

15/09/2022

ACTIVITY REPORT

7th SAEISS Aero Design Challenge -2022



SPCE W.A.V.E (Wing of Aerial Vehicle Engineers) participated in the SAE Aero Design Challenge, Southern Section held at SRM Institute of Science and Technology, Chennai from **1st to 3rd of September 2022**. **Two teams** from the club participated - Team **WAVE Aerorangers** and Team **WAVE Aero Trails**, comprising of third and fourth-year students.



Both the teams submitted their design reports on the 15th of June, 2022 which was Stage 1 of the competition. Also, a fabrication video showing the overall manufacturing process was submitted as a part of Stage 2 of the competition.

On the first day of the three-day long competition, both the teams had their respective planes inspected to get the final clearance to enter the flight round. Both planes were well under constraints and were given the green signal to fly. Later that day, we had to demonstrate our work in the form of a PowerPoint presentation to a panel of judges who gave us feedback and suggestions for our upcoming models after a round of Q&A.

This concluded the stage 3 of the competition.

Moving on to the final stage, both teams headed for their flight rounds on the second day. Team Aerorangers went first with 4.94 kg payload (All up weight: 9.94kg) and had a successful lift off and cruise round. While landing, owing to the small ground that SAE ISS is notoriously famous for arranging, the pilot did not have sufficient approach distance and ended up crashing the plane into the nearby fence. However, the flight round was deemed alright by the judges and was considered to be a successful one.

Team Aerotrails went next with 5.35 kg payload (All up weight: 10.47kg), had a successful takeoff but the pilot realised that the plane didn't have enough thrust and thus decided to bring the plane back to the ground without completing the mission. Due to hard impact on landing, the nose and main landing gears were severely damaged. Even so, the flight round was deemed successful.

The third and the last day of the competition was for result declaration.

The club is proud to announce that out of the total 78 teams that participated, team **WAVE Aerorangers** achieved an **AIR 3 for Overall Performance in Regular Class** category while team **WAVE Aerotrails** achieved an **AIR 2 for Best Technical Presentation in Regular Class** category.

The club aims for more such achievements in the upcoming year.

The club is thankful to our faculty advisor, Dr. R. S. Maurya, who has been instrumental in our success, by providing us technical as well as moral support throughout our journey and has motivated us when times were tough.

SPCE W.A.V.E

Event Photographs

SAE Aero Design Challenge-2022, Southern Section
at SRM Institute of Science and Technology, Chennai



Overall Performance in Regular Class - 3rd Place



Best Technical Presentation - 2nd Place