



Late Shri. Vishnu Waman Thakur Charitable Trust's

## VIVA Institute of Technology

Approved by AICTE, New Delhi, DTE, Government of Maharashtra, Affiliated to University of Mumbai  
At- Shirgaon, Post-Virar (E.), Tal-Vasai, Dist-Palghar – 401 305.

Tel.: 777 000 2544 • Website : [www.viva-technology.org](http://www.viva-technology.org)

E-mail: [contact@viva-technology.org](mailto:contact@viva-technology.org) / [principalvit@vivacollege.org](mailto:principalvit@vivacollege.org)

<b>Event Name:</b>	SAE Aero Design West
<b>Location:</b>	Van Nuys, California, United States
<b>Participating Team Name:</b>	TEAM ARSYA
<b>TEAM No:</b>	012
<b>Date:</b>	09-04 April,2018
<b>Time:</b>	11.00 Onwards

### Department of Mechanical Engineering

#### Programme Summary/Details:

Team ARSYA, representing VIVA Institute of Technology, proudly participated in the prestigious SAE Aero Design 2018, Van Nuys, California, USA. The team competed in the Regular Class category, showcasing their exceptional skills and engineering prowess. The registration for this esteemed event was successfully completed on 2<sup>nd</sup> October 2017.

Following the completion of the registration process during the winter semester of our bachelor's course, the members of Team ArsyA embarked on the design phase of our RC aircraft project. This phase commenced with careful adherence to the instructions outlined in the SAE Aero Design rule book, which was provided to us in late November 2017. To ensure compliance with all the requirements and guidelines specified by the SAE Aero Design team, our members diligently utilized software tools such as SolidWorks for 3D design and ANSYS for simulation purposes.

Upon the completion of the design and analysis phase, our team carefully evaluated the various design options and selected the most preferred design. With the design finalized, we proceeded towards the manufacturing process of our RC aircraft project.

The manufacturing process began on January 25, 2018, marking an important milestone in our project timeline. To ensure the highest level of precision and quality, our team followed industry-standard manufacturing practices and utilized advanced manufacturing techniques. We employed a range of specialized tools and machinery to fabricate the different components of the aircraft, adhering closely to the specifications outlined in the design.

The manufacturing process involved various stages, including material selection, cutting, shaping, and assembly. We utilized cutting-edge manufacturing technologies and techniques to ensure accuracy and efficiency in each step. Our team placed great emphasis on maintaining strict quality control measures throughout the manufacturing process to ensure the integrity and reliability of the final product.

After meticulous manufacturing and assembly, our aircraft was completed by the end of February. The team diligently carried out all necessary preparations, ensuring that every component was in place and all systems were functioning properly. We were eager to witness the culmination of our efforts in the first flight test.

On March 2017, at the prestigious Mahalakshmi Race Course, Team ArsyA conducted the highly anticipated inaugural flight test. The flight test was conducted under the expert supervision of experienced pilot Tushar Pethe, whose expertise and guidance were valuable to the success of the test.



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With great excitement and anticipation, we witnessed the aircraft gracefully take off for its first flight. It was a moment of immense pride and satisfaction for the entire team as we observed our hard work and dedication come to fruition. The successful flight test marked a significant milestone in our journey towards participating in the SAE Aero Design 2018 event.

After the successful completion of the flight test, the team promptly compiled and submitted the comprehensive design report to the relevant authorities on March 2018. In parallel, preparations were underway for the team members to obtain visas to attend the competition.

### Achievements

Team Arsyia competed with almost 75 teams from around the world and secured 6<sup>th</sup> rank in the Design Report and 15<sup>th</sup> overall rank in the Regular Class category. It was a proud moment for us not only as a team but also as proud Indians representing our country on global level.

The team expressed their gratitude to the management of VIVA Institute of Technology, the principal, and Mrs. Niyati Raut for their support and motivation. They also thanked their sponsors for their generous support and guidance, which played a vital role in their success.

In conclusion, Team ARSYIA participation in SAE Aero Design 2018 was filled with challenges and accomplishments.

### Photos:

