



EXCEL ENGINEERING COLLEGE

KOMARAPALAYM-637303

DEPARTMENT OF AERONAUTICAL ENGINEERING


ARHAKRZ NEWSLETTER

2K24- 25 Q1

VOLUME I ISSUE 1	CHAIRMAN'S MESSAGE	VICE-CHAIRMAN'S MESSAGE	PRINCIPAL'S MESSAGE
VISION			
To empower the student s subject knowledge of Aeronautical Engineering for serving the society in a challenging global environment			
MISSON			
<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 Aero-nautical engineers.</p> <p>To initiate desires for under taking entrepreneurship and lifelong learning.</p>	<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 aeronautic.</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>
	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

INDEX OF THE NEWSLETTER

	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.	DESCRIPTION	PAGE NO
	DR.A..KARTHIKEYAN Ph.D.,	Message– Chairman, Vice– Chairman, Principal and HoD	01
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DEPARTMENT NEWS

Alumni Guest Lecture on “**Global Harmonization of Aircraft maintenance standards and manuals**” on 27.08.202 at Pavayammal Hall.

Chief Guest: Mr. Rahul Rahavendran, MM Engineer, Sonovision Aetos, Bangalore

No. of Participants:158



Academic Guest Lecture on “**Swarm Intelligence and its Role in Drone Technology**” on 24.09.2024 at Pavayammal Hall (A/C).

Chief Guest

Mr.V.Saravanakumar,

Associate professor, Aeronautical Engineering,
Hindusthan college of Engineering and Technology,
Coimbatore

No. of Participants:157



DEPARTMENT NEWS

Non –Academic Events on “**Innovative Idea for Greener Tomorrow**” at Pavayammal Hall on 13.07.2024 .

Chief Guest:

Dr. K. Rajkumar Professor/Aeronautical,
Excel Engineering College,
Komarapalayam .

No. of participants: 47



Non –Academic Events on “**Towards a Scientific Society: Continuing Kalam’s Quest for Knowledge**” at GHSS, Komarapalayam on 25.07.2024 .

Chief Guest:

Head Master,
Government Hr. Secondary school students,
Komarapalayam .

No. of participants: 54



Academic Guest Lecture on
“**Advances in CFD for Aerospace Engineering**” at
Smart Room on 09.08.2024

Chief Guest:

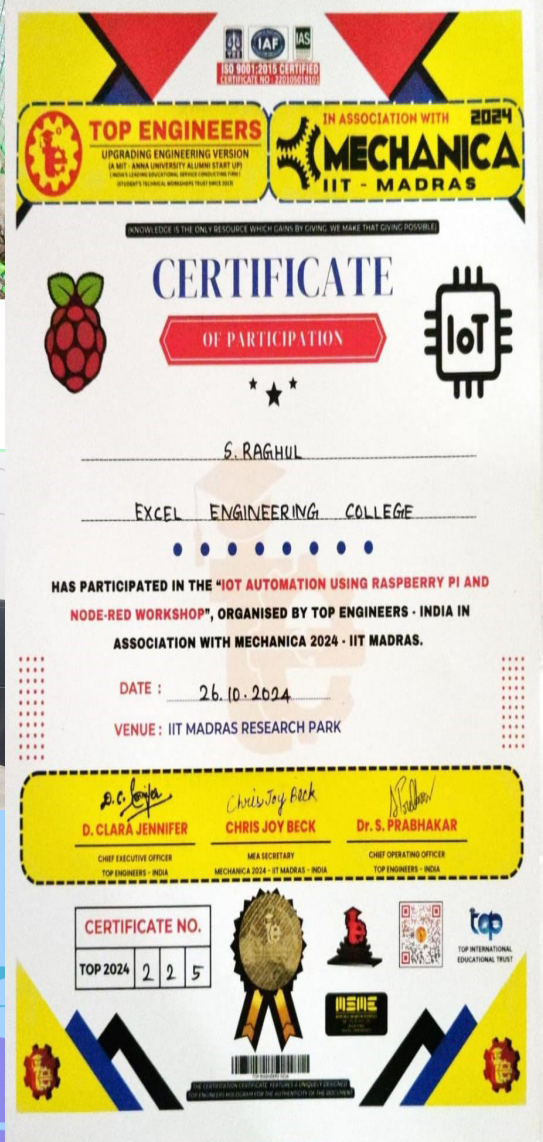
Mr. R.Vijayanandh,
Assist. Professor-II,
Aeronautical Engineering,
Kumaraguru College of Technology,
Coimbatore



Students Participation

Students participation in various event workshop, ideation , paper presentation and sports etc., in the month of June to September 2024*

Sl. No.	Nature of the Program	No. of participation*
1	Workshop	42
2	Paper Presentation	06
3	Online Course	02
4	Ideations	01
5	NCC camp	02
6	Volunteer	02
7	Webinar	01



Faculty Participation

Faculty participation in various event in the month of June to September 2024*

Faculty Development Program

Dr.M.Rajkumar, Dr.N.Venkatachalam, Mr.M.Sanjay & Mr.M.Nambirajan from Aeronautical Engineering has attended the **Six days ATAL Faculty sponsored FDP** program organized from Excel Engineering college on 21.09.2024 to 26.09.2024



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PERIODICO DI MINERALOGIA

ABOUT ARCHIVES ANNOUNCEMENTS

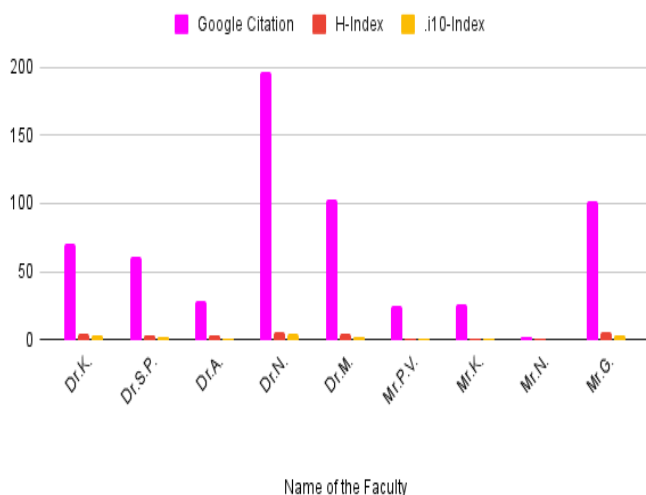


Mr. S. Balasundaram, Assitant Professor has Registered the Ph.d in Anna University in the Domain of Drone path optimization.

Research Paper publication

Dr. A. Kathikeyan has published the research title “**Optimization Of Travelling Salesman Problem Using Genetic And Simulated Annealing Hybrid Algorithm** ” in PERIODICO DI MINERALOGIA

Google Citation, H-Index and .i10-Index



Research Patent Publication

Dr. M. Gowtham has published patent in the title of **Smart Air Purification System for Elevated Indoor Environmental Solutions.**(Design No. 414404-001)

Faculty column

Faculty participation in various Events

SL. No.	Name of the faculty	Designation	FDP / Seminar / Conference / Workshop / Webinar / NPTEL / Online course Industrial /
1	Dr. K. Rajkumar	Professor	1
2	Dr. N. Venkatachalam	Asso. Professor	1
3	Mr. M. Sanjay	Asst. Professor	1
4	Mr. M. Nambi rajan	Asst. Professor	1
Total No. of Participation			4

Reading page

Spice Jet aims for 100 aircraft by the end of 2026

September 27, 2024 – Spice Jet has successfully raised Rs 3,000 crore through qualified institutional placement (“QIP”). The share sale which involved over 48.70 crores shares price at Rs. 61.60 each, attracted significant investments from major entities such as Societal Generale, Goldman Sachs (Singapore), Nomura Singapore, and Discovery Global Opportunity (Mauritius). Following the fund raise, SpiceJet has cleared all the GST dues along with employees’ salary. The airline has also announced plans to expand its fleet to 100 aircraft by 2026. Currently, SpiceJet operates 21 aircraft.

Source: The Economic Times

DGCA monthly report records drop in Spice Jet’s market share

September 13, 2024 – DGCA has released its latest monthly report, revealing that Spice Jet’s market share has plummeted to 2.3%, down from 5.6% in January. Indi-Go remains the dominant player with 62.4%, followed by Air India at 14.7%.

Source: Economic Times

DGCA launches safety audit of flying training organizations

September 12, 2024 - DGCA has initiated a special safety audit of all flying training organizations (“FTOs”) in India, following a series of recent incidents involving training aircraft. The audit, which aims to ensure compliance with aviation safety standards, will be conducted in three phases from September to November 2024 and will encompass 37 FTOs. The first phase will assess 11 FTOs this month.

This comprehensive evaluation will focus on various aspects, including safety standards, operational procedures, aircraft maintenance, and training curricula. The DGCA emphasized that maintaining high safety standards is crucial, stating that any lack of commitment to safety protocols will not be tolerated. This marks the first special audit since 2022, highlighting the regulator’s ongoing efforts to enhance aviation safety in the country.

READING PAGE

Program Educational Objective

PEO 1: Graduates will have the ability to handle industrial challenges through advanced engineering technologies.

PEO 2: Graduates will have the capability to become socially, intellectually, and ethically responsible aeronautical engineers.

PEO 3: Graduates expertise with essential technical, managerial, and soft skills that make them to be professionally competent.

Program specific outcome

PSO 1: Exhibit skill and knowledge on aerodynamics, propulsion and structures.

PSO 2: Solve real time problems related to aircraft manufacturing and maintenance.

PSO 3: Apply CAD/CAE tools to design and analyze the aircraft components.



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 Miehl bradt 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.



AMERICA'S FIRST "AIR FORCE" WAS EQUIPPED WITH FIVE HOT-AIR BALLOONS AND FIFTY SERVICEMEN.



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.

wtffunfact.com

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