2023-24 Even semester

Volume 2 issue 20

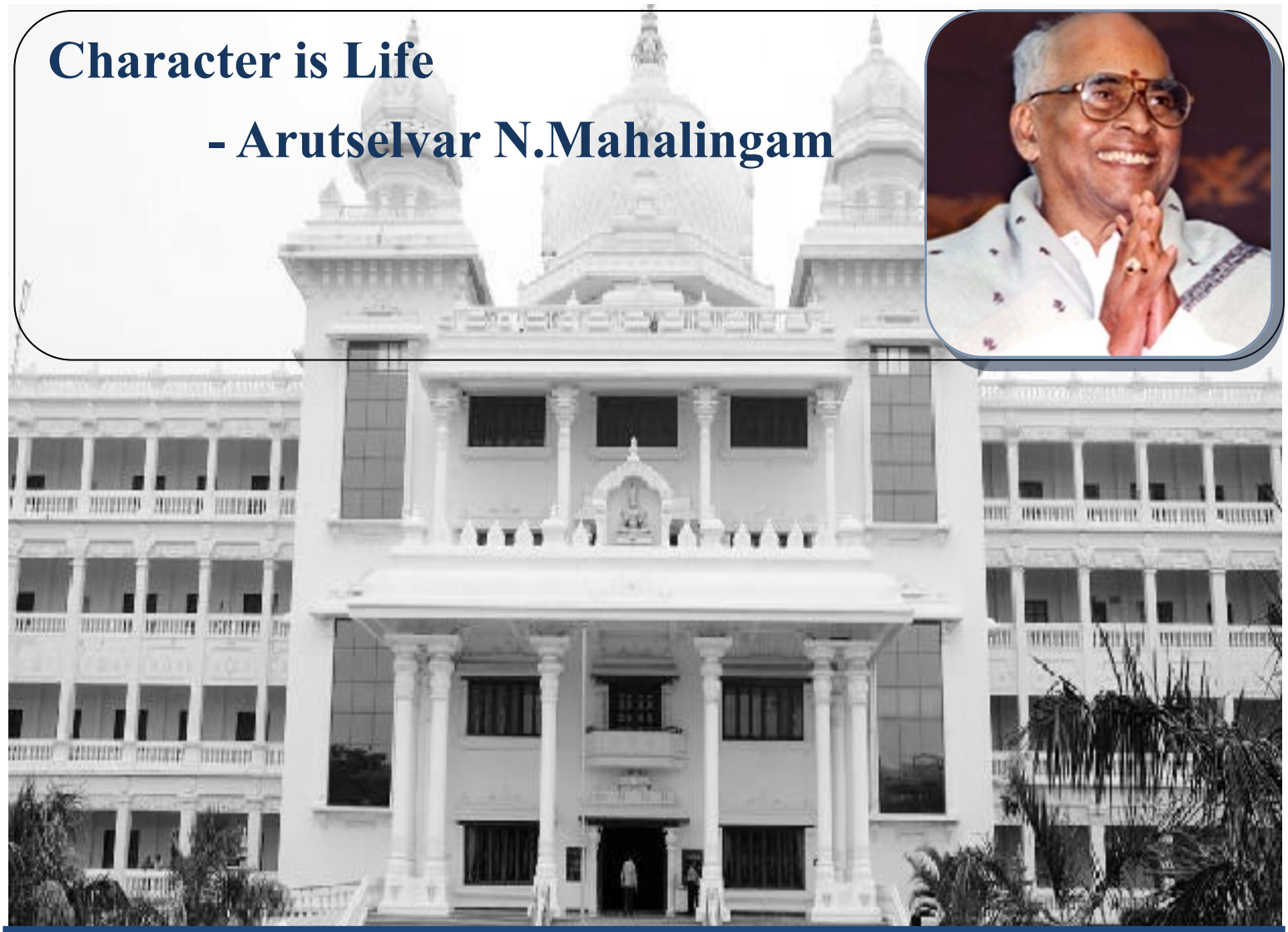
The Arrow

Department of Aeronautical Engineering Newsletter

KUMARAGURU
college of technology
character is life

Character is Life

- Arutselvar N.Mahalingam



HoD's Message:

This semester has been filled with remarkable achievements and milestones for our students. From the IEI sponsored seminar to the successful participation in AeroTHON 2024, our students have consistently demonstrated their commitment to growth and innovation. Additionally, securing an R&D project worth ₹63.614 Lakhs highlights the department's focus on research excellence. We also witnessed several students qualifying for GATE and participating in the NCC Republic Day Camp 2024, showcasing their discipline and leadership. The department has also seen a notable increase in internships and paper publications, further enhancing their industry readiness and academic excellence. These accomplishments reflect the hard work and dedication of our students, and we continue to support their journey toward becoming leaders in the aerospace.

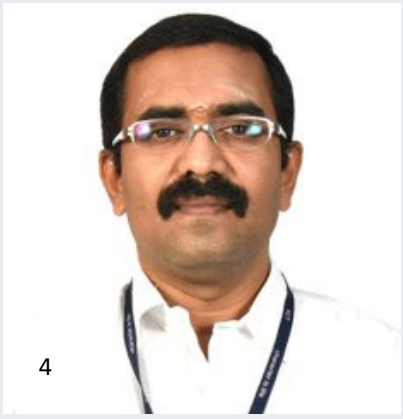
Warm regards,

Dr. M. Senthilkumar

Head of Department, Aeronautical Engineering

In this issue

3



4

5

6

7

8

IEI sponsored seminar

The Institution of Engineers (India), Coimbatore Local Centre, in collaboration with the Department of Aeronautical Engineering at Kumaraguru College of Technology, organized a one-day seminar on "Autonomous Autopilot Control System Design for Small-Scale UAVs" on April 29, 2024.

The seminar featured prominent industry experts who shared their knowledge on various aspects of UAV technology.

Group Captain (Retd) Desikan Srinivasan, Senior UAV Engineer at De Drone World Solutions, discussed "Autonomous Control Systems in UAVs," offering an in-depth understanding of the technologies driving UAV autonomy.

Mr. K. R. Venkatesh, Senior Ground Instructor at Haps Aviation Academy, elaborated on "Autonomous Autopilot Control System Design for Small-Scale UAVs," focusing on the key considerations in designing efficient autopilot systems.

Mr. Hari Janarthanan, Director of Technology & Solutions at Birdscale Technology, covered "AI Trends in UAV" and the role of artificial intelligence in revolutionizing UAV operations.

Mr. Pranav Rathod, Drone Engineer at Jet Aerospace Aviation Research Centre, presented on "Drone Intelligent Systems," providing insights into the integration of smart systems in drone technology.

Chief Guest at NIET

Dr. P. S. Premkumar graced the **Valedictory Ceremony** of **VIHAAN 2024** as the **Chief Guest** at **NIET, Coimbatore** on **April 16, 2024**. His address inspired the attendees with valuable insights and encouragement, marking a fitting conclusion to the event.

Dr. Premkumar's presence added significance to the occasion, leaving a lasting impact on the participants.

Prestigious R&D Project Secured by Dr. P. S. Premkumar Worth ₹63.614 Lakhs

Congratulations to Dr. P. S. Premkumar for securing a prestigious project titled **"Design of Variable Mach Number Nozzle System for Trisonic Wind Tunnel"** under the **Aeronautics R&D Board, Ministry of Defence**.

The project, valued at **approximately ₹63.614 lakhs**, stands as a testament to his expertise and dedication in the field of aeronautics. This remarkable achievement brings pride to the institution and sets a high standard for research excellence.

Gate qualified students

Congratulations to **Anusuya V (20BAE003), Hari Prasath J (20BAE009), Kathirasan B (20BAE014), Kishore B (20BAE016), Roshan V (20BAE030), Ramakrishnan R (19BAE048), Prasitha H (19BAE016),** and **Naveen Dhandapani (19BAE018)** for successfully clearing the **GATE 2024** examination!

Your dedication, hard work, and perseverance have truly paid off, bringing pride to our institution. Achieving this significant milestone reflects your deep understanding of the subject and commitment to excellence. May this achievement open new doors of opportunities and inspire you to reach even greater heights in your academic and professional journey. Keep aiming high and continue to shine brilliantly in all your future endeavors.

TANCET qualified students

Congratulations to **Hari Prasath J (20BAE009)** and **Avinash R (20BAE006)** for successfully clearing the **TANCET** examination! Your hard work and determination have yielded impressive results, making your achievement truly commendable. This milestone is a testament to your capabilities and dedication.

May this success lead to even greater opportunities and inspire you to continue your pursuit of excellence.

Fostering Harmony Through Sports: Department Association's Event Unites Students and Faculty

The Department Association organized a sports event for students and faculty from 3rd to 5th January 2024, aiming to foster harmony and teamwork. The event featured a variety of games that encouraged active participation, strengthening the bond between students and faculty members.

The spirit of sportsmanship and camaraderie was evident throughout, making the event both enjoyable and successful.

Sri Sarathy R P Shines at Annual NCC Republic Day Camp 2024

We are thrilled to announce that Sri Sarathy R P has proudly represented the Tamil Nadu, Puducherry, and Andaman & Nicobar Directorate (TN, P and A&N) as the only cadet selected for the prestigious Annual NCC Republic Day Camp 2024. This remarkable achievement reflects his dedication and exceptional skills. Congratulations to Sri Sarathy for this outstanding accomplishment!

AeroTHON 2024

In June 2024, students from the second and third years of the Department of Aeronautical Engineering at Kumaraguru College of Technology participated in **AeroTHON 2024**, an annual flagship event organized by SAEINDIA. The event provided an excellent platform for students to design, build, and fly an Uncrewed Aerial System (UAS), tackling real-world challenges under the insightful mentorship of industry professionals.

During the event, students had the opportunity to present their project reports at **M S Ramaiah University of Applied Sciences, Bangalore**, where they showcased their innovative UAV designs. They also interacted with jury members and other teams from across India, gaining valuable exposure to the latest trends and developments in the aerospace industry.

AeroTHON 2024 provided the students with not only a hands-on experience but also an opportunity to network with industry experts, fostering an environment of innovation and skill development. It was a valuable experience for all, equipping the students with the tools to thrive in the aerospace industry.

Career Day: Insights from Distinguished Alumni

The Department of Aeronautical Engineering at Kumaraguru College of Technology organized a **Career Day** for 2nd and 3rd-year students, featuring two distinguished alumni. **Mr. Pavan Viswanathan**, Business Analyst Consultant at **DRAX Group**, and **Ms. Kanmani Kasthuri**, Deputy Manager at **Deloitte**, visited the campus to share their career experiences and insights.

Their interactive sessions provided valuable guidance to students on career planning, industry expectations, and the skills required to thrive in the professional world.

Third-Year Industrial Visit

On 18th May 2024, third-year students of the Department of Aeronautical Engineering, accompanied by faculty member Mr. Rajkumar, visited the Southern Naval Command.

The industrial visit provided students with valuable exposure to the operations and technologies used by the Indian Navy, enriching their academic learning with practical insights into the defence sector.

Guest Lecture

On April 18, 2024, Dr. Premkumar delivered an enlightening lecture on "Applications of Computational Fluid Dynamics (CFD) in the Aeronautical & Aerospace Sector" at Mastering Up through an online mode. The session explored the pivotal role of CFD in optimizing aerodynamic performance, reducing drag, and enhancing fuel efficiency in aircraft design. Dr. Premkumar's insights into real-world applications, such as simulating airflow over wings and analyzing thermal management in aerospace vehicles, provided the audience with a comprehensive understanding of CFD's impact on advancing aerospace technologies.

Session Chair

Dr. P. S. Premkumar served as the **Session Chair** for the **National Conference on Wind Engineering (NCWE 2024)** held at **VIT, Chennai**, on **March 15-16, 2024**. The conference brought together experts and researchers to discuss advancements in wind engineering and its applications in aeronautics and infrastructure.

Dr. Premkumar's role in guiding the discussions and fostering insightful exchanges highlighted his expertise and contribution to the field.

M.Tech Defence Technology Students Visit Southern Naval Command, Kochi

On 23rd March 2024, a group of 8 M.Tech Defence Technology students embarked on an insightful industrial visit to the Southern Naval Command (SNC) in Kochi. The visit was organized under the guidance of faculty members Mr. G. Raj Kumar and Mr. K. Naveen Kumar.

During the visit, the students had the unique opportunity to explore **INS Sunayna**, a state-of-the-art offshore patrol vessel, gaining firsthand knowledge about its capabilities and operational significance. They were also introduced to advanced aerial assets, including the **IAF – SA 319 B Chetak (Alouette III) Helicopter** and the **IAF – DHRUV MARK 1 (INAS 322)**. This experience provided them with valuable insights into naval aviation and defence technology, enriching their understanding of real-world applications.

M.Tech Defence Technology Students Visit CABS, Bangalore

On 4th April 2024, a group of M.Tech Defence Technology students visited the **Center for Airborne Systems (CABS)** in Bangalore, accompanied by **Mr. Senthil Kumar S**.

The visit proceeded smoothly as planned, beginning with the **testing and measuring unit**, followed by an insightful tour of the **aircraft simulation room** and a demonstration of **indoor-constructed aircraft simulations**. The students also explored the **far-field testing room** and observed **lightning testing** procedures.

Inspiring Careers: Alumni Talk Series

The Department successfully organized the Alumni Talk Series 4 on 17th February 2024 . This alumni talk provided an excellent platform for students to interact with distinguished alumni and gain valuable career insights. The event featured four esteemed alumni—**Mohan Das, Sarath Kumar, Prathap, and Subramani**—all of whom are currently contributing significantly at Alten India.

Their experiences and advice resonated well with the students, offering them a clearer understanding of career pathways and the skills required in the aerospace industry.

Alumni Talk Series - Inspiring Journeys and Academic Motivation

The Department organized the *Alumni Talk Series - 3* on 22nd January 2024 . The primary objective of the session was to help students gain valuable insights from the journeys of successful alumni, inspire them to pursue their academic goals, and provide a clearer perspective on career paths.

The resource persons for the event were:

Mr. Hariharan Balachandar - Logistic Operation Head at a Gulf warehousing company, Qatar.

Mr. Ashwin - Managing Director at AGM Industries, Coimbatore.
Their experiences and guidance left a lasting impact on the students, motivating them to strive for excellence in both academic and professional pursuits.

Visit to Aeronautical Development Establishment (ADE), Bangalore

On 5th April 2024, M.Tech Defence Technology students visited the Aeronautical Development Establishment (ADE) in Bangalore. The visit offered insights into ADE's work on Unmanned Aerial Vehicles, flight simulators, pilotless target aircraft, and flight control systems. Students explored the aircraft simulators and learned about ADE's cutting-edge technologies supporting the Indian Armed Forces.

ADE's commitment to excellence is reflected in its AS9100D certification for quality management. The visit provided students with a valuable hands-on learning experience in the aerospace industry.





KCT Students Soar High with Admissions to IIT Madras Aerospace Programs

Heartfelt congratulations to our outstanding students for their remarkable achievements! Clearing the GATE exam and securing admissions in prestigious programs at IIT Madras is a monumental accomplishment that brings immense pride to our department.

Anusuya V (20BAE003) has earned a well-deserved spot in the **M.S.+Ph.D. programme** in Aerospace Engineering at **IIT Madras**. This remarkable achievement reflects Anusuya's unwavering dedication and exceptional skills, setting a high standard for all aspiring students.

Hari Prasath J (20BAE009) has successfully secured admission to the **M.Tech. programme** in Aerospace Engineering at **IIT Madras**. His perseverance and hard work have truly paid off, paving the way for a promising future in the field of aerospace.

Kishore B (20BAE016) has also gained admission to the **M.Tech. programme** in Aerospace Engineering at **IIT Madras**. This accomplishment highlights Kishore's technical expertise and commitment to advancing his knowledge and skills in aerospace engineering.

Roshan V (20BAE030) has been accepted into the **M.S.+Ph.D. programme** in Aerospace Engineering at **IIT Madras**. His impressive achievement is a reflection of his passion for research and his readiness to contribute to cutting-edge advancements in the aerospace sector. These achievements not only represent a personal triumph for each of these students but also serve as a significant laurel to our department. We are immensely proud of their success and wish them the very best.

List of Student activities during the 2023-24 Even Semester

Internships

- **Avinash R** (20BAE006) started their internship at the *Centre for Airborne Systems, Bengaluru* for a period of **4 months** from **19-01-2024** to **19-05-2024**.
- **Hari Prasath J** (20BAE009) began their internship at the *Centre for Airborne Systems, Bengaluru* for a period of **4 months** from **19-01-2024** to **19-05-2024**.
- **Ranjith S** (20BAE028) commenced their internship at the *Centre for Airborne Systems, Bengaluru* for a duration of **4 months** from **19-01-2024** to **19-05-2024**.
- **Kirubanidhi V** (20BAE015) started their internship at the *Indian Institute of Technology, Madras* for a period of **5 months** from **09-01-2024** to **31-05-2024**.
- **Roshan V** (20BAE030) began their internship at the *Indian Institute of Technology, Madras* for a duration of **5 months** from **09-01-2024** to **31-05-2024**.
- **V. Anusuya** (20BAE003) pursued their internship at the *Indian Academy of Bengaluru* for **56 days** from **02-01-2024** to **26-02-2024**, receiving a stipend of **₹ 12,500.00**.
- **Madhan S** (20BAE018) started their internship at *TATA Advanced Systems Limited, Bengaluru* for a period of **4 months** from **02-01-2024** to **30-04-2024**.
- **Srivathshan M** (20BAE041) began their internship at *TATA Advanced Systems Limited, Bengaluru* for **4 months** from **02-01-2024** to **30-04-2024**.
- **Sanjay R** (20BAE033) commenced their internship at *Larsen &Toubro Limited, Coimbatore* for a duration of **5 months** from **01-01-2024** to **31-05-2024**.
- **Sanjeev S** (20BAE034) started their internship at *Kumaraguru Centre for Industrial Research &Innovation, Coimbatore* for **4 months** from **01-01-2024** to **08-05-2024**.
- **Raja J** (20BAE027) began their internship at *Kumaraguru Centre for Industrial Research &Innovation, Coimbatore* for a period of **4 months** from **01-01-2024** to **08-05-2024**.

List of Student activities during the 2023-24 Even Semester

- **Narendramoorthy T** started their internship at Rinex Technologies Private Limited, Bengaluru, on **26-12-2023** for a period of 4 months with a stipend of ₹15,000.
- **Sandhiya C** commenced their 2-month internship at Rinex Technologies Private Limited, Bengaluru, on **23-12-2023**, receiving a stipend of ₹15,000.
- **Sarooth B** pursued a 2-month internship at Rinex Technologies Private Limited, Bengaluru, starting on **23-12-2023**, with a stipend of ₹15,000.
- **Subhash P** began a 5-month internship at Larsen & Toubro Limited, Coimbatore, on **22-12-2023**.
- **R Rahul Krishna** started their 4-month internship at BAeHAL Software Limited, Bengaluru, on **20-12-2023**.
- **Sheik Imran M** undertook a 4-month internship at BAeHAL Software Limited, Bengaluru, starting on **20-12-2023**.
- **A Austin Joel** pursued a 4-month internship at BAeHAL Software Limited, Bengaluru, beginning on **20-12-2023**.
- **V Sudheesh** started their 4-month internship at BAeHAL Software Limited, Bengaluru, on **20-12-2023**.
- **G Hemanth Nithis** embarked on a 4-month internship at BAeHAL Software Limited, Bengaluru, starting on **20-12-2023**.
- **A Arockia Roshan** completed a 4-month internship at BAeHAL Software Limited, Bengaluru, starting on **20-12-2023**.
- **Kadhir Narayanan** began a 6-month internship at Loyal Wingman Technologies Private Limited, Hosur, on **01-12-2023**, with a stipend of ₹5,000.
- **Mohamed Rafeek Raja S** pursued a 10-month internship at SurveySparrow Pvt. Ltd., starting on **24-07-2023**, with a stipend of ₹20,000.

List of Student activities during the 2023-24 Even Semester

- **Nithin Antony U, K Santhosh Kumar, Bhavana R, Dinesh P, Hari Prasath J, Hemanth Nithis G, Janarthanan B, Jeswin Shaju, Kadhir Narayanan S, Kirubanidhi V, Narendramoorthy T, Sandhiya C, Sarooth B, Sheik Imran M, Sudheesh V, Thirumalai P, Varshini S N, and Shiva K** have successfully completed the **CATIA course** from **CADD Technologies, School of Design Private Limited** during the period from **29-01-2024 to 03-02-2024**.
- **Sunantha Jeyasurya** attended **EK BHARAT SHRESHTHA BHARAT-II CAMP** at NCC training area, Idayapatti (Madurai)

List of Faculty activities during the 2023-24 Even Semester

Book Chapter Published

- **Dr. P. S. Premkumar** has published a research work titled **"Estimation of Wing Stall Delay Characteristics with Outward Dimples Using Numerical Analysis"** in **"Machine Intelligence in Mechanical Engineering"** (ISBN: **978-0-443-18644-8**) by **Woodhead Publishing** on **ScienceDirect**.

List of Faculty activities during the 2023-24 Even Semester

Patents Published

- Filed, published and granted a design patent on 02nd May 2024 for the title of "Ornithopter UAV for Animal Injections" with the design number of 370033-001.
- Filed and published a patent on "A H-Darrieus vertical axis wind turbine using the implementation of simple single mold stepped back aerofoil" with the application number of 202341084954 and published on 12/01/2024.
- Filed and published a patent on "Hybrid Quadcopter with tilt wing and tilt rotor configuration" with the application number of 202341084955 and published on 12/01/2024.
- Filed and published a patent on "Tiltable Main Rotor with Servo Motor for Enhancing Thrust and Control in an Elevated Rotary Wing UAV" with the application number of 202341089590 and published on 12/01/2024.
- Filed and published a patent on "Development of Simple Mechanism Imposed Hydro -Turbine for Various Environmental Conditions" with the application number of 202441015015 and published on 15/03/2024.

List of Faculty activities during the 2023-24 Even Semester

Papers Published

1. Dr P S Premkumar "Estimation of wing stall delay characteristics with outward dimples using numerical analysis" Machine Intelligence in Mechanical Engineering .

2. Arul Prakash R "Design and Multi-Perspective Investigations on the Aerodynamic Performance Factors of Conventional and Advanced UAV's Micro Gas-Turbine Engine Nozzles through Validated CFD" International Journal of Fluid Mechanics Research 10.1615/InterJFluidMechRes.2024051464 .

3. Vijayanandh R "Improving the Stage Efficiency of Axial Compressors by Vane Rotation " Proceedings of the ASME 2023 Gas Turbine India Conference https://doi.org/10.1115/GTINDIA2023-118396 .

4. Vijayanandh R "An Innovative Approach for the Validation of Computational Structural Outcomes of Octocopter's Connection Arms Through Advanced Finite Element Methods" Proceedings of the ASME 2023 Gas Turbine India Conference https://doi.org/10.1115/GTINDIA2023-115175.

5. Vijayanandh R "Design and Multi-Perspective Investigations on Aeroacoustic Noise Reduction Technologies for Anti-Drone Propeller" Proceedings of the ASME 2023 Gas Turbine India Conference https://doi.org/10.1115/GTINDIA2023-117639.

6. Darshan Kumar J "Design, Multiperspective Investigations, and Performance Analysis of Multirotor Unmanned Aerial Vehicle for Precision Farming" International Journal of Aerospace Engineering https://doi.org/10.1155/2024/8703004.

7. Vijayanandh R "Experimental studies and comprehensive computational investigations on composites-based phase change material for battery thermal management systems in electric vehicles" Journal of Energy Storage https://doi.org/10.1016/j.est.2024.110471.

8. Vijayanandh R "On Hidden Reason for Fractals from Water" Springer Proceedings in Materials https://doi.org/10.1007/978-981-97-1594-7_14.

List of Faculty activities during the 2023-24 Even Semester

Papers Published

9. Vijayanandh R "On Parametric Study of Fluid Leaves And Fluid Pineapple" International Journal of Fluid Mechanics Research 10.1615/InterJFluidMechRes.2024052310

10. Senthil Kumar S "Design, control, aerodynamic performances, and structural integrity investigations of compact ducted drone with co-axial propeller for high altitude surveillance" Scientific Reports https://doi.org/10.1038/s41598-024-54174-x.

11. Raj Kumar G "Multi-perspective Investigations of Aerosol's Non-linear Impact on Unmanned Aerial Vehicle for Air Pollution Control Applications Under Various Aerosol Working Environments" Aerosol Science and Engineering https://doi.org/10.1007/s41810-024-00219-7.

12. Arul Prakash R "Thermostructural analysis on airfoil fin printed circuit heat exchanger using supercritical CO2" Journal of Thermal Analysis and Calorimetry https://doi.org/10.1007/s10973-024-12925-y.

13. Vijayanandh R "Temporal numerical analysis of beeswax PCM melting in a cube geometry subjected to a constant wall temperature condition" Case Studies in Thermal Engineering https://doi.org/10.1016/j.csite.2024.104273.

14. Vijayanandh R "Water splitting via electrocatalysis and photocatalysis: Engineering stumbling blocks and advancements" International Journal of Hydrogen Energy https://doi.org/10.1016/j.ijhydene.2024.04.150.

15. Vijayanandh R "Effect of Ribs in a Suddenly Expanded Flow at Sonic Mach Number" Heliyon https://doi.org/10.1016/j.heliyon.2024.e30313.

16. Vijayanandh R "Investigation of numerical phase transition of nano-enhanced SiC/paraffin wax PCM in solar-assisted water desalination system" Thermal Science and Engineering Progress https://doi.org/10.1016/j.tsep.2024.102528.

17. Senthil Kumar M "Design, Experimental Studies, and CFD Investigations of Bio-inspired slotted rear Diffuser attachment on Car Model for Enhancing Aerodynamic Performance" International Journal of Fluid Mechanics Research 10.1615/InterJFluidMechRes.2024051566.

KUMARAGURU
college of technology
COIMBATORE – 641 049

Department of Aeronautical Engineering

INSTITUTE VISION

The vision of the college is to become a technical university of International Standards through continuous improvement.

INSTITUTE MISSION

Kumaraguru College of Technology (KCT) is committed to providing quality Education and Training in Engineering and Technology to prepare students for life and work equipping them to contribute to the technological, economic and social development of India. The College pursues excellence in providing training to develop a sense of professional responsibility, social and cultural awareness and set students on the path to leadership.

DEPARTMENT VISION

To attain excellence and global reputation in Aeronautical Engineering Education and Research.

DEPARTMENT MISSION

M1: The department is committed to provide quality education in Aeronautical Engineering to students to build their career and do quality research and thus contribute to the field of Aviation and Aerospace.

M2: The department aims to prepare students for their higher studies and research to contribute to the advanced technological needs of Aeronautical engineering.

M3: To encourage faculty to update their knowledge and teaching-learning process through continuous learning.

M4: To undertake inter-disciplinary research to contribute and support the industry.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

The Program Educational Objectives (PEOs) of Aeronautical Engineering Undergraduate Program are to prepare the students:

I. To pursue a successful profession in leading organizations.

II. To pursue postgraduate degrees and conduct research at leading technological universities to contribute to the advancement in the field of Aviation and Aerospace industries.

III. Continue their professional development by utilizing educational and career building opportunities through their employer, educational institutions, or professional bodies.

PROGRAM OUTCOMES (POS)

PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

and systems.

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Ethics: Apply ethical principles and commitment to professional ethics and responsibilities and norms of the engineering practice.

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life -long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOS):

PSO1: Apply fundamental principles of Aerodynamics, Structures, Propulsion, Materials, and Avionics to provide solutions to aerospace and non-aerospace industrial problems.

PSO2: Use the software packages in the design, manufacturing, testing and maintenance of aeronautical and aerospace based components