



TEAM  
**a n t a r i k s h**

## **STUDENT SPACE TECHNOLOGY TEAM R V COLLEGE OF ENGINEERING ®**

Team Antarksh is an emerging space technology student club whose goal is to understand, disseminate and apply their engineering skills for innovation in the field of aerospace technology.

The hundred member strong team is working on two research projects namely, a novel idea to perform microbiological experiment in space with the help of ISRO, and designing a Sounding Rocket with a scientific payload aiming to perform an experiment at higher altitudes.

### **VISION**

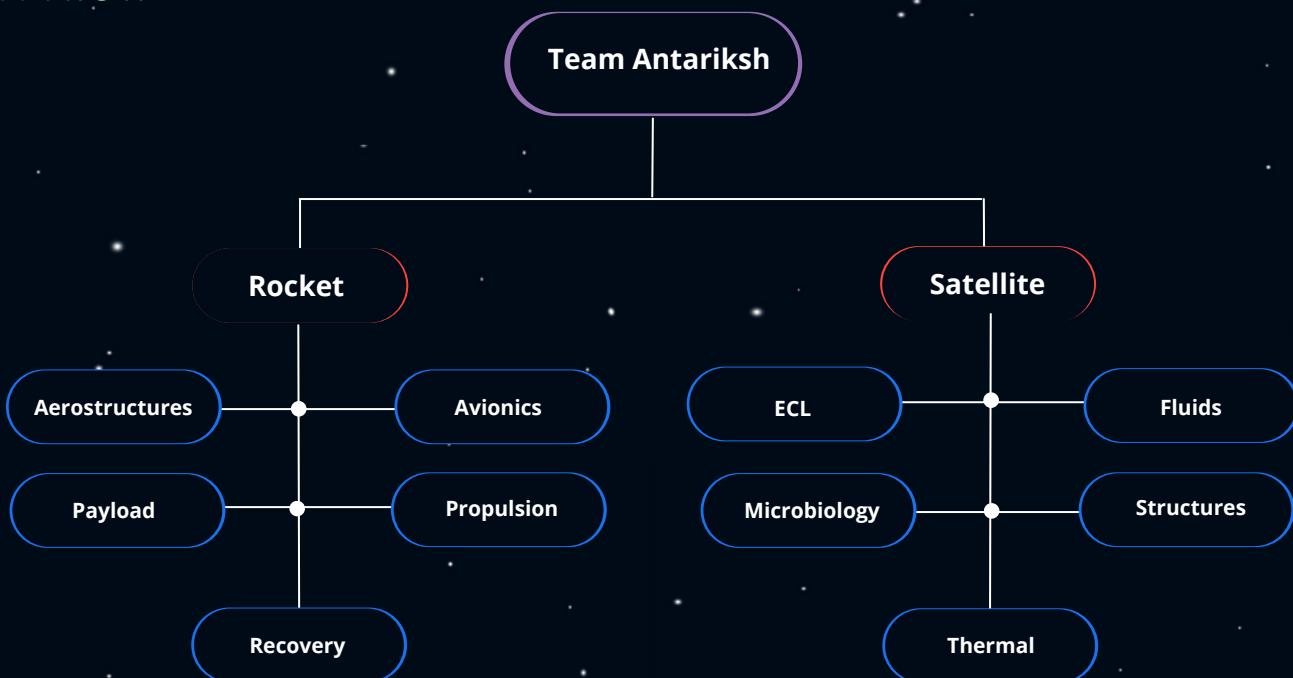
To inspire young minds to take up challenging tasks in aerospace technology through interdisciplinary research and development.

### **MISSION STATEMENT**

- To develop a microbiological payload for ISRO's PSLV-4 initiative.
- To design, develop and test a rocket for Spaceport America Cup, New Mexico USA.
- To increase the participation of the students of RV College of Engineering in Space Research and Technological development in India.
- To participate in the research and development of innovative scientific payloads for sounding rockets and nano-satellites.



# TEAM STRUCTURE



## OUR PROJECTS

### RVSAT-I

RVSAT-1 is a unique microbiological payload designed for ISRO's PS4 Orbital Platform. The objective of the payload is to perform the growth analysis on a microbe which could prove useful for future manned missions.

It is first of its kind in India and attempted by the undergraduate students under the supervision of eminent faculty from RV College of Engineering.



SPACECRAFT	RVSAT-1
MISSION TYPE	System Design and Verification
LAUNCH TYPE	Polar Leo
ORGANIZATION	R V College of Engineering®
LAUNCH AGENCY	ISRO
MASS	2.66 kg
DIMENSIONS	10 cm x 10 cm x 22.7 cm

### TARA

Sounding rockets are one or two stage solid propellant rockets used for probing the upper atmospheric regions and for space research. The weight of the payload in these rocket ranges from 2 kilograms to 100 kilograms.

The TARA rocket is a step towards providing a platform for carrying out innovative research & experiments for 4 kilograms of payload capacity.



ROCKET	TARA
OBJECTIVE	Analyse vibrational effects on batteries
ORGANIZATION	R V College of Engineering®
PAYLOAD CAPACITY	3 U
DRY MASS	27 kg
ALTITUDE	10,000 ft AGL (Above Ground Level)



# INSIGHT

## MODEL ROCKETRY

Sounding Model rockets are small scale rockets designed to reach an apogee of upto 2000 ft AGL with a mass not exceeding 2 kilograms.

They not only aim to provide an insight into the fundamentals of rocketry, but also help in validation and integrity of various other systems.

Insight-1 is the first iteration of our model rocket series with complete in-house manufacturing and SRAD motors.

<b>ROCKET</b>	INSIGHT-1
<b>OBJECTIVE</b>	To launch and recover a sub scale sounding rocket
<b>ORGANIZATION</b>	R V College of Engineering ®
<b>PAYOUT CAPACITY</b>	Nil
<b>DRY MASS</b>	2 kg
<b>ALTITUDE</b>	2000 ft AGL (Above Ground Level)

## ACHIEVEMENTS

### ICSS



Winners in student competition of design and implementation of space projects at International conference on Small Satellites, Hyderabad.

2019

### QUEST INGENIUM



First Runners Up in Quest Ingenium, a platform for presentation of Engineering Projects. Voted as Best Project by QuEST Employees.

2018

### ISRO WORLD SPACE WEEK



Bagged all six prizes in World Space Week conducted at URSC. Opportunity to tour ISRO-URSC facility for a day.

2018

### IIA



Winner of National Level Competition on "Space Missions" held at Indian Institute of Astrophysics, Bengaluru.

2018

## RESEARCH ACCOLADES

03 Papers



Three paper publications at the 69th International Astronautical Congress, 2018, Bremen, Germany

02 Papers



Two paper publications on Satellite Technological Day, 2018, URSC-ISRO, Bengaluru, India

03 Papers



Three paper publications at the 2nd ICMAE, 2018, Indore, India

01 Paper



One Paper publication at the (IEEE) International Conference for Convergence in Technology, 2018, Mangalore, India

03 Papers



One Conference paper and two Journal publications, 2018, India

# RESEARCH ACCOLADES

01 Paper	10 Papers	01 Paper	01 Paper	01 Paper
 <p>One Paper publication at the International Aerospace Conference, 2019, Washington DC , USA</p>	 <p>Ten paper publications at the 70th International Astronautical Congress, 2019, Washington DC , USA</p>	 <p>One Paper publication at International Conference on Small Satellites, 2019, Hyderabad, India</p>	 <p>One paper publication at India International Science Festival, 2019, Kolkata, India</p>	 <p>One Paper publication at AIDAA, 2019, International Congress, Rome, Italy</p>

01 Poster	01 Paper	09 Papers	02 Papers	03 Papers
 <p>Poster publication at International Conference on Small Satellites, 2019 Hyderabad, India</p>	 <p>One Paper publication at IEEE Aerospace and Electronica Aeroconf, 2020, Big Sky, Montana</p>	 <p>Nine paper publications at the 71st International Astronautical Congress, 2020, The Cyberspace Edition</p>	 <p>Two paper publications at IEEE-AeroConf 2021</p>	 <p>Three paper publications at the 72nd International Astronautical Congress, 2021, Dubai, UAE</p>

14 Papers
 <p>14 paper publications at the 73rd International Astronautical Congress, 2022, Paris, France</p>

TOTAL  
COUNT

56



## CONTACT US

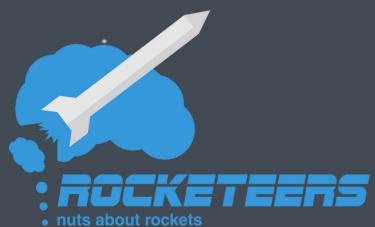
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## VISIT US

-  [www.teamantariksh.in](http://www.teamantariksh.in)
-  [linkedin.com/company/team-antariksh](https://linkedin.com/company/team-antariksh)
-  [www.instagram.com/teamantariksh](https://www.instagram.com/teamantariksh)

# OUR PARTNERS



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