





## EXCEL ENGINEERING COLLEGE KOMARAPALAYM-637303

### DEPARTMENT OF AERONAUTICAL ENGINEERING ARHAKRZ 2K24-25 NEWSLETTER Q4

#### **VOLUME I ISSUE 4**

#### **VISION**

To empower the student s subject knowledge of Aeronautical Engineering for serving the society in a challenging global environment

#### MISSION

To provide the quality technical education in tune with challenges.

To offer latest technological development in the field of aero engineering.

To integrate the intellectual, spiritual, ethical and social development of the students for becoming dynamic Aeronautical engineers.

To initiate desires for under taking entrepreneurship and lifelong learning. CHAIRMAN'S MESSAGE VICE-CHAIRMAN'S MESSAGE PRINCIPAL'S MESSAGE



Aeronautical Engineering is a prominent branch of Engineering focused on the advancement of technology in aviation, space exploration, and defence. It encompasses the study, design, testing, construction, and maintenance of commercial aircraft, spacecraft, missiles, and their components.



The Department of Aeronautical Engineering continues to be a source of pride for our institution. I extend my heartfelt congratulations to the Aero Department on the release of this month's ARHAKRZ news letter. I encourage students to strive for excellence, expand their knowledge, and stay ahead of the latest advancements in the dynamic world of aeronautics.



My heartfelt congratulations to the Department of Aeronautical Engineering on publishing its newsletter, showcasing the department's academic achievements and milestones. In the realm of outcome-based education, empowering students remains a pivotal focus for any leading institution. I sincerely hope this publication becomes a beacon of inspiration and a soaring success!

Prof. Dr. A. K. NATESAN
M. Com., MBA., M. Phil.,

Dr. N. MATHAN KARTHIK
M.B.B.S., M. H. Sc.,

Dr. K. BOMMANNA RAJA
Ph.D.,

#### **HOD'S MESSAGES**

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Aeronautical Engineering is a dynamic and cutting-edge discipline with a legacy spanning over a century. It demands continuous innovation from engineers and scientists to expand its horizons and drive advancements in next-generation hypersonic aircraft, reusable spacecraft, and launch vehicles. My best wishes to all aspiring aeronautical engineers, who will play a vital role in propelling India to the forefront of global technological excellence.

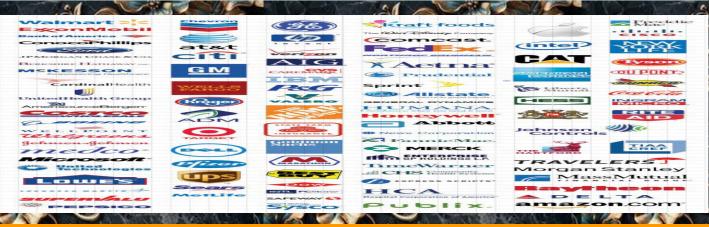


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### **STUDENT PARTICIPATION (INTERNSHIP)**

| Sl. No. | Name of the industry   | No. of students<br>Benefited |
|---------|--|------------------------------|
| 1       | Periyar Crusher Machines Pvt Ltd, Kerala                         | 1                            |
| 2       | Pegasus Aerospace Systems, Erode                                 | 2                            |
| 3       | The Website Macker Pvt. Ltd, Tadepalligudem, Andhra Pradesh      | 4                            |
| 4       | Periyar Crusher Machines Pvt Ltd, Kerala                         | 3                            |
| 5       | Aero Knotz Drones India Private Limited, Chennai                 | 9                            |
| 6       | The National Small Industries Corporation Limited, Chennai       | 3                            |
| 7       | Optimus Techno creates (Indai) PvtLtd, Bangalore                 | 21                           |
| 8       | MEC Engineering Services, Coimbatore                             | 2                            |
| 9       | Alpha Materials Testing Laboratory,<br>Thiruvallur               | 2                            |
| 10      | Sakthi Gear Products, Coimbatore                                 | 1                            |
| 11      | New Aviation Academy, Kallakurichi                               | 2                            |
| 12      | Chakradhara Aerospace and Cargo Pvt.Ltd.,<br>Coimbatore          | 1                            |
| 13      | Gautam Buddha International Airport Civil Aviation Office, Nepal | 1                            |
| 14      | Coral Manufacturing Works India Pvt Ltd., Erode                  | 2                            |
| 15      | Aerospace Engineers Pvt Ltd., Salem                              | 3                            |
| 16      | Blue Dart Aviation Ltd., Chennai                                 | 1                            |



### **Students Participation**

Students participation in various event workshop, ideation , paper presentation and sports etc., in the month of April– June 2025

| Sl. No. | Nature of the Program         | No. of participation* |
|---------|-------------------------------|-----------------------|
| 1       | Workshop                      | 01                    |
| 2       | Skill contest                 | 03                    |
| 3       | Online Course                 | 06                    |
| 4       | Maths contest (ISTE Activity) | 10                    |
| 5       | Internship                    | 20                    |

### **MoU** based Activities

| S.N<br>o | Name of the Industry   | Title of Program                             | Name of the Student | Date of activity               |
|----------|--|--|---------------------|--------------------------------|
| 1        | NOVA Aerospace Private<br>Ltd, Pudukottai, Tamilnadu                             | Remote Pilot Operator<br>Certificate Trainer | Sabarivasan M       | 10.03.2025<br>to<br>15.03.2025 |
| 2        | Karnataka Minority Development Corporation in Multiplex Drone Company, Bangalore | Remote Pilot Operator<br>Certificate Trainer | Danish S.A          | 10.03.2025<br>to<br>28.03.2025 |
| 3        | Karnataka Minority Development Corporation in Multiplex Drone Company, Bangalore | Remote Pilot Operator<br>Certificate Trainer | Hafeez Ahmed        | 10.03.2025<br>to<br>25.03.2025 |
| 4        | Karnataka Minority Development Corporation in Multiplex Drone Company, Bangalore | Remote Pilot Operator<br>Certificate Trainer | Mohammed Reehan     | 04.04.2025<br>to<br>20.04.2025 |

DRONE PILOT TRAINING



### STUDENT AWARDS

### **ISTE -Best Student Award**

| Sl.No. | Department                  | Batch   | Name of the student    |
|--------|-----------------------------|---------|------------------------|
| 1      | Aeronautical<br>engineering | 2021-25 | Evangeline Christina J |

### **NPTEL CERTIFICATION**

| S.No | Name of the Faculty                                     | Title of Pro-<br>gram | Course Name  | Duration |
|------|---|-----------------------|--|----------|
| 1    | SENTHIL KUMAR J,  BALASUNDARAM S,  S R ARUN,  M. SANJAY | NPTEL                 | Advances in Additive Manufacturing of Materials: Current status and emerging opportunities | 12       |
| 2    | Dr A KARTHIKEYAN  | NPTEL                 | Operations Management  | 12       |
| 3    | SENTHIL KUMAR J   | NPTEL                 | The Joy of Computing using Python  | 8        |
| 7    | KARTHIK S   | NPTEL                 | Product Design and Manu-<br>facturing  | 12       |
| 8    | PRABHU S  | NPTEL                 | Advanced Machining Processes   | 12       |

### **READING PAGE**

#### Space & Satellite Growth

- Mega constellations, small satellites (CubeSats etc.) continue expansion for Earth observation, communications, remote sensing. Abilogic Articles +2
- Space logistics and mission planning are getting more sophisticated; there's academic work (e.g., using quantum computing) to optimize resources for space missions.

#### Testing, Certification, and Regulatory Evolution

- Regulatory bodies adapting to new aircraft types (eVTOL, supersonic) noise, safety, air traffic
  management needs evolving.
- Emphasis on certification of new materials, propulsion systems (e.g., hydrogen, hybrid), and
  ensuring lifecycle sustainability (circularity, end-of-life, recycling) of aircraft.

#### New Technologies in Propulsion & Energy

- Clean combustion and propulsion research, including using AI / neural networks (e.g. physicsinformed neural networks) to model combut, n, reduce emissions, optimize performance.
- Fuel cells, hybrid systems under development. Tom's Hardware

# freereading

provides a library of activities and other curricular resources for literacy development.







### **EDITORIAL BOARD**

| SL.NO | NAME OF THE STUDENT EDITOR'S | YEAR |
|-------|------------------------------|------|
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| 2     | Ms. JEEVA PRIYA              | III  |
| 3     | Mr. HARISH                   | III  |
| 4     | Mr.RAGUL                     | II   |

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