



# ACS COLLEGE OF ENGINEERING BENGALURU

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

## DEPARTMENT OF AERONAUTICAL ENGINEERING

# NEWSLETTER

FLIGHT – 3, TAKE OFF – 1

2018-2019



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Moogambigai Charitable & Educational Trust

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Rajarajeswari Group of Institutions

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ACS College of Engineering

### Chief Editor

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Department of Aeronautical Engineering

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Rajarajeswari Group of Institutions

**Dr. S. Jayabalan**

Special Officer  
Rajarajeswari Group of Institutions

### Editors

**Dr. G. Ramanan**

Associate Professor  
Department of Aeronautical Engineering

**Mr. Arun A K**

Assistant Professor  
Department of Aeronautical Engineering

## ABOUT AERONAUTICAL DEPARTMENT

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

## COURSES OFFERED

### B.E – AERONAUTICAL 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 Aeronautical Engineering was established in year 2010 with under Graduate Course in Bachelor of Engineering in Aeronautical Engineering under VTU, Belgaum. The course is approved by AICTE, New Delhi and two batches have been graduated successfully. In 2018, We established Post-graduate course in Master of Technology in Aeronautical Engineering under VTU, Belgaum.



## FACULTY DETAILS

PARTICULARS	QUANTITY
TEACHING FACULTY	12
NON TEACHING FACULTY	3
COMPLETED Ph. D	3
PURSUING Ph. D	3
M.E/M.TECH/M.S	6

## STUDENT DETAILS

PARTICULARS	QUANTITY
I – YEAR	56
II – YEAR	60
III – YEAR	49
IV - YEAR	33
Total	198

### 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



Hands on training on piston and jet engine

## LABORATORIES DETAILS



Mechanical measurements & Metrology Lab



Machine Shop Lab



Design, Modeling & Analysis Lab



Simulation Lab



Foundry & Forging Lab








Metallography & Material Testing Lab

**MEMORANDUM OF UNDERSTANDING SIGNED BY  
THE DEPARTMENT**

S.No	Organization	Research details
1	SAC,ISRO	IRNSS Receiver Deployment in ACSCE Campus for Field Trail. Two Receivers worth 24 lakhs INR
2	Sukra Helitek	CFD Analysis and training
3	GLOINNT Solutions	Student projects, workshops and FDP's
4	Valles Marineris	Student projects, workshops and FDP's
5	Aerojet Aviation	Design and Career Guidance
6	Aerolus Aero Tech Pvt Ltd	Design and Modelling

UNIVERSITY TOPPERS


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#207, Kambipura, Mysore Road, Bangalore - 560 074


*Congratulations*

DEPARTMENT OF AERONAUTICAL ENGINEERING

**VTU 4<sup>th</sup> RANK - 2019**



**Name : NAVEEN V**  
**USN: 1AH15AE026**  
**Batch : 2015 to 2019**  
**Position : VTU 4<sup>th</sup> RANK**



## PROGRAMME ORGANIZED IN THE DEPARTMENT

S.No	PROGRAMME
1	3D Printing on 6/8/18 by Venkatram P S, Accelary Aerospace
2	Satellite operations on 7/8/18 by Dr.Nagarajan, Professor, NTU Singapore
3	Applications of CFD on 8/8/18 by Nithin, DHIO Centre of Excellence
4	Aero-modelling workshop on 11/8/18 by Madhan M, Product designer, Fins N Feathers
5	Airport Operations on 18/9/18 by Bhargava Ramana, CEO Maruthsakha Aerospace
6	Pilot Programme on 5/10/18 by Ken Mischki-Pilot, Former flying school owner Canada
7	Kalam Day on 15/10/18 by Prof.Rajaram Nagappa, Professor at National Institute Of Advanced Studies
8	Leo cube satellite on 30/10/18 by Prateek Mishra, CEO, CTO, RILE labs
9	HAL and Defence expo visit-Bengaluru on 10/8/18
10	Indian Technology Congress- Student Satellite program on 5/9/18
11	Space expo visit-Bengaluru on 6/9/18





**Aero-modelling workshop**



**Seminar on Airport Operations**



**Guest Lecture on Satellite operations**



**Guest Lecture on Applications of CFD**



**Orientation programme on Pilot training**



**Workshop on Leo cube satellite**



**Celebration of Kalam's Day**



**HAL and Defence expo visit-Bengaluru**



Indian Technology Congress- Student Satellite program





Space expo visit-Bengaluru

## STUDENT PROJECT WORK

S.No	PROGRAMME
1	Nine projects were undertaken by Final year students in the academic year 2018-19
2	Three Students (Aman Prakash , Ansab Peter, Suraj K A) completed with a project work titled "Estimation and optimization of base drag for a subsonic missile configuration using CFD" at Aeronautical Development Establishment(ADE), DRDO, Bangalore

## INDUSTRIAL VISIT, IN-PLANT TRAINING & INTERNSHIPS

S.No	PROGRAMME	Logo
1	Fourth Year students had an opportunity of visiting HAL and Defence expo visit-Bengaluru on 10/8/18. Second Year students had an opportunity of visiting Space expo visit on 6/9/18.	
2	Three Students (Aman Prakash , Ansab Peter, Suraj K A) have undergone a internship at ADE,DRDO,Bangalore.	
3	Nine Students (Babu.B, Dhanush.M.J, Manasa.M, Keshav.S, Rajeswari.R, Siddesh.M.G, Sanjay.B.M, Manish.S, Vaishak Vijay) have undergone an Internship Training at HAL, Bangalore	
4	Six Students (Deekshitha.S,Rachana Patankar,,Vivek Rajbhar, Sushma.H.P,Vipul Agarwal,Navjot Singh) have undergone a Internship at AMSI Technologies, Bangalore	
5	Five Students (Abhishek.L.C,Deeksha.D,Nandan.G.A,Geeta.V, Srinatha.V) have undergone a Internship at Tech Fortune Technologies, Bangalore	
6	Four Students (Kavya.M.S, Naveen.V,Sai Kiran.A.T,Swmdwn.B) have undergone a Internship at Fluid Mech Solutions Pvt Ltd, Bangalore	
7	Four Student (Kokila.B.S, M.Theja,Prajwal.S,Vaibhav bharadwaj) have undergone a Internship at COE- A&D, Bangalore	

## CO-CURRICULAR AND EXTRA-CURRICULAR ACTIVITIES

S.No	Name of the student	Event Name	Prize
1	Narendra Syed Shabaaz	KSTA Project Exhibition on 10-10-2018	2 <sup>nd</sup> Prize
2	Syed Shabaaz Narendra	ACSTRONIX-2018, ACSCE(Mini project) on 5-10-2018	1 <sup>st</sup> Prize
3	Narendra Syed Shabaaz	SYNC-CARDIAE , ACSCE(Mini project) on 29-10-2018	1 <sup>st</sup> Prize
4	Narendra	Technomania-2K18, ACSCE(Quiz) on 29-9-2018	3 <sup>rd</sup> Prize
5	Krupesh J	KSTA Drawing Competition on 10-10-2018	1 <sup>st</sup> Prize
6	Keshav S Rajeshwari R Nandan G A	NIT WARANGAL (RC plane and quad copter) on 28/9/18-30/9/18	1 <sup>st</sup> Prize
7	Keshav S Rajeshwari R Suraj Nandan G A	NIT Surathkal (RC plane and quad copter) on 11/9/18	1 <sup>st</sup> Prize
8	Keshav S Rajeshwari R Nandan G A	Manipal University (RC plane and quad copter) on 18/9/18	1 <sup>st</sup> Prize
9	Suraj Aman Prakash	Manipal University (RC plane and quad copter) on 3/10/18-6/10/18	3 <sup>rd</sup> Prize
10	Rajeshwari R, Keshav S & Suraj, Aman Prakash	Sahyadri College Mangalore (RC plane and quadcopter) on 26/01/18	1 <sup>st</sup> Prize & 3 <sup>rd</sup> Prize



**KSTA Project Exhibition**



**RC plane and quad copter Competition @ Sahyadri College Mangalore**







## STAFF ACHIEVEMENTS






S.No	PROGRAMME
1	Dr. G. Ramanan Published a research paper entitled "Characterization, wear surface roughness and tensile failure analysis of Al7075-TiC-MoS <sub>2</sub> hybrid composites using online acoustic emission" in the journal of <i>Materials Research Express</i> , Vol.6, Issue 6 (2019) 066544 (SCI Journal)
2	Dr. G. Ramanan Published a research paper entitled "Multi-objective optimisation of transesterified Jatropha curcas oil using response surface methodology and grey relational analysis", <i>International Journal of Ambient Energy</i> , Article in Press, 2019 (Taylor & Francis).
3	Dr. G. Ramanan Published a research paper entitled "Computational Analysis of Blended Winglet Model Performance by Varying Cant Angle", <i>Journal of Computational and Theoretical Nanoscience</i> , Vol. 16, No.2, pp. 467-471 (2019).
4	Dr. G. Ramanan Published a research paper entitled "Prediction of Responses in FSW Processed Hybrid Composites Using Soft Computing Technique" <i>Journal of Computational and Theoretical Nanoscience</i> , Vol. 16, No.2, pp. 463-466 (2019).
5	Mr.Albert Allen D Mello, Dr.G. Ramanan and Mr.Dhanaya Prakash R Babu, published a research paper "Effect of Carbon Nanotube Layers on Change in Mechanical Characteristic of E-Glass Fiber Reinforced Epoxy Composite" <i>International Journal of Innovative Technology and Exploring Engineering</i> , Volume-8 Issue-4, pp.35-40, February 2019.
6	Dr. G. Ramanan and prof.R Elangovan published a research article title "Parametric Optimization of Wire Cut Electrical Discharge Machining on Al-9% PAC Composites using Desirability Approach" <i>International Journal of Vehicle Structures &amp; Systems</i> , 10(6), 2018, 467-470.
7	Dr. G. Ramanan, presented a paper titled "Intelligent particle swarm optimization for quality machining in advanced manufacturing process" in the International Conference on Advances in Materials and Manufacturing Applications (IConAMMA 2018), Amrita College of Engineering, Bangalore, India, 16 <sup>th</sup> Aug 2018.
8	Dr.G. Ramanan presented a paper titled "Influence of Nanoparticles on Mechanical and Thermal Characterization of Hybrid Fiber Reinforced Polyester Composites" in the International Conference on Advances in Materials and Manufacturing Applications (IConAMMA 2018), Amrita College of Engineering, Bangalore, India, 16 <sup>th</sup> Aug 2018.

## STUDENT PROJECT DETAILS

Batc hNo	Title	Guide
1	Optimization of landing gear lug attachment in an airframe	Mr.Dhanya Prakash R Babu
2	Estimation and optimization of base drag for a subsonic missile configuration using CFD	Prof.R.R Elangovan
3	Fabrication and characterization of Al7075-B4C-Nano Ag hybrid composite for Aerospace applications	Dr.G.Ramanan
4	Mechanical and Metallurgical Characterization of Aluminium based Alloy	Mr.Albert allen D Mello
5	Payload drop mechanism using UAV for Research and Rescue	Mr.Dhanya Prakash R Babu
6	Aerodynamic analysis of different airfoils for helicopter blades	Mr.M.Inamul Hasan
7	CFD analysis of flow over bullet body in different Mechanism	Mr.H.M.Ranjan
8	Aerodynamic performance analysis of Ice accreted NACA 2411 original and optimized airfoils	Mr.M.Inamul Hasan
9	Modeling and FEA analysis of composite fuselage structure	Mr.P.Radha Krishnan

## CLASS TOPPERS

BATCH	I RANK	II RANK	III RANK
<b>III SEMESTER</b>			
2017 – 2021			
	Shilpashree.H.G – 85%	Niveditha.R– 84%	Narendra.N – 82%
	<b>V SEMESTER</b>		
2016 – 2020			
	Priyanka -79%	Sushmitha s katti– 79%	Iynesh durai-75%
	<b>VII SEMESTER</b>		
2015– 2019			
	Naveen– 89%	Theja.M– 84%	Kavya.M.S – 81%

BATCH	I RANK	II RANK	III RANK
<b>IVSEMESTER</b>			
2018 – 2022			
	Niveditha.R– 88%	Narendra.N – 82%	Nandeesh– 82%
	<b>VI SEMESTER</b>		
2017 – 2021			
	Sushmitha S Katti– 83%	Raksha.G – 81%	Priyanka 80%
	<b>VIII SEMESTER</b>		
2016– 2020			
	Naveen– 92%	Kavya.M.S – 87%	Suraj K.A -87%

## MEMBERSHIP OF PROFESSIONAL BODIES

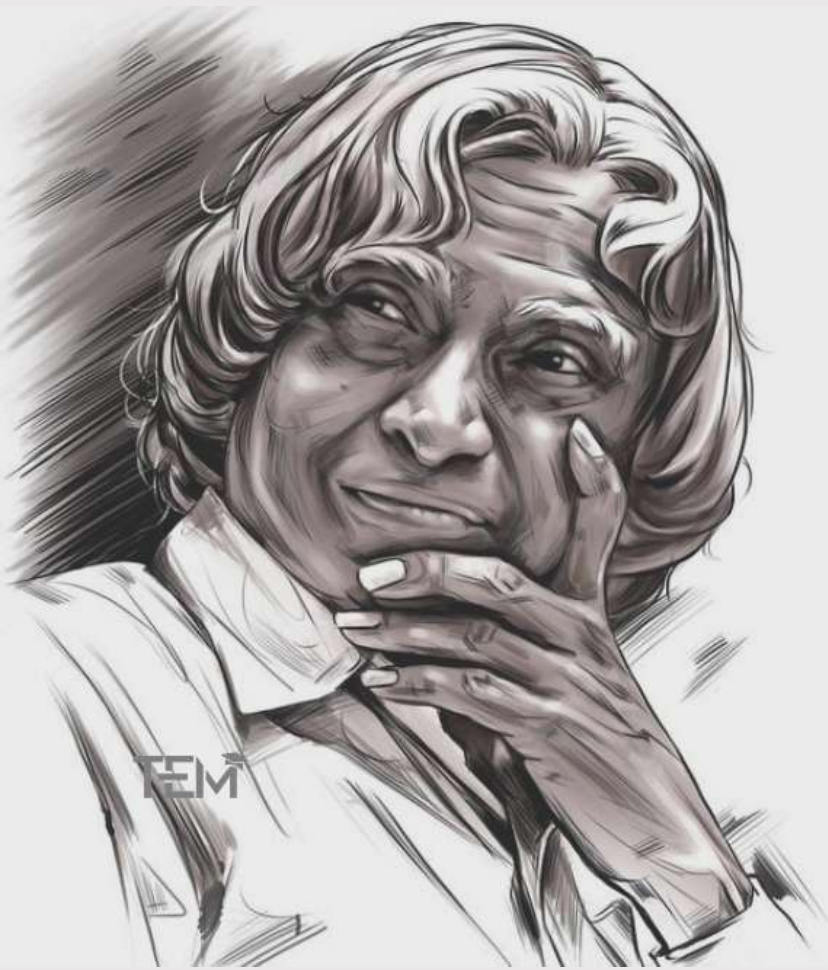
S.No	PROGRAMME
1	Mr. R. R. Elangovan, Professor & Head is the Life Time member of AeSI
2	Mr. Dhanya Praksh R.B , Associate professor is a member of AeSI and MISTE
3	Dr.G.Ramanan, Associate Professor is a member of American Institute of Aeronautics and astronautics (AIAA)
4	Mr. Inamul Hasan M, Assistant Professor is a member of IE(I).
5	Mr. Radha Krishnan P, Assistant Professor is a member of IE(I).

## PLACEMENT

Our students are placed in Safran, Capgemini, TCS, Intel, Wipro, Mindtree, HCL, etc. Some of the students are Entrepreneur and some of them are doing their Higher studies.

## OUR RECRUITERS





**You should not  
give up and we  
should not allow  
the problem to  
defeat us.**

”

**Dr.A.P.J.Kalam**