



# EXCEL ENGINEERING COLLEGE (Autonomous) KOMARAPALAYM-637303

## DEPARTMENT OF AERONAUTICAL ENGINEERING ARHAKRZ 2K22- 23 Q2

VOLUME I ISSUE 2	CHAIRMAN'S MESSAGE	VICE-CHAIRMAN'S MESSAGE	PRINCIPAL'S MESSAGE
<b>VISION</b>			
To empower the student s subject knowledge of Aeronautical Engineering for serving the society in a challenging global environment			
<b>MISISON</b>			
<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>The Aeronautical Engineering Department continues to make remarkable strides in innovation and technology. With a strong foundation in aerodynamics, propulsion, avionics, and space technology, we prepare students to excel in this dynamic industry. Our dedicated faculty and hands-on learning approach ensure that students are equipped with the skills to tackle real-world challenges. I encourage students to stay curious, embrace advancements, and contribute to the future of aerospace engineering. Let us continue to strive for excellence and achieve new milestones.</p>	<p>The Aeronautical Engineering Department is dedicated to shaping future aerospace professionals through innovation, research, and technical excellence. With advancements in aviation and space exploration, our students have immense opportunities to contribute to this ever-evolving field. Our experienced faculty and industry-focused curriculum provide a strong foundation in aerodynamics, propulsion, and avionics. I encourage students to stay committed, embrace challenges, and strive for excellence in their pursuits. Together, let us soar to new heights in aerospace engineering.</p>	<p>The Aeronautical Engineering Department plays a vital role in fostering innovation and technical excellence in the field of aviation and space exploration. With a strong curriculum, experienced faculty, and hands-on learning opportunities, we prepare students to meet industry challenges and drive future advancements. I encourage students to be inquisitive, embrace emerging technologies, and strive for excellence in their academic and professional journeys. Together, let us continue to achieve new milestones in aeronautical engineering</p>
	<b>Prof. Dr. A. K. NATESAN</b> M. Com., MBA., M. Phil.,	<b>Dr. N. MATHAN KARTHIK</b> M.B.B.S., M. H. Sc .,	<b>Dr. K. BOMMANNA RAJA</b> Ph.D.,

### HOD'S MESSAGES

### INDEX OF THE NEWSLETTER

<p>The Aeronautical Engineering Department is committed to providing a strong technical foundation and practical exposure to aspiring aerospace engineers. With a focus on innovation, research, and industry-oriented learning, we equip students with the skills needed to excel in aviation and space technology. Our dedicated faculty, state-of-the-art facilities, and hands-on projects ensure a comprehensive learning experience. I encourage students to be curious, proactive, and passionate about aeronautical advancements. Let us work together to achieve excellence and make meaningful contributions to the aerospace industry.</p> <p><b>Dr. S.P.VENKATESAN Ph.D.,</b></p> 	DESCRIPTION	PAGE NO
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## DEPARTMENT NEWS

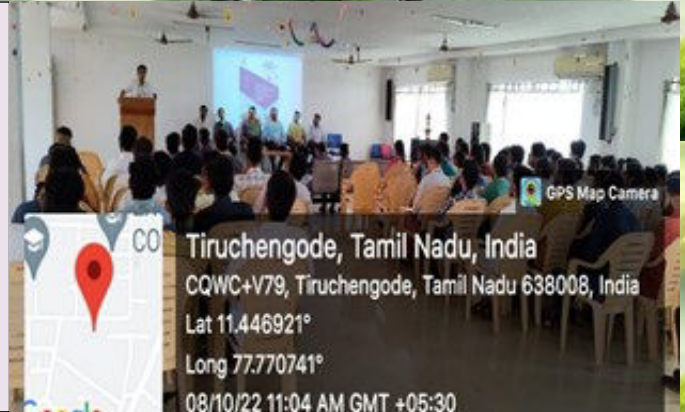
My Indian Airforce - Quiz has conducted on 08/10/2022 at Pavaiyammal Hall.

**Chief Guest:**

Mr.M.Sanjay

Assistant Professor  
Aeronautical Engineering,  
Excel Engineering College

**No. of participants: 105**

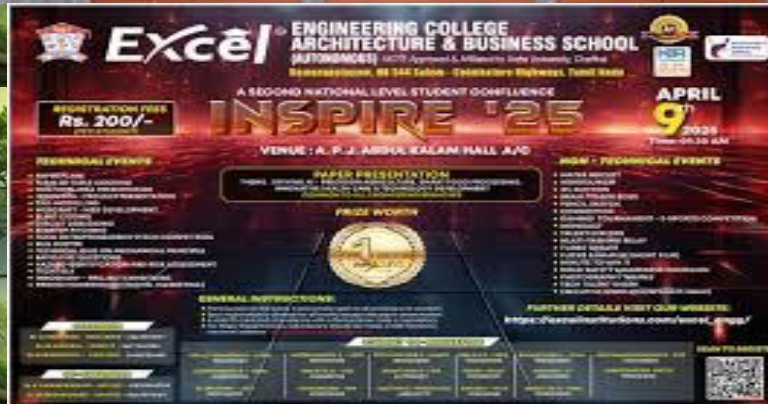


Non –Academic Events: Drawing and Essay Competition on 03/10 /2022

**Chief Guest**

All Faculty  
Department Aeronautical Engineering,  
Excel Engineering College.

**No. of participants: 50**





## 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	G.Velmurugan	Assistant Professor	1
2	S.Prabhu	Assistant Professor	1
3	J.Senthilkumar	Assistant Professor	1
4	K.Vijayababu	Assistant Professor	1

### Research Paper publication

October to December 2022\*

### Program Fund Received

S.No	Name of the Faculty	Funding Agent	Amount Received
1	Mr. J. Senthil Kumar	TNSCST-SPS	7500
2	Mr. M. Sanjay	TNSCST-Popularization of Sciences	20000


 **TAMIL NADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY**  
DOTe Campus, Chennai - 600 025

 **Excel<sup>®</sup> ENGINEERING COLLEGE (AUTONOMOUS)**  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai. Accredited by NBA, NAAC with 'A++' and Recognised by UGC (2f & 12B)  
Korampalayam, Namakkal District, Tamil Nadu - 637303

 **Jointly Organizes**  
**A Six Day Program on**  
**SCIENCE AND TECHNOLOGY**  
**CAPACITY BUILDING FOR INDUSTRIAL NEEDS**

Phase I - 24.03.2022, 25.03.2022 & 28.03.2022      Phase II - 29.03.2022 to 31.03.2022

**WELCOMES YOU ALL**

 **TAMIL NADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY**  
(Established by Government of Tamil Nadu)  
Directorate of Technical Education Campus, Chennai - 600 025.  
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Telefax : 044 - 2230 1552      E-mail : ms.tnscst@nic.in / enquiry.tnscst@nic.in

**Dr. R. SRINIVASAN, M.Sc., Ph.D., F.I.E.S., M.A.C.S. (USA)**  
Member Secretary

Ref: TNSCST/Pop.Sci/2022-23/NR40/2023      9625      05.07.2023


To: Prof. M. Sanjay  
Assistant Professor  
Dept. of Aeronautical Engg  
Excel Engineering College  
Korampalayam, Namakkal-637 303  
888766329 / msanjay\_eeec@excelscolleges.com

Sir / Madam,  
Sub: TNSCST- Popularization of Science ( 2022-23 ) - Approval Intimation.  
Sent - reg  
Ref: Chairman approval dated 28.06.2023

With reference to the above I am happy to inform that following Popularization of Science programme proposed by you has been approved as per the details given below with following conditions

S.No	Name of the Co-ordinator	Activity Proposed	Amount Approved (Rs.)
1	Prof. M. Sanjay Assistant Professor Dept. of Aeronautical Engg Excel Engineering College Korampalayam, Namakkal-637 303	Awareness Program on Recent Trends in Medical Waste Management and Attention to AYUSH Medicine Usage Two days	20,000/-

- You must conduct the programme before 31.10.2023 and send two copies of Detailed Programme Report and Utilization Certificate as per the format enclosed. The guidelines enclosed must be strictly followed
- Two to three pages Brief Report with important photos must be submitted along with detailed report
- The grant will be released after the receipt of two copies of 1. DETAILED REPORT 2. BRIEF REPORT and 3. UTILISATION CERTIFICATE.

Yours faithfully  
  
Member Secretary

Copy to:  
The Principal  
Excel Engineering College  
Korampalayam, Namakkal-637 303

## Research Patent Publication

S P Venkatesan, J Senthil Kumar.

Safety Risk Assessment For Tunnel Construction Application of AHP to Tunnel Project  
(202341011579)

## STUDENTS

# ACTIVITIES

### Activity participation \*

Sl.No	Nature of Events	Participants
1	Workshop	20
2	Seminar	10
3	Symposium	05
4	Other	08
	<b>Total</b>	<b>43</b>

## Consultancy Work

Project Title	Name of the Industry	Faculty In-charge	Period & Duration	Amount in Lakhs (INR)	Status
Acoustic Optimization in Precast Concrete for Noise Reduction	Drsti Precast Pvt Ltd Gowmaramadalayam, SF.No 513/B-2, Near Co India Weigh Bridge, Chinnavedampatti, Coimbatore, Tamil Nadu 641049	Mr. K.Vijaybabu Mr. S. R. Arun Mr. N. Sreenivasaraja	2022-24 & 2 years	2,88,000	Completed

## Placement Details\*

Sl. No	Name of the Company	Number of Students
1	Edu station, Bangalore	30
2	Hawk Aerospace Pvt Ltd, Bangalore	02
3	Joy technologies, Chennai	01
4	CTS, Bangalore	04
5	Domex e data Ltd, Chennai	05



# Aero Image puzzles

S	O	S	M	B	E	L	P	P	A	P	P	W	K
X	E	H	F	D	Y	K	W	T	D	R	Z	X	Y
R	G	Z	P	I	K	R	A	P	Q	A	L	L	Q
V	M	W	H	I	C	M	R	A	E	P	V	G	A
O	H	A	G	E	N	G	C	E	K	W	U	R	E
I	U	T	T	U	O	E	R	Z	B	N	S	B	K
K	S	E	C	N	X	A	A	P	E	W	Z	C	P
P	C	R	A	F	I	F	M	P	T	G	A	O	Y
W	F	M	M	M	A	R	U	Z	P	G	N	R	T
R	M	E	X	P	N	X	A	D	S	L	Z	A	T
Z	S	L	Z	V	A	J	J	D	U	L	E	N	R
T	C	O	O	I	N	U	T	L	N	H	V	K	D
H	T	N	Q	Y	A	E	X	X	U	A	R	F	B
Z	Z	Y	F	T	B	T	Z	H	B	F	M	O	M



## READING PAGE

### Program Educational Objective

- \* PEO 1: Graduates will have the ability to handle industrial challenges by equipping them to meet the demands of the Aeronautical Industry.
- \* 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

- \* **Core skills:** Identify, Formulate and Analyze Complex Engineering problems in aerodynamics, Propulsion, Aircraft Structures, aircraft Manufacturing and Maintenance domains.
- \* **Interdisciplinary skills:** Able to design and develop interdisciplinary and innovative systems.
- \* **Personality Development:** Able to inculcate effective communication skills, team work, ethics, leadership in preparation for a successful career in industry and R&D organizations.

## RECENT TREND IN AEROSPACE ENGINEERING

- \* During late 2022, the integration of the Metaverse into the aerospace industry was in its nascent stages, with trends focusing on virtual reality (VR) for design and training and the exploration of digital twins for complex systems, though widespread adoption was not yet apparent. The primary focus was on establishing foundational capabilities for digital environments, using VR for pilot training, aircraft design simulations, and interactive maintenance procedures.
- Companies explored using VR to create immersive training simulations for pilots and maintenance crews, reducing the need for physical mock-ups and enhancing realism
- The Metaverse offered potential for collaborative design processes, allowing engineers from different locations to work together in shared virtual spaces to develop new aircraft designs.
- The technology was seen as a way to enable remote expert assistance for complex tasks, such as on-site maintenance, by providing immersive guidance through virtual environments.
- While not yet a dominant trend, the concepts of virtual collaboration, digital platforms, and immersive experiences were beginning to take shape within the aerospace sector during this period
- The aerospace Metaverse was in its early development, with most applications focused on specific, high-value areas like design and training, rather than full-scale implementation



# Editorial Board

## CHIEF EDITOR AND ASSOCIATE EDITOR

**Dr. S.P.VENKATESAN**  
HEAD OF THE DEPARTMENT

**Mr. M. SANJAY**  
ASSISTANT PROFESSOR

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