Don Bosco Institute of Technology

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION

IEEE-DBIT STUDENT BRANCH CHAPTER

Report on

"Water Rocket Workshop & Competition"

Date: 7th October 2023 and 14th October 2023.

Venue: Vidyalankar institute of technology and Sardar Patel Institute of Technology.

Participants: Inter college event with 20 team registrations, two teams from DBIT participated for the same as follows,

DBIT SE Team:

1. Zubia Sarang
2. Kartik Dandelia
3. Aryan Arde
4. Gavin Lobo

DBIT TE Team:

1. Girish Sangare
2. Shafik Shaikh
3. Faiz Chougle

Objective:

- Participants will be taught the basics of water rocket dynamics and how to build it along with a flying demo.
- Participants will be given one week's time for preparing the water rocket according to the rules provided.

- The participants need to fly their rocket 3 times and the highest time of the 3 will be considered.
- The team with the maximum airtime will be considered as the winner.

Description:

- IEEE-AESS Student Chapter from VIT organized a workshop of "***Water Rocket***" on 7th October 2023.
- The workshop commenced at 1:00 pm at VIT, Mumbai.
- Prof. Pratik Mhatre introduced the VIT water rocket team to the participants who participated at international level and stood 2nd.
- Prof. Kiran Talele further spoke about the IEEE-AESS chapter and emphasized the significance of aerospace engineering and highlighted the contributions that passionate individuals could make to the field.
- He also spoke about the benefits of joining aerospace clubs, showcasing the numerous opportunities available to students interested in this area, including research, internships, and career prospects.
- The workshop delved into the basics of aerospace engineering, with a focus on how these principles apply to water rockets. The instructors explained key concepts, such as Bernoulli's Principle, aerodynamics, and the forces acting on a rocket during flight.
- Participants gained a solid understanding of these fundamental principles, which form the basis of rocket science and aviation.
- The workshop provided a detailed breakdown of the components and specifications required for constructing a water rocket. This included discussions on materials, rocket body design, propulsion systems, and the importance of ensuring structural integrity and stability for a successful launch.
- The highlight of the workshop was the practical demonstration. Instructors assembled and launched water rockets to showcase the application of the principles discussed earlier.

Don Bosco Institute of Technology

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION

IEEE-DBIT STUDENT BRANCH CHAPTER

- The audience had the opportunity to witness firsthand the effects of aerodynamics, propulsion, and the forces at play during the rocket's flight.
- The workshop ended successfully at 4pm.
- The Water Rocket Competition was held on 14th October at Sardar Patel Institute of Technology by IEEE-AESS Student chapter in collaboration with IEEE-VIT
- The competition involved several teams of enthusiastic participants who were tasked with constructing and launching water rockets. Each team was allowed three attempts to achieve the maximum airtime possible, with a standard launch pressure of 50 PSI.
- After the initial rounds of launches, a well-deserved lunch break was provided in the mess at SPIT.
- The highlight of the day was the awards ceremony, held in the conference hall after lunch. The winners were declared amidst a sense of anticipation and excitement by Prof. Pratik Mhatre , Prof. Kiran Talele and Abhay Phansikar
- Certificates of participation and recognition were awarded to the teams to acknowledge their dedication and efforts in the competition.
- The session ended successfully at 4:00 pm.

Winners:

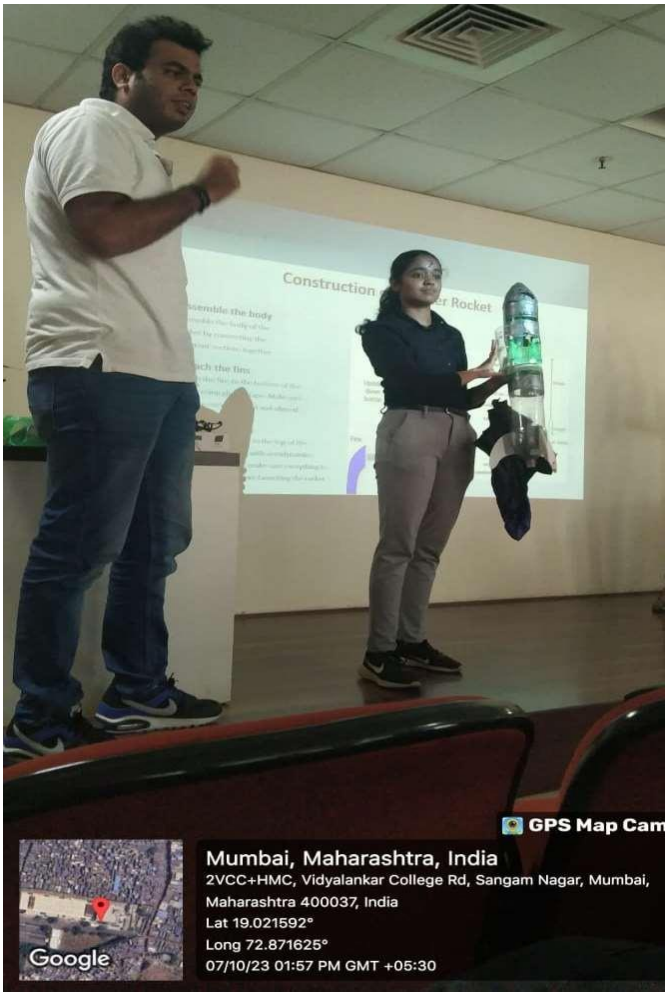
- **VIT Team** - *1st Place*: The VIT team secured the first position with a remarkable airtime of **8 seconds** and won a cash prize worth 5,000 Rs.
- **DBIT TE Team** - *2nd Place*: The DBIT Team 1 secured the second position with an airtime of **7.5 seconds** and won a cash prize worth 3,000 Rs.
- **DBIT SE Team** - *3rd Place*: The DBIT Team 2 secured the third position with a noteworthy airtime of **6.83 seconds** and won a cash prize worth 2,000 Rs.

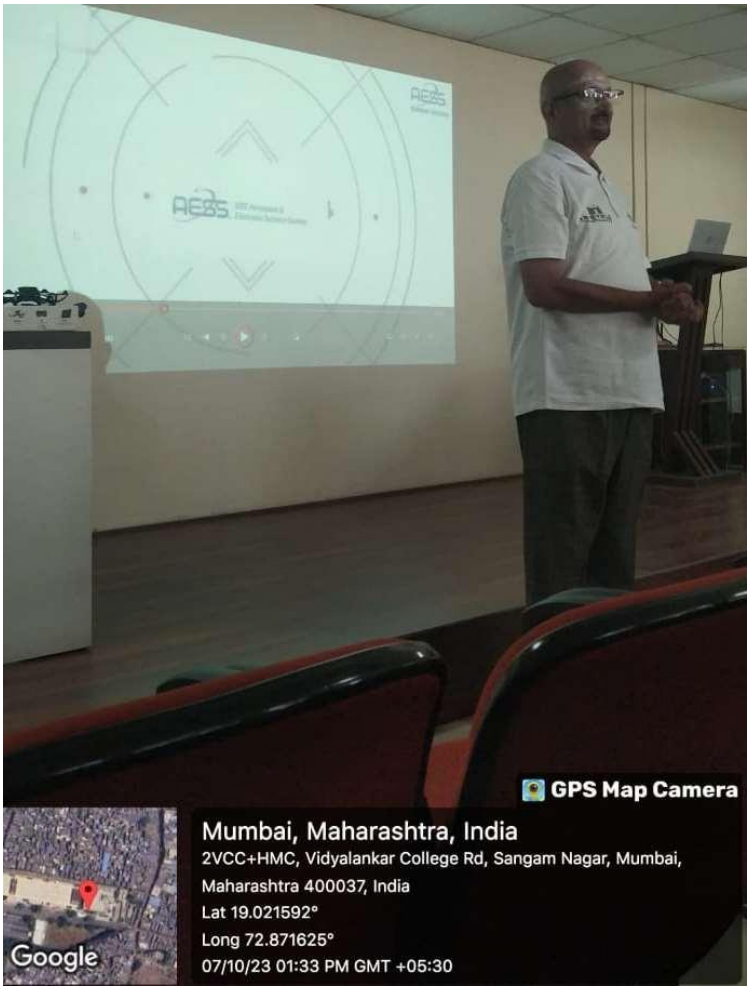
Don Bosco Institute of Technology

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION

IEEE-DBIT STUDENT BRANCH CHAPTER

Water Rocket Workshop at VIT on 7th October 2023:



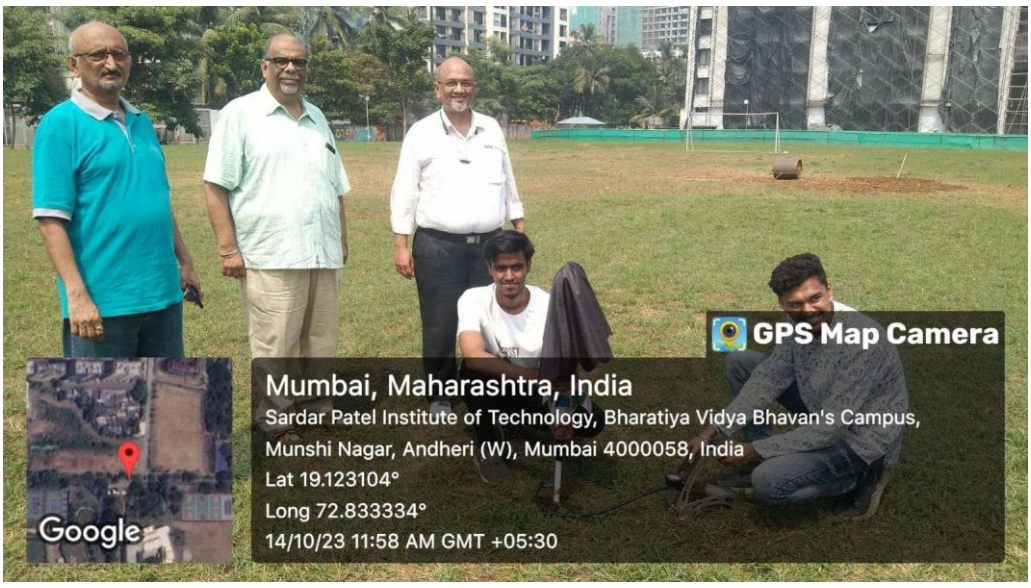


Don Bosco Institute of Technology

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION

IEEE-DBIT STUDENT BRANCH CHAPTER

Water Rocket Competition at SPIT on 14th October 2023

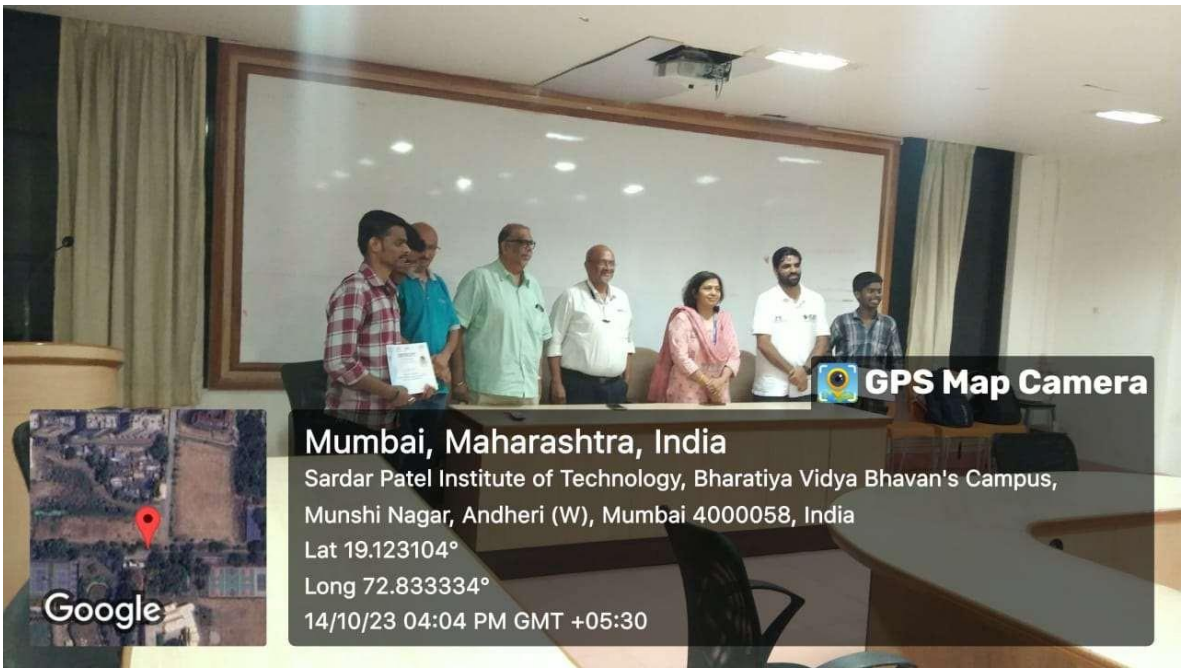


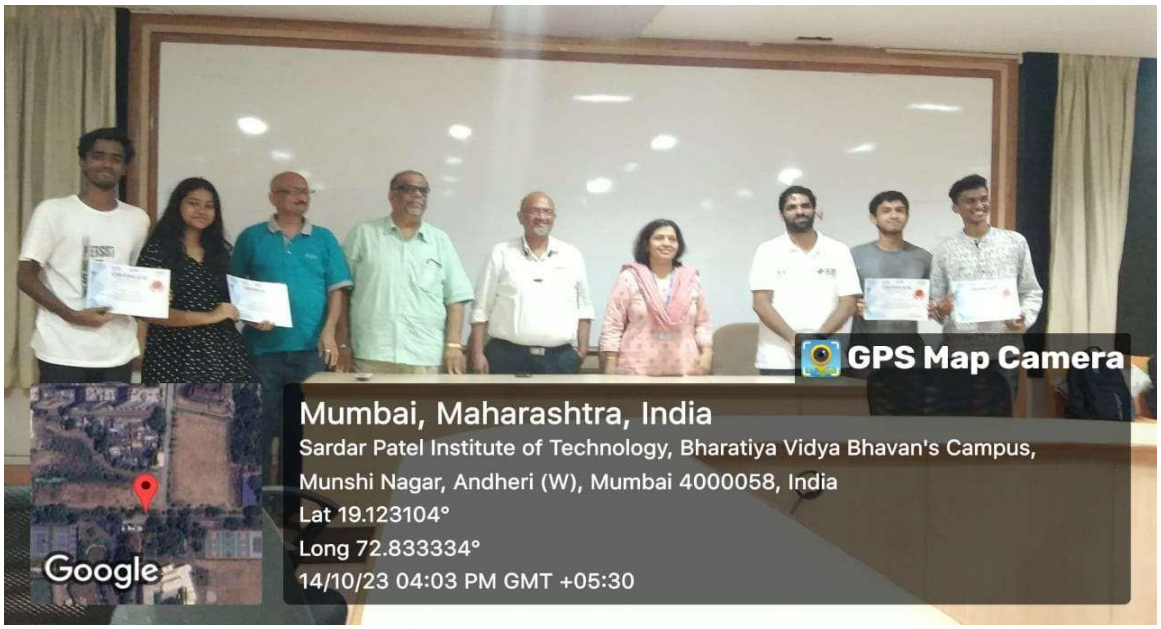
Don Bosco Institute of Technology

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION

IEEE-DBIT STUDENT BRANCH CHAPTER

Winners from DBIT:





Conclusion:

The Water Rocket Workshop and Competition collectively offered an inspiring and engaging exploration of aerospace engineering principles and their practical applications. The Water Rocket Competition, which followed the workshop, allowed participants to apply their newfound knowledge and engineering skills to create and launch water rockets. The competitive spirit among the teams were evident throughout the event, as they strived to achieve maximum airtime with their rockets.

The success of the VIT team and both teams from DBIT in the competition demonstrated the depth of talent and engineering prowess within the participants. These events not only ignited a passion for aerospace engineering but also provided a platform for hands-on learning and practical application of aerospace principles.