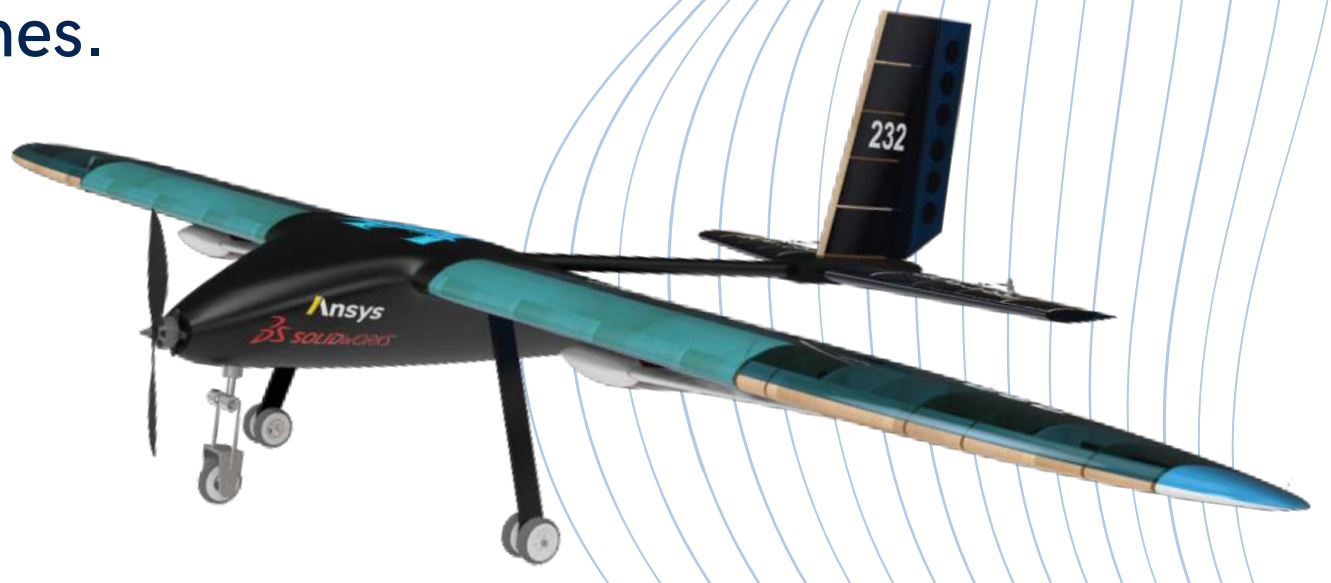
TEAM

AAYUSHASTRA

WHO ARE WE

Team Vaayushastra represents Fr. Conceicao Rodrigues College of Engineering in the SAE Aero Design Competition. We were established in the year 2012 and have participated annually in the advanced class of the SAE Aero Design Competition held in the USA since then. We are one of the most consistent teams, finishing in the worldwide top 10 ranking eight times.



Team Vaayushastra

OUR DEPARTMENTS

Design and Modelling Team

This department handles the design, modelling, simulation, and fabrication. of the aircraft. It works with software like Solidworks, Ansys, etc. and processes like 3D printing, laser cutting, foam cutting, etc.

Avionics Team

This department consists of:

- **Data Acquisition System Team**

This department works with electronic components to acquire data and parameters that are then viewed at the ground station. We are one of the few teams that build their own in-house DAS.

- **Graphic User Interface Team**

The GUI is a type of user interface that allows users to interact with electronic devices through graphical icons and visual indicators. All these features are covered in the GUI department. We also create our own in-house GUI.

- **Autonomous Control System Team**

The ACS is a system that helps the PADA detect the landing zone and land autonomously using programming-based functionalities. We also create our own in-house ACS.

Media and Marketing Team

This department ensures that all the team accounts are in place and helps grow the reach of our team through social media platforms and marketing.

ABOUT COMPETITION

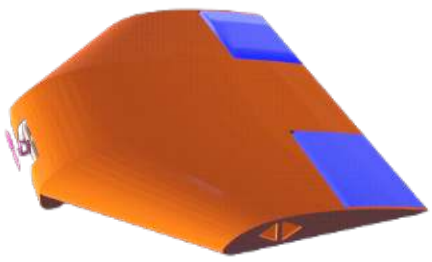
SAE AERO DESIGN EAST

MARCH 10-12, 2023 | LAKELAND, FLORIDA

OUR ACTION PLAN

Primary Aircraft (PA):

The main, remote controlled aircraft which transports the payload and the PADA

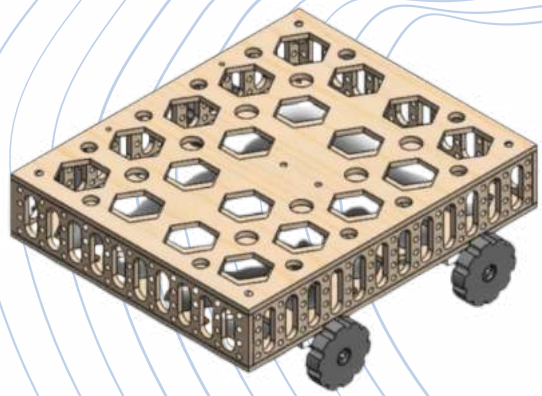


Powered Autonomous Delivery Aircraft (PADA):

A smaller, autonomous aircraft which is released from the PA

Ground Transport Vehicle (GTV):

A remote controlled, ground vehicle that transports water through an obstacle course



Team Vaayushastra

WHY SPONSOR US?

International Exposure:

Increasing exposure of the company and its products among participants and others attending the program.

Marketing Campaign:

The team's website will mention the company's background and products manufactured. The company logo will gain visibility displayed on the team banner, brochure and also on the uniform worn by the team on ground, thereby gaining the company cost-effective publicity.

Social Media Promotion:

We start the promotion of our sponsor on social media through a promotion post within 7 days of realization of sponsorship payment.

Product acceptability:

Gain product acceptance among current as well as future potential customers globally.

Product Testing:

The company's products will in effect be tested and demonstrated on the ground.

Social responsibility:

The company would be investing in developing future technical talent.

Team Vaayushastra

TEAM VAAYUSHASTRA STATISTICS

2013

In its maiden appearance at the competition, the team exceeded all expectations by attaining an overall 10th rank internationally.

2014

The following year, a global 7th position overall was secured.

2015

The team attained the 1st position in the presentation round, superseding internationally reputed teams. The team secured the 6th overall rank, besides turning up as the best team from the Asia-Pacific region.

2016

The team retained its 6th place while again outperforming all other teams from the Asia-Pacific region.

2017

The team secured a 3rd position in the presentation round and an overall 5th rank besides retaining its reputation as the best team from the continent for the third consecutive year.

2018

The team ranked 4th in design report and 14th overall.

2019

The team secured the 5th rank in the presentation round and improved its overall rank to 9th globally.

2020

The team secured the 9th rank in the design report and the 9th rank overall.

2021

The team secured the 11th rank in presentation and the 14th rank overall.

2022

In the latest edition, the team secured a 6th rank in presentation, a 4th rank in design report, and an overall 5th rank world-wide.

VAAYUSHASTRA GALLERY

Team Vaayushastra

PRESS COVERAGES

तरुण विद्यार्थ्यांची भरारी

रिमोट कंट्रोलवरील विमान जगात सातवे

लोकसत्ता

वांद्रेकर विद्यार्थ्यांचे 'रिमोट कंट्रोल'वरील विमान सरस!

प्रतिनिधी, मुंबई

वांद्रे येथील 'फादर कॉन्सिकिओ रॉड्रिग्ज' महाविद्यालयाच्या वायुशास्त्र पथकाने तयार केलेले रिमोट कंट्रोलवरील विमानाने जागतिक पातळीवरील सातवा क्रमांक पटकावला आहे. अमेरिकेत डल्लास येथे दरवर्षी शंभर फुटावरून रिमोट कंट्रोलने विमान उडविण्याची आंतरराष्ट्रीय स्पर्धा आयोजित केली जाते. या स्पर्धेत या विद्यार्थ्यांनी शंभर फुटावरून विमान उडवून दाखविल्यानंतर त्यांना सातवे मानांकन देण्यात आले. याच महाविद्यालयाने गेल्या वर्षी झालेल्या स्पर्धेत दहावा क्रमांक पटकावला होता. यंदा रमेश कामत याच्या नेतृत्वाखालील पथकाने सातवा क्रमांक मिळविला आहे.

गेल्या वर्षी झालेल्या स्पर्धेत वजनाला हलके असलेले लाकूड वापरून विमान तयार करण्यात आले होते. यंदा कमी वजनाच्या लाकडासोबतच शक्य तितक्या 'कार्बन फायबर'चा वापर करून विमान तयार करण्यात आले. कमी वजनाबरोबरच हवेचा प्रवाह लक्षात घेऊन सलग सात महिन्यांच्या परिश्रमातून साकारले गेलेले रिमोट कंट्रोलवरील विमान चाचणीत यशस्वी ठरल्यानंतर वायुशास्त्र पथक अमेरिकेला रवाना झाले.

या स्पर्धेत सहभागासाठी ई-मेलवर सादर केलेला अहवाल आणि प्रत्यक्ष सादरीकरण यावर आधारित गुण दिले जातात. या स्पर्धेत जगभरातील सुमारे ७५ निवडक महाविद्यालयांनी सहभाग घेतला होता.

hindustantimes

campuscocktail

It is a 'Game of Drones' as students bag laurels abroad

AERO DESIGN Aero clubs from various colleges win prizes at competitions in the US

Musab Qazi

MUMBAI: For decades, aviation experts in India have rued India's inability in producing planes and its makers. Even as the country continues to buy most of its aircraft from foreign aircraft makers, a small but promising culture emerging in city engineering colleges appears to be a ray of hope.

Fed by a rising wave of international aero design competitions, aspiring aeronautical engineers are forming 'aero clubs' to make their own flying machines.

Students of Veermata Jijabai Technological Institute (VJTI), Matunga, established one such 'aero club' in 2010. The club, named Aero VJTI has so far sent four teams to the aero design competition held in the US and won some prizes, said students.

"Over the years, our club has become very good in aircraft designing. VJTI also has a wind-tunnel lab for those interested in research in the field of aeronautics," said Darshit Dalal, a member of the club.

The Aero Design competition, held annually in the United States by the Society of Automotive Engineers, has found a number of takers among city's engineering colleges. Students are tasked to make their own Unmanned Aerial Vehicle (UAV) at the competition.

These clubs also help students apply their minds beyond the curriculum. "The problems presented to us in the aero design competition are very real. The UAVs and the aircraft technology has wide application in many fields," said Akib Peerzade, a former member of 'Team Aerosouls' at the MH Saboo Siddik College of Engineering at Byculla.

According to Peerzade, Aerosouls was the very first Indian team to compete and win in the advanced category at the competition.

Students added that juggling time for such activities along with their studies has been a challenge.

Funding is one of the biggest challenges, felt students. While many colleges and sponsors provide monetary assistance to the competing teams, the students often have to fund their trip to US.

"Initially, the funding was a problem. But as we progressed, the college realised the importance of our work and helped us generously. But once we won prizes at the competition and were featured in the newspapers, the funds started pouring in," added Peerzade.

WHAT IS AN UNMANNED AERIAL VEHICLE (UAV)?

UAV, also known as a drone, is an aircraft without a pilot aboard. Its flight is usually controlled with a remote control. The UAVs designed by the students are capable of lifting and dropping materials (payload) at the designated spot.

'AERO' CLUBS IN THE CITY

- AeroVJTI (Veermata Jijabai Technological Institute, Matunga)
- Aerosouls (MH Saboo Siddik College of Engineering, Byculla)
- Onyx (KJ Somaiya College of Engineering, Vidyavihar)
- Vaayushastra (Fr. Conceicao Rodrigues College of Engineering, Bandra)
- Rakshak (IIT-Bombay, Powai)
- Skylark (DJ Sanghvi College, Vile Parle)
- AeroVeda (Rajiv Gandhi Institute of Technology, Andheri)

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महाराष्ट्र टाइम्स

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हम है नंबर वन!

टीमचं रँकिंग

Team Vaayushastra

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SOLIDWORKS

SIMSCALE

Team Vaayushastra

EXPENSES	AMOUNT
Registration	Rs. 1,12,000/-
Materials	Rs. 2,00,000/-
Electronics and GUI	Rs. 1,00,000/-
Tools and Equipment	Rs. 75,000/-
Logistics	Rs. 50,000/-
Emergency Fund	Rs. 50,000/-
Total	Rs. 5,87,000/-

PACKAGES

CONTENTS	BRONZE	SILVER	GOLD	PLATINUM
AMOUNT(₹)	10K-50K	50K-100K	100K-200K	200K+
SOCIAL PUBLICITY	✓	✓	✓	✓
TEAM BANNER	✓	✓	✓	✓
TEAM FLYER	✗	✓	✓	✓
COLLEGE MAGAZINE	✗	✗	✓	✓
MERCHANDISE	✗	✗	✗	✓
Logo on Aircraft	✗	✗	✗	✓

Team Vaayushastra

CONTACT DETAILS

Your small help will support us and help us grow.

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