



# ACS COLLEGE OF ENGINEERING BENGALURU

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi and Govt. of Karnataka)

## DEPARTMENT OF AEROSPACE ENGINEERING *NEWSLETTER*

2018-2019



### Chief Patrons

**Sri A.C. Shanmugam**

Chairman

Moogambigai Charitable & Educational Trust

**Sri A.C.S. Arunkumar**

Vice Chairman

Rajarajeswari Group of Institutions

### Chief Editor

**Dr. R. Mukesh**

Professor & Head

Department of Aerospace Engineering

### Patrons

**Dr. S. Vijayanand**

Executive Director

Rajarajeswari Group of Institutions

**Dr. S. Jayabalan**

Special Officer

Rajarajeswari Group of Institutions

### Editors

**Ms. C Sushmitha**

Assistant Professor

Department of Aerospace Engineering

**Mr. R. Ganesh**

Tutor

Department of Aerospace Engineering

## ABOUT AEROSPACE DEPARTMENT

The Department of Aerospace Engineering aims to provide talented, motivated and competent students with Aerospace engineering curriculum of the highest quality, that will enable them to reach the global standard.

## COURSES OFFERED

### B.E – AEROSPACE ENGINEERING

With the intensions to fulfill the increasing demands of skilled manpower in Aero-based industries and hence to serve the society, the Department of Aerospace Engineering was established in year 2017 with under Graduate Course in Bachelor of Engineering in Aerospace Engineering under VTU, Belgaum. The course is approved by AICTE, New Delhi



*2017– 2021 batch Aerospace Engineering Students*

## FACULTY DETAILS

PARTICULARS	QUANTITY
TEACHING FACULTY	6
NON TEACHING FACULTY	2
COMPLETED Ph. D	2
PURSUING Ph. D	1
M.E/M.TECH/M.S	3

## STUDENT DETAILS

PARTICULARS	QUANTITY
I –YEAR	51
II – YEAR	33
III – YEAR	30
Total	114

## Department is equipped with following laboratories:

- Aerodynamics Laboratory
- Propulsion Laboratory
- Structures Laboratory
- Energy Conversion Laboratory
- Mechanical Measurements and Metrology Laboratory
- Machine shop laboratory
- Design , Modeling and Analysis Laboratory
- Simulation Laboratory
- Foundry and Forging Laboratory
- Metallography and Material Testing Laboratory



## LABORATORY DETAILS



AERODYNAMICS LAB



PROPULSION LAB



STRUCTURES LAB



ENERGY CONVERSION LAB



MECHANICAL MEASUREMENTS  
& METROLOGY LAB



MACHINE SHOP LAB

## LABORATORIES DETAILS



DESIGN, MODELING & ANALYSIS LAB



SIMULATION LAB



FOUNDRY & FORGING LAB



METALLOGRAPHY & MATERIAL TESTING LAB



## MEMORANDUM OF UNDERSTANDING SIGNED BY THE DEPARTMENT

S.No	Company/Organization/Institution Name
1	Accord Software and Systems
2	SS Technologies (STK Software)

## GUEST LECTURES DELIVERED BY THE FACULTIES

S.No	DETAILS OF GUEST LECTURES
1	Dr. P. Theerthamalai delivered a guest lecture on “Control systems for guided missiles” in RajaRajeswari College of Engineering, Bangalore.
2	Dr. P. Theerthamalai delivered a guest lecture on “Guided missiles” in Defense Institute of Advanced Technology, Pune.



MOU with Accord Software and Systems

**PROGRAMME ORGANIZED IN THE DEPARTMENT**

<b>S.No</b>	<b>PROGRAMME</b>
<b>1</b>	Technical Talk on “Basics of Space Mechanics” - 25.09.2018
<b>2</b>	Technical Seminar on ‘Evolution of Avionics’ - 28.09.2018
<b>3</b>	Guest Lecture on “Aero Thermodynamics” - 03.10.2018
<b>4</b>	Guest Lecture on ‘Mechanics of Materials’ - 04.10.2018
<b>5</b>	Seminar on “Development of Gas Turbines and UAVs” - 09.11.2018
<b>6</b>	Students Association “PYXIS” Inauguration - 09.11.2018
<b>7</b>	Basic Awareness Course on Aerospace by COE, VTU, GOK - 16.11.2018
<b>8</b>	Guest Lecture on “Composite Materials” - 06.03.2019
<b>9</b>	Seminar on “System Tool Kit Software” - 19.03.2019



Technical Talk on “Basics of Space Mechanics”



Technical Seminar on ‘Evolution of Avionics



Guest Lecture on “Aero Thermodynamics”





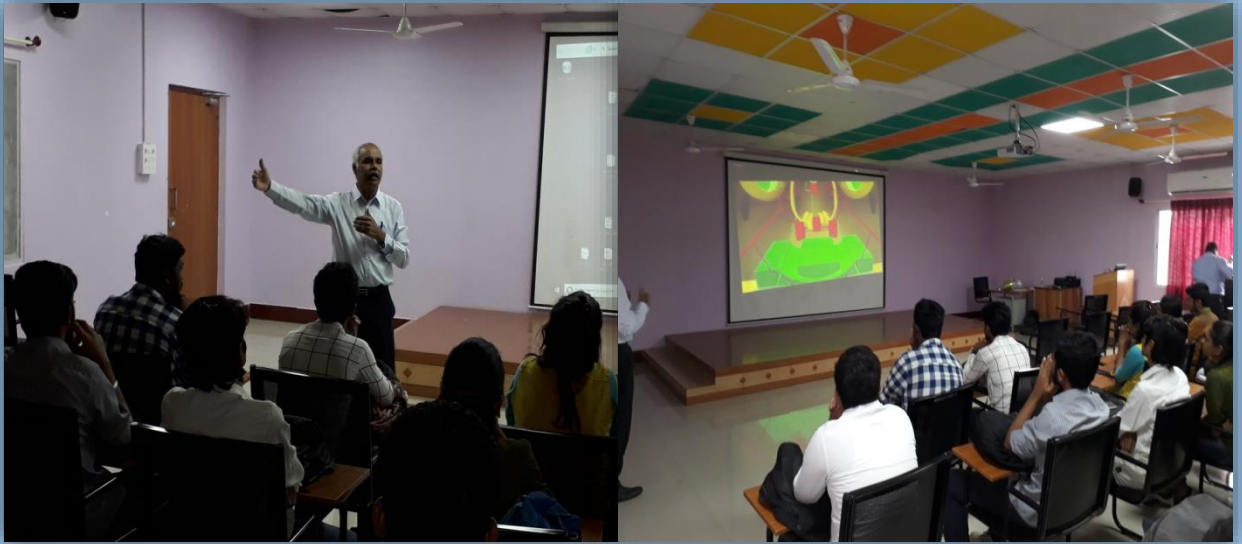
Guest Lecture on “Mechanics of Materials”



Seminar on “Development of Gas Turbines and UAVs”



Students Association “PYXIS” Inauguration



Basic Awareness Course on Aerospace



Guest Lecture on "Composite Materials"



Seminar on "System Tool Kit Software"

## STUDENT PROJECT WORK

S.No	PROJECT DETAILS
1	Ice accretion analysis and De-icing on a Aircraft/UAV
2	Ice accretion analysis and De-icing on a Helicopter
3	Calculation of calorific values for different solid shapes and combination of propellants
4	Small UAV design and development
5	Airfoil/ wing shape optimization for Defense UAV
6	Ionospheric Studies using GNSS data
7	Prediction of ice accretion in aircraft by using surrogate model.
8	Preparation of composite materials for aerospace applications.

## CO-CURRICULAR AND EXTRA-CURRICULAR ACTIVITIES

S.No	AWARDS AND ACHIEVEMENTS
1	Achieved runner-up position in basketball competition (Boys) in chairman's Trophy at ACSCE.
2	Achieved runner-up position in basketball competition (Girls) in chairman's Trophy at ACSCE.
3	Achieved runner-up position in VTU football tournament held in RNS institute of technology.
4	Prize won in the IDEA competition held at NEC college, kovilpatti.



## INDUSTRIAL VISIT, IN-PLANT TRAINING & INTERNSHIPS

S.No	PROGRAMME
1	HAL Museum Visit on 9.08.2018
2	Aerospace and Defense Manufacturing Show visit on 9.08.2018
3	Airforce Technical College, Bangalore Visit on 11.10.2018
4	UR Rao Satellite Centre (ISRO) Visit on 28.11.2018
5	Aero India 2019 Visit on 23.2.2019
6	Nimisys and Arunodaya Enterprises, Bangalore Visit on 2.3.2019
7	IISC Visit on 23.03.2019



HAL Museum Visit



Aerospace and Defense Manufacturing Show Visit



Air force Technical College, Bangalore Visit



UR Rao Satellite Centre (ISRO) Visit





Aero India 2019 Visit



Nimisys and Arunodaya Enterprises, Bangalore Industrial Visit



IISC Visit




## STAFF ACHIEVEMENT

S.No	PROGRAMME/PUBLICATIONS/PRESENTATIONS
1	R.Mukesh, Associate professor, has published a paper titled “Prediction of Ionospheric Vertical Total Electron Content from GPS data using Ordinary Kriging-based Surrogate Model”, in Astrophysics and Space Science Journal. 1, 2019.
2	R.Mukesh, Associate professor, has presented a paper titled “Performance Analysis of NACA 2411 Ice accreted original and optimized airfoils” In: Proceedings of ICMMM 2019, Bannari Amman Institute of Technology, Sathyamangalam, India, March-2019
3	R.Mukesh, Associate professor, has presented a paper titled “Performance Analysis of IRNSS and TEC Prediction using Surrogate Model” In: Proceedings of ICETMR 2019, National University of Singapore, April 2019.
4	C.Sushmitha , Assistant professor, has published a paper on “Gas Turbine Blade Cooling Techniques” in ICAAMM.

## MEMBERSHIP OF PROFESSIONAL BODIES

S.No	PROGRAMME
1	Dr. R. Mukesh, Associate Professor is a member of IEEE, SAE and RAS

## CLASS TOPPERS

BATCH	I RANK	II RANK	III RANK
III SEMESTER			
2017 – 2018			
IV SEMESTER			
2017 – 2018			

## OUR RECRUITERS

