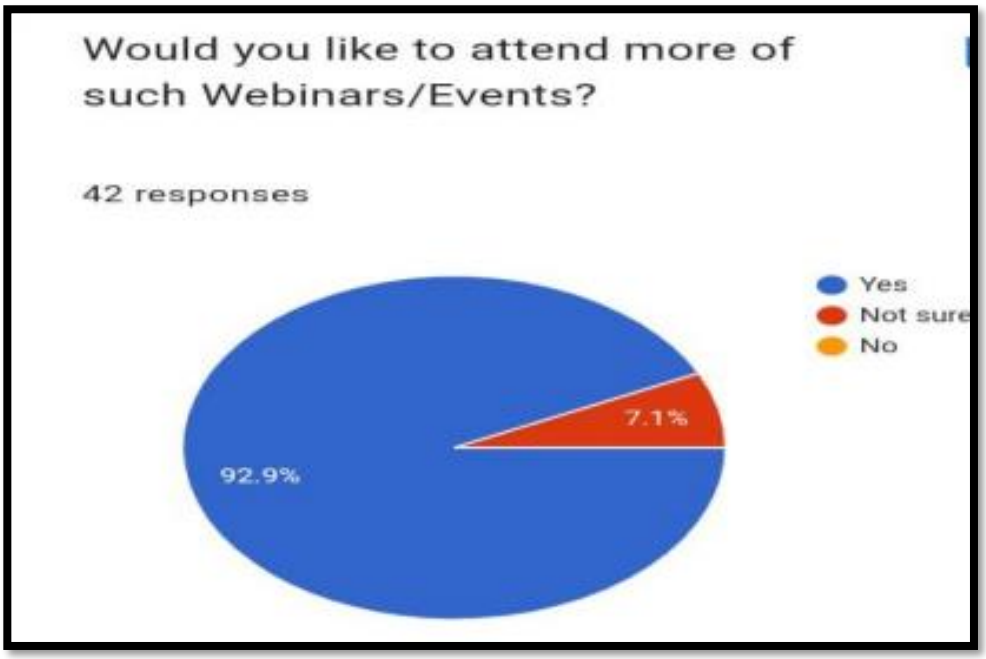
List of attendees:

Name	**Year and Branch**	**Name**	**Year and Branche**
AHIRE ESHA NARENDRA	TE - MECH	Vaishali Bhandva	SE – EXTC
KHADE OM SANTOSH	TE - MECH	Chitra Rao	SE – EXTC
ANCHAN NIKITH SATHISH	TE - MECH	Srestha Jhilla	SE - EXTC
BANDUK PRATHAM RAMESH	TE - MECH	Sanket Dorugade	SE - MECH
BAROT HARSHIL CHETAN	TE - MECH	Gautam Pradeep	SE - MECH
BHARATI SOUMITRA PRABIR	TE - MECH	Mayur Gawade	SE - MECH
BHOGLE AADITYA RAM	TE - MECH	Sanskar Humbe	SE - MECH
BHOIR TANMAY SHIVAJI	TE - MECH	Anirudha Jhadav	SE - MECH
BHOITE VEDH VISHAL	TE - MECH	Ridesh Jethwa	SE - MECH
BURA LAVKUMAR NARAYAN	TE - MECH	Ajay Nishad	SE - MECH
CHAVAN MAYUR GORAKH	TE - MECH	Chinmay Patil	SE - MECH
CHIKANE ATUL SAMPAT	TE - MECH	Hitesh Rathod	SE - MECH
CHORGHADE DARSHAN PARAG	TE - MECH	Vedant Patil	SE - MECH
DEVKAR AJINKYA VIJAY	TE - MECH	Tanuj Tandel	SE - MECH
DIVKER HAMMAD SAMEER	TE - MECH	Rudra Vyas	SE - MECH
KAHAR AMAN RAJESHBHAI	TE - MECH	Shubham Waghmare	SE - MECH
MALI SHUBHAM SANDEEP	TE - MECH	Gauri Redkar	SE - MECH
GURAV SAHIL SANJAY	TE - MECH	Vinita Kalokhe	SE - EXTC
JADHAV ANURAG AVINASH	TE - MECH	Harshit kamble	SE - EXTC
JOGADIYA ASHISH DEEPAK	TE - MECH	Vinit Makhwana	SE - EXTC
Anish Salvi	TE - MECH	Vivek Kandu	SE - EXTC

Isha Ahire	TE - MECH	Harsh Kumar	SE - EXTC
Sahil Dhamane	TE - MECH		
Mayur Chavan	TE - MECH		

Feedback:



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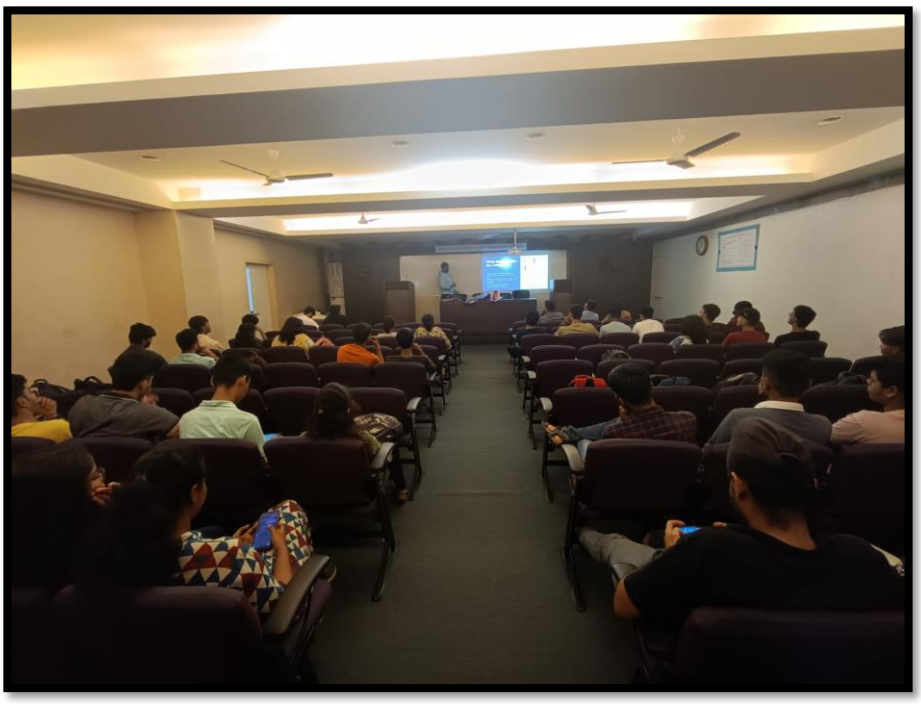
DAY 2: UNDERSTANDING AERODYNAMICS

Date: 5th OCT 2023
Time: 1:00 pm Onwards
Speakers: Mr. Aditya Wavale (President, AeroRGIT)
Lead: Aditya Sah, Krish Waghela

This event commenced with a thorough introduction on aerodynamics designed to introduce all participants to the principles and ideas underlying the study of flight and design of aircrafts.
The seminar hall was an appropriate location for this occasion because it facilitated participatory discussions and presentations on various topics relating to aerodynamics.

We started the session by giving an overview on general mechanics in relation to flight, how lift is generated and general principles that govern lift in airplanes.
As illustrated on the progression from simple to more difficult concepts of aerodynamics, other issues discussed included drag, thrust as well as what role does an airfoil play with respect to stability and control?
An important part of this conference was dedicated towards introducing drones which showed their growing importance in modern aviation industry besides applications across various sectors.



A detailed exploration of drones including their design, components, working principles and technology behind operation constituted one section for participants.
AeroRGIT, conducted a display of their RC planes and drones, showcasing cutting-edge designs and manufacturing techniques.

Participants had the opportunity to witness these machines and learn about their features. The seminar concluded with an interactive question and answer session, allowing participants to clarify doubts, share insights, and engage in meaningful discuss.

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List of Attendees:

Name	Year and Branch	Name	Year and Branch
CHAVAN MAYUR GORAKH	TE - MECH	Vaishali Bhandva	SE – EXTC
CHIKANE ATUL SAMPAT	TE - MECH	Chitra Rao	SE – EXTC
CHORGHADE DARSHAN PARAG	TE - MECH	Srestha Jhilla	SE - EXTC
DEVKAR AJINKYA VIJAY	TE - MECH	Sanket Dorugade	SE - MECH
DIVKER HAMMAD SAMEER	TE - MECH	Tanuj Tandel	SE - MECH
KAHAR AMAN RAJESHBHAI	TE - MECH	Rudra Vyas	SE - MECH
MALI SHUBHAM SANDEEP	TE - MECH	Shubham Waghmare	SE - MECH
Sanket Dorugade	SE - MECH	Gauri Redkar	SE - MECH
Gautam Pradeep	SE - MECH	Vinita Kalokhe	SE - EXTC
Mayur Gawade	SE - MECH	Harshit kamble	SE - EXTC
Sanskar Humbe	SE - MECH	Vinit Makhwana	SE - EXTC
Anirudha Jhadav	SE - MECH	Vivek Kandu	SE - EXTC
Ridesh Jethwa	SE - MECH	Harsh Kumar	SE - EXTC
Ajay Nishad	SE - MECH	Vishal Solanki	BE - EXTC
Chinmay Patil	SE - MECH	Yashesh Vaidya	BE - EXTC
Hitesh Rathod	SE - MECH	Kaustubh Parab	BE - EXTC
Vedant Patil	SE - MECH	Amit Yadhav	BE - EXTC
Vigyat Bhanji	SE – EXTC	Harsh Sirsat	BE - EXTC
Atharva Bhosale	SE – EXTC	Rohan Shinde	BE - EXTC
Shreyash Datta	SE – MECH	Krish Waghela	BE - EXTC
Saqlain Rizvi	SE - MECH	Anish Sandaye	BE - EXTC

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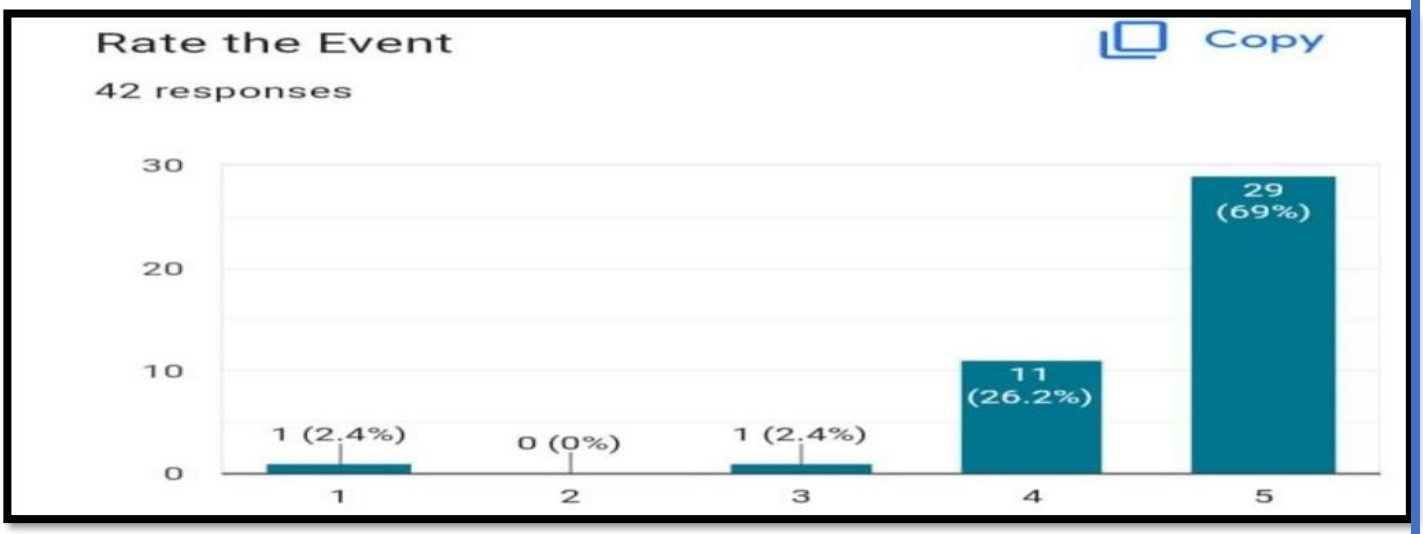

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DAY 3: QUIZ COMPETITION

Date: 6th OCT 2023
Time: 1:00 pm Onwards
Speakers: Mr. Sahil Dhamane & Ms. Isha Ahire (Leads, AeroRGIT)
Lead: Harshal, Isha, Aditya Mishra

As part of the World Space Week event marathon, a general space quiz competition was held on 6th October, 2023. The competition aimed to foster interest and knowledge in space science among participants. The event featured three elimination rounds, culminating in the selection of two winners who were awarded cash prizes.

The event began with a warm welcome to all participants and a brief introduction to the World Space Week celebrations. The organizers highlighted the significance of space exploration and the importance of spreading awareness and knowledge about space science.

The quiz competition was structured into three elimination rounds. Each round was designed to progressively challenge the participants' knowledge and understanding of space science.

The first round consisted of general questions about space, astronomy, and space exploration history. This round aimed to test the basic knowledge of the participants and served as the initial elimination stage.

The second round was more challenging, featuring questions that delved deeper into specific topics such as planetary science, famous space missions, and key figures in space exploration. Participants who successfully answered these questions moved on to the final round.

The final round was the most challenging, with complex and detailed questions covering advanced topics in astrophysics, recent discoveries, and current space missions. This round determined the ultimate winners of the quiz competition.
Each round was an elimination round, meaning that only the top-scoring participants from each round advanced to the next stage. This format ensured a highly competitive environment and identified the most knowledgeable participants.

At the conclusion of the final round, two participants emerged as the winners. They demonstrated exceptional knowledge and quick thinking throughout the competition. The winners were awarded cash prizes as a token of appreciation for their outstanding performance.

The general space quiz competition was a significant highlight of the World Space
Week event marathon. It successfully engaged participants in a stimulating and educational activity, promoting interest in space science and fostering a spirit of healthy competition. The event was well-received, and the winners were celebrated for their impressive achievements.

Winners:

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DAY 4: AIRBUZZ TRAINING SESSION

Date: 9th OCT, 2023
Time: 1:00 pm onwards
Institute: MCT's Rajiv Gandhi Institute of Technology, Versova
Organized by: Aero RGIT (Aero Modelling Committee)
Host: Airbuzz Training Solutions, Azad Nagar, Andheri, Mumbai
Lead: Vaishali

This open session, held during Day 4 of World Space Week, aimed to educate students about various career opportunities in the aviation industry. It covered the fundamentals of aviation, different career paths (pilot, cabin crew, ground staff etc.), financial and training requirements, and future prospects in the field. A basic introduction to the aviation industry was provided, familiarizing students with key concepts and terminology.

The session explored various aviation careers like pilots, cabin crew, ground staff, and more, highlighting their roles and responsibilities. The speaker from Airbuzz Training Solutions discussed the current state and projected future growth of the aviation industry, emphasizing the increasing demand for skilled professionals.

Information was provided on the process of entering chosen aviation careers, including educational qualifications, training requirements, and certification procedures the session addressed the financial aspects of pursuing an aviation career, including training costs, licensing fees, and potential salary ranges.
The session included a presentation by Airbuzz Training Solutions promoting their institute as the preferred choice for aviation studies. It highlighted features such as their expertise in aviation education and their claim of possessing the only aeroplane simulator in Mumbai.

The open session provided valuable insights into the exciting world of aviation careers. Students gained a comprehensive understanding of the diverse opportunities available, the necessary qualifications, and the financial implications. While collaboration with Airbuzz offered industry insights, it's important to encourage students to research various training providers to make informed decisions.

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List of Attendees:

Name	**Year and Branch**	**Name**	**Year and Branch**
Aaditya Mishra	SE – IT	Anish Sandaye	BE - EXTC
Harshel Khivsare	SE – IT	Shubham Dixit	BE – MECH
Sumeet Maharaj	SE – IT	Sahil Khatri	BE – MECH
Swapneel Maru	SE – IT	Aakash Gonde	BE – MECH
Om Kamble	SE – IT	Aman Badela	BE – MECH
Rak Kuthagde	SE – IT	Yash Madgaikar	BE – MECH
Ajit Karande	TE – MECH	Aaditya Namdeva	BE – MECH
Varun Bhalerao	SE – MECH	Darshan Kumbhar	BE – INSTRU
Saqlain Rizvi	SE – MECH	Ayushi Singh	BE – INSTRU
Atul Chikane	TE – MECH	Wasim Patel	BE – INSTRU
Diksha Patil	SE – COMPS	Aditya Sah	BE – INSTRU
Saumya Namungade	SE – COMPS	Hamza Shaikh	BE – INSTRU
Gauri Redkar	SE - MECH	DEVKAR AJINKYA VIJAY	TE - MECH
Vinita Kalokhe	SE - EXTC	DIVKER HAMMAD SAMEER	TE - MECH
Harshit kamble	SE - EXTC	KAHAR AMAN RAJESHBHAI	TE - MECH
Vinit Makhwana	SE - EXTC	MALI SHUBHAM SANDEEP	TE - MECH
Vivek Kandu	SE - EXTC	Sanket Dorugade	SE - MECH
Harsh Kumar	SE - EXTC	Isha Ahire	TE - MECH
Vishal Solanki	BE - EXTC	Sahil Dhamane	TE - MECH
Yashesh Vaidya	BE - EXTC	Anish Salvi	TE - MECH
Kaustubh Parab	BE - EXTC	Vedant Patil	SE - MECH
Amit Yadhav	BE - EXTC	Vigyat Bhanji	SE – EXTC
Harsh Sirsat	BE - EXTC	Atharva Bhosale	SE – EXTC
Rohan Shinde	BE - EXTC	Shreyash Datta	SE – MECH

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RC PLANE AND DRONE DEMO SESSION IN SCHOOL

Date: 21st OCT, 2023
Time: 10:30 AM
Speakers: Mr. Aditya Wavale & Mr. Anish Sandaye

On 21st October, 2023, a reputed School - Children Welfare High School invited AeroRGIT for an educational session on the basics of aerodynamics and the fundamentals of RC planes and drones. The session was conducted, with the presence of two senior members of the club, Aditya and Anish. The aim of the session was to provide students with a practical understanding of flight mechanics, aerodynamics, and the application of drones in various fields.

The session commenced with a warm welcome to all participants and a brief introduction of the leads, Aditya and Anish, along with the RC plane and drone manufactured by AeroRGIT. The leads began by explaining the basic principles of flight, including lift, thrust, drag, and weight. These concepts were fundamental in understanding how both RC planes and drones achieve and maintain flight.

A more detailed discussion on aerodynamics followed, where students learned about airflow, air pressure, and the design features that allow aircraft to fly efficiently.

A more detailed discussion on aerodynamics followed, where students learned about airflow, air pressure, and the design features that allow aircraft to fly efficiently.

To reinforce the theoretical concepts, Aditya and Anish demonstrated with an RC plane. They showcased how the plane's design impacts its flight, providing a tangible example of aerodynamics in action.

The session then transitioned to drones, covering their basic structure and functionality. The experts discussed how drones differ from fixed-wing aircraft and the unique aerodynamic principles that apply to them.
Students were introduced to the various applications of drones in fields such as photography, agriculture, delivery services, and surveillance. This segment highlighted the versatility and growing importance of drone technology in modern society.
Real drone components were circulated among the students, allowing them to observe and understand the different parts that make up a drone. This hands-on experience was aimed at fostering a deeper interest and comprehension of drone technology.
An interactive question-and-answer session followed, where students eagerly posed questions to the experts. This segment allowed for a more personalized learning experience, addressing individual curiosities and concerns.

The session concluded with a video presentation of a successful flight test conducted by AeroRGIT. The video served as an inspiring visual of the potential and capabilities of well-designed RC planes and drones.

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The session was highly informative and engaging, providing students with a foundational understanding of aerodynamics and the practical applications of RC planes and drones. The hands-on components and interactive discussions were particularly well-received, leaving students inspired and more knowledgeable about the field of aeronautics.

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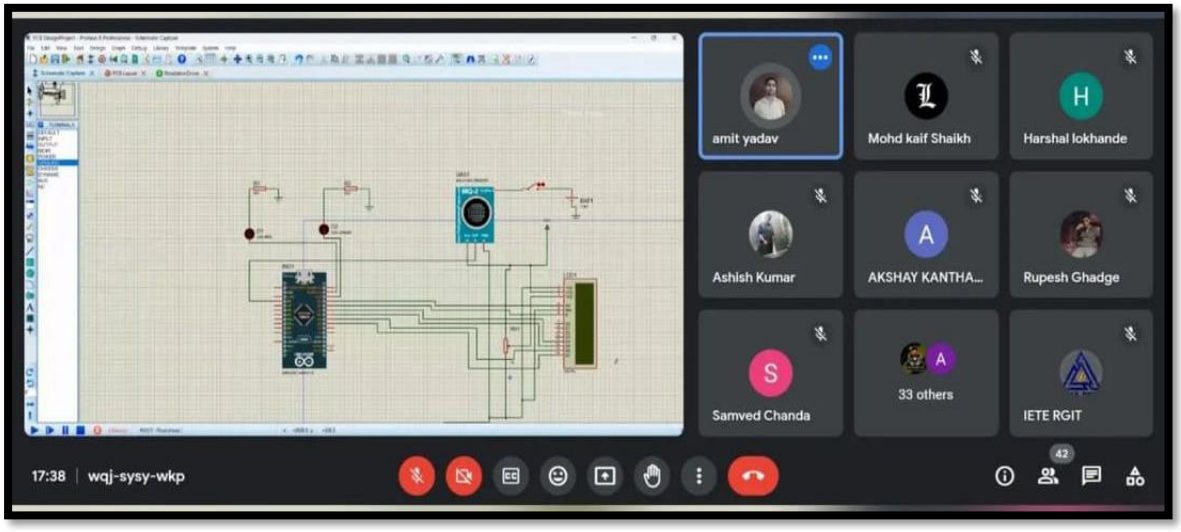
PCB Workshop

Date: 14th - 15th OCT 2023
Time: 10Am onward
Speakers: Collaboration event with IETE RGIT.

A two-day workshop on Printed Circuit Board (PCB) designing and manufacturing was conducted for SE students in collaboration with IETE RGIT. The workshop aimed to educate students on the practical aspects of PCB design and production

The first day of the workshop focused on virtual training in circuit designing and converting circuits into a usable PCB layout. Students were trained using Proteus software, where they worked on multiple projects to understand the intricacies of PCB design. Live project simulations on Proteus were conducted, guiding students on building valid circuit models.



The second day commenced with a physical demonstration of PCB making. The process started from printing the layout and proceeded to etching the layout on the PCB board using FeCl3 solution. Each step was first demonstrated by the speaker and then performed by the students under guidance.

1. Printing the PCB layout.
2. Etching the layout using FeCl3 solution
3. Drilling holes for component placement.
4. Soldering components onto the PCB.

Students were taught soldering techniques, and they individually performed soldering of components on their own layouts. This hands-on experience enhanced their understanding of PCB manufacturing processes.

Finally, individual projects were tested to ensure functionality and correctness. The workshop concluded with a summary of key learnings and the importance of PCB design and manufacturing in electronics.

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List of Attendees:

Name	Year and Branch
Sudeep jha	SE - EXTC
Pushkar Bhikan Mohite	SE - EXTC
Mihir Manoj Hambir	SE - EXTC
Mohit Choudhary	SE - EXTC
PRATIK TILAKCHAND KULAWE	SE - EXTC
Aditya Minanath Sabale	SE - EXTC
Akshay Kantharia	SE - EXTC
Gaurav Kanojiya	SE - EXTC
Sanskruti Sanjay Mhaske	SE - EXTC
Sujal Palav	SE - EXTC
Nidhi Trivedi	SE - EXTC
Vikas Santosh zende	SE - EXTC
Harshal Sunil Lokhande	SE - EXTC
Anuda Vartak	SE - EXTC
Harshita H Dhanorkar	SE - EXTC
Vaishali bhandva	SE - EXTC
Kashish Ghadi	SE - EXTC
Samved Chanda	SE - EXTC
Rohit	SE - EXTC
Apeksha kangane	SE - EXTC
Vinita kalokhe	SE - EXTC
Sarthak Anjarlekar	SE - EXTC
Vivek Kandu	SE - EXTC
Vinit Makwana	SE - EXTC
Mhatre Dhruv Jitendra	SE - EXTC
Yash Dudhkar	SE - EXTC
SHAIKH MOHAMMED KAIF	SE - EXTC
Anand Desai	SE - EXTC
Mufti Amena Montu	SE - EXTC
Aakash Mestry	SE - EXTC
Sreshta Jillabeys	SE - EXTC
Nishant Nilesh More	SE - EXTC

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Feedback:

Did the workshop meet your expectations in terms of content and learning objectives?

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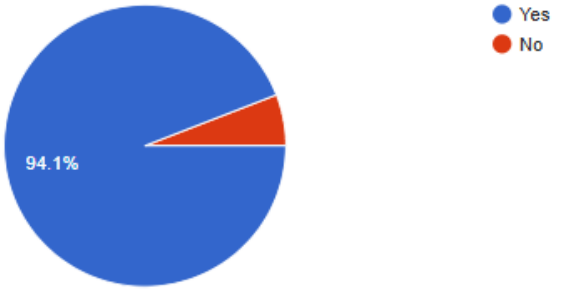
17 responses



How would you rate the overall organization and structure of the workshop?

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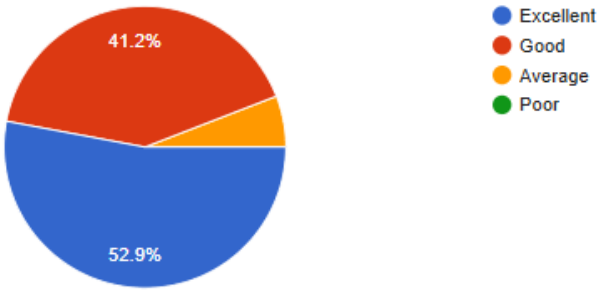
17 responses



Were the workshop materials and resources provided helpful in your learning process?

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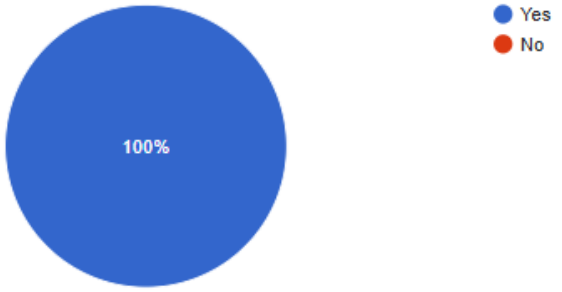

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(Permanently Affiliated to University of Mumbai)
DEPARTMENT OF MECHANICAL ENGINEERING
(NBA- Accredited UG Program)

STARGAZING TRIP

Date: 12th – 14th JAN 2024
Venue: Wakan, Mumbai.
Lead: Aditya and Anish

The trip began with a prompt departure at 8:00 AM, as all participants gathered with enthusiasm and anticipation. The journey to our destination, located on the serene banks of Wakan, was filled with excitement. We arrived at our venue at 12:30 PM, eager to embark on our stargazing adventure.

Upon arrival, the group checked in and proceeded with the allocation of tents. This process was smooth and well-organized, allowing everyone to settle in comfortably. Once settled, we enjoyed a delightful lunch, which provided a perfect opportunity for everyone to mingle and get to know each other.

The afternoon was relaxed, and we gathered for evening snacks while soaking in the beautiful surroundings. As the sun began to set, we were treated to soothing music, creating an ideal ambiance for the upcoming stargazing session.
As darkness enveloped the area, a professional guide led us in an exploration of the night sky. The experience was truly mesmerizing, with the guide providing fascinating insights into various celestial bodies and constellations. We learned about the myths and stories associated with different stars and constellations, making the stargazing session both educational and enchanting.

Dinner was served under the stars, adding to the magical atmosphere of the evening. The day concluded with everyone sharing their thoughts and experiences before retiring to their tents for a restful night.

We started the second day with a hearty breakfast, followed by a leisurely lakeside view. The calm and picturesque setting of the lake provided a perfect backdrop for the morning's activities. We engaged in various games, which added a fun and energetic start to the day.

There was ample time to spend near the hammock, allowing participants to relax and unwind. As the day progressed, we gathered around a bonfire, sharing stories and enjoying the warmth. The more adventurous among us took part in kayaking and swimming in the lake, adding an element of thrill to the day's itinerary.

As the evening approached, we were treated to a cozy session of sipping hot chocolate, which perfectly complemented the cool lakeside breeze. The camaraderie and shared experiences throughout the trip had brought everyone closer, making the final evening especially memorable.

The trip concluded the next afternoon with a heartfelt departure. The experiences and memories made during our time at Wakan were cherished by all. As we bid farewell to the beautiful venue and new friends, there was a shared sentiment of gratitude and fulfillment.

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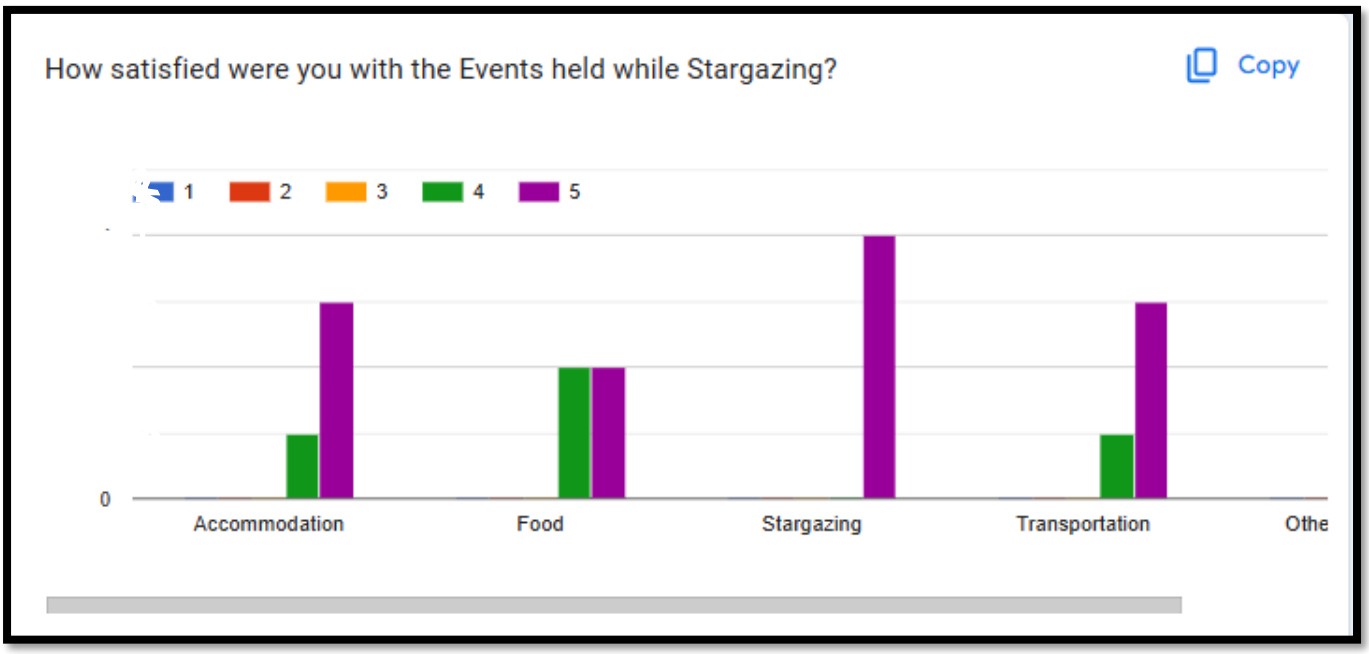
The stargazing trip on the banks of Wakan was a perfect blend of adventure, relaxation, and education. From the professional stargazing session to the engaging daytime activities, every aspect of the trip was meticulously planned and thoroughly enjoyed by all participants. This trip provided a wonderful escape from daily routines, allowing everyone to reconnect with nature and the wonders of the night sky.

List of Attendees:

Name	Year and Branch
Aditya Wavale	BE – EXTC
Saumyaa Namungade	BE – COMPS
Faiza memon	OTHER College
Krish Waghela	BE – EXTC
Kaustubh wadaye	FE
Tanvi Poipkar	FE
Pradnesh Milind Jadhav	FE
Shreya Ujale	FE
Sanober khan	FE
Yash vichare	FE
Disha Mahendra Jain	SE – COMPS

KAUSTUBH PARAB	BE – EXTC
Rutvik Ghadigaonkar	FE
Swapneel mauru	SE – IT
Om kamble	SE – IT
Raj Khutade	SE – IT
Sumeet Maharaj	SE – IT
Aaditya Mishra	SE – IT
Anish Sandaye	BE - EXTC
Vikas Vishwakarma	BE - EXTC

Feedback:



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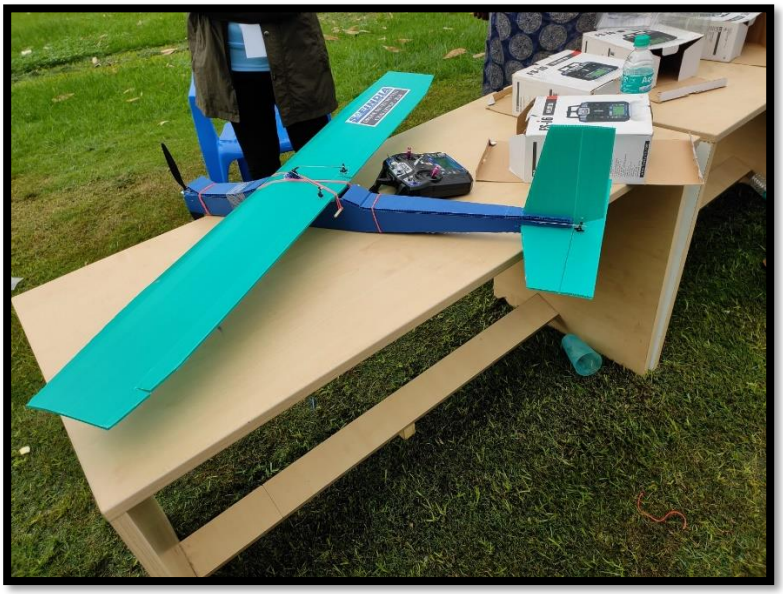
SAE DDC 2024 – WORKSHOP

Date: 6th – 7th JAN 2024
Location: Chennai Institute of Technology, Chennai



The SAE Drone Development Challenge Workshop was held in Chennai on January 6 and 7, 2024. This workshop was attended by the three team members, Vaishali, Chitra, and Srestha.This workshop aimed to provide participants with an in-depth understanding of the SAE DDC, focusing on designing, building, and flying a radio-controlled aircraft that meets specific performance
criteria.

The workshop spanned over two days, featuring a series of lectures, hands-on sessions, and interactive discussions. It was facilitated by experienced professionals and alumni who have previously participated and excelled in the SAE DDC.

The workshop began an introduction to the SAE Aero Design competition, including its background, goals, and significance in the field of aerospace engineering, kicked off the program. The session covered the fundamental principles of aircraft design, including aerodynamics, material selection, and structural integrity. This session emphasized the importance of balancing weight, strength, and performance.
This session delved deeper into the principles of aerodynamics and flight mechanics. Topics such as lift, drag, thrust, and stability were discussed.

In a hands-on exercise, participants were split into groups and given the task of creating a simple airplane model. Mentors offered direction and criticism all along the way. Teams used materials provided by the organizers to start building their aircraft prototypes after the design session. The practical difficulties in translating a design into a physical model were brought to light in this session.

On another day Teams relocated to an open area for flight testing. Every team was given the chance to test, evaluate, and refine their prototype. Understanding how design decisions would affect the real world was greatly aided by this session. During the feedback session that followed the workshop, teams discussed their experiences and got helpful critique from the mentors.

The SAE Aero Competition Workshop in Chennai was a rewarding event that gave me useful information and real-world expertise in the engineering and design of aircraft. A thorough learning process was achieved by the mix of theoretical lectures and practical exercises. After the workshop, participants departed want to have a greater comprehension of the difficulties and
benefits involved in creating a competitive airplane.

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SAE DDC2024 – Manufacturing

Date: February 2024 to April 2024
Location: Virar, Mumbai.

A team of nine dedicated members from AeroRGIT participated in the SAE Drone Development Challenge, a prestigious national-level competition. Our team was committed to excellence and innovation in the field of RC (Radio-Controlled) planes, and this report outlines our journey from initial research to the successful completion of the project.

The journey began with intensive research on RC planes. The team focused on understanding the intricacies of design, aerodynamics, materials, and the latest technological advancements in the field. This research phase was crucial in laying a solid foundation for our project. We conducted several sessions where senior members led discussions on various technical concepts. These sessions were designed to ensure that junior team members gained a thorough understanding of the project's requirements and the technicalities involved.
Activities:

- Detailed discussions on aerodynamic principles and design considerations
- Workshops on material selection and testing procedures
- Technical briefings on the latest advancements in RC plane technology

A comprehensive technical report documenting our research, design process, and the methodologies adopted was prepared. This report was a testament to our systematic approach and detailed planning throughout the project. The technical report was submitted as per the guidelines of the SAE DDC competition. This report was a critical component of our project submission, reflecting our dedication to thorough documentation and analysis.

Post the submission of the technical report, we initiated a workshop focused on the manufacturing of our RC plane. This phase involved translating our designs into a tangible product, ensuring precision and adherence to the design specifications.

Workshop Activities:

- Fabrication of plane components
- Assembly of the RC plane
- Rigorous testing of individual parts

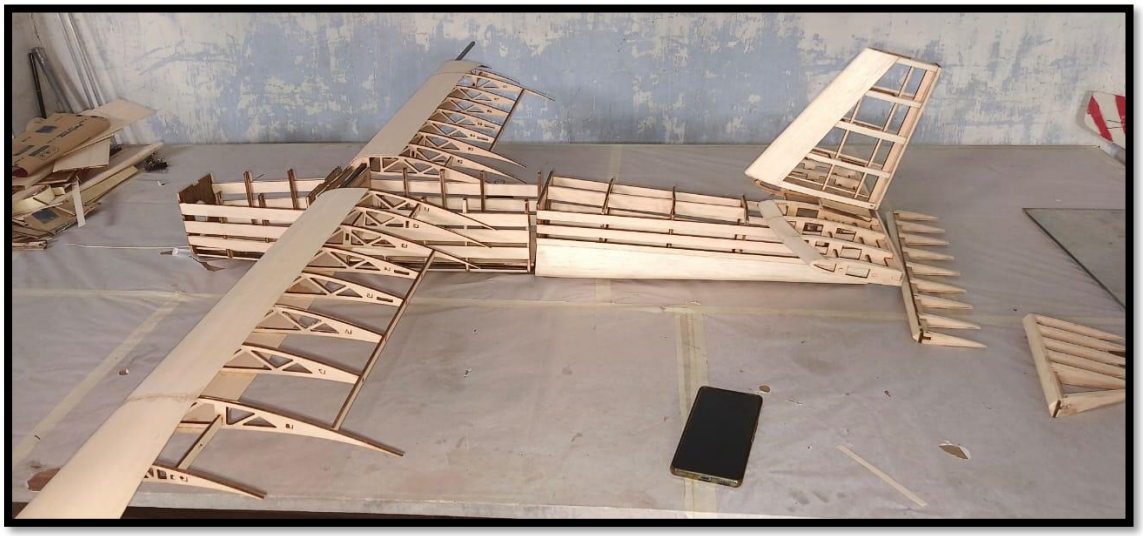
A technical video demonstrating the entire process from design to manufacturing was also prepared. This video highlighted our team's collaborative efforts, the challenges faced, and how they were overcome.

Successful Flight Test

The manufacturing phase culminated in a successful flight test. The RC plane performed as expected, meeting all the design criteria and showcasing the effectiveness of our research and manufacturing processes.

Conclusion

Our participation in the SAE DDC national-level competition was a resounding success, marked by thorough research, effective teamwork, and a successful flight test. This experience not only enhanced our technical skills but also fostered a spirit of collaboration and innovation within the team.



SAE DDC 2024 Team:

Name	Year and Branch
Aditya Wavale	BE - EXTC
Anish Sandaye	BE - EXTC
Krish Waghela	BE - EXTC
Sahil Dhamane	TE – MECH
Shreyash Datta	SE - MECH
Sanket Dorugade	SE - MECH
Vaishali Bhandva	SE - EXTC
Chitra Rao	SE - EXTC
Srestha Jilla	SE - EXTC