







# EXCEL ENGINEERING COLLEGE

(Autonomous)  
KOMARAPALAYM-637303

## DEPARTMENT OF AERONAUTICAL ENGINEERING ARHAKRZ 2K21- 22 NEWSLETTER

VOLUME I ISSUE 1		CHAIRMAN'S MESSAGE	VICE-CHAIRMAN'S MESSAGE	PRINCIPAL'S MESSAGE																										
VISION																														
MISSION		<p>Aeronautical Engineering is one of the prime branches of engineering that deals with the study and development of new technology in the field of Aviation, Space exploration and in defense. This branch include the study of testing, Designing, Construction, maintenance of commercial aircraft, spacecraft and missiles well as their components.</p>	<p>Department of Aeronautical Engineering has always brought pride to our institution. I congratulate the aero department releasing the Arhakrz newsletter for this month and I encourage the student s to work towards excellence, to gain more knowledge and to learn about the latest developments in the field of aeronautics</p>	<p>My heartiest congratulation to the department of aeronautical engineering, for publishing the department newsletter portraying the academic activities of the department. In the area of outcome based education, empowering the students is the trust area to be addressed in the professional institution. I earnestly wish that this new publication turns out to be a resounding success</p>																										
<p>To empower the student s subject knowledge of Aeronautical Engineering for serving the society in a challenging global environment</p>	<p>To provide the quality technical education in tune with challenges.</p> <p>To offer latest technological development in the field of aero engineering.</p> <p>To integrate the intellectual, spiritual, ethical and social development of the students for becoming dynamic Aeronautical engineers.</p> <p>To initiate desires for under taking entrepreneurship and lifelong learning.</p>	<p>Dr. A. K. NATESAN Ph.D., MBA., M. Phil.,</p>	<p>Dr. N. MATHAN KARTHIK M.B.B.S., M. H. Sc.,</p>	<p>Dr. K. BOMMANNA RAJA Ph.D.,</p>																										
<p>Aeronautical engineering is a fascinating and high technology discipline more then 100 years old, requiring much more contribution from engineers and scientist to broaden its scope and application to develop next generation hypersonic aircraft, reusable space craft, launch vehicles etc., my best wishes and greetings to all the students who are aspiring to become aeronautical engineers and take India to the for front of developed nations.</p>		<table><tr><th>NEWS</th><th>NO</th></tr><tr><td>DEPARTMENT NEWS</td><td>2</td></tr><tr><td>AWARDS</td><td>6</td></tr><tr><td>IV/INPLANT TRAINING</td><td>7</td></tr><tr><td>TRAINING &amp; PLACEMENT</td><td>9</td></tr><tr><td>STUDENT PAGE</td><td>11</td></tr><tr><td>STUDENT FACILITIES</td><td>13</td></tr><tr><td>TOPPER</td><td>14</td></tr><tr><td>AERO GOVERNANCE</td><td>15</td></tr><tr><td>FACULTY</td><td>16</td></tr><tr><td>OVERVIEW</td><td>18</td></tr><tr><td>READING PAGE</td><td>19</td></tr><tr><td>FUN NEWS</td><td>20</td></tr></table>			NEWS	NO	DEPARTMENT NEWS	2	AWARDS	6	IV/INPLANT TRAINING	7	TRAINING & PLACEMENT	9	STUDENT PAGE	11	STUDENT FACILITIES	13	TOPPER	14	AERO GOVERNANCE	15	FACULTY	16	OVERVIEW	18	READING PAGE	19	FUN NEWS	20
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<p><b>Dr. S. P. VENKATESAN, Ph.D.,</b> <b>Head of the Department</b></p> 																														

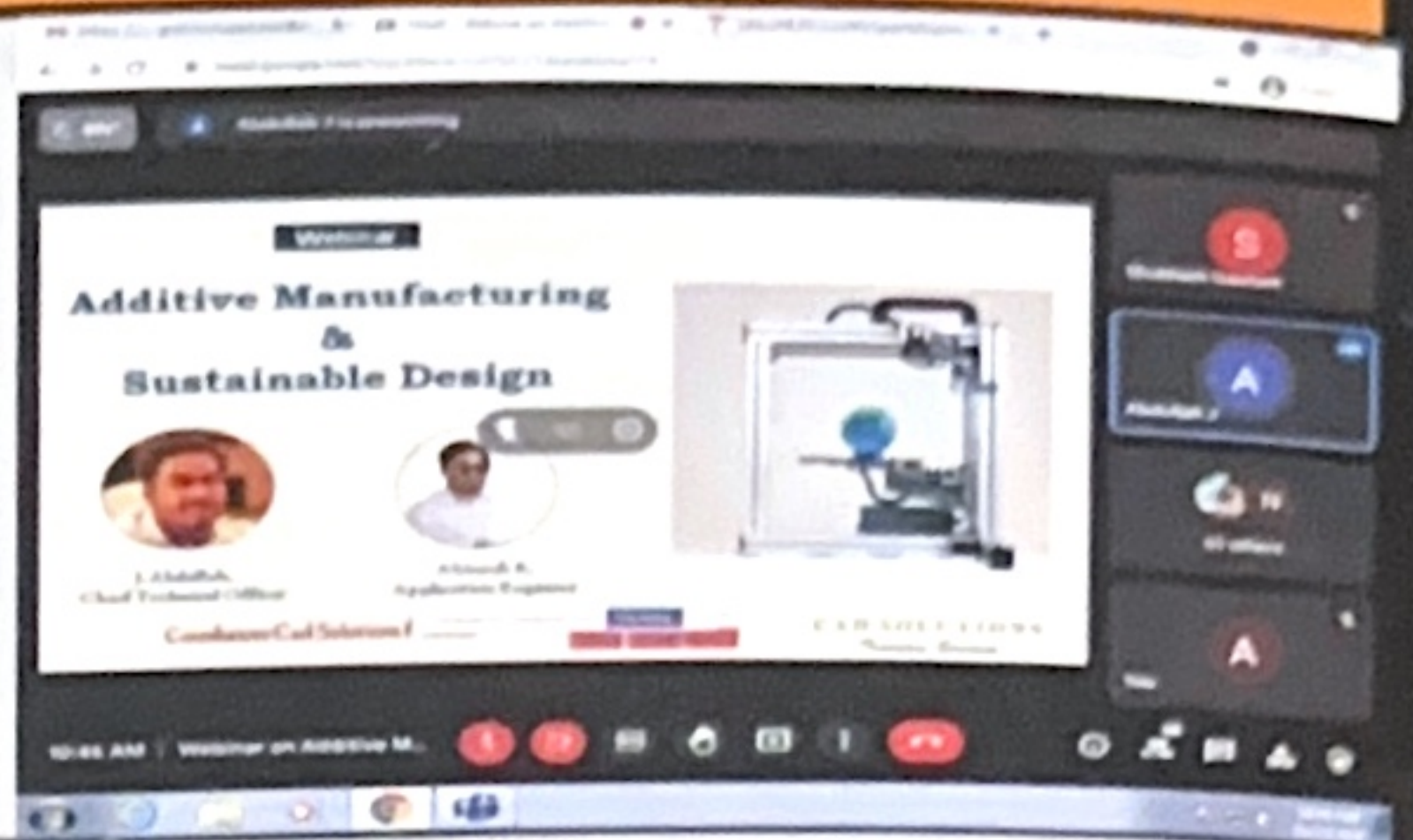


## DEPARTMENT NEWS

The Department of Aeronautical Engineering has conducted a webinar on "Additive manufacturing and sustainability" on 13/11/2021 in online mode.

**Chief Guest:** Mr.J.Abdullah  
chief technical officer  
Coimbatore Cad solutions Pvt.Ltd.

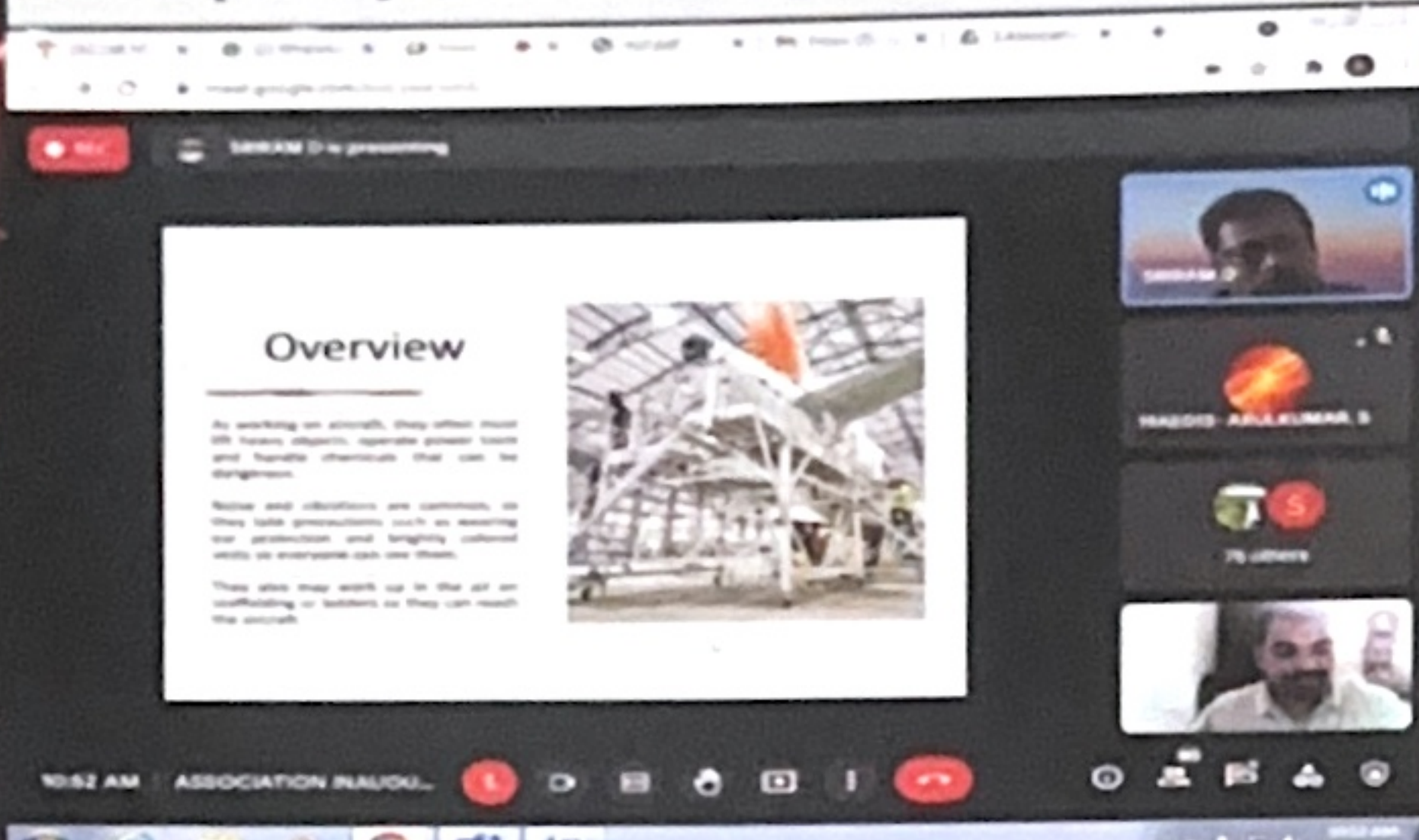
**No. of participants:** 70



Workshop on "Health and safety issues in Aircraft Maintenance Engineering" has Conducted on 09/10/2021 in online mode.

**Chief Guest:** Senior Software engineer,  
TATA Advanced systems limited,  
Bangalore.

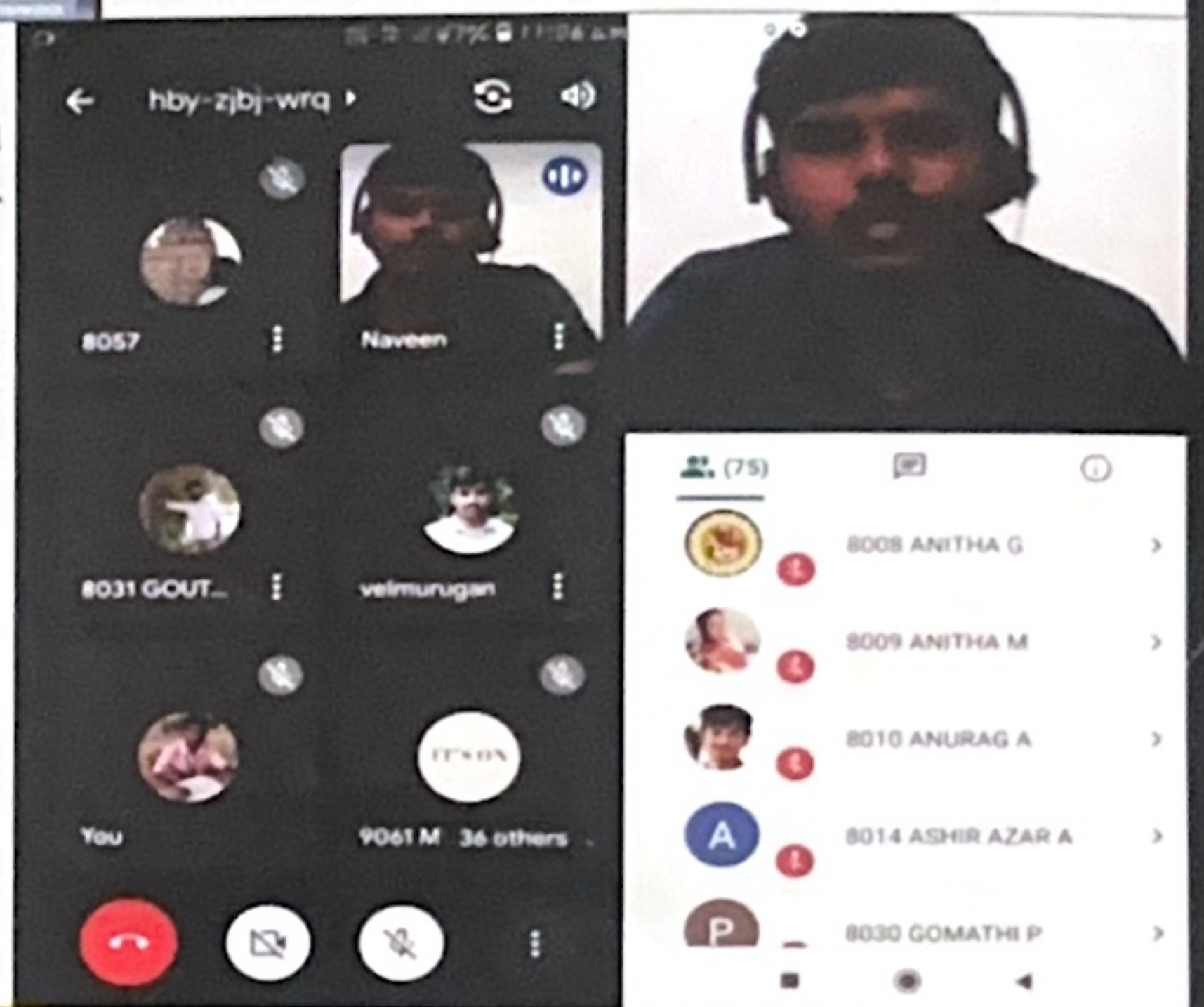
**No. of participants:** 112



Seminar on "Importance of innovation and research publications" has organized for Aeronautical students on 18/09/2021 in online mode

**Chief Guest:** Mr.Naveen Eswaramoorthy  
Mechanical Engineer (Onesubsea)  
Cameron Manufacturing India Pvt.Ltd  
Coimbatore.

**No. of participants:** 75



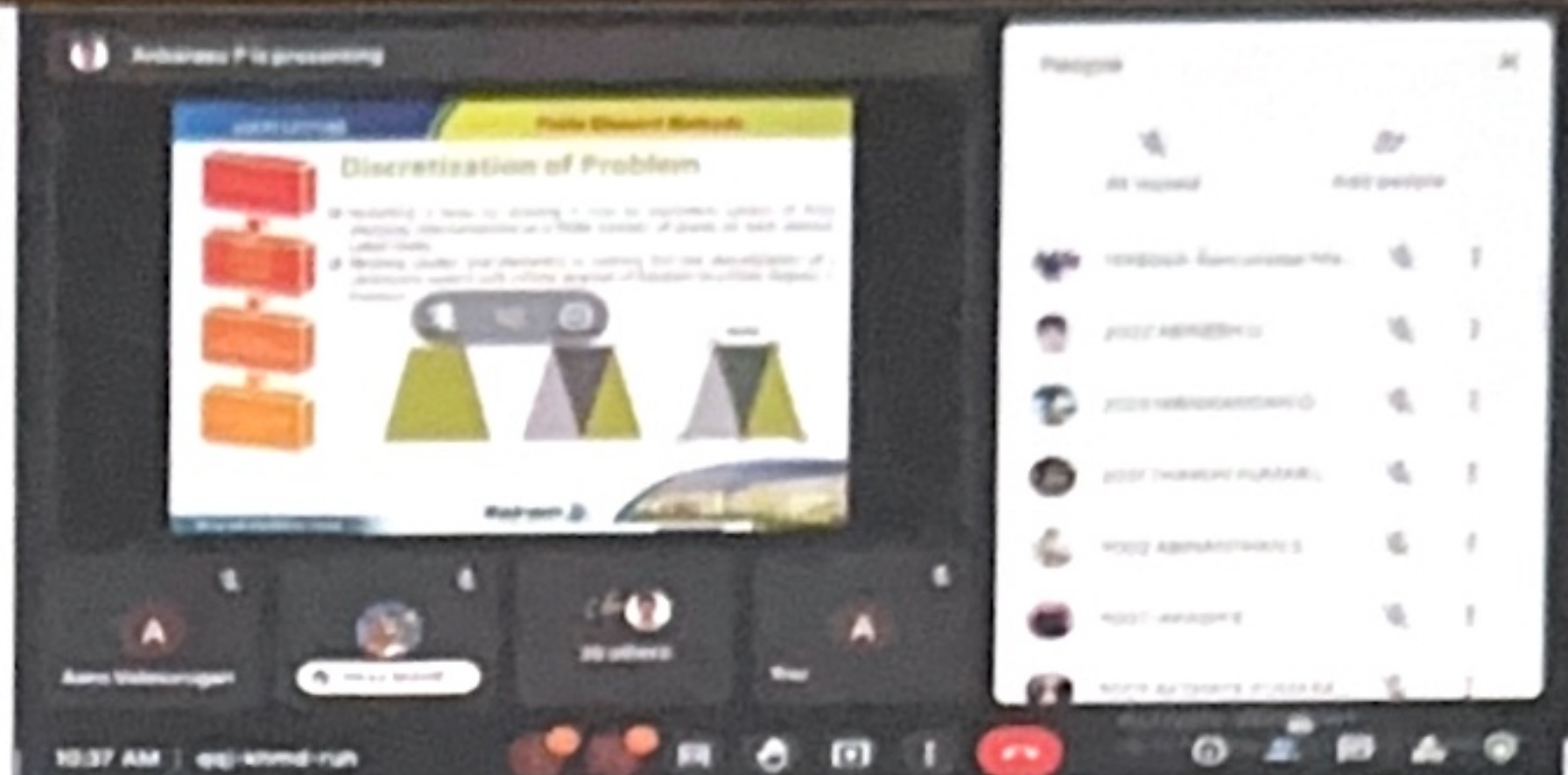


## DEPARTMENT & ASSOCIATION NEWS

A Guest lecture has conducted on **"Finite Element Methods"** for III year students on 07.05.2022 at Google Platform at 10am

**Chief Guest :** Prof. P. Anbarasu,  
Sri Sai Ram Engineering College, Chennai.

**No of participants : 80**



A Guest lecture has conducted the topic of **"Scope And Opportunities in Indian Aerospace Sector"** for III year students on 02.04.2022 at Google Platform at 10am

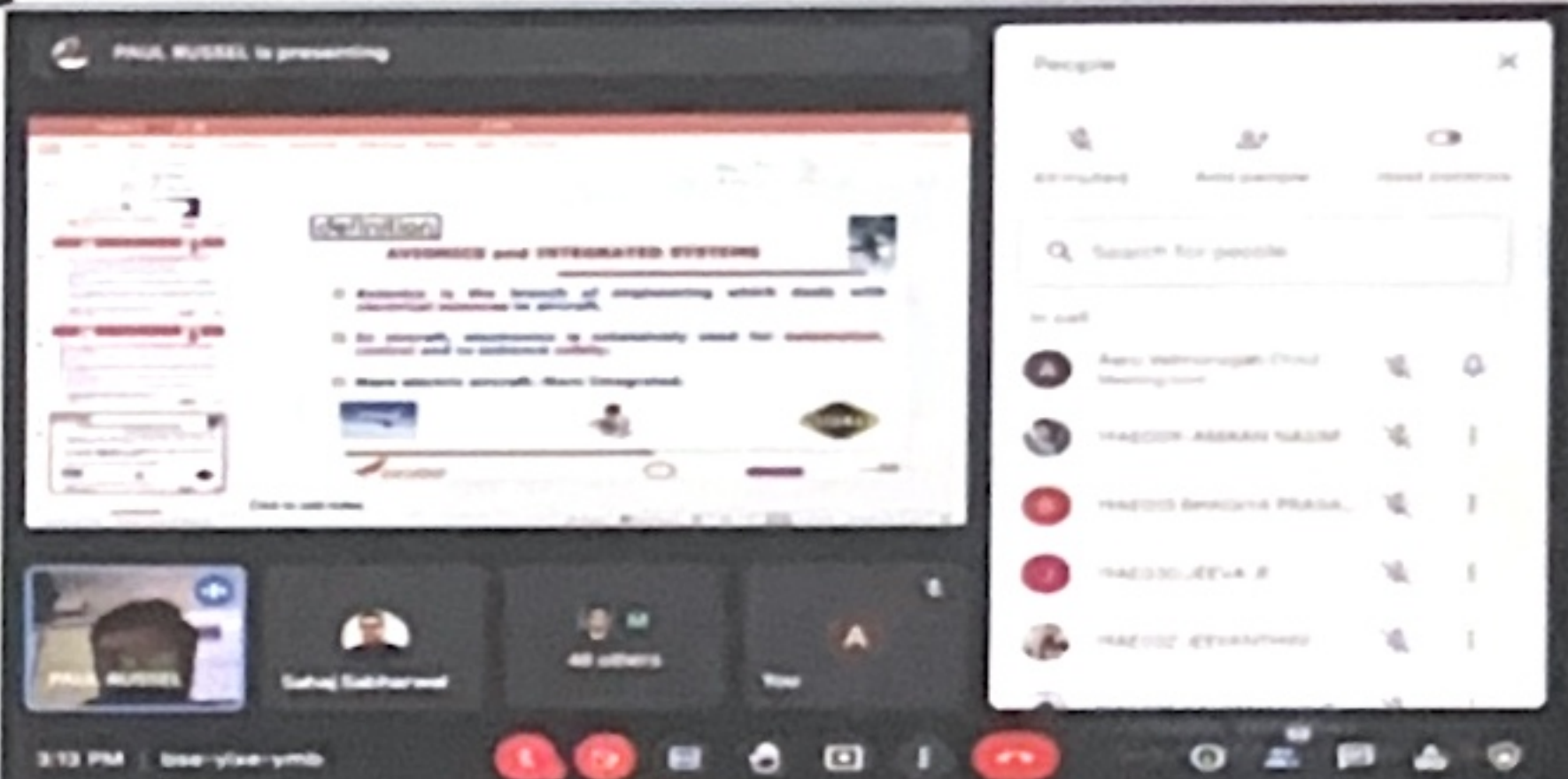
**Chief Guest:** Mr. Yogesh Ramaswamy,  
Project Manager, Calidus Land Systems,  
Abu Dhabi, UAE.

**No of participants : 78**

A Guest lecture has conducted the topic of **"Aircraft Systems And Avionics"** for Final year students on 17.12.2021 at Google Platform at 10am

**Chief Guest:** Dr. U. S. Paul Russel,  
General And Training Manager, Air India Engineering  
Service Ltd., Mumbai.

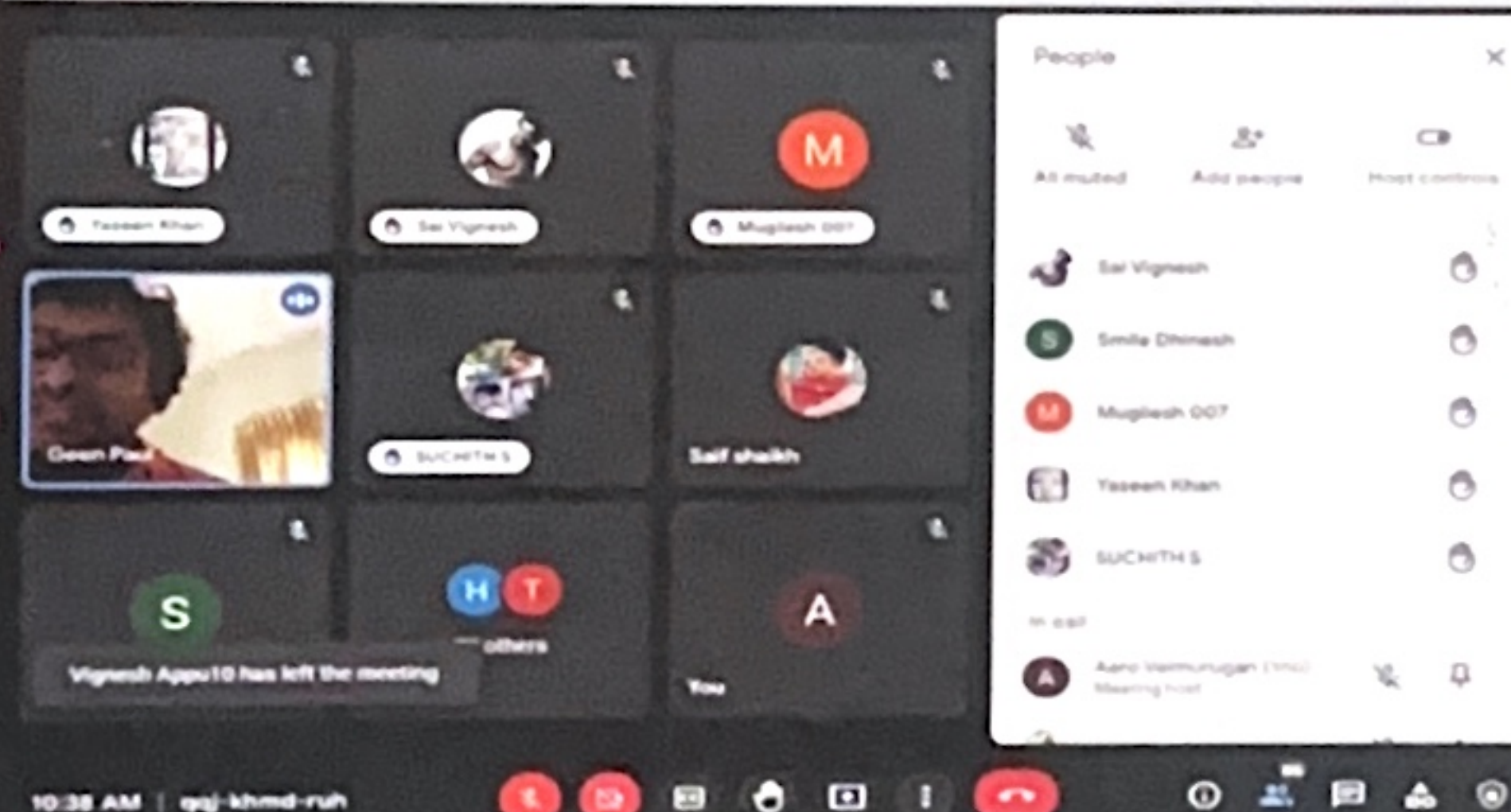
**No of participants : 101**



**"Career Opportunities in Aircraft Industry"** Seminar was conducted for our students on 04.12.2021 at Google Platform.

**Chief Guest:** Mr. Geen Paul,  
Senior aerodynamicist, Mercedes-Benz India Pvt.  
Ltd., Bangalore.

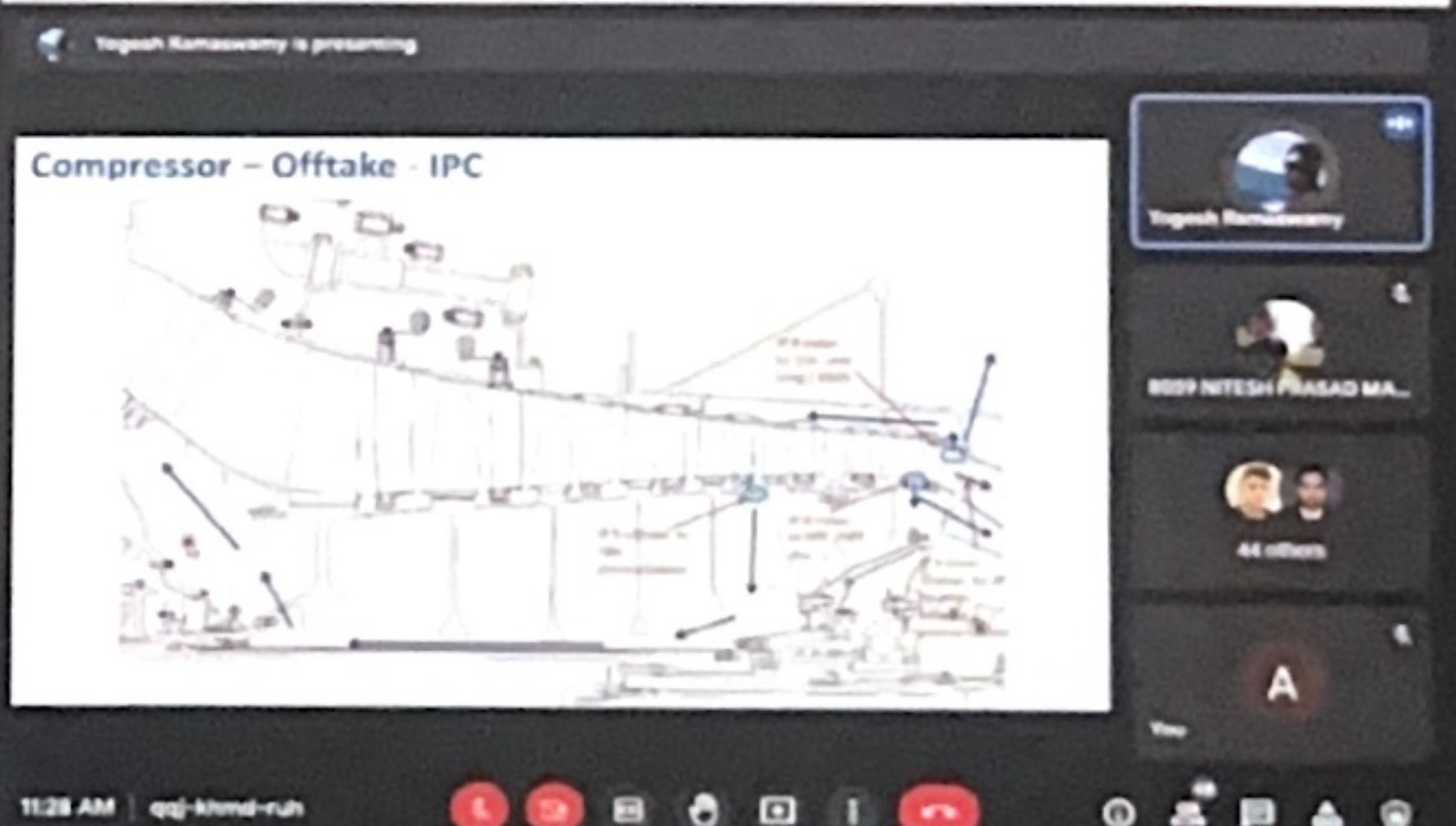
**No of participants : 102**



A Guest lecture has conducted the topic of **"Fans And Compressor on Civil Aero Engines"** for Final year students on 26.11.2021 at Google Platform at 10am

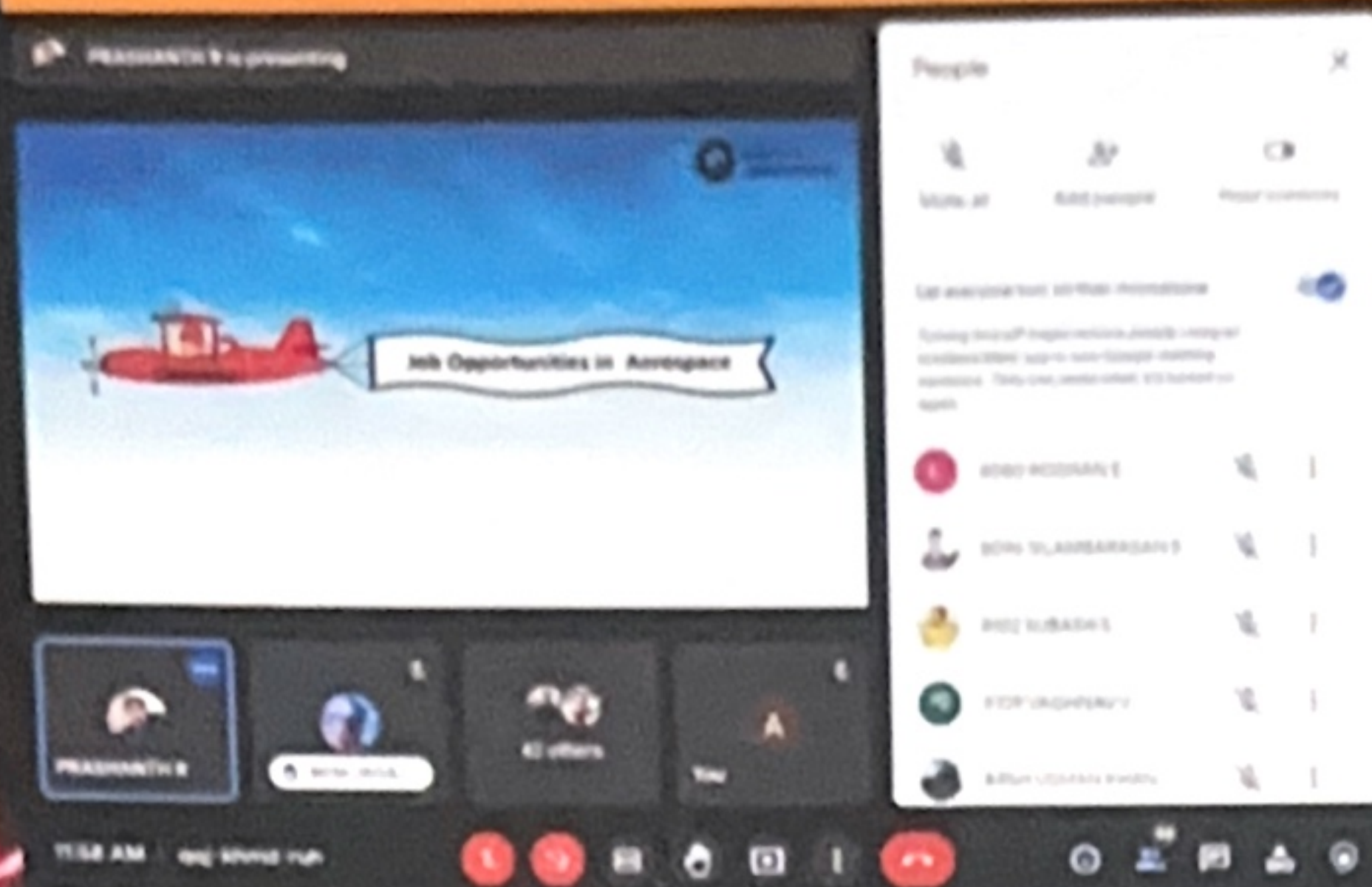
**Chief Guest:** Mr. Yogesh Ramaswamy,  
Project Manager, Calidus Land Systems, Abu Dhabi,  
UAE.

**No of participants : 101**





# DEPARTMENT & ASSOCIATION NEWS



A Guest lecture has conducted on  
**“Challenges and Opportunities in Aviation”** for II  
 year students on 20.11.2021 at Google Platform at  
 10am

**Chief Guest :** Mr. Prashanth Radhakrishnan,  
 CEO & Founder, Dautya Aerospace Pvt. Ltd., Goa.  
**No of participants : 60**

A Guest lecture has conducted on  
**“Computational Fluid Dynamics - An Approach  
 for Research”** for Final year students on 23.10.2021  
 at Google Platform at 10am

**Chief Guest :** Mr. Vineeth Tom,  
 Senior Software Engineer, TATA Advanced Systems  
 Ltd., Bangalore.  
**No of participants : 93**



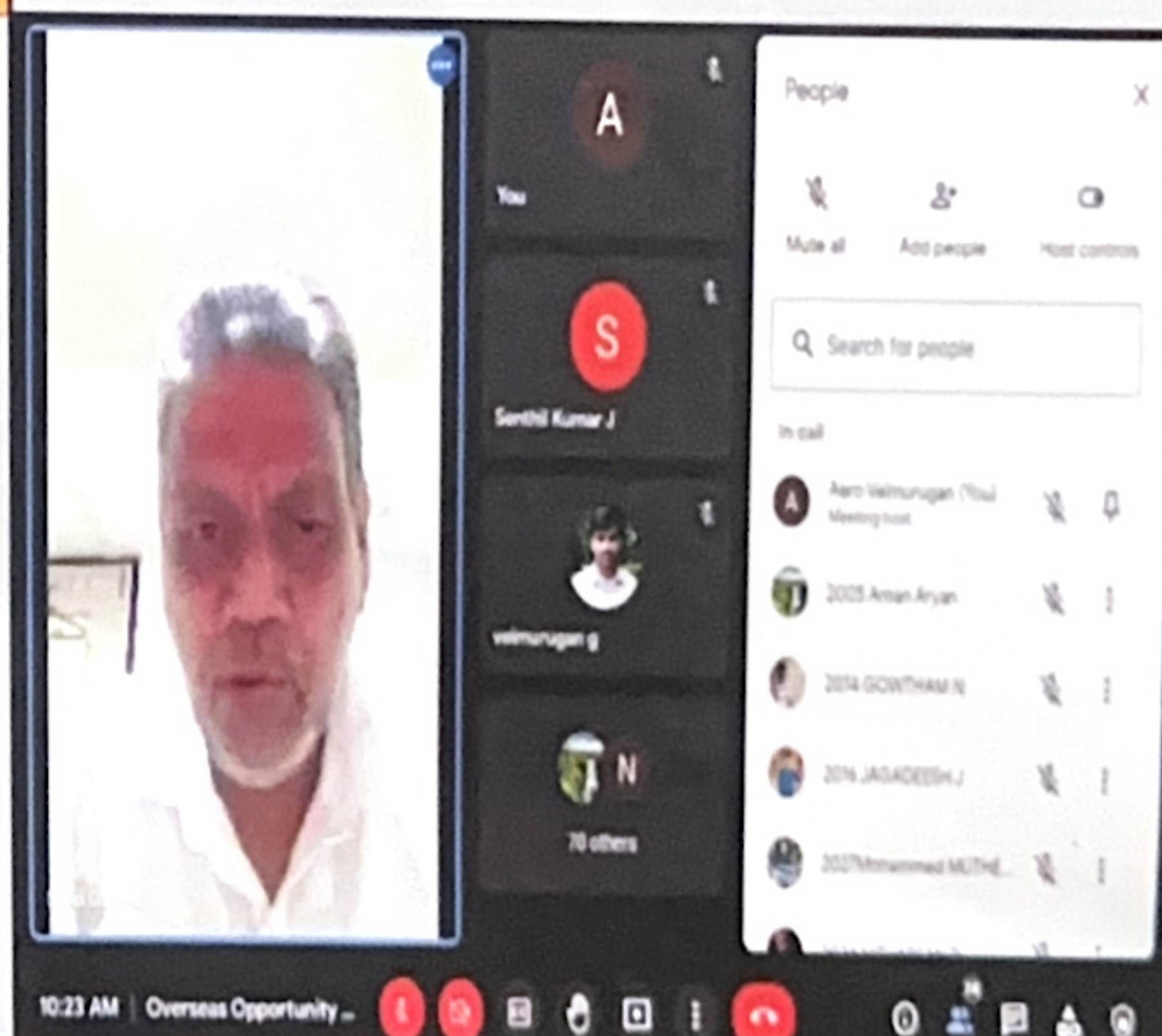
**“ARHAKRZ Association  
 Function”** was conducted for students on 09.10.2021  
 at Google Platform.

**Chief Guest :** Mr. Vineeth Tom,  
 Senior Software Engineer, TATA Advanced Systems  
 Ltd., Bangalore.  
**No of participants : 112**



**“Overseas Opportunity for Higher Studies”**  
 An Awareness Program was Conducted for student on  
 28.09.2021 at Google Platform.

**Chief Guest:** Mr. Sayed Osama,  
 Business Development Consultant, Staar United Inc.,  
 Mumbai.  
**No of participants : 74**





SL.NO	Activity organized	NO'S
1	Academic activity organized	03
2	Non- Academic activity organized	03
3	Association activities	01
4	Guest Lectures Organized	06





# Awards Received

## Best Project Award



**Concord Helmet & Safety Products Pvt. Ltd.**  
Manufacturers of Safety Helmets & Accessories

29.04.2022

### BEST PROJECT COMPLETION AWARD

This is to certify that **GOUTHAM.T** Final year AERONAUTICAL STUDENT from **EXCEL ENGINEERING COLLEGE, NAMAKKAL** has been awarded **Best Project Completion Award** for **RECYCLING OF THERMOSETTING COMPOSITE** at our Factory **CONCORD HELMET AND SAFETY PRODUCTS PVT LTD., Tiruchirappalli** from **15<sup>th</sup> March, 2022 – 5<sup>th</sup> April, 2022.**

  
Authorized signature & seal

115/6B, Devarayaneri, Asoor Post, Near Thoovakudi,  
Trichy - 620 015, Tamilnadu, INDIA.  
Cell : 97509 96430, 94448 10010 E-mail : capitd@vsnl.com, chsppi@gmail.com

## Paper Publication



**Journal of Emerging Technologies and Innovative Research**

An International Open Access Journal Peer-reviewed, Refereed Journal  
[www.jetir.org](http://www.jetir.org) | [editor@jetir.org](mailto:editor@jetir.org) An International Scholarly Indexed Journal

### **Certificate of Publication**

The Board of  
Journal of Emerging Technologies and Innovative Research (ISSN : 2349-5162)

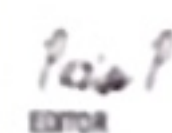
Is hereby awarding this certificate to

**Sangilipandi M**

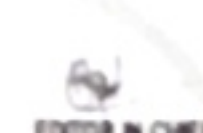
In recognition of the publication of the paper entitled  
**DESIGN AND ANALYSIS OF HYBRID ROCKET ENGINE TEST FIRE BY  
USING HONEY COMB PARAFFIN WAX**

Published In JETIR ( [www.jetir.org](http://www.jetir.org) ) ISSN UGC Approved (Journal No: 63975) & 7.95 Impact Factor

Published in Volume 9 Issue 5, May-2022 | Date of Publication: 2022-05-10

  
EDITOR

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Multidisciplinary, Monthly, Multilingual Journal Indexing in ISI, Scopus, Crossref, ResearchGate, etc.



## INDUSTRIAL VISIT / INPLANT TRAINING





## NEWS FOR IN-PLANT TRAINING

Sl. No	INDUSTRY NAME	NO. OF STUDENTS ATTENDED TRAINING
1	Air works, Hosur	02
2	Alembic Pharmaceuticals Limited, Sikkim	01
3	Amaranths Engineering Industries, Trichy	02
4	Autodesk	01
5	Barola Technologies, Chennai	08
6	Carnets, Thiuchengode	02
7	Codebind Technologies, Chennai	04
8	J&J Engineering Works, Bangalore	01
9	Jayasri CNC Technology, Hosur	01
10	Jet Aero space, Palakad	10
11	Kaashv Infotech, Chennai	11
12	Litz Tech, Coimbatore	10
13	N. Maghalingam and company, Erode	01
14	Nexgen Instruments, Erode	03
15	Preci cut Technology, Chennai	01
16	S.K Ramu Motors, Sankarapuram	02
17	Sakthi Auto components, Tirupur	03
18	Sans Innovations	05
19	Sree vasaa Printech Pvt Lmt, Tirupur	01
20	Taneja Aerospace, Krishnagiri	01
21	The creators Industries, Erode	02
22	Tuf coates, Hosur	01
23	TVS training and service, Chennai	03
24	Uniq Technologies. Chennai	22
25	Vijay Agro Pipe Industries, Salem	03



## STUDENT FACILITIES





## TOPPERS COLOUMN

### ACADEMIC ACHIEVERS IN COLLEGE LEVEL- 2021-22



SECOND YEAR

**GOWTHAM.N**



SECOND YEAR

**SUGANTHI.U**



THIRED YEAR-A

**MITHUN.M**



THIRED YEAR B

**VIVEKA.K**



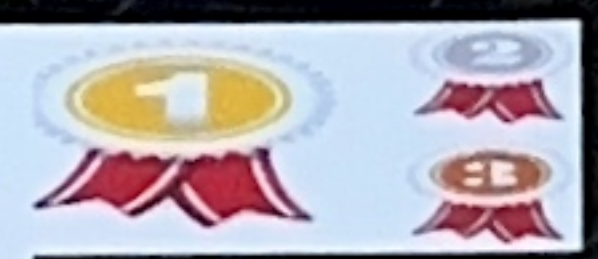
FINAL YEAR-A

**BIJAY KUMAR SHA**



FINAL YEAR-B

**SAMEER ANSARI**



### ACADEMIC ACHIEVERS IN SECTION LEVEL- 2020-21



**ISTE BEST STUDENT AWARD**

**SINDHU**

**PAVITHRA**





# AERO GOVERNANCE

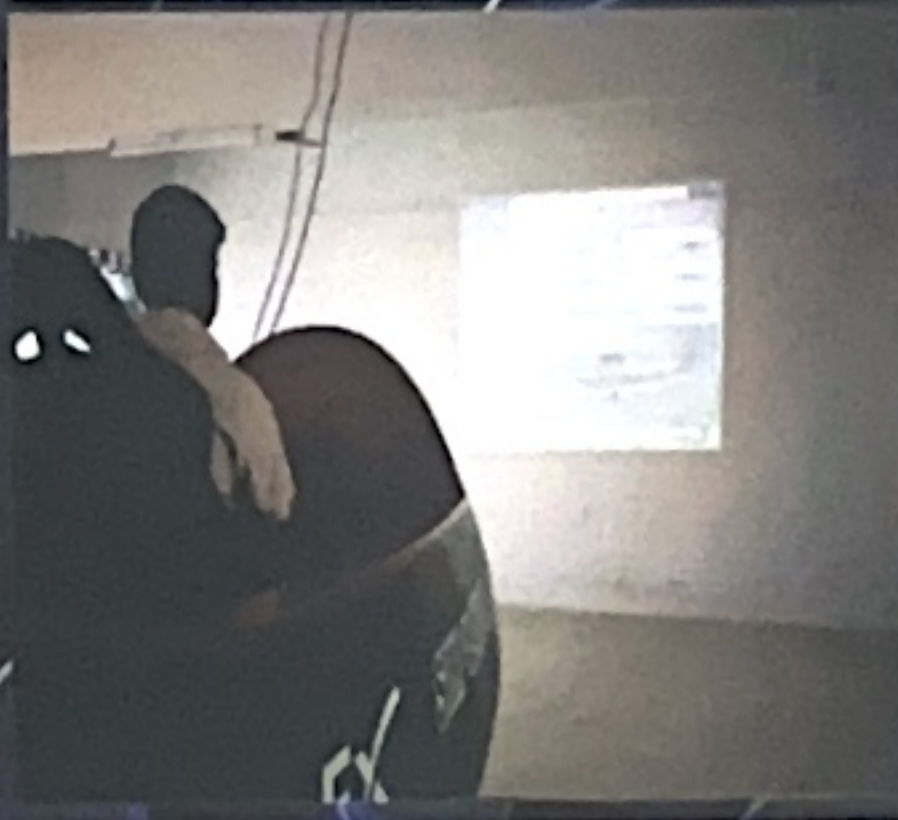
## CLASS MONITORING

Every day classes are monitored by HOD and class notes are checked thoroughly.



## LAB MONITORING

The lab hours are monitored by the HOD. The students re trained to answer the viva questions



## MENTOR HOURS

The understand the personal and academic needs of the students and to counsel them, mentor hours are set apart every week.



## ONE TO ONE INTERATION

Periodically one to one interaction is being conducted for SWOT analysis.

## MOTIVATION HOURS

Once in every week, Two hours is decided to motivate the students and encourage them to develop and aim for the star.

## CLASS COMMITTEE MEETING

Representative from each class take part in the CCM conducted thrice in a semester in which all the class issues are stated and discussed

## ACTIVITY HOURS

Once in every week, Two hours is decided to motivate and different aspect of the students and encourage them to develop and aim for the star in various aspect.



**Excel ENGINEERING COLLEGE**  
(AUTONOMOUS)

Approved by AICTE, Affiliated to Anna University, Chennai.  
Approved by NCTE, New Delhi & Affiliated to Anna University, Chennai.  
Vivekananda Road, Sankarapuram, West Puthupet, Chennai-600 075, Tamil Nadu, India. Ph: 044-26511011

**DEPARTMENT OF AERONAUTICAL ENGINEERING**  
ARHAKRZ ASSOCIATION & ISTE  
Presents  
A National-Level-Technical Symposium  
**SPAZIO-2K22**  
19<sup>th</sup> May-2k22

**Technical Events**

- Paper Presentation
- Poster Presentation
- Technical Quiz
- Aircraft Investigation
- TBI Modeling

**Non-Technical Events**

- Glider
- Water rocket
- Competition
- Photography

**Important Dates**

- 16-05-2022 - Submission of Abstract
- 17-05-2022 - Confirmation of Abstract

Rs 150/- per person

ONSPOT REGISTRATION ALSO AVAILABLE

Common to All Departments

Register via link: <https://forms.gle/1FmVvdkhKv9883>  
mail or Abstract: [arhkrz2022@gmail.com](mailto:arhkrz2022@gmail.com)

Head of the Department  
Dr. S.P. Venkatesan, M.E., Ph.D.

Student Co-ordinators  
Mr. T. Goutham (7708789666)  
Mr. V. Sathuraman (638216776)

Staff Co-ordinators  
Prof. G. Veerurugan (975099746)  
Prof. D. Vudwet (963667702)



## Faculty column

### Faculty participation in various Events

SL. NO	Name of the faculty	Designation	FDP / Seminar / Conference / Workshop / Webinar / NPTEL / Online course Industrial / Training
1	Dr. S. P. Venkatesan	HoD	04
2	Dr. P. Karunakaran	Professor	05
3	Dr. M. Gowtham	Asst. professor	02
4	Mr. N. Sreenivasaraja	Asst. professor	04
5	Mr. K. Vijayababu	Asso. Professor	02
6	Mr. S. Balasundram	Asst. professor	03
7	Mr. S. Prabu	Asst. professor	04
8	Mr. G. Velmurugan	Asst. professor	03
9	Mr. D. Vadivel	Asst. professor	04
10	Mr. S. R. Arun	Asst. professor	02
11	Mr. S. Karthik	Asst. professor	05
12	Mr. S. Prasanth	Asst. professor	02
13	Mr. M. Sanjay	Asst. professor	04
14	Mr. M. G. Rajagopal	Asst. professor	04
15	Mr. J. Senthil kumar	Asst. professor	03
16	Mr. Arun S. Pillai	Asst. professor	03
17	Mrs. M. Divya	Asst. professor	04



## Faculty column

### Research and development

Sl. No.	TITLE OF THE PROPOSAL	FUNDING AGENCY	AMOUNT SANCTIONED IN RUPEES
1	Implementation characteristic study of the mold prepared using industrial waste	AICTE-RPS	10,48,333
2	A Six Day Program on Science and Technology Capacity Building for Industrial Needs.	TNSCST	1,50,000
3	Tracking of Light Aircraft at low attitude using smartphone	TNSCST	7,500
4	GPS and Sensor Using Wildlife animal Tracking System	TNSCST	7,500

### Excel Engineering College



The Excel Engineering College – Komarapalayam, was organized Tamil Nadu State Council for Science and Technology supported 6 days training program on “Science and Technology Capacity Building for Industrial Needs” in two phases during the period. Phase I: 24th, 25th & 28th March, Phase II: 29th to 31st March. Dr.P.Karunakaran, Program coordinator welcomed the chief guest and participants. The chief guest Mr.R.Premanand, VP, Jai Ho Entrepreneur Academy Pvt. Ltd., Pondicherry delivered the inaugural address for the program. Dr.N.Mathan Karthick, Vice Chairman, Excel Group Institutions delivered special address and Dr.K.Bommanna Raja, Principal delivered the Presidential Address.



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai  
Accredited by NBA (AERO, MECH, CSE & EEE), NAAC (A+ Grade - 3.28) and Recognized by UGC (21 & 12B)

CENTRE FOR INDUSTRIAL RELATION AND RESEARCH PROJECTS

### CONGRATULATIONS!

Seven Projects Selected for  
**TAMILNADU STATE COUNCIL FOR  
SCIENCE AND TECHNOLOGY**

STUDENT PROJECT SCHEME 2021-2022

#### LIST OF FUNDED PROJECTS

**GPS and sensor using wildlife animal tracking system**

**Mr. N. Sreenivasaraja**  
Assistant Professor  
Department of Aeronautical Engineering

Ajith M | Arjun P  
Ashir Azar A | Hariharan L.S.

**Tracking of light aircraft at low altitudes using smart phone**

**Mr. M. Sanjay**  
Assistant Professor  
Department of Aeronautical Engineering

Kuberan B | Raguraj J  
Rajkumar A | Sathyaprasoon M

**Intelligent emission controller for vehicles**

**Dr. N. Venkatachalam**  
Associate Professor  
Department of Mechanical Engineering

Muthukrishnan R | Jaya Prasanth V  
Vijay S | Manikandan R

**Design and fabrication of gearless transmission system  
for automobiles and industrial machines**

**Dr. S. Balakrishnan**  
Assistant Professor  
Department of Mechanical Engineering

Dineshkumar S | Govindaraj S  
Gowtham S | Jagan R

**Drone based smart agriculture and animal monitoring system**

**Dr. S. Sasikala**  
Assistant Professor  
Department of CSE

Abdul Raguman A | Ajith Kumar S  
Anjali R | Keerthanaajali V

**COVID Patients and vaccine side effects real time patient  
analysis monitoring system using wearable devices**

**Mr. M. Ramesh**  
Assistant Professor  
Department of ECE

Ismail | Abudhakeer S  
Ramachandran C | Mayurika P

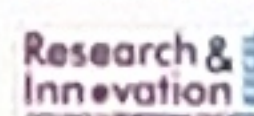
**PLC - SCADA based automated boiler controller**

**Dr. S. Jayapoorani**  
Professor  
Department of ECE

Gowhar jan | Nikisha P  
Parkavi S | Bhuvaneshwari S

Executive Director

Vice-Chairman



excelinstitutions.com



## Overview of Aero





## READING PAGE

PROGRAM EDUCATIONAL OBJECTIVES	PROGRAM SPECIFIC OUTCOMES
<ul style="list-style-type: none"> <li>♦ To strengthen the fundamental subject knowledge and practical skills of the aeronautical Students for meeting the requirements of Aeronautical industries and educational institutions including research center.</li> <li>♦ To give quality technical education to the students covering latest technological concepts for facilitating them to diagnose and solve industrial problems.</li> <li>♦ To shape the students for becoming socially, intellectually and ethically responsible Aeronautical Engineers.</li> <li>♦ To provide necessary technical, managerial and soft skills to the students for making</li> </ul>	<ul style="list-style-type: none"> <li>♦ <b>Core skills:</b> Identify, Formulate and Analyze Complex Engineering problems in aerodynamics, Propulsion, Aircraft Structures, aircraft Manufacturing and Maintenance domains.</li> <li>♦ <b>Interdisciplinary skills:</b> Able to design and develop interdisciplinary and innovative systems.</li> <li>♦ <b>Personality Development:</b> Able to inculcate effective communication skills, team work, ethics, leadership in preparation for a successful career in industry and R&amp;D organizations.</li> </ul>

The scientists wanted to observe how people use their bodies to pilot a flying object, in this case a drone, and determine which movements are most intuitive and natural -- approaching the pilot problem from a completely new perspective. They started by monitoring the body movements of 17 individuals thanks to 19 markers placed all over the upper body as well as their muscular activity. Each participant followed the actions of a virtual drone through simulated landscapes that passed-by as viewed through virtual reality goggles. Overall, the scientists compared their torso strategies to joystick control in 39 individuals. They found that torso drone control outperformed joystick control in precision, reliability and with minimal training sessions. —EPFL NEWS

Imagine piloting a drone using the movements of your torso only and leaving your head free to look around, much like a bird. EPFL research has just shown that using your torso to pilot flying machines is indeed more immersive -- and more effective -- than using the long-established joystick. The results are published in today's issue of PNAS. Our aim was to design a control method which would be easy to learn and therefore require less mental focus from the users so that they can focus on more important issues, like search and rescue," says lead author Jenifer Miehlebradt of EPFL's Translational Neuroengineering Laboratory led by Bertarelli Foundation Chair Silvestro Micera. "Using your torso really gives you the feeling that you are actually flying. Joysticks, on the other hand, are of simple design but mastering their use to precisely control distant objects can be challenging."

**FORGET JOYSTICKS, USE YOUR TORSO TO PILOT DRONES!**



# FUN NEWS

## Aviation Quiz

The Boeing 747 is a wide-body commercial jet airliner and cargo aircraft, is also known as

??????



A Ukrainian engineer has designed an airplane with a detachable cabin. In the event of an emergency, the cabin breaks off, deploys parachutes, and floats passengers safely to the sea or ground.

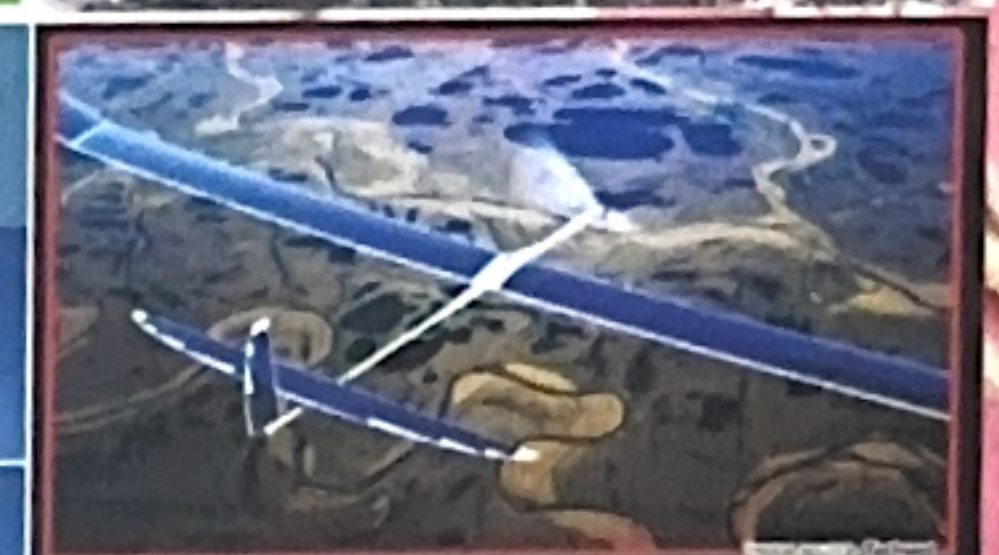


wtffunfact.com



DAILYRANDOMFACTS.COM

FAKE X REAL



Google is planning to beam ultra-fast 5G internet from solar-powered drones. It's called the Project Skybender. It is theoretically estimated that the drones will be able to deliver mobile internet 40 times faster than 4G LTE, which means you could transmit gigabytes of data every second.

## EXCEL ENGINEERING COLLEGE

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[WWW.EXCELINSTITUTIONS.COM](http://WWW.EXCELINSTITUTIONS.COM)



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