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ALBATROSS

**DEPARTMENT OF
AERONAUTICAL ENGINEERING
NEWSLETTER**

2025-2026

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Table of Contents

- 3** About the Department
- 4** Message
- 5** Department Activities
- 8** Faculty Achievements
- 9** Alumni Interaction
- 10** Student Achievements
- 11** Placements & Internships
- 12** AeSI Activities

About the Department.....

Aeronautical Engineering is one of the most challenging fields of engineering with a wide scope for growth. The primary job of an Aeronautical Engineer is to devise aircraft and propulsion systems, but with time, the engineer is given many more responsibilities to carry out. Our students have undergone various recent software like ANSYS, MATLAB, and NASTRO. We are aware of the keen knowledge of real-time application, overhaul, aviation systems, and maintenance testing. Our students take part in internships in HAL, NAL, AIRBUS MAHINDRA, DRDO, and ISRO. Our department holds around 6 students in Anna University ranking thus far. Not only had our alumni placed in BOEING, AIRBUS, HAL, AMAZONS, and various airports.

The department has a group of well-qualified and experienced Professors and dynamic young staff who hold their master's degrees in their area of interest from renowned institutions. Among them, three faculties have obtained a Ph.D. and three faculties are now pursuing it. Faculties published papers in their research domains.

The department has full-fledged and well-established laboratory facilities. The Aerodynamics laboratory has equipment like Pulse jet engines and ram jet engines apart from the equipment required for the curriculum. Aero Engine lab has both jet and piston engines; the Propulsion laboratory is fully equipped with a list of equipment as prescribed by the affiliated university. In CAD/CAM, the latest versions of CATIA, SOLIDWORKS, ANSYS, and CNC Software are available for students. Internet facility has been enabled in many computers for the faculty to effectively search for useful study materials.



The aircraft system laboratory is provided with Cessna aircraft with aviation instruments.

The department has well equipped class rooms with necessary teaching aids viz., LCD projectors with white board and Smart Board in order to enable power point presentations for specific/necessary lecture topics. the excellence of course delivery have been emphasised with NPTEL video lectures which is available in Digital library. The department has signed MoU with the LEADING organizations/industries related to our Aero industries. The nature of MoU is enriching technical education imparted to students, adoption of advanced technology for design solutions, regular exchange of resource and knowledge and joint programmers.



In the view of enhancing the practical knowledge of the students in-plant trainings, Industrial visits are arranged regularly. To fetch better placements our students are trained on the soft skills enhancement, interpersonal programmes, interview processes, resume building and business communication through trainings & value-added programmes included in the curriculum.



Vision

To mould the aeronautical students to achieve the excellence in the field of technical education, research, innovation, entrepreneurship and industry related development to meet the challenges in society.

Mission

To impart high quality technical education and unique interdisciplinary experiences.

To promote research, innovation and entrepreneurship culture among students for the benefits of society.

To collaborate with industry and institute for technology up-gradation.

Stay in Touch



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Principal's Message

It gives me immense pleasure to welcome you all to NIT, an eco-friendly campus that strives with a goal to attain excellence by empowering students with sound knowledge, wisdom and experience. Our strength lies in creating pleasant ambience with an excellent infrastructure, qualified and experienced faculty commi-

-tment to personal care, motivation to excel in academic, extra-curricular activities and continuous interaction with industry. Over the past 10 years the college witnessed a string blend of state-of-the-art infrastructure and dedicated human resource committed to provide professional education with trust on creativity and innovation. The motivating environment in NIT for knowledge, assimilation, generation and dissimulation with a sense of social responsibility, human values and concern for environment has curved apiece for itself among the best technical institutes.

Be committed with strong determination to learn and reach new horizon, NIT will shape you for a successful and rewarding career.

— Dr. M. Sivaraja



HOD's Message

“FUELLING & SKYROCKETING YOUR DREAMS”

With Extreme gladness, I welcome you all to the Department of Aeronautical Engineering established in the year of 2008 with a vision to produce technically competent engineers for serving the nation.

The department has crossed a decade of excellence and has become a primary identity of the institution through the laurels it has achieved.

The department has produced several university rank holders in end-semester examinations through effective knowledge dissemination using a well-structured academic curriculum aligned with universal standards. It addresses the technical needs of students through comprehensive lectures and practical sessions, thought-provoking workshops, seminars, conferences, and activity-based competitions.

Strong industry tie-ups with leading industries and startups enrich students' disciplinary knowledge and prepare them to meet rapidly changing industry demands. Students actively participate in expert talks from premier institutions such as IITs, NITs, and top industries to stay updated on recent developments. The dynamic faculty team contributes significantly through high-quality research publications, book chapters, and conference proceedings, while actively mentoring students to become skilled professionals or successful entrepreneurs.

The UG program in Aeronautical Engineering offers excellent opportunities for higher studies and careers in reputed organizations such as ISRO, NASA, DRDO, HAL, NAL, and MRO, ensuring a bright future.

I assure every student joining the B.E. Aeronautical Engineering program at NIT a successful career with strong academic prospects and professional values.

— Dr. V. Saravanan



Editor's Desk

It gives me immense pleasure to present the Newsletter for the academic year 2025–2026, a reflection of

our collective passion, progress, and pride. This edition celebrates the outstanding accomplishments of both students and faculty members in various academic, co-curricular, and extra-curricular pursuits, showcasing their dedication, creativity, and drive for excellence.

Every achievement featured within these pages embodies the true essence of the Aeronautical spirit — the desire to explore, innovate, and reach greater heights. Behind this effort stands a team whose commitment and enthusiasm have made this publication possible.

I extend my heartfelt gratitude to my editorial team for their tireless efforts and to our Management and Principal for their continuous motivation, encouragement, and unwavering support in every endeavor of the department. May this newsletter continue to inspire us all to aim higher and soar beyond boundaries.

— Prof. R. Anand



Student Editor

It is a great honor and privilege for me to contribute to the department Newsletter for this academic year.

This edition reflects the vibrant academic culture and achievements of the department. We are proud to present the milestones and activities that mark our growth and learning journey.

I sincerely thank our faculty for their constant guidance and my fellow student contributors for their dedication in bringing this newsletter together.

— Mr. Kamalesh. R, B.E (III year)

Department Activities

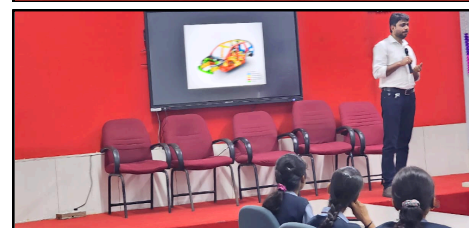
Technocraft 2025: Advanced Parametric 3D Modeling Challenge

The Department successfully organized an engaging Guest Talk and Technical Competition titled “Technocraft 2025: Advanced Parametric 3D Modeling Challenge” on 28th October 2025 at the Zero Gravity Hall.

The event featured an expert guest talk by Mr. A. Velusamy, Technical Head and Senior Design Engineer, PUMA Technovation, Gandhipuram Branch. The session provided valuable insights into advanced parametric 3D modeling techniques, industry-driven design practices, and the evolving role of digital modeling tools in modern engineering applications.

Following the guest lecture, students actively participated in the modeling challenge, where they showcased creativity, technical expertise, and innovative problem-solving skills. The competition encouraged hands-on learning and enabled participants to apply theoretical concepts to real-world design scenarios.

The event served as an excellent platform for students to interact with industry experts, gain practical exposure, and enhance their design competencies. Technocraft 2025 was a resounding success, fostering enthusiasm, innovation, and technical excellence among aspiring aeronautical engineers.



One Day National Level Seminar on NG-DTDSA 2025

A One Day National Level Seminar on “Next-Generation Drone Technologies for Defense and Security Applications (NG-DTDSA 2025)” was successfully organized on 15.10.25, bringing together eminent experts, researchers, academicians, and students to deliberate on cutting-edge advancements in drone technology and their critical role in defense and security.

The seminar was presided over by Dr. P. Krishnakumar, CEO & Secretary, Nehru Group of Institutions. The Chief Guest, Dr. B. Balakrishnan, Senior Principal Scientist-F, CSIR–National Aerospace Laboratories, delivered an insightful address highlighting emerging drone technologies and their strategic significance.

The felicitation address was given by Dr. M. Sivaraja, Principal, who encouraged students to pursue innovation-driven learning and research.

The event was further enriched by the presence of the Guest of Honour, Dr. K. Kadirvelu, Scientist-G and Associate Director, DRDO Industry Academia Centre of Excellence, who emphasized the importance of industry–academia collaboration in advancing indigenous research. A special address was delivered by Dr. H. N. Nagaraja, Executive Director (A & A), NGI, underscoring the institution’s commitment to technological excellence. The seminar proved to be a highly enriching experience, inspiring participants to explore next-generation drone technologies and motivating young minds to soar higher in the field of defense and security innovation.



Department Activities

Expert Talk on “Clean Energy for a Climate-Resilient Future”

An Expert Talk on “Clean Energy for a Climate-Resilient Future” was successfully conducted on 10th October 2025, organized by the Department of Aeronautical Engineering, Nehru Institute of Technology, in association with the Aeronautical Students Association.

The department extends its heartfelt gratitude to Mr. Suresh Kumar Simpson, General Manager – Small Projects & Inverters, Kirloskar Solar Technologies Pvt. Ltd., for delivering an inspiring and insightful session on sustainable energy solutions and their role in building a climate-resilient future.

Sincere thanks are also extended to the students, faculty members, the Kirloskar team, and the institutional leadership for their constant support and encouragement in making the event a great success. The active participation and enthusiasm of the attendees made this knowledge-sharing session both impactful and memorable.



Inauguration of Aero Hangar & Induction of Office Bearers of Phoenix – Aero Students Association

The Aero Hangar Inauguration and Office Bearers Induction Ceremony of Phoenix – Aeronautical Students Association was held on 27th September 2025 at the Aero Hangar, organized by the Department of Aeronautical Engineering.

The programme was presided over by the Chief Guest, Dr. V. Anil Kumar, Scientist–SG and Deputy General Manager, ISRO–Vikram Sarabhai Space Centre, Trivandrum. His presence added great significance to the occasion and inspired the student community.

During the event, the newly elected five Office Bearers—President, Secretary, Treasurer, Joint Secretary, and Joint Treasurer—along with eighteen Executive Members of Phoenix – Aeronautical Students Association were formally introduced. The ceremony marked the official commencement of the new student leadership team and highlighted their roles and responsibilities for the academic year.

The event served as a meaningful platform to encourage leadership, teamwork, and professional growth among students, reinforcing the association's commitment to academic excellence and co-curricular development.



Department Activities

Expert Talk on “Metal Additive Manufacturing for Aerospace Applications”

An Expert Talk on “Metal Additive Manufacturing for Aerospace Applications” was conducted on 27th September 2025 at PK Das Hall, Nehru Institute of Technology. The session was delivered by Dr. V. Anil Kumar, Scientist–SG and Deputy General Manager, ISRO–Vikram Sarabhai Space Centre, Trivandrum.

Dr. Anil Kumar provided an insightful overview of metal additive manufacturing technologies and their transformative role in modern aerospace applications. The talk highlighted advanced manufacturing processes, material innovations, design flexibility, and their impact on reducing production time and cost while improving performance and reliability.

The session enabled students and faculty members to gain valuable industry-oriented perspectives and understand the future scope of additive manufacturing in the aerospace sector. The interactive discussion further enriched the learning experience, making the session informative, inspiring, and highly impactful.



“Wings of Opportunity” Webinar on Civil Aviation Careers

II, III, and IV Year Aeronautical Engineering students participated in the “Wings of Opportunity” webinar, organized by the Indian Aviation Academy under the Pradipti Internship Scheme, on 17th September 2025. The webinar focused on emerging career opportunities in the civil aviation sector and highlighted the pivotal role of AAI in aviation sector.

The session provided participants with valuable insights into industry expectations, internship opportunities, and professional pathways within the aviation ecosystem. Students found the session highly informative and beneficial, as it enhanced their understanding of the scope and prospects available in the civil aviation domain.



Faculty Achievements



Dr. P. Vijayakumar received a research grant of ₹58,000 from the Council of Scientific and Industrial Research (CSIR) to support the organization of the National Level Seminar on Next-Generation Drone Technologies for Defense and Security Applications (NG-DTDSA 2025).

Dr.P.Vijayakumar Published a Patent about “High Efficiency Powertrain and Braking System for All-Terrain Off-Road Vehicle” on 4th July 2025.

Dr.S.Satheesh Kumar published a Journal about “Effect of Ceramic Reinforcement Chemistry on the Microstructure and Properties of Friction Stir Processed AA5083 – Al_2O_3 & WC & Si_3N_4 Composites”, on 20th June 2025.

Dr.P.Vijayakumar Published a Research Article about “Investigation on the mechanical and thermal properties of coconut shell powder and HDPE composites”, on 5th July 2025.

Dr.P.Vijayakumar Published a Journal about “Advanced Materials Processing and Characterization Technology”, 12th August 2025.

Dr.V. Saravanan published a patent titled “Machine Learning-Based Approaches for Stress Management Among Students in Higher Education” on 27th June 2025.

Mr.R.Anand published a Patent about “Artificial Intelligence-Based Design Framework for Diamond Fractal Mimo Antennas in Ultra-High-Frequency 6G Networks” on 1st August 2025.

Mr.R.Anand participated in a workshop about “Revolutionizing Indian Agriculture through Smart farming technologies for Vikshit Bharat 2047” at SIET on 6th August 2025.

Dr.P.Vijayakumar has participated in a workshop about “Revolutionizing Indian Agriculture through Smart farming technologies for Vikshit Bharat 2047” at SIET on 6th August 2025.

Mr.R.Anand Published a Patent about “Portable Weighbridge” on 5th September 2025.

Dr.S.Satheesh Kumar published a Journal about “Interfacial Bonding and Chemical Stability of Hybrid Ceramic-Reinforced AA6061 Surface Composites Prepared by Friction Stir Processing”, on 20th June 2025.

Dr.P.Vijayakumar Published a Journal about “Traffic-Related air pollution in triggering asthma attacks in children with pre-existing asthma”, on 8th July 2025.

Dr.N.Mohammed Raffie published a journal article titled “PVA/CSP/AgNPs hybrid biocomposite films: Optimization of process constraints using Taguchi-based grey relational analysis and functional property evaluation,” on August 27, 2025.

Dr. V. Saravanan published a journal article titled “Low-Cost Manual Operated Multi-Farm Machine” in the Journal of Dalian University of Technology.

Dr.S.Satheesh Kumar participated in a workshop about “Revolutionizing Indian Agriculture through Smart farming technologies for Vikshit Bharat 2047” at SIET on 6th August 2025.

Mrs.T.Banu participated in a Faculty Development Program in “Innovative Analytical Tools & Methods for Multidisciplinary Research” at JIMSGN on 25th June 2025.

Dr.P.Vijayakumar Published a Patent about “Multipurpose Pneumatic System For Agriculture Spraying, Tire Inflation and Field Cleaning”, on 4th July 2025.

Mr.S.Navaneeth published a Journal about “Adaptive Noise Filtering In Sensor Networks Using Deep Reinforcement Learning Algorithms”, 11th June 2025.

Mr.R.Anand published a Journal about “Chronic Kidney Disease Prediction Using Machine learning Methods”, on 28th June 2025.

Dr.P.Vijayakumar Published a Journal on “An experimental analysis and optimization in dual fuel engine using RCCI concept with added nanoparticles”, on 30th July 2025.

Dr.V.Saravanan has published a patent on 27th June 2025, entitled “Predictive Academic Monitoring System for Higher Education Using Hybrid Machine Learning.”

Dr.V.Saravanan published a book titled “AI, Machine Learning, and IoT Applications for Academic Performance Prediction, Faculty Well-Being, and Educational Outcomes in Higher Education” in 2025.



✱ ALUMNI INTERACTION ✱



Mr. Alwin A, M.Sc. Aerospace Engineering, Coventry University, UK

My journey from Nehru Institute of Technology, Coimbatore, to Coventry University, United Kingdom has been one of continuous learning and discovery. The strong foundation I received during my B.E Aeronautical Engineering study at Nehru Institute of Technology helped me pursue my passion for aerospace engineering with confidence. To all current students — believe in your dreams, stay curious, and never stop learning. Every challenge you face is an opportunity to grow. Success isn't just about reaching your destination; it's about how much you evolve on the way there.

I am truly grateful to my teachers and mentors who guided me through my undergraduate years and inspired me to reach higher. Wishing the next generation of engineers all the best as you continue to make our department proud!



Mr. VISHWANATHAN.S, Technical Author, Hal Contract

My journey from Nehru Institute of Technology, Coimbatore, to Coventry University, United Kingdom has been one of continuous learning and discovery. The strong foundation I received during my B.E Aeronautical Engineering study at Nehru Institute of Technology helped me pursue my passion for aerospace engineering with confidence. To all current students — believe in your dreams, stay curious, and never stop learning. Every challenge you face is an opportunity to grow. Success isn't just about reaching your destination; it's about how much you evolve on the way there.

I am truly grateful to my teachers and mentors who guided me through my undergraduate years and inspired me to reach higher. Wishing the next generation of engineers all the best as you continue to make our department proud!



Student Achievements

Mr.M.Mohamed Anas, Mr.Hariprakash, Mr.Saran, and Mr.Tamilselvan Published a Patent about “Portable Weighbridge” On 05.09.2025.



Mr.Muthukumar S, secured Second Place in Skating Roll Ball at the 6th South India Roll Ball Championship, showcasing exceptional sportsmanship and talent.



Mr.Sathya R, IV Year Aero student achieved recognition in the International Level Natural Men’s Fitness Modelling (ICN) competition held at Hyderabad, Deccan.

Two-Day Student Startup Leadership Programme (SSLP): Fostering Innovation and Entrepreneurial Mindset



Six III Year B.E. Aeronautical Engineering students—K. Dharanidevi, J. Vaishnavi, P. Jeyasakthisri, S. Mohamed Shahith, D. Yuvansai, and R. Abdul Razak—successfully participated in the Two-Day Student Startup Leadership Programme (SSLP) held on 13th and 14th August 2025 at Stella Mary’s College of Engineering, Azhikkal, Kanyakumari.

The programme was designed to cultivate leadership qualities, entrepreneurial thinking, and startup skills among young innovators. Through interactive sessions and hands-on activities, participants gained practical exposure to idea generation, business model development, marketing strategies, and effective pitching techniques.

NPTEL EXAM QUALIFIED STUDENTS



Mr.Gowtham N (Elite)
Introduction to Airplane Performance
July - September 2025



Mr.Tamilselvan S (Elite)
Introduction to Airplane Performance
July - September 2025



Mr.Mohan Raj V
Introduction to Airplane Performance
July - September 2025



Ms.Dhanalakshmi P
Introduction to Airplane Performance
July - September 2025



Mr.Thamaraikannan K
Introduction to Airplane Performance
July - September 2025



Placements & Internships



Mr.S.Praveen, IV Year student, has secured an internship at Golden Eagle Aviation with a stipend of 12,000 rupees per month.



Mr.S.Sarathi, IV Year student, has secured an internship at Golden Eagle Aviation with a stipend of 12,000 rupees per month.



Mr.Sathya.R, IV Year student, has secured an internship at Golden Eagle Aviation with a stipend of 12,000 rupees per month.



Mr.N.U.Vigas, III Year student, has successfully landed an internship at Corizo, Bengaluru with a stipend of 25,000 rupees per month.



Ms.A.Harsheen, IV Year student, has secured an internship at IIT Palakad with a stipend of 60,000 rupees.



Honored with a Certificate of Recognition from the Aeronautical Society of India

The Certificate of Recognition for Student Membership Contribution awarded by the Aeronautical Society of India (AeSI) is a prestigious honor that acknowledges dedicated efforts toward promoting professional engagement and strengthening the aerospace academic community. AeSI, being one of India's foremost professional bodies in the field of aeronautical and aerospace engineering, confers this recognition to individuals who actively contribute to expanding student participation and fostering awareness of professional standards and ethics, thereby strengthening institutional visibility, professional networking, and long-term student engagement nationwide.



AeSI Activities

Student Membership Contribution Award – AeSI Chennai Branch General Body Meeting 2025



The Student Membership Contribution Award was received at the AeSI Chennai Branch General Body Meeting 2025, held on 22nd November 2025 in Chennai, in recognition of significant efforts made toward promoting student engagement and strengthening professional membership. This award, presented by the Aeronautical Society of India (AeSI), Chennai Branch, acknowledges the active involvement in encouraging student participation, fostering awareness about professional bodies, and enhancing connectivity between academia and the aerospace industry. The recognition highlights sustained contributions toward motivating students to become members of AeSI and actively engage in technical, professional, and knowledge-sharing activities.



Receiving this award at a prestigious forum such as the General Body Meeting underscores the importance of student-driven initiatives in building a strong professional ecosystem. The honor serves as encouragement to continue promoting aerospace education, professional development, and industry-oriented exposure among aspiring aeronautical engineers.