



# MITE

AN AUTONOMOUS INSTITUTION

**Mangalore Institute of Technology & Engineering**



# Altitudes XI

**Department Magazine for the Academic Year 2025-26**

DEPARTMENT OF AERONAUTICAL ENGINEERING



# ASCEND







# MANGALORE INSTITUTE OF TECHNOLOGY & ENGINEERING



## VISION

“To attain perfection in providing Globally Competitive Quality Education to all our Students and also benefit the global community by using our strength in Research and Development”

## MISSION

To establish world class educational institutions in their respective domains, which shall be centers of excellence in their Stated and Implied sense. To achieve this objective we dedicate ourselves to meet the Challenges of becoming Visionary and Realistic, Sensitive and Demanding, Innovative and Practical and Theoretical and Pragmatic; All at the same time”



# DEPARTMENT OF AERONAUTICAL ENGINEERING

## Vision

- To be recognized as an innovative leader in aeronautical engineering through excellence in education by imparting the values of research and developments in the upcoming fields of Aeronautics.

## Mission

- The Department imparts the technical knowledge, practical skills, entrepreneurial skill to students and the channelized guiding in the varied activities with the aim of transforming the graduates into able engineers of tomorrow.
- To develop each student with an ability and passion to learn, and effective implementation with a strong foundation in skills that are relevant to the challenging world.
- To provide students with strong concepts of their core subjects and an application-oriented overview in their stipulated courses.

## Program Educational Objectives(PEOs)

- PEO-1: Graduates will have the scientific and technical knowledge to have successful career in Aeronautical industry.
- PEO-2: Graduates will have competency to analyze challenges and advancements in the focus areas of Propulsion, Structures, Aerodynamics, Flight Mechanics and Avionics.
- PEO-3: Graduates will be motivated and confident to pursue advanced education, research and development and other creative efforts in aeronautical engineering and allied areas.
- PEO-4: Graduates will have higher order thinking and leadership skills to become technology leaders of tomorrow.

## Program Specific Objectives(PSOs)

- PSO1: Graduates will be able to apply principles of aerodynamics, structural mechanics, materials, propulsion and control systems to design, analyze and integrate aircraft systems and components, ensuring compliance with industry standards and performance requirements.
- PSO2: Graduates will be able to apply experimental methods, computational tools and maintenance practices to evaluate, troubleshoot and enhance aircraft performance and safety in laboratory, simulation and operational Environments, while demonstrating professionalism, teamwork and adaptability to evolving technologies.



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## Message from the Head of the Department...

**“Flight is one of humanity's greatest achievements—not because we mastered the skies, but because we never accepted the limits of our imagination”**

Every achievement in aviation is the culmination of countless ideas, persistent effort, and an unwavering commitment to excellence. Behind every successful flight lies a journey of learning, experimentation, collaboration, and continuous refinement. These very principles continue to define the way we learn, teach, and innovate in the Department of Aeronautical Engineering.

The past academic year has been one of purposeful progress across academics, research, innovation, industry engagement, and student development. From technical projects, industrial visits, internships, and professional certifications to research initiatives, technical competitions, and emerging domains such as unmanned aerial systems, our department has continued to foster an environment where knowledge is transformed into practical engineering solutions. This magazine captures those milestones and reflects the collective efforts of our students, faculty, alumni, management, and industry partners in shaping the department's journey.

As the aviation sector evolves through advancements in intelligent unmanned aerial systems, sustainable aviation, advanced manufacturing, digital engineering, and automation, engineering education must evolve with equal purpose. Our responsibility extends beyond imparting technical knowledge; it is to nurture engineers with strong fundamentals, analytical thinking, professional ethics, and the ability to address the complex challenges of a rapidly transforming aviation ecosystem.

Looking ahead, our vision is to strengthen the department as a centre of excellence in aircraft design, unmanned aerial systems, propulsion, and digital engineering through impactful research, meaningful industry collaboration, and experiential learning. We aspire to create an ecosystem where students actively engage in innovation, professional certification, internships, multidisciplinary projects, and entrepreneurial initiatives, enabling them to contribute meaningfully to the evolving aviation sector and to India's vision of technological self-reliance.

This publication stands as a testament to the collective efforts of everyone associated with the department and our shared pursuit of academic excellence. While it celebrates the milestones of the past year, it also reaffirms our commitment to advancing knowledge, fostering innovation, and preparing future aeronautical engineers who will contribute responsibly to the aviation profession, technological progress, and national development.



**Dr. Manjunath S V,**  
Associate Professor & Head  
Department of Aeronautical Engineering  
Mangalore Institute of Technology & Engineering (MITE)



### 1. Wings of Opportunity: Inspiring Careers in Civil Aviation



The Department of Aeronautical Engineering organized an webinar on “Wings of Opportunity: Inspiring Careers in Civil Aviation” on 17 September 2025 under the Pradipti Internship Scheme of the Airports Authority of India (AAI) in collaboration with the Indian Aviation Academy (IAA). The programme, attended by 30 students, aimed to familiarize aspiring aeronautical engineers with the diverse career opportunities available in the rapidly growing civil aviation sector.

The webinar provided valuable insights into the expansion of India's aviation industry, emerging infrastructure developments, and evolving career prospects in operations, maintenance, air traffic management, aviation safety, drones and sustainable aviation. Experts also highlighted the importance of industry-oriented skills, professional certifications, internships and continuous learning for building successful careers in aviation. Through inspiring success stories and practical guidance, participants gained a deeper understanding of the competencies required to excel in the field.

An interactive question-and-answer session enabled students to clarify their queries regarding recruitment processes, eligibility criteria, and long-term career growth. The webinar successfully bridged the gap between academic learning and industry expectations, motivating students to pursue internships, skill development, and research opportunities in civil aviation. Overall, the programme strengthened students' awareness of the aviation ecosystem and reinforced the department's commitment to preparing industry-ready aerospace professionals.





## **2. Workshop on Start-Up Financial Blueprint: From Idea to Investment**



The Departments of Aeronautical Engineering and Mechanical Engineering jointly organized a one-day workshop titled "The Start-up Financial Blueprint: From Idea to Investment" on 8 October 2025. The workshop was conducted in association with P. R. Shetty & Associates, with Mr. Vishveshwara Perya, Chartered Accountant and Managing Partner, serving as the resource person. The programme aimed to equip engineering students with essential financial literacy and entrepreneurial skills required to transform innovative ideas into sustainable ventures.

The sessions introduced participants to the fundamentals of accounting, business organizations, financial markets, and the preparation and interpretation of key financial statements, including the Balance Sheet, Profit and Loss Statement, and Cash Flow Statement. Through practical demonstrations, case studies, and hands-on exercises, students learned to analyse financial performance using ratio analysis, break-even calculations, and other decision-making tools. The workshop also highlighted the importance of ethical financial practices, corporate governance, and transparency in business operations.

More than 80 students from both departments actively participated in the programme. The interactive learning environment enabled participants to appreciate the significance of financial literacy in engineering careers, particularly in entrepreneurship, project management, and technology-driven enterprises. Students gained valuable insights into evaluating business opportunities, interpreting company reports, and making informed financial decisions.

The workshop successfully bridged the gap between engineering and finance, reinforcing the idea that technical innovation must be complemented by sound financial planning. It empowered aspiring engineers with the knowledge and confidence to pursue entrepreneurial ambitions while developing a broader understanding of the financial principles that drive successful businesses.



### 3. Three-Day Hands-on Workshop on Computational Fluid Dynamics and Its Applications



The Department of Aeronautical Engineering organized a three-day hands-on workshop on "Computational Fluid Dynamics (CFD) and Its Applications" from 13–15 October 2025, providing students with an immersive learning experience in one of the most powerful computational tools used in modern engineering. The workshop was conducted by Dr. Madhwesh N, Associate Professor, Department of Mechanical and Industrial Engineering, Manipal Institute of Technology, whose expertise in CFD, heat transfer, and turbomachinery enriched the learning experience.

Designed for final-year students, the workshop seamlessly integrated theoretical concepts with practical implementation. Participants were introduced to the governing principles of fluid flow, numerical methods, mesh generation, boundary conditions, and simulation techniques before progressing to hands-on modelling using professional CFD software. Through guided exercises, students simulated fluid flow, heat transfer, and thermal systems while learning to interpret velocity contours, pressure distributions, and temperature fields.

The advanced sessions focused on industrial applications of CFD in turbomachinery, aerospace, heat exchangers, and electronic cooling systems. Students worked collaboratively on mini-projects involving flow optimization and thermal analysis, gaining valuable experience in model development, simulation, validation, and technical presentation. The interactive discussions and expert feedback encouraged participants to explore research opportunities in computational engineering and advanced simulation technologies.

With 31 enthusiastic participants, the workshop successfully strengthened students' analytical, computational, and problem-solving skills while demonstrating the growing significance of CFD in aerospace, automotive, energy, and manufacturing industries. By bridging classroom concepts with real-world engineering practice, the programme inspired participants to leverage simulation-driven design for innovation, research, and sustainable engineering solutions.

## **4. Expert Talk on Importance of Fatigue & Damage Tolerance in Aircraft Structural Design**



To strengthen student's understanding of aircraft structural safety and airworthiness, the Department of Aeronautical Engineering organized an expert talk on "Importance of Fatigue & Damage Tolerance in Aircraft Structural Design" on 16 October 2025. The session was delivered by Dr. Kishore Brahma, Former Scientist, CSIR–National Aerospace Laboratories (NAL), Bengaluru, an eminent aerospace expert with over three decades of experience in fatigue and damage tolerance, aircraft life extension, and structural integrity.

Addressing an audience of 143 students and 8 faculty members, Dr. Brahma provided valuable insights into the science of fatigue failure and its critical role in ensuring the structural reliability of aircraft. He explained the progression of fatigue damage—from crack initiation to crack propagation and eventual failure—and emphasized how modern aircraft are designed to withstand cyclic loading through robust fatigue and damage tolerance (F&DT) methodologies.

The session traced the evolution of aircraft structural design philosophies, including Safe Life, Fail Safe, and Damage Tolerant Design, highlighting their significance in meeting stringent airworthiness and certification requirements. Drawing from landmark aviation accidents such as the De Havilland Comet, Japan Airlines Flight 123, and China Airlines Flight 611, Dr. Brahma demonstrated how lessons learned from structural failures have transformed global aviation safety standards and inspection practices. The expert also shared his experiences from national aerospace programmes involving the MiG, AN-32, IL-38, and Light Combat Aircraft (LCA), providing students with a rare glimpse into the practical challenges of structural analysis, certification, and life-extension programmes in the aerospace industry. The interactive session successfully bridged classroom concepts with industrial practice, inspiring students to appreciate the importance of structural integrity in aircraft design. The programme not only enhanced technical knowledge but also motivated aspiring aerospace engineers to pursue advanced studies and research in fatigue analysis, structural health monitoring, and aircraft certification.



## **5. Inauguration of the Aeronautical Society of India (AeSI) Student Chapter & Aeronautical Union of Rising Aviators (AURA) Activities 2025-26**



The Department of Aeronautical Engineering inaugurated the AESI (Aeronautical Society of India) Student Chapter, launched the Aeronautical Union of Rising Aviators (AURA) activities for the academic year 2025–26 on 16 October 2025. The event was graced by Dr. Kishore Brahma, Former Scientist, CSIR–National Aerospace Laboratories (NAL), Bengaluru, whose vast experience in aircraft structural integrity and aerospace engineering inspired the gathering. The inauguration of the AESI Student Chapter marked a significant milestone in the department's pursuit of academic and professional excellence. The chapter will serve as a vibrant platform for students to engage in technical lectures, industrial interactions, design competitions, research activities, and networking with aerospace professionals. It aims to bridge the gap between academia and industry while fostering innovation, leadership, and lifelong learning among aspiring aeronautical engineers.

The programme also formally welcomed the newly admitted third-semester students, introducing them to the department's academic culture, research ecosystem, and student-led initiatives. A major highlight of the event was the release of the department's annual magazine, Altitude 9.0, showcasing departmental achievements, student accomplishments, research activities, alumni contributions, and memorable events of the year. The ceremony further recognized academic excellence by felicitating the department toppers and officially inducting the new AURA Office Bearers, who received their badges and assumed leadership responsibilities for the academic year 2025-26. The event concluded on an inspiring note, reaffirming the department's commitment to nurturing technically competent, professionally responsible and future-ready aerospace engineers through academic excellence, leadership and active professional engagement.



## 6. Awareness Session on Higher Studies in India and Abroad



The Department of Aeronautical Engineering organized an Awareness Session on "Higher Studies in India and Abroad" on 31 October 2025. The session was conducted by Planet Education and delivered by Ms. Priya K., Regional Head (South), an experienced higher education consultant with over two decades of expertise in guiding students toward global academic opportunities.

The session provided comprehensive guidance on postgraduate opportunities in India and abroad, covering application procedures, admission requirements, scholarship opportunities, visa processes, and financial planning. Students were introduced to standardized examinations such as GRE, IELTS, TOEFL, and Duolingo, along with essential application documents including Statements of Purpose (SOPs), Letters of Recommendation (LORs), and academic portfolios. The resource person also highlighted leading international universities offering specialized programs in Aeronautical and Aerospace Engineering and discussed various government and international scholarship schemes.

An interactive question-and-answer session addressed students' queries on specialization choices, career prospects, and overseas education pathways. The programme significantly enhanced students' awareness of global higher education opportunities and motivated them to pursue advanced studies and research in aerospace engineering, reinforcing the department's commitment to fostering academic excellence and international career readiness.





## **7. Two-Day Hands-on Workshop on Drone Technology, Quadcopter Development and Remote Pilot Fundamentals**



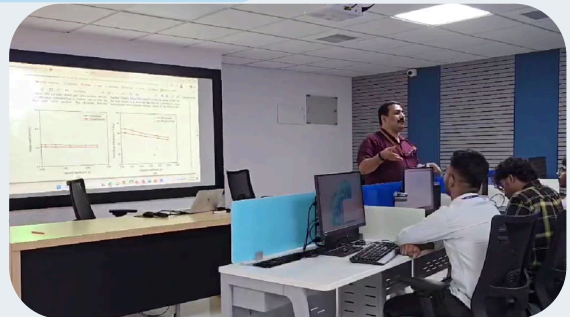
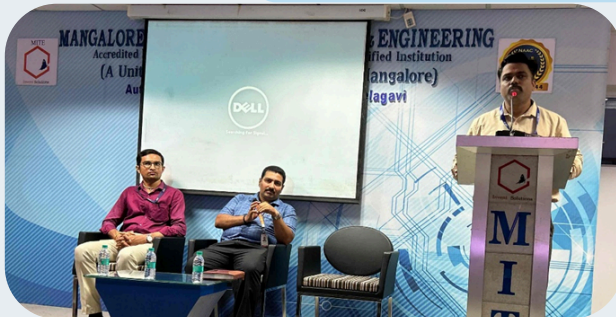
The Department of Aeronautical Engineering organized a Two-Day Hands-on Workshop on "Drone Technology, Quadcopter Development and Remote Pilot Fundamentals" on 30–31 March 2026 in collaboration with Piefly Aviation, Mysuru, a DGCA Authorised Remote Pilot Training Organisation (RPTO). The workshop was led by Mr. Amruth Raj, VP–Projects and DGCA Certified Small & Medium Instructor and Mr. B. Shiv Kumar, Executive (Business Development & Projects), Piefly Aviation. A total of 56 students and 2 faculty members actively participated in this industry-oriented programme.

The workshop provided participants with comprehensive exposure to the rapidly evolving field of Unmanned Aerial Vehicles (UAVs), combining theoretical knowledge with extensive hands-on training. Students were introduced to UAV fundamentals, quadcopter architecture, flight principles, DGCA regulations, airspace classifications, operational safety, and the process of obtaining a Remote Pilot Certificate. The expert sessions also highlighted the expanding role of drones across industries such as agriculture, infrastructure inspection, surveying, disaster management, cinematography, logistics, and defence. A major highlight of the programme was the practical experience gained through quadcopter assembly, electronics integration, flight controller configuration, calibration, and real-time flight operations. Working in teams, participants assembled drone frames, integrated critical components, configured Pixhawk flight controllers, and performed pre-flight inspections before successfully operating their drones during live flying sessions at MITE Greens under expert supervision.

The workshop concluded with discussions on emerging career opportunities, entrepreneurship, and advanced training pathways in the UAV ecosystem. By blending technical concepts with practical implementation, the programme equipped students with valuable industry-relevant skills and inspired them to explore innovation, research, and professional careers in the rapidly growing drone technology sector.



## 8. Two-Day Workshop on Computational Fluid Dynamics (CFD) for Innovation and Sustainable Aeronautical Applications



The Department of Aeronautical Engineering organized a Two-Day Hands-on Workshop on "Computational Fluid Dynamics (CFD) for Innovation and Sustainable Aeronautical Applications" on 28–29 April 2026 for students of Aeronautical Engineering and Mechatronics. The workshop was conducted by Dr. Madhwesh N, Associate Professor, School of Mechanical Engineering and Deputy Registrar (Evaluation), MIT Manipal, providing participants with valuable insights into modern CFD techniques and their applications in aerospace engineering.

The programme combined expert lectures with intensive hands-on sessions, enabling participants to understand the complete CFD workflow—from geometry creation and mesh generation to solution strategies, post-processing, and validation. Students gained practical experience using ANSYS Fluent/CFX, where they modelled aerodynamic and thermal problems, applied appropriate boundary conditions, selected numerical methods and turbulence models, and interpreted simulation results with confidence.

Advanced sessions focused on airfoil analysis, internal flow simulations, heat transfer, turbomachinery, and high-speed compressible flows, demonstrating the vital role of CFD in aircraft design, propulsion systems, and sustainable engineering. Participants also explored emerging technologies such as AI-assisted CFD, digital twins, and simulation-driven design, highlighting the future of computational engineering in the aerospace industry.

The workshop emphasized the importance of computational tools in reducing design time, optimizing performance, and improving engineering decision-making. Through practical exercises and real-world case studies, students developed strong analytical and problem-solving skills while gaining industry-relevant exposure to advanced simulation techniques. The workshop successfully bridged theoretical concepts with practical applications, equipping participants with the computational expertise required for research, higher studies, and careers in aerospace, automotive, energy, and advanced manufacturing sectors. It reaffirmed the department's commitment to providing experiential learning and preparing students for the rapidly evolving world of digital engineering.



## 9. Two-Day Hands-on Workshop on Supersonic Flows, Aeroacoustics and DAQ-Enabled Experimental Techniques



The Department of Aeronautical Engineering organized a Two-Day Hands-on Workshop on "Supersonic Flows, Aeroacoustics and DAQ-Enabled Experimental Techniques" on 4–5 May 2026. The workshop was conducted by Dr. Surendra Bogadi, Associate Professor, Rajalakshmi Engineering College, Chennai, an expert in high-speed aerodynamics, aeroacoustics, and experimental fluid mechanics. The programme brought together 98 students for an intensive learning experience that combined theoretical concepts with advanced experimental and computational techniques. The workshop introduced participants to the fundamentals of compressible flow, shock waves, supersonic jet structures, and aeroacoustics, emphasizing their significance in modern aerospace engineering. Through engaging lectures and practical demonstrations, students explored the mechanisms of jet noise generation, shock-cell formation, and the influence of high-speed flows on aircraft performance and structural safety.

A major highlight of the programme was the hands-on training in DAQ-enabled aeroacoustic experimentation. Participants gained practical exposure to high-speed jet flow facilities, precision microphones, pressure sensors, and PicoLog-based Data Acquisition (DAQ) systems for measuring and analysing sound pressure levels and aerodynamic data. Students also learned signal conditioning, spectral analysis, and the interpretation of acoustic measurements using industry-standard experimental techniques. The workshop further enhanced participants' computational skills through ANSYS Fluent-based CFD simulations of supersonic flow over wedges and jet configurations. Students developed, simulated, and validated numerical models while correlating computational results with experimental observations, providing a comprehensive understanding of high-speed aerodynamic phenomena.

By integrating experimental measurements with computational analysis, the workshop offered participants a rare opportunity to experience cutting-edge aerospace research methodologies. The programme strengthened students' technical competence and inspired them to pursue advanced studies and research in aerodynamics, aeroacoustics, propulsion, and structural health monitoring, reaffirming the department's commitment to experiential and research-driven learning.

## 10. Drone Edge 2026-Precision Flight Challenge



As part of Sentia 2026, the national-level technical and cultural fest of MITE, the Department of Aeronautical Engineering successfully organized Drone Edge 2026 – Precision Flight Challenge, an intercollegiate drone competition held on 24 March 2026, which attracted more than eight teams from engineering institutions across Karnataka. The event provided an exciting platform for students to demonstrate their technical expertise, innovation, and precision in unmanned aerial vehicle (UAV) design and operation.

The competition required participants to pilot manually controlled quadcopters through a challenging obstacle course featuring low-altitude take-off, precision gate navigation, chamber pass, and controlled spot landing. Teams were evaluated based on flight accuracy, stability, maneuverability, control, and completion time, simulating real-world UAV operational challenges. Drone Edge 2026 encouraged students to apply their knowledge of aerodynamics, flight control, electronics, and systems integration in a competitive environment while promoting innovation, teamwork, and problem-solving skills. The event also served as a valuable platform for technical interaction and knowledge exchange among participants from different institutions.

Recognizing excellence, two teams were felicitated with the Winner and Runner-up awards for their outstanding performance, precision flying, and technical competence. Organized as a flagship event of Sentia 2026, Drone Edge successfully inspired students to explore emerging UAV technologies and strengthened their practical engineering skills for future careers in aerospace, defence, and autonomous systems.





## **1.Alumni Talk on From Design to Delivery: A Journey Through the Lifecycle of Aerospace Components**



The Department of Aeronautical Engineering organized an engaging alumni talk on "From Design to Delivery: A Journey Through the Lifecycle of Aerospace Components" on 11 October 2025. The session was delivered by Ms. Queena Menezes, an alumna of the 2016–2020 batch and Engineer at Safran Aircraft Engines, Hyderabad. Drawing upon her professional experience at Skanda Aerospace Technologies and Safran Aircraft Engines, she provided students with valuable insights into the end-to-end development of aerospace components in a globally regulated industry.

Sharing her professional journey, Ms. Queena explained how aerospace components evolve through every stage of the product lifecycle—from concept design, configuration management, and new product development to testing, certification, industrialization, and production support. Using examples from her work on the Low-Pressure Turbine (LPT) section of LEAP aircraft engines, she highlighted the importance of precision engineering, quality assurance, and cross-functional collaboration in delivering reliable and airworthy aerospace products.

The session also emphasized the critical role of configuration management, design validation, documentation, and compliance with international aerospace standards in ensuring traceability and maintaining product quality throughout the manufacturing process. Students gained a deeper appreciation of how engineering, manufacturing, and quality teams work together to transform innovative designs into certified aerospace components.

Encouraging students to embrace lifelong learning, Ms. Queena emphasized the importance of strengthening technical knowledge alongside communication, teamwork, and problem-solving skills. She also highlighted emerging opportunities in digital manufacturing, systems integration, and sustainable aerospace engineering. Attended by over 130 students and faculty members, the interactive session successfully bridged academic learning with industrial practice, inspiring participants to pursue rewarding careers in the global aerospace industry.

## 2.Alumni Talk on Career Prospects in Aeronautical Engineering



As part of its alumni engagement initiatives, the Department of Aeronautical Engineering organized an inspiring talk on "Career Prospects in Aeronautical Engineering" on 11 October 2025. The session was delivered by Mr. Junaid M. J., an alumnus of the 2016–2020 batch and FEA Engineer – Military Aviation, Blue Hat Solutions Pvt. Ltd., Bengaluru, who shared valuable insights from his professional journey in the aerospace and defence sectors.

Reflecting on his career progression from HAL's Rotary Wing Research and Design Centre (RWRDC) to his current role in military aviation, Mr. Junaid highlighted the growing importance of structural analysis and simulation in the design and certification of modern aircraft. Through practical examples from helicopter programmes and fighter aircraft systems, he demonstrated how engineering analysis contributes to safety, reliability, and mission readiness.

The session emphasized the increasing demand for professionals skilled in Finite Element Analysis (FEA), Computational Fluid Dynamics (CFD), CAD modelling, and digital engineering tools. Students were encouraged to build strong fundamentals in aerodynamics, structures, and materials while developing proficiency in industry-standard software and emerging technologies such as digital twins, additive manufacturing, and artificial intelligence.

Mr. Junaid also discussed the diverse career opportunities available in research laboratories, public sector undertakings, defence organizations, and private aerospace industries. He encouraged students to embrace continuous learning, strengthen their technical competencies, and remain adaptable in an ever-evolving aerospace landscape. Attended by over 130 students and faculty members, the interactive session provided valuable career guidance and inspired participants to pursue excellence, innovation, and lifelong learning in the field of aeronautical engineering.



### 3. Alumni Talk on Harnessing Cloud Technology in Aerospace



The Department of Aeronautical Engineering organized an enlightening alumni talk on "Harnessing Cloud Technology in Aerospace" on 11 October 2025. The session was delivered by Mr. Sanjay M. V., an alumnus of the 2016–2020 batch and Senior Platform Engineer at MontyCloud, Bengaluru. Drawing upon his experience at DXC Technology, Airbus India, and MontyCloud, he showcased how cloud computing and digital technologies are redefining the future of aerospace engineering.

Sharing his professional journey, Mr. Sanjay explained his contributions to the Digital Product Lifecycle Management (PLM) initiatives at Airbus, where he worked on commercial aircraft programmes including the A320, A330, A350, and A380. He also shared his experience of visiting the Final Assembly Lines (FAL) in Toulouse, France, offering students valuable insights into advanced aircraft manufacturing and digital engineering practices.

The session highlighted the growing role of cloud computing, artificial intelligence, and data analytics in enabling digital transformation across the aerospace industry. Mr. Sanjay explained how cloud platforms support large-scale engineering data management, high-performance simulations, collaborative product development, predictive maintenance, and digital twin technologies. He also demonstrated how AI-driven cloud solutions enhance operational efficiency, scalability, and innovation in modern engineering enterprises.

Encouraging students to embrace interdisciplinary learning, he emphasized the importance of combining aerospace fundamentals with software development, cloud technologies, and data science to remain competitive in the evolving aviation sector. He inspired participants to continuously upgrade their technical skills and adapt to emerging technologies. Attended by over 130 students and faculty members, the interactive session broadened students' perspectives on digital innovation and highlighted the expanding opportunities at the intersection of aerospace engineering and cloud technologies.

## **4. Alumni Talk on The New Space Race: Engineering the Next Generation of Aero-Tech**



The Department of Aeronautical Engineering organized an inspiring alumni talk titled "The New Space Race: Engineering the Next Generation of Aero-Tec" on 7 March 2026. The session was delivered by Ms. Chaithanya N, an alumna of the 2014–2018 batch and Engineer II – Data Scientist/Machine Learning Developer at Thermo Fisher Scientific, Bengaluru. Her journey from an Aeronautical Engineering graduate to a successful AI professional highlighted the limitless opportunities available through interdisciplinary learning.

The talk explored the transformative role of artificial intelligence, machine learning, big data, and cloud computing in shaping the future of aerospace engineering. Drawing from her professional experience, Ms. Chaithanya demonstrated how intelligent data-driven systems are revolutionizing engineering applications through predictive analytics, recommendation systems, automation, and large-scale machine learning models. She also emphasized the increasing adoption of AI in aerospace for autonomous systems, predictive maintenance, mission planning, and advanced engineering design.

Reflecting on her career progression, she encouraged students to complement their core engineering knowledge with programming, data analytics, and computational skills to remain competitive in the rapidly evolving technology landscape. She emphasized the importance of continuous learning, innovation, and adaptability in building successful careers.

The interactive session inspired students, offering valuable insights into emerging career pathways at the intersection of aerospace engineering and digital technologies. The programme reinforced the department's commitment to strengthening alumni engagement and exposing students to contemporary industry trends, empowering them to become future-ready engineers capable of driving innovation in the next generation of aerospace technology.



## 5. Alumni Talk on UAV Systems Engineering: Conceptual Design to Functional Prototype



The Department of Aeronautical Engineering organized an engaging alumni talk on "UAV Systems Engineering: Conceptual Design to Functional Prototype" on 7 March 2026. The session was delivered by Ms. Shayani Rao, an alumna of the 2011–2015 batch and Research Scholar at the National Institute of Technology Karnataka (NITK), Surathkal. Drawing upon her academic achievements, industry experience, and ongoing research, she provided students with valuable insights into the rapidly advancing field of Unmanned Aerial Vehicle (UAV) systems.

Reflecting on her journey from Aeronautical Engineering at MITE to postgraduate studies in Aerospace Propulsion Technology and research at NITK, Ms. Shayani highlighted the importance of continuous learning and interdisciplinary expertise. She shared how her experience in data engineering, robotics, and artificial intelligence has complemented her work in aerospace research, enabling innovative approaches to UAV development.

The session focused on the complete engineering lifecycle of UAV systems, from conceptual design and airframe development to propulsion, avionics, flight control systems, and prototype validation. She explained how aerodynamics, electronics, embedded systems, software, and intelligent control algorithms are integrated to develop reliable and efficient unmanned aircraft for applications such as surveillance, aerial mapping, environmental monitoring, disaster management, and precision agriculture.

Encouraging students to actively engage in research, competitions, and hands-on projects, Ms. Shayani emphasized the growing opportunities in autonomous systems, robotics, and drone technologies. Attended by over 100 students, the interactive session inspired participants to explore innovation in UAV engineering and reinforced the department's commitment to nurturing future-ready aerospace professionals through strong industry and research collaborations.

## 6. Alumni Talk on From Campus to Career: Building Industry-Ready Perspectives



The Department of Aeronautical Engineering organized an inspiring alumni talk on "From Campus to Career: Building Industry-Ready Perspectives" on 24 April 2026. The session was delivered by Mr. Prajwal Prabhakar Poojari, an alumnus of the 2014–2018 batch and Product Manager at Tata Communications, Pune. Drawing upon his diverse professional journey across aerospace, core engineering, startups, and product management, he shared valuable insights on building a successful and adaptable career in today's dynamic industry.

Reflecting on his journey after graduating from MITE, Mr. Prajwal highlighted his entrepreneurial experience as a co-founder of Black Mallet LLP, where he was actively involved in aerospace design, production, and project execution. He also shared his exposure to large-scale industrial projects through his work with leading organizations such as Indian Oil, Bharat Petroleum, Hindustan Petroleum, and Mangalore Refinery, emphasizing the importance of practical problem-solving and adaptability in engineering careers.

A key focus of the session was the evolving expectations of modern industries, where technical expertise must be complemented by communication, leadership, critical thinking, and project management skills. He explained how continuous learning and interdisciplinary competencies enabled his transition into product management, where he currently leads automotive connectivity solutions for global clients.

Encouraging students to embrace internships, innovation, and lifelong learning, Mr. Prajwal inspired participants to explore diverse career pathways while developing a growth mindset and professional resilience. Attended by over 50 students, the interactive session provided valuable guidance on career planning and reinforced the importance of becoming industry-ready engineers equipped for emerging technological challenges.





# AICTE ACTIVITIES

## 2025-26



**Creating a difference with happiness, patience, perseverance, and good will**

## **1. AICTE Activity: Promoting Local Tourism through Innovative Approaches**



As part of the AICTE Activity Point Programme, the Department of Aeronautical Engineering organized an educational heritage visit on 17 September 2025 to Varanga Jain Temple and Chaturmukha Basadi, Karkala, involving 52 fifth-semester students. The activity aimed to promote local tourism while fostering awareness of India's rich cultural, architectural, and historical heritage.

The visit offered students an immersive learning experience at two renowned Jain heritage sites. At Varanga Kere Basadi, students travelled by traditional coracle to the 12th-century lake temple, gaining insights into sustainable tourism, heritage conservation, and the role of local communities in preserving cultural landmarks. The visit continued to the Chaturmukha Basadi at Karkala, where participants explored the remarkable four-faced granite temple, appreciating its architectural symmetry, intricate stone craftsmanship, and engineering excellence.

The programme highlighted the importance of preserving heritage sites through responsible tourism and demonstrated the connection between engineering, traditional architecture, and sustainable community development. Students also interacted with local caretakers to understand conservation practices and the significance of cultural preservation.

To extend the impact of the initiative, students documented the visit through engaging social media reels, creating wider public awareness about the region's heritage and tourism potential. The activity successfully combined experiential learning with social responsibility, inspiring students to appreciate, preserve, and promote India's rich cultural legacy while supporting the objectives of the AICTE Institutional Social Responsibility initiative.



## **2. AICTE Activity: Facilitating 100% Digitized Money Transactions**



As part of the AICTE Activity Point Programme, the Department of Aeronautical Engineering conducted a community outreach initiative on "Facilitating 100% Digitized Money Transactions" from 11–25 November 2025 across Moodabidre, Mangalore, Malpe, Kannur, Puttige Padavu, Belman, and Karkala. The programme involved 31 seventh-semester students, who actively promoted digital payment awareness among customers, shopkeepers, and small vendors.

The initiative aimed to encourage the adoption of secure and convenient digital payment methods in support of the Digital India mission. Students interacted directly with the public, demonstrating the use of UPI-based applications, QR code payments, mobile banking, and digital wallets. Special emphasis was placed on educating first-time users, particularly elderly citizens and small business owners, by addressing concerns related to digital security, transaction verification, fraud prevention, and safe online payment practices.

Through practical demonstrations and one-to-one interactions, participants gained confidence in using cashless payment systems while appreciating the benefits of transparency, convenience, and financial security. The programme also enabled students to strengthen their communication, leadership, and community engagement skills through meaningful public interaction.

The activity successfully enhanced awareness of digital financial technologies and reinforced the importance of technology-driven financial inclusion. It reflected the department's commitment to social responsibility by empowering communities with essential digital literacy skills while supporting the national vision of a secure and cashless economy.

### 3. Awareness Program on Developing and Managing an Efficient Garbage Disposal System



As part of the AICTE Activity Point Programme, the Department of Aeronautical Engineering organized an awareness campaign on "Developing and Managing an Efficient Garbage Disposal System" on 22 May 2026 at Moodabidri and Shirthady Panchayat, in association with the Rotary Club of Moodabidri, Temple Town. The programme engaged 58 second-year students, who actively interacted with local residents and shopkeepers to promote sustainable waste management practices.

The campaign focused on creating awareness about waste segregation at source, recycling, the 3R (Reduce, Reuse, Recycle) principle, waste-to-energy technologies, e-waste management, and innovative smart waste management systems. Students prepared informative charts and posters to demonstrate practical approaches for responsible waste disposal, including colour-coded waste segregation, composting, biogas generation, smart dustbins, AI-enabled waste monitoring, and the concept of a zero-waste community. Through interactive discussions, participants were encouraged to adopt environmentally responsible practices for cleaner and healthier surroundings. The initiative significantly enhanced public awareness regarding efficient garbage disposal and environmental conservation while encouraging community participation in sustainable waste management. It also provided students with an opportunity to strengthen their communication, leadership, teamwork, and social responsibility through meaningful community engagement. The programme successfully reflected the department's commitment to combining technical knowledge with social service, fostering environmental consciousness, and contributing to sustainable community development in line with the objectives of the AICTE Activity Point Programme.





## 1. Industrial Visit to Chowgule Shipbuilding Division, Mangaluru



The Department of Aeronautical Engineering organized an industrial visit to Chowgule Shipbuilding Division, Mangaluru, on 17 November 2025 for 52 fifth-semester students. The visit was aimed at providing practical exposure to large-scale manufacturing, structural fabrication, quality assurance, and industrial engineering practices, while highlighting their relevance to aerospace engineering.

Students toured various sections of the shipyard, gaining first-hand insights into steel fabrication, modular construction, welding, marine propulsion integration, corrosion protection, and non-destructive testing (NDT). The visit also emphasized industrial safety practices, including the use of personal protective equipment (PPE), workshop discipline, and safe material handling.

The programme enabled students to appreciate the similarities between shipbuilding and aircraft manufacturing, particularly in structural design, fatigue analysis, material selection, modular assembly, and quality control. These observations complemented their academic learning in subjects such as Aircraft Structures, Manufacturing Processes, Materials Science, Propulsion, and Maintenance Engineering.

The industrial visit successfully bridged the gap between classroom learning and industrial practice, broadening students' understanding of multidisciplinary engineering applications. It also strengthened their awareness of modern manufacturing technologies, quality standards, and career opportunities in advanced engineering industries, reinforcing the department's commitment to experiential and industry-oriented learning.



## 2. Academic Visit to Manipal Institute of Technology



The Department of Aeronautical Engineering organized an academic visit to the Department of Aeronautical and Automobile Engineering, Manipal Institute of Technology (MIT), MAHE, Manipal, providing students with valuable exposure to advanced laboratories, research facilities, and emerging aerospace technologies. The visit bridged classroom learning with practical applications through expert interactions and hands-on demonstrations.

Students visited the Avionics Laboratory, where they explored modern flight control systems, cockpit instrumentation, flight simulators, and robotic platforms, gaining insights into autonomous systems and intelligent aircraft technologies. The Antenna Design and Wireless Communication Laboratory introduced participants to aircraft communication, radar systems, antenna design, and electromagnetic simulation using CST software. They also observed advanced microwave and wireless communication facilities.

The visit continued to the Aerodynamics Laboratory, where students witnessed wind tunnel testing, laser-based flow visualization, and experimental analysis of airflow over aerofoils. In the Aircraft Propulsion Laboratory, demonstrations of turbofan engine models, axial-flow compressors, and mini gas turbine engines enhanced their understanding of jet propulsion and engine performance.

The visit significantly strengthened students' technical knowledge, exposing them to state-of-the-art research, simulation tools and experimental techniques. It inspired participants to pursue innovation, research, and higher studies while reinforcing the department's commitment to experiential and industry-oriented learning.

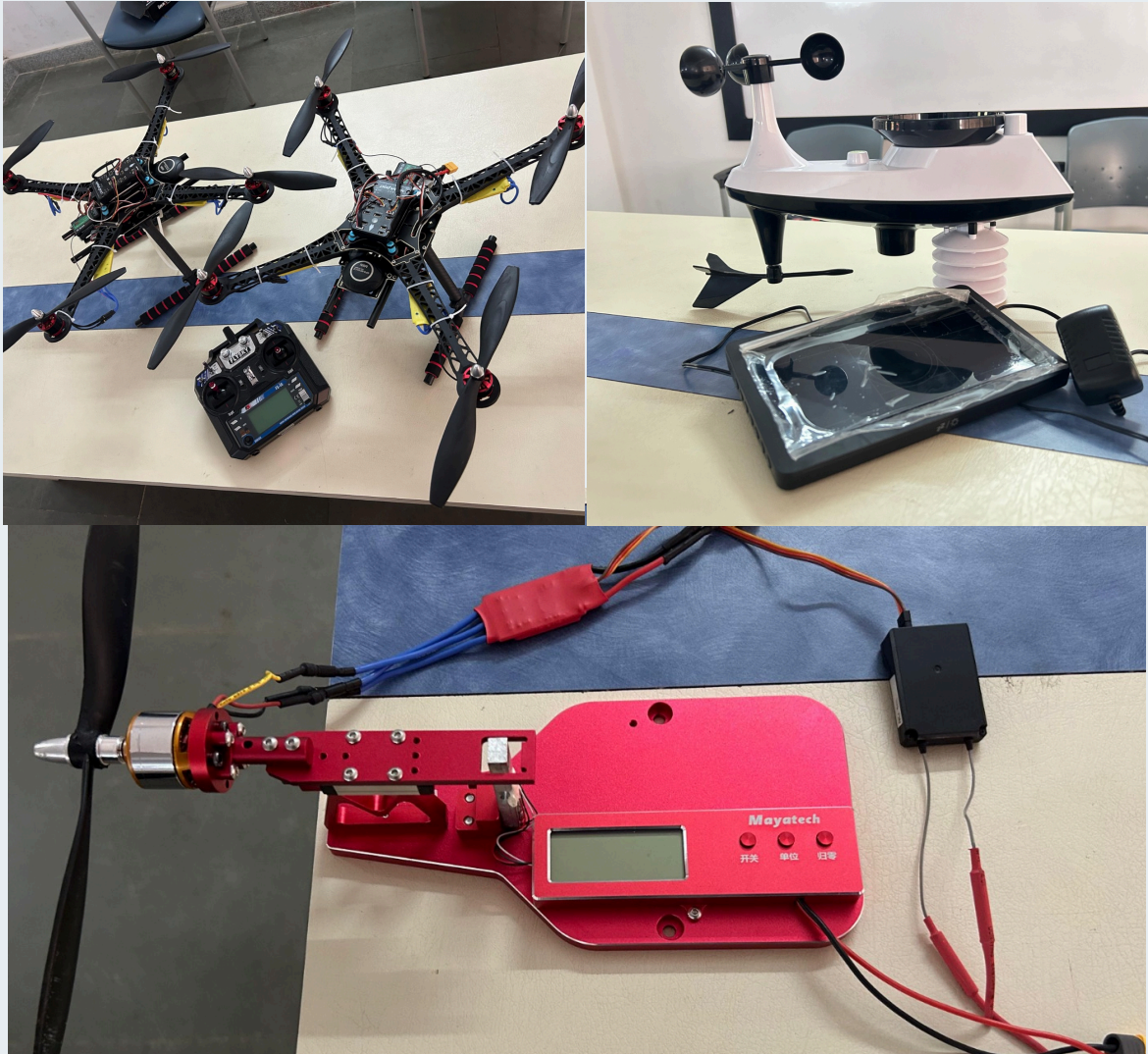




## New Laboratories Established during 2025-26

### Drone Pilot Training Laboratory

The Department of Aeronautical Engineering established the Drone Pilot Training Laboratory during the academic year 2025–26 to provide hands-on training in unmanned aerial vehicle (UAV) systems. The laboratory is equipped with 11 major facilities, including quadcopter kits, fixed-wing UAVs, thrust stand, weather monitoring station, RC simulators, transmitters, batteries, charging systems and drone assembly toolkits. The facility enables students to gain practical experience in drone assembly, propulsion testing, flight control, navigation, and UAV operations. It supports skill development, student projects, industry-oriented training, and research in drone technology, autonomous systems, and aerospace applications.



## University Ranks in Aeronautical Engineering

**2015-16**



**GAUTHAMI G**

7

**2017-18**



**PRIYANKA P**

2



**DINAKAR**

10

**2018-19**



**VISHNU C**

2



**SHWETHA S**

10

**2019-20**



**CLAVIN WILTON SEQUIRIA**

2

**2020-21**



**YAJNESHA P**

6

**2021-22**



**CHAITRA M**

2



**VINAY A D**

3

**2022-23**



**RAHUL S**

7

**2023-24**



**MONISHA M**

3



**RANJITHA G**

4



**TUSHAR**

6



**DEEKSHA R B**

9

### Academic Toppers 2025-26

**IV Year**



**G ANANYA PRABHU**

1



**MEGHA B**

2



**SHESHAPRASAD BHAT**

1



**DIVYA HIREMATH**

2

**III Year**



**SAI ESHWAR**

1



**TAPASYA**

2

**II Year**



## NPTEL Certification Courses by Students 2025-26



1. Rashmi completed a 12-week Swayam course on wind Energy from IIT Kanpur
2. Niyathi S completed a 12-week Swayam course on wind Energy from IIT Kanpur
3. Niyathi S completed a 12-week Swayam course on Air Transportation: an overview from IIT Bombay
4. Abhignya S Acharya 12-week Swayam course on Air Transportation: an overview from IIT Bombay
5. Amruth 12-week Swayam course on Air Transportation: an overview from IIT Bombay
6. Divya Hiremath 12-week Swayam course on Air Transportation: an overview from IIT Bombay
7. Esha 12-week Swayam course on Air Transportation: an overview from IIT Bombay
8. Jeevan 12-week Swayam course on Air Transportation: an overview from IIT Bombay
9. Jeevan Roy Menezes 12-week Swayam course on Lighter than Air Systems from IIT Bombay
10. Jossy M Gonsalves 12-week Swayam course on Lighter than Air Systems from IIT Bombay
11. Keerthi K 12-week Swayam course on Air Transportation: an overview from IIT Bombay
12. Mohammed Shaheed 12-week Swayam course on Air Transportation: an overview from IIT Bombay
13. Mohammed Sufiyan Tilavalli 12-week Swayam course on Air Transportation: an overview from IIT Bombay
14. Moulya C M 12-week Swayam course on Air Transportation: an overview from IIT Bombay
15. Prajna KH 12-week Swayam course on Air Transportation: an overview from IIT Bombay
16. Sheshaprasad Bhat 12-week Swayam course on Lighter than Air Systems from IIT Bombay
17. Shreyas 12-week Swayam course on Air Transportation: an overview from IIT Bombay
18. Tejas Gowda T 12-week Swayam course on Air Transportation: an overview from IIT Bombay
19. Thanvi U K 12-week Swayam course on Air Transportation: an overview from IIT Bombay
20. Vaseem Ahemed 12-week Swayam course on Lighter than Air Systems from IIT Bombay

## NPTEL Certification Courses by Faculty and Non Teaching Staff

1. Richard completed a 4-week Swayam course on Electronic waste management Issues and Challenges, IIT Kharagpur
2. Hariprasad R. Bhate completed a 4-week Swayam course on Electronic Waste Management Issues and Challenges, IIT Kharagpur
3. Vishwaretha K R: 12-week Swayam course on Air Transportation: An Overview, IIT Bombay
4. Amar Gandge Subash 12-week Swayam course on Air Transportation: An Overview, IIT Bombay
5. Mr. Amar Gandge Subash 12-week Swayam course on OBE and Accreditation, Indian Institute of Science

## Faculty Publications 2025-26

- Mr. Sujesh Kumar, Mr. Amar Gandge Subash, & Dr. V. Madhanraj (2025) published “Fault Detection in Belts Using Advanced Signal Processing Techniques and Machine Learning Classification” in the International Journal of Applied Mathematics, demonstrating the application of artificial intelligence for predictive maintenance and fault diagnosis .
- Vishwaretha K R, Mr. Praveen Shenoy, Mr. Rajesh, Dr. V. Madhanraj, and Mr. Amar Gandge Subash(2025) published “A Study on the Vibration and Force Characteristics of Unmanned Aerial Vehicles” in the International Journal of Applied Mathematics, contributing to the understanding of UAV structural dynamics and operational reliability.
- Mr. Ajith Kumar, Dr. V. Madhanraj, and Mr. Vinod M.(2025) published “Prototype of Airborne Hybrid Wind-Solar Power Generation System for Electric Vehicle Charging” in the Journal of Applied Bioanalysis, proposing a sustainable energy-generation concept integrating airborne renewable energy technologies.
- Dr. G. Ezhilmaran ,et al.(2026) published “Effect of Lip Thickness on Under-expanded Coaxial Sonic Jet Mixing” in the International Journal of Vehicle Structures and Systems, advancing the understanding of jet flow development and mixing characteristics
- Ajith Kumar, Amar G S, Prashant C, Madhanraj V (2026) published “Study On The Effect Of Stacking Sequence On Tensile, Flexural And Impact Behavior In Carbon/Basalt/ Glass/Kevlar Epoxy Hybrid Polymer Composites”. in the Academic Journal of Manufacturing Engineering, 24(1).
- Ajith Kumar & Verma, K. (2026) published “Percussion-based vibration and audio signal analysis for structural health monitoring of bolted joints” in the Australian Journal of Structural Engineering, 1-7.
- Sujesh Kumar ., Prabhakar, G., Mahalik, S. ., Sahoo, S. K. ., Kharote, P. , Asundi, A. K. ., & Haqqani, M. H (2026). Design and fabrication of an efficient solar powered desalination system for remote communities. Future Technology, 5(3), 57–68.

## Students Paper Publications During 2025-26

- Bhandary, H. S., Arnha, V. A., Devadiga, P., & Mohammed, H. U.Gopalakrishnan, E., Ajith Kumar.(2025), Numerical Analysis of Divergence Angle for a CD Solid Propellant Rocket Nozzle. Journal of Aeronautics, Astronautics and Aviation, 57(7S), 1529-1537.
- Prathap Nayak, Pallavi B, Kushi, Yashin Rajeev, Madhanraj V published (2025),Aerodynamic Optimization of Double-Wedge Airfoils with Curved Recesses for High Subsonic and Supersonic Flow” in International Journal of Applied Mathematics, Volume 38 No. 10s.
- Praveen1,Sagar H2, Vishnu prasad M G3, Yashwith Nayak K4, Vishwaretha K R5(2026). Bio-Inspired Solar-Powered 3-D Printed Blended Wing UAV, Academic Journal of Manufacturing Engineering, Volume 24(2).



## KSCST Sponsored Projects

In the 49th series of the Student Project Program of Karnataka State Council for Science and Technology (KSCST), 02 Innovative Projects from department of Aeronautical Engineering has bagged sponsorship in the year 2025-26. The event is supported by the Department of Science & Technology of State Government through KSCST.



### Percussion-Induced Vibration and Sound Sensing for Low-Cost Structural Health Monitoring of Multi-Bolted Lap Joints



Student Team:

**Megha B, Darshan, Sahil & Nitheesha**

Guide(s):

**Mr. Prashant & Mr. Ajith Kumar**

Grant Received: **₹6,000**

### Bio-Inspired Solar-Powered 3-D Printed Blended Wing UAV



Student Team:

**Praveen, Sagar H., Vishnu Prasad M. G. & Yashwith Nayak K.**

Guide: **Mr. Vishwaretha K. R.**

Grant Received: **₹6,000**

## Conference Participations by Students 2025-26

1. C. Lakshith, Shashank K. R., and Suhail Mohamed Salahuddin, under the guidance of Dr. Anand S. N., presented “Optimization of Secondary Injection Parameters on Thrust Vector Control in Dual Throat Nozzle” at the 3rd International Conference on Emerging Trends in Engineering and Applied Sciences (ICETEA-2025), SJC Institute of Technology, Chickballapur, on 18–19 September 2025.
2. Shruti Patil, Ramya K. G., Nidha Rahma, and Shrujan A., under the guidance of Dr. Sujesh Kumar, presented “Design and Performance Evaluation of Aramid Fiber Reinforced Aluminium 7075 Hybrid Composite for Aerospace Applications” at the 4th International Conference on Advances in Science, Engineering & Technology (ICASET-2025) on 15 November 2025. The manuscript was also submitted to the Ceylon Journal of Science.
3. Praveen, Sagar H., Vishnuprasad M. G., and Yashwith Nayak K., under the guidance of Mr. Vishwaretha K. R., presented “Bio-Inspired Solar-Powered 3-D Printed Blended Wing UAV” at the 4th International Conference on Advances in Science, Engineering & Technology (ICASET-2025).
4. Srushti S. D., Abhishek B., Harish Nayak A. R., and Nandini H. Mallalli, under the guidance of Mr. Ajith Kumar, presented “Design and Development of Drone for Agri Spraying in Arecanut Farms and Solar Panel Cleaning” at the 2nd International Conference on Recent Challenges in Engineering Science and Management (2-ICRCESM-2K25), Ramachandra College of Engineering (Autonomous), Eluru, on 31 October–1 November 2025.
5. Megha B., Darshan, Sahil, and Nitheesha, under the guidance of Mr. Prashant, presented “Percussion-Based Structural Health Monitoring of Doubled Bolted Joints” at the 2nd International Conference on Recent Challenges in Engineering Science and Management (2-ICRCESM-2K25), Ramachandra College of Engineering (Autonomous), Eluru, on 31 October–1 November 2025.
6. Apeksha U. S., Kishore B. R., Mehreen Ara, and Yashwitha N., under the guidance of Mr. Amar Gandge Subash, presented “Fabrication and Analysis of Honeycomb Structure with Varying Cell Geometry for Aircraft Floor Bed” at the 2nd International Conference on Recent Challenges in Engineering Science and Management (2-ICRCESM-2K25), Ramachandra College of Engineering (Autonomous), Eluru, on 31 October–1 November 2025.
7. Prathap Nayak, Pallavi B., Kushi, and Yashin Rajeev, under the guidance of Dr. Madhanraj V., presented “Performance Enhancement on Double-Wedge Airfoils with Symmetric Curved Recesses in Supersonic Flow” at the 2nd International Conference on Recent Challenges in Engineering Science and Management (2-ICRCESM-2K25), Ramachandra College of Engineering (Autonomous), Eluru, on 31 October–1 November 2025.
8. G. Ananya Prabhu, Mithul Ganesh, Mohammed Owais Ashfaq, and Mohammed Shameel T., under the guidance of Dr. Ezhilmaran G., presented “Numerical Investigation of Active Secondary Jet Flow Control in Subsonic Free Jets to Enhance UAV Exhaust Systems” at the 4th International Conference on Advances in Science, Engineering & Technology (ICASET-2025).
9. Chandan Gowda K. V., Chandrashekhar, Manoj Mounesh Kammar, and Sharatkumar Desai, under the guidance of Amar Gandge Subash, presented the paper “Structural Performance of Graphene Reinforced PALF–Flax Carbon Kevlar Composite for Aircraft Wing Structure” at the 1st National Conference on Emerging Trends in Engineering & Technology (NCETET 2026), Department of Aerospace Engineering, JAIN, Kanakapura, on 29 May 2026.



### GoAero 2026 National Level Technical Event

GoAero 2026 is a national-level aerospace technical fest. Organized by Gopalan College of Engineering and Management, Bengaluru, the event was held on 29–30 April 2026.



#### Runners-Up in the Aero Scribe competition

Mr. Nihal and Ms. Khushi for

#### Runners-Up in the Feather Glide

Nihal, Anfal, Eshwar & Tapasya



### Shree Devi Sambhram'25 National-Level Technical and Cultural Fest

Students of the Department of Aeronautical Engineering showcased their technical excellence at Shree Devi Sambhram'25, a National-Level Technical and Cultural Fest organized by SDIT, Mangaluru, on 3–4 December 2025.

Mr. Mithul Ganesh won **First Place in the Flight Crash Investigation** event for his outstanding analytical and problem-solving skills.

Team comprising Mr. Sheshaprasad Bhat and Mr. Akshay won **Second Place in the Flight Crash Investigation** event.

Mr. Sheshaprasad Bhat secured **First Place in the CAD Modeling** (Luminary Design) competition, demonstrating exceptional design and modeling expertise

### World Space Week 2025 at SRMIST



World Space Week 2025, organized by the Department of Aerospace Engineering, SRM Institute of Science and Technology, Kattankulathur, from 4–10 October 2025, celebrated global achievements in space science through expert lectures, technical workshops and competitions. Team comprising Rahul, Mohith G., and Siyon secured the **Second Prize in the RC Plane Competition**.

### AEROVISION 2026: National-level Aerospace Symposium



**II Place in Hydro Rocketry**  
Sathvik S and Amrita

**I Place in CAD Design**  
Ananya and Lakshmi

Sathvik S, Amrita, Lakshmi, Rashmi, Mishel, Niyathi S, and Ananya participated in the Technical quiz and water rocketry at the National Level Aerospace Symposium on 04 & 05 Feb 2026. Sathvik S and Amrita are awarded the second prize in the water rocketry organized by JAIN University.

Ananya and Lakshmi were awarded a certificate of winner in CAD Design during the National Level Technical Symposium.

### NAVITANTRIKS-2026: State Level Project Exhibition



Participated in “State Level Technical Exhibition and Competition” organised by Mahatma Gandhi Institute of Rural Energy and Development (MGIRED), Bengaluru, Karnataka on 12-13 March 2026.

Team Members : Jeevan, Mohammed Sufiyan S T, Varshitha and Abhignya

Team Mentor: Mr. Ajith Kumar



### Power the Community: International Design Competition -2026



Team **Power Pulse** comprising Niyathi S, Rashmi R, Ananya, Mishel S Gonsalves, Alfiya Mehenaz, Lakshmi Panaganti and Sheshaprasad Bhat under the guidance of Mr. Ajith Kumar actively participated in the Energy Mentors International Design Competition, showcasing their innovative ideas aimed at promoting sustainability and energy efficiency. The group proposed a range of creative solutions, including a natural cooling system, waste management, smart materials, hydrogen fuel, and a turbine-based water management system for irrigation and energy generation. The above-mentioned students become the **Semi-finalist** (among 13 countries) in the Power Community Competition 2026.

### ASME Engineering Education Seminar & Workshop on Drone Technology



Chiranjeevi N H, Rithvik, Moulya, Akash, Rakshith and Mithun awarded a certificate of participation for attending ASME Engineering Education seminar Empowering Next Generation Engineers on 14th February 2026 organized by REVA University, Bangalore. Dr. Manjunath S V, HoD-AE, delivered a technical talk on Drone Technology

### NAVITANTRIKS-2026: State Level Project Exhibition



Participation in “ANVESHANA 2025-26 State Level Science and Engineering Fair” organised by Agastya International Foundation at Bengaluru, Karnataka during 25-26 February 2026

Team Members: Jeevan, Amruth, Apoorva & Shri Vaishnavi

Team Mentor: Mr. Ajith Kumar

### AAKRUTI Global 2025- International Innovation Competition



**Semi Finalist- India & China**

Team: Sinchana P D, Thanvi U K, Varsha R Rai, Yashwitha

AAKRUTI is a prestigious international innovation competition organized by Dassault Systèmes, providing students with a global platform to develop innovative engineering solutions for real-world challenges using advanced digital engineering technologies. The team was shortlisted among the Top 31 teams from India and China, reaching the Semi-Finals after competing against over 1,800 teams from 36 countries. Team's outstanding performance reflects the department's growing culture of innovation, technical excellence, and global competitiveness.

Another team lead by Divya Hiremath earned a Certificate of Excellence for participating in the AAKRUTI Innovation Competition 2025.



## NAIN Innovations Conclave 2026



### Winner

NAIN innovations conclave held at IITB Bangalore. On 2nd April 2026, for development of Tech Kabaddi is a smart sports technology platform enabling fair, accurate, and data-driven kabaddi.

Team Members: Sheshaprasd Bhat, Sampreeth & Abhishek



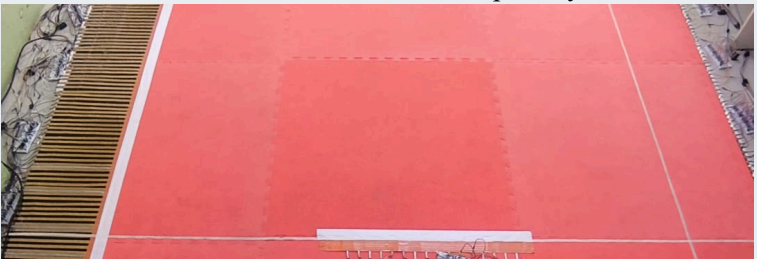
Participated in the NAIN innovations conclave held at IITB Bangalore. On 2nd April 2026, The "Auto Agro Aircraft" is an innovative, unmanned aerial system (UAS) designed to transform modern agriculture.

Team Members: Ms. Shrivaishnavi, Mr. Pratap, Mr. Shreyas and Ms. Varshitha,

## Bolpu Innovation Program 2025-26



TTeam Tech Kabaddi, developed by Vyanika Innovations LLP, founded by Mr. Sheshaprasad Bhat, was selected under the Bolpu Innovation Program in recognition of its potential to transform the sport of kabaddi through technology-driven officiating solutions. The selection provided the startup with mentorship, incubation support, and opportunities to further refine the product while connecting with industry experts, mentors, investors, and the broader startup ecosystem.



## Remote Pilot Certification



A team of 12 students comprising Moulya, Thanvi, Shrivaisnavi, Apoorva, Nidha, Keerthi, Varshitha, Esha, Pragna, Yashwitha, Varsha Rai, and Sinchana P. D. successfully completed the Remote Pilot Certificate (RPC) training programme approved by the Directorate General of Civil Aviation (DGCA), Government of India. The seven-day intensive programme was organized by VTU-R&D (Aerospace, Defence and Allied Programs) in collaboration with NeoSky India Ltd., a DGCA-approved Remote Pilot Training Organization (RPTO). Valued at approximately ₹1 lakh per participant, the training was offered completely free of cost. Notably, these students were among the 25 female engineering students selected by Visvesvaraya Technological University (VTU) from engineering colleges across Karnataka for this prestigious initiative, equipping them with professional skills in drone operations and remote pilot certification.



Students of MITE who complete Remote Pilot Certificate (RPC) Training Programme approved by the Directorate General of Civil Aviation (DGCA), Government of India.

### 12 students of MITE complete RPC training programme

**MANGALURU, DHNS:** Students of Mangalore Institute of Technology and Engineering (MITE), Moodbidri, have successfully completed the Remote Pilot Certificate (RPC) Training Programme approved by the Directorate General of Civil Aviation (DGCA), Government of India.

The training programme was organised by the VTU-R&D (Aerospace, Defence and Allied Programs) in collaboration with NeoSky India Ltd., a DGCA approved Remote Pilot Training Organisation (RPTO). The intensive seven-day training programme was conducted valued at approximately Rs 1 lakh per participant, was offered completely free of cost to the selected students. Notably, among the 25 female students selected by the VTU from engineering colleges across Karnataka for this prestigious initiative, 12 students were from Mangalore Institute of Technology and Engineering (MITE), Moodbidri.

During the programme, the students underwent comprehensive theoretical and practical training covering drone regulations, aviation safety,

airspace management, meteorology, maintenance procedures, and flight operations. They also gained hands-on flying experience and successfully completed the assessments prescribed by the DGCA. The certification equips students with industry-recognized skills and enhances their employability in the rapidly growing drone ecosystem. Certified remote pilots are increasingly sought after in sectors such as aerial surveying and mapping, precision agriculture, infrastructure inspection, logistics, disaster management, media and cinematography, and defence applications.

"This certification is not merely an additional qualification; it is a career-enabling credential. With a validity of 10 years, it provides our students with a long-term professional advantage. As the drone industry continues to expand across multiple sectors, our students are now equipped with a valuable skill set that can open doors to employment, higher studies, research, and entrepreneurship in the UAV domain," said Dr Manjunath SV, Head, Department of Aeronautical Engineering, MITE.

ಉದಯವಾಣಿ

11/12



### ಮಂಗಳೂರು ತಾಂತ್ರಿಕ ಮತ್ತು ಎಂಜಿನಿಯರಿಂಗ್ ಸಂಸ್ಥೆ 'ಮೈಟ್' ಮೂಡುಬಿದಿರೆ

## 12 ಮಕ್ಕಳಿಂದ ಡಿಜಿಟಲ್ ರಿಮೋಟ್ ಪೈಲಟ್ ತರಬೇತಿ ಪೂರ್ಣ

ಮಂಗಳೂರು, ಜೂ. 6: ಮೂಡುಬಿದಿರೆಯ ಮಂಗಳೂರು ತಾಂತ್ರಿಕ ಮತ್ತು ಎಂಜಿನಿಯರಿಂಗ್ ಸಂಸ್ಥೆ (ಮೈಟ್)ಯ 12 ವಿದ್ಯಾರ್ಥಿನಿಯರು ಕೇಂದ್ರ ಸರ್ಕಾರದ ನಾಗರಿಕ ವಿಮಾನಯಾನ ಮಹಾನಿರ್ದೇಶನಾಲಯ (ಡಿಜಿಎಎ) ಅನುಮೋದಿತ ರಿಮೋಟ್ ಪೈಲಟ್ ಸರ್ಟಿಫಿಕೇಟ್ ತರಬೇತಿ ಕಾರ್ಯಕ್ರಮವನ್ನು ಯಶಸ್ವಿಯಾಗಿ ಪೂರ್ಣಗೊಳಿಸಿದ್ದಾರೆ.

ಈ ತರಬೇತಿ ಕಾರ್ಯಕ್ರಮವನ್ನು ಏರ್ನೇಷನ್, ರಕ್ಷಣಾ ಮತ್ತು ಸಂಬಂಧಿತ ಕಾರ್ಯಕ್ರಮಗಳು ಹಾಗೂ ನಿರ್ದೇಶನ, ಇಂಡಿಯಾ ಲಿ., ಡಿಜಿಎಎ ಮಾನ್ಯತೆ ಪಡೆದ ರಿಮೋಟ್ ಪೈಲಟ್ ಟ್ರೈನಿಂಗ್ ಆಗ್ನೇಶ್ವರೇಶ್ವರ ಸಪ್ತದಿಂದಲೂ ಆಯೋಜಿಸಲಾಗುತ್ತದೆ. ಮೇ 18ರಿಂದ 24ರ ವರೆಗೆ ನಡೆದ ತರಬೇತಿಯನ್ನು ಉಚಿತವಾಗಿ ನೀಡಲಾಯಿತು.

ಕರ್ನಾಟಕದ ವಿವಿಧ ಎಂಜಿನಿಯರಿಂಗ್ ಕಾಲೇಜುಗಳಿಂದ ವಿಜಯ ಅಯ್ಯ ಮಾಡೆ 25 ವಿದ್ಯಾರ್ಥಿನಿಯರಲ್ಲಿ 12 ವಿದ್ಯಾರ್ಥಿನಿಯರು ಮೂಡುಬಿದಿರೆ ಮೈಟ್ ನಮಗಿದ್ದಾರೆ.

ವಿದ್ಯಾರ್ಥಿನಿಯರು ಡ್ರೋನ್ ನಿಯಮಾವಳಿ, ವಿಮಾನಯಾನ ಸುರಕ್ಷೆ, ವಾಯುಪ್ರದೇಶ ನಿರ್ವಹಣೆ, ಹವಾಮಾನ ಶಾಸ್ತ್ರ ನಿರ್ವಹಣಾ ವಿಧಾನಗಳು ಹಾಗೂ ಹಾರಾಟ ಕಾರ್ಯಾಚರಣೆಗಳ ಕುರಿತಾದ ಸಮಗ್ರ ಸೈದ್ಧಾಂತಿಕ ಮತ್ತು ಪ್ರಾಯೋಗಿಕ ತರಬೇತಿ ಪಡೆದರು. ಜೊತೆಗೆ ಡ್ರೋನ್ ಹಾರಾಟದ



ನೇರ ಅನುಭವ ಪಡೆದು ಡಿಜಿಎಎ ನಿಗದಿಪಡಿಸಿದ ಮೌಲ್ಯಮಾಪನಗಳನ್ನು ಯಶಸ್ವಿಯಾಗಿ ಪೂರ್ಣಗೊಳಿಸಿದರು.

ಈ ಪ್ರಮಾಣೀಕರಣವು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಉದ್ಯಮದಲ್ಲಿ ಮಾನ್ಯತೆ ಪಡೆದ ಕೌಶಲ್ಯಗಳನ್ನು ಒದಗಿಸುವುದರ ಜೊತೆಗೆ, ವೇಗವಾಗಿ ಬೆಳೆಯುತ್ತಿರುವ ಡ್ರೋನ್ ಕ್ಷೇತ್ರದಲ್ಲಿ ಉದ್ಯೋಗವಕಾಶ ಹೆಚ್ಚಿಸುತ್ತದೆ. ಪ್ರಮಾಣೀಕೃತ ರಿಮೋಟ್ ಪೈಲಟ್ ಗಳಿಗೆ ವೈಮಾನಿಕ ಸರ್ವೆ ಮತ್ತು ಮ್ಯಾಪಿಂಗ್, ನಿರ್ಮಿತ ಕೃಷಿ, ಮೂಲಸೌಕರ್ಯಗಳ ಪರಿಶೀಲನೆ, ಲಾಜಿಸ್ಟಿಕ್ಸ್, ವಿಪತ್ತು ನಿರ್ವಹಣೆ, ಮಾಧ್ಯಮ ಮತ್ತು ಭೂಯಾಂಕೀಕೃತ ಕ್ಷೇತ್ರಗಳು ಹಾಗೂ ರಕ್ಷಣಾ ಕ್ಷೇತ್ರಗಳಲ್ಲಿ ಹೆಚ್ಚಿನ ಬೇಡಿಕೆ ಇದೆ.

ಈ ಸಾಧನೆ ಕುರಿತು ಮಂಗಳೂರು ತಾಂತ್ರಿಕ ಮತ್ತು ಎಂಜಿನಿಯರಿಂಗ್ ಸಂಸ್ಥೆಯ ಏರ್ನೇಷನ್

ಎಂಜಿನಿಯರಿಂಗ್ ವಿಭಾಗದ ಮುಖ್ಯಸ್ಥ ಡಾ|| ಮಂಜುನಾಥ ಎಸ್. ವಿ ಮಾತನಾಡಿ, ಈ ಪ್ರಮಾಣೀಕರಣವು ವೃತ್ತಿಜೀವನ ರೂಪಿಸುವ ಮಹತ್ವದ ಪ್ರಮಾಣಪತ್ರವಾಗಿದೆ. ಇದರ ಮಾನ್ಯತೆ ಅವರಿಗೆ 10 ವರ್ಷಗಳಾಗಿದ್ದು, ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ದೀರ್ಘಕಾಲಿಕ ವೃತ್ತಿಪರ ಮನ್ನಣೆ ಒದಗಿಸುತ್ತದೆ ಎಂದು ಹೇಳಿದ್ದಾರೆ.

ತರಬೇತಿ ಪೂರ್ಣಗೊಳಿಸಿದ ಮೈಟ್ ನ ವಿದ್ಯಾರ್ಥಿನಿಯರಾದ ಅಪೂರ್ವಾ ಪಿ. ಎಸ್., ಕಶಾ, ಕೀರ್ತಿ ಕೆ., ಮೌಲ್ಯಾ ಸಿ. ಎಂ., ನಿರಾ ಎಂ., ಪ್ರಜ್ವಾ ಕೆ. ಎಲ್., ಶ್ರೀವತ್ಸವ, ಸಿಂಚನಾ ಪಿ. ಡಿ., ತನ್ವಿಯಾ ಕೆ., ಮರ್ವಾ ಆರ್. ರೈ, ಮರ್ವಾ ಹಾಗೂ ಯಶ್ವಿನಿ ಅವರನ್ನು ಮೈಟ್ ಸಂಸ್ಥೆಯ ಅಧ್ಯಕ್ಷ ರಾಜೇಶ್ ಬೆಟೆ ಹಾಗೂ ಪ್ರಾಂಶುಪಾಲ ಡಾ|| ಪ್ರದೀಪ್ ಸಿ. ಎಂ. ಅಭಿನಂದಿಸಿದ್ದಾರೆ.



### PRAVRUTTI 2025- National Level Tech Fest



Amruth, Mohammed sufiyan, Sinchana and Prjana achieved an outstanding accomplishment by securing the **Second Runner-Up position in SKYCRAFT**, a prestigious event conducted as part of PRAVRUTTI 2025, the National Level Tech Fest organized by Ramaiah University of Applied Sciences from 15 October 2025 to 17 October 2025.



### VTU State-Level Karate Tournament

Nidaa M. participated in the VTU State-Level Karate Tournament conducted on 31 October–1 November 2025 at RV Institute of Technology and Management, bringing pride to the department through active involvement in intercollegiate sports.

### Annual Sports Meet 2025–2026

Yahwitha showcased outstanding athletic excellence at the Annual Sports Meet 2025–2026 organized by MITE, securing **First Place in Badminton**, Second Place in Long Jump, and Third Place in Disc Throw. Her remarkable achievements reflect dedication, versatility, and a strong sporting spirit, bringing pride to the department.

### Workshop@ NITK: Safe and Sustainable Aviation and UAVs 3.0

Mahadevaswamy Maruthi and Nidha M. participated in the five-day workshop "Safe and Sustainable Aviation and UAVs 3.0", organized by the National Institute of Technology Karnataka (NITK) from 19–23 January 2026. The workshop enhanced their knowledge of sustainable aviation technologies, UAVs, and emerging aerospace innovations.



### Innovating for India's Deep Tech Future



Shreyas, Shrivaishnavi, Varshitha, Vaseem Ahmed, and Sheshaprasad Bhat, actively participated in “Next Gen Engineering: Innovating for India's Deep Tech Future”, held on 12 November 2025 and organized by Yenepoya Institute of Technology.

### Coastal Startup



Sheshaprasad Bhat represented in Coastal Startup Fest is an initiative launched to promote innovation, entrepreneurship, and the startup ecosystem among students across Coastal Karnataka on 14 February 2026 .

### Flight Fury at IIT Roorkee



Bhargava A Andanur, Uday C. A., Abhay Raj, and Rahul Gowda N. were awarded Certificates of Participation for contributing to the Flight Fury Competition held at IIT Roorkee on 13th, 14th, and 15th March 2026. The event provided valuable exposure to aerospace engineering concepts, teamwork, and hands-on technical experience. Participants enhanced their practical knowledge through design, analysis, and problem-solving activities. The competition also offered an opportunity to interact with students and experts from various institutions, fostering innovation and technical learning. Their participation reflects their enthusiasm for advancing skills in the field of aeronautical engineering.



## Professional Certifications & Recognitions

1. **SOLIDWORKS xDesign Associate Certification:** Mr. Mohammed Sufiyan Tilavalli earned the SOLIDWORKS xDesign Associate Certification from Dassault Systèmes, demonstrating proficiency in cloud-based 3D design and product development.
2. **NASA International Space Apps Challenge 2025:** Mr. Mohammed Sufiyan Tilavalli and Ms. Sinchana P. D. received the "Galactic Problem Solver" recognition for their innovative solutions to real-world Earth and space challenges.
3. **Mastering ANSYS CFD – From Zero to Expert (2026 Edition):** Ms. Divya Hiremath successfully completed the 46.5-hour Udemy certification, enhancing her expertise in Computational Fluid Dynamics (CFD), meshing, and ANSYS simulation tools.
4. **Artificial Intelligence for All & Design Thinking and Community-Based Design:** Ms. Divya Hiremath, Ms. Esha, and Ms. Sinchana P. D. successfully completed the certification programme conducted by the IUCEE Foundation (June–August 2025), strengthening their skills in artificial intelligence, human-centered design, and community-driven innovation

## ✈️ Aviation Challenge – Can You Identify These Aircraft?



### Part A

Every aircraft has a unique silhouette, wing configuration, and engine arrangement. Test your aviation knowledge by identifying these iconic aircraft from their silhouettes

1. Can you identify these aircraft?

### Part B – Aviation Riddles

1. I have four engines, a hump on my back, and carried the Queen of the Skies title for over 50 years. Who am I?
2. I am the world's largest passenger aircraft with two full-length passenger decks. Who am I?
3. I fly so high and fast that I once outran missiles. My body is painted black. Who am I?
4. I flew faster than twice the speed of sound and carried passengers across the Atlantic in under four hours. Who am I?

Part A  
A- Boeing 747  
B- Concorde  
C- Lockheed SR-71 Blackbird  
D- Airbus A380

Part B  
1. Boeing 747  
2. Airbus A380  
3. Lockheed SR-71 Blackbird  
4. Concorde

# Where the Sky Begins: The World of Airports & Airlines



**Dr. Sujesh Kumar**  
Senior Assistant Professor,  
Dept. of AE

Every journey by air begins at an airport - a place where technology, engineering and human coordination come together to make flight possible. Airports and airlines are the backbone of modern aviation, connecting people, businesses and cultures across the globe. An airport is much more than a runway where aircraft take off and land. It is a complex transportation hub equipped with terminals, baggage handling systems, air traffic control facilities, maintenance hangars, fuel storage areas and security infrastructure. Thousands of passengers pass through airports every day, while hundreds of professionals work behind the scenes to ensure smooth and safe operations. Airports are generally classified as domestic, international, cargo or military airports based on the type of operations they support. Large international airports serve as global gateways, handling millions of passengers annually and connecting cities across continents.

Airlines are organizations that operate aircraft to transport passengers and cargo. They are responsible for flight scheduling, ticketing, maintenance, crew management and customer service. Depending on their business model, airlines may operate as full-service carriers, offering meals and additional amenities or as low-cost carriers that focus on affordable travel. In India, airlines such as IndiGo and Air India play a significant role in making air travel accessible to millions of people.

The operation of a single flight involves careful planning and coordination. Before departure, pilots review weather conditions and flight plans, engineers inspect the aircraft and ground crews handle refueling, baggage loading, and passenger boarding. Once airborne, air traffic controllers guide the aircraft through designated airways to ensure safe separation from other flights.

Safety remains the highest priority in aviation. Modern aircraft are equipped with advanced navigation, communication and monitoring systems. Strict international regulations, continuous pilot training and rigorous maintenance procedures have made air travel one of the safest modes of transportation in the world. The future of aviation is equally exciting. Sustainable Aviation Fuel (SAF), electric aircraft, hydrogen-powered propulsion systems and smart airports are being developed to make air transport more efficient and environmentally friendly. These innovations are expected to transform the aviation industry in the coming decades. For students interested in engineering, management, logistics or technology, the aviation sector offers numerous career opportunities. From designing aircraft and managing airports to developing next-generation aviation technologies, the possibilities are vast. Indeed, airports and airlines are not just transportation systems - they are gateways to innovation, opportunity and global connectivity.



# Indigenous UAV Technology: Empowering India's Future



The rapid advancement of indigenous Unmanned Aerial Vehicle (UAV) technology marks a new chapter in India's aerospace journey. Powered by innovations in autonomous flight, artificial intelligence, advanced avionics, and intelligent sensing, UAVs are transforming defence, agriculture, infrastructure inspection, disaster management, logistics, and smart mobility. More than unmanned aircraft, they represent the convergence of aerospace engineering, robotics, and digital technologies, supporting India's vision of Atmanirbhar Bharat. India's UAV programme began with DRDO through indigenous platforms such as Lakshya and Nishant, which paved the way for advanced systems like the TAPAS BH-201 (Rustom-II) and the Ghatak UCAV. The deployment of swarm drones, loitering munitions, and AI-enabled surveillance platforms reflects India's growing capability in autonomous aerospace systems and national defence.

Government initiatives including the Drone Rules 2021, Digital Sky Platform, and the Production Linked Incentive (PLI) Scheme have accelerated indigenous manufacturing, innovation, and skill development. Today, UAVs are widely used in precision agriculture, infrastructure inspection, disaster response, healthcare, logistics, environmental monitoring, mining, and smart city development, improving efficiency while minimizing cost and human risk. A defining feature of India's drone revolution is its inclusiveness. Through initiatives such as Nam0 Drone Didi, women from Self-Help Groups are being trained as certified drone pilots, creating new opportunities in precision agriculture, entrepreneurship, and technology-driven rural development. Looking ahead, technologies such as Beyond Visual Line of Sight (BVLOS) operations, collaborative drone swarms, Urban Air Mobility (UAM), and AI-enabled autonomy are set to redefine the future of aviation. Continued research in indigenous propulsion, secure communication, cybersecurity, and advanced energy systems will further strengthen India's aerospace capabilities. For aspiring aeronautical engineers, UAVs offer exciting opportunities across aerodynamics, propulsion, avionics, flight control, robotics, and artificial intelligence. As India continues its journey towards technological self-reliance, indigenous UAV technology will play a pivotal role in shaping a secure, innovative, and sustainable future.

**"Indigenous UAV technology is not merely transforming the way India flies—it is transforming the way India innovates, secures, cultivates, and empowers its people."**



**Dr. Manjunath S. V**  
HoD, Dept. of AE

## Beyond Stealth: The Rise of Sixth-Generation Fighter Aircraft

The development of sixth-generation fighter aircraft marks the next major step in military aerospace engineering. These aircraft build on the capabilities of fifth-generation fighters and are designed for future battlefields. They combine advanced stealth, artificial intelligence, high-speed communication systems and autonomous technologies to achieve superior combat performance. One of the most important features of these aircraft is the use of Artificial Intelligence (AI). Modern combat missions generate large amounts of information from sensors, satellites and allied platforms. AI can process this data in real time and assist pilots in identifying threats, selecting targets and making faster decisions. This improves mission effectiveness while reducing pilot workload.

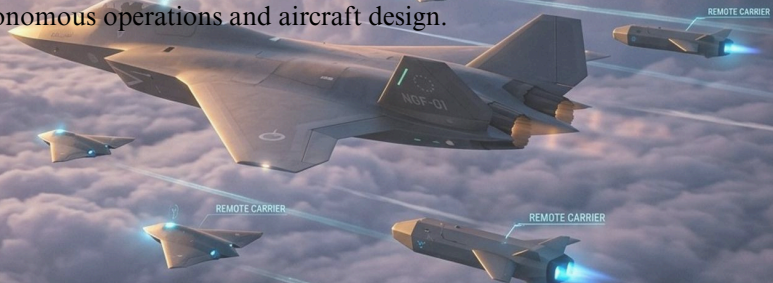
Another key technology is sensor fusion. Sixth-generation fighters will combine information from radar, infrared sensors, electronic warfare systems and satellites into a single operational picture. This allows pilots to gain better situational awareness and respond quickly to changing battlefield conditions. These aircraft will also rely on high-capacity networking and secure data links. Such systems enable continuous communication between fighter aircraft, autonomous drones, satellites and ground stations. This creates a connected combat network where multiple platforms can operate together and share information instantly. Human-machine teaming is another defining feature. Future fighters are expected to operate alongside autonomous drones, often called "loyal wingmen." These drones can perform reconnaissance, surveillance, electronic warfare and combat support missions. By working together, the fighter aircraft and drones can complete missions more effectively while reducing risks to pilots. Propulsion technology is also advancing rapidly. Engineers are developing adaptive or variable-cycle engines that can adjust their performance according to mission requirements. These engines offer improved fuel efficiency during cruise flight and higher thrust during combat operations. As a result, future fighters will achieve greater range, speed and endurance. Several nations are currently investing in sixth-generation fighter programs. The United States is developing the F-47 under the Next Generation Air Dominance (NGAD) program, focusing on stealth, long-range capability and autonomous drone integration. The Global Combat Air Programme (GCAP), led by the United Kingdom, Italy and Japan, emphasizes artificial intelligence and advanced networking technologies. Europe's Future Combat Air System (FCAS), developed by France, Germany and Spain, focuses on manned-unmanned teaming and network-centric warfare. Meanwhile, China's Chengdu J-36 has gained attention for its advanced stealth design and potential long-range strike capabilities.

Despite their immense potential, sixth-generation fighter aircraft face several technical and operational challenges. High development costs, cybersecurity concerns and the integration of advanced technologies remain significant hurdles. Nevertheless, these aircraft represent a major milestone in aerospace engineering. As research and development continue, the technologies pioneered for sixth-generation fighters are expected to enhance not only military aviation but also future advancements in propulsion systems, avionics, autonomous operations and aircraft design.



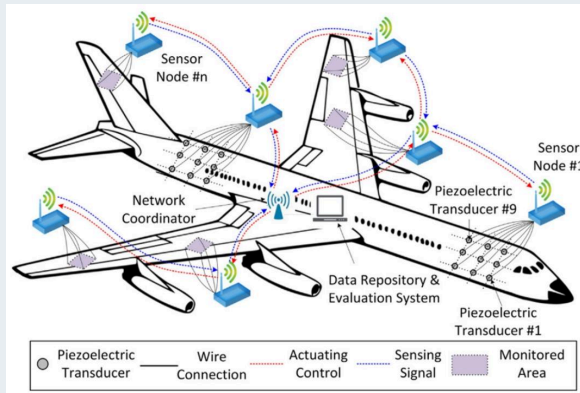
**Mr. Vishwaretha K R**

Assistant Professor, Dept. of AE





## Digital Instrumentation Powering Modern Aircraft



Modern aircraft are no longer just machines—they are intelligent flying systems. Advanced airliners such as the Airbus A350 and Boeing 787 Dreamliner rely on thousands of digital sensors to continuously monitor the health and performance of every critical system. The Boeing 787 alone is reported to incorporate more than 15,000 sensors, measuring parameters such as engine temperature, pressure, vibration, fuel flow, structural loads, landing gear status, flight controls and environmental conditions.

These sensors communicate through high-speed digital networks to onboard computers, which process millions of data points during every flight. Selected information is transmitted in real time to airline operation centers using secure satellite communication, while complete flight data is downloaded after landing. This Internet of Things (IoT)-based connectivity enables airlines to monitor aircraft health remotely, optimize flight operations and plan maintenance before failures occur.

A key advancement is Structural Health Monitoring (SHM), where embedded strain gauges, accelerometers, fiber-optic sensors and piezoelectric transducers continuously assess the structural integrity of the aircraft. Instead of relying solely on scheduled inspections, SHM detects early signs of fatigue, cracks, impact damage or loose structural joints, significantly improving safety and reducing maintenance costs.

The Boeing 787 Dreamliner is an excellent example of digital aviation. Its Integrated Vehicle Health Management (IVHM) system continuously monitors thousands of aircraft parameters and alerts maintenance teams about potential issues even before the aircraft lands. Engineers can prepare replacement parts in advance, minimizing downtime and ensuring higher fleet availability.

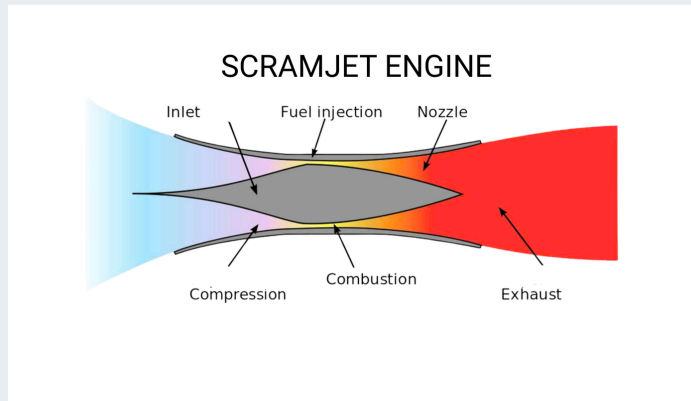
As artificial intelligence, digital twins and predictive analytics become integral to aviation, digital instrumentation is transforming aircraft into smarter, safer and more efficient systems. These innovations represent the future of aerospace engineering, where data-driven decisions enhance flight safety, operational reliability and passenger confidence.



**Mr. Ajith Kumar**

Senior Assistant Professor, Dept. of AE

## Hypersonic Speed: Shaping the Next Era of Aerospace



Hypersonic flight, defined as speeds greater than Mach 5 i.e. 5 times the speed of sound is changing the field of modern aerospace engineering. Traveling at such high speeds presents challenges that go far beyond those faced in traditional flight. Aircraft in this range experience severe aerodynamic heating, high pressure loads, and complex shock-wave interactions. This demands new methods for vehicle design, materials, and propulsion systems. New thermal protection materials and air-breathing scramjet engines have become vital technologies in overcoming these tough conditions.

The rising interest in hypersonic technology comes from its varied uses in both defence and civilian aerospace. In defence, hypersonic vehicles offer remarkable speed and maneuverability, making them harder to detect and intercept than conventional systems. In the civilian sector, researchers envision future aircraft that will greatly cut down long-distance travel times and improve access to space with more efficient launch systems. Despite significant progress, several engineering challenges still exist. Keeping stable combustion in scramjet engines, managing the intense heat created during flight, and ensuring precise guidance and control are ongoing research areas. Improvements in computational modelling, wind tunnel testing, and high-temperature materials are gradually pushing the limits of what's technically feasible.

As research and development efforts speed up globally, hypersonic technology is likely to become a key part of the future of aerospace. Beyond achieving exceptional speeds, it represents a major move toward more effective and capable flight systems, creating new opportunities for transportation, space exploration, and national security



**Mr. Roshan Raj**

Assistant Professor, Dept. of AE



## AEROACOUSTICS: The Science of Aircraft Noise and the Quest for Quieter Skies

Modern aviation has revolutionized global transportation, but aircraft noise remains a major environmental and operational challenge. Aeroacoustics is the branch of aerospace engineering that studies the generation, propagation, and control of sound produced by aerodynamic flows. By integrating principles of fluid mechanics, acoustics, and aerospace engineering, it aims to develop quieter and more sustainable aircraft. As air traffic and Urban Air Mobility (UAM) continue to grow, reducing aircraft noise has become essential for passenger comfort, community well-being, and environmental sustainability.

Aircraft noise primarily originates from propulsion systems and airframe components (Figure 1). Propulsion noise includes fan, compressor, turbine, and jet exhaust noise, while airframe noise arises from landing gear, wing flaps, slats, control surfaces, and other surface protrusions. Jet exhaust noise dominates during take-off due to turbulent mixing of high-speed exhaust with ambient air, whereas airframe noise becomes more significant during landing and approach. Aircraft noise is generated when turbulent airflow interacts with aircraft structures, creating fluctuating pressure fields that propagate as sound waves. The three principal aeroacoustic mechanisms are turbulent mixing noise, vortex shedding, and rotor/propeller noise. Turbulent mixing is the dominant source in jet engines, vortex shedding occurs around bluff bodies such as landing gear, and rotating blades generate characteristic tonal and broadband noise in helicopters, drones, and eVTOL aircraft.

Experimental aeroacoustic investigations are conducted in anechoic chambers and aeroacoustic wind tunnels using advanced diagnostic techniques such as microphone arrays, pressure sensors, Particle Image Velocimetry (PIV), Laser Doppler Velocimetry (LDV), and beam forming, enabling precise identification of noise-generating regions. Recent advances are transforming aircraft noise control. Electric aircraft and eVTOL systems eliminate conventional engine noise but introduce new challenges associated with multi-rotor interactions. Active Noise Control (ANC) employs sensors and speakers to generate anti-noise for improved cabin comfort, while acoustic metamaterials provide lightweight, frequency-selective sound absorption for engine nacelles and aircraft structures (Figure 2). Noise reduction is now a key pillar of sustainable aviation alongside fuel efficiency and emissions reduction. Modern aircraft incorporate high-bypass-ratio engines, chevron nozzles, optimized landing gear geometries, and noise-absorbing acoustic liners to minimize airport noise footprints. Looking ahead, artificial intelligence, digital twins, advanced materials, and high-fidelity simulations will enable engineers to predict and optimize acoustic performance throughout the aircraft design process. As aviation evolves toward greener, smarter, and more autonomous systems, aeroacoustics will remain a critical enabling discipline, ensuring that future aircraft are not only faster and more efficient but also significantly quieter. The ultimate objective is to create sustainable aviation systems that benefit both passengers and communities living around airports.

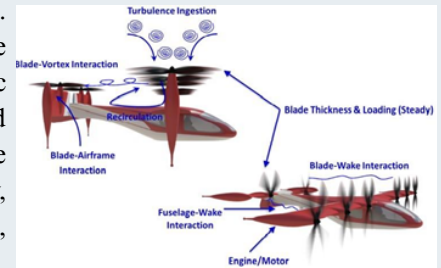


Figure 1. Major sources of aircraft noise from propulsion systems and airframe components.

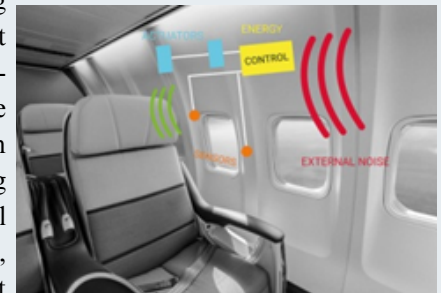


Figure 2. Emerging aeroacoustic technologies, including eVTOL aircraft and active noise control



**Dr. Ezhilmaran G**  
Assistant Professor, Dept. of AE

## From Aeronautical Fundamentals to Artificial Intelligence: An Engineering Journey

The evolution of modern engineering increasingly demands interdisciplinary expertise, where traditional engineering principles converge with emerging technologies such as Artificial Intelligence (AI) and Machine Learning (ML). My academic and professional journey reflects this transition—from Aeronautical Engineering to AI-driven engineering solutions.

My engineering foundation was established at Mangalore Institute of Technology and Engineering (MITE), where I completed my Bachelor's degree in Aeronautical Engineering. The curriculum combined theoretical knowledge with practical learning through laboratory experiments, technical projects, and collaborative activities. Beyond classroom instruction, the department emphasized analytical thinking, engineering design, teamwork, and innovation, enabling students to develop a strong problem-solving mindset.

To further strengthen my technical expertise, I qualified the Graduate Aptitude Test in Engineering (GATE) and pursued an M.Tech in Aerospace Engineering at IIT Bombay. The postgraduate program provided exposure to advanced computational techniques, numerical simulations, optimization methods, and engineering research. Working on complex aerospace problems enhanced my understanding of mathematical modeling, computational analysis, and scientific research methodologies. This experience demonstrated how computational tools can be effectively integrated with engineering principles to address real-world challenges.

Currently, I work as a Machine Learning Engineer in a deep-tech startup, where I develop AI-powered solutions for industrial and engineering applications. My work focuses on Digital Twins, Physics-Informed Machine Learning (PIML), predictive analytics, computer vision, natural language processing (NLP), audio intelligence, and surrogate modeling. These technologies enable intelligent monitoring, predictive maintenance, process optimization, and data-driven decision-making across engineering domains.

The transition from aerospace engineering to artificial intelligence illustrates the growing importance of interdisciplinary knowledge in modern engineering practice. Fundamental concepts in mathematics, mechanics, programming, and systems engineering acquired during undergraduate studies continue to serve as the foundation for solving advanced AI and engineering problems.

For aspiring engineers, developing strong technical fundamentals while embracing emerging technologies is essential. Continuous learning, active participation in projects, internships, research activities, and openness to multidisciplinary opportunities significantly enhance professional growth. The education and mentorship received at MITE laid the foundation for my academic and professional journey, demonstrating how a solid engineering education can evolve into a successful career at the intersection of aerospace engineering and artificial intelligence.

**Mr. Raghavendra K H,**  
(M.Tech, IIT Bombay)  
Machine Learning Engineer  
Experiqs Pvt. Ltd.





## Beyond Wings: Why India Must Build Its Own Aerospace Electronics

As aeronautical engineers, we often focus on aerodynamics, propulsion, and aircraft structures. However, modern aviation is equally driven by electronics. Flight controllers, avionics, sensors, navigation systems, communication modules, and embedded computers form the intelligence of every aircraft and drone. My journey into electronic hardware development made me realize that the future of aerospace belongs not only to better aircraft designs but also to indigenous electronic innovation.

India has achieved remarkable success through ISRO, DRDO, HAL, and a rapidly growing drone ecosystem. Yet, we continue to depend heavily on imported electronic hardware. Flight controllers such as Pixhawk and SpeedyBee, along with GPS modules, ESCs, sensors, and communication systems, are widely imported for research, education, startups, and commercial drone development. While these products have accelerated innovation, they also represent a continuous outflow of foreign exchange and highlight our dependence on overseas technology.

Developing indigenous aerospace electronics is not just an economic opportunity—it is a strategic necessity. Designing and manufacturing flight controllers, avionics, embedded systems, and high-reliability PCBs in India will strengthen national security, reduce supply-chain risks, generate high-skilled employment, and build a globally competitive aerospace ecosystem. With India's expanding semiconductor and electronics manufacturing initiatives, this vision is both achievable and essential.

As an aeronautical engineering student, working on electronics-based projects transformed my perspective. I learned that every intelligent aerospace system begins with reliable hardware. Innovation starts with a circuit diagram, a PCB, and an embedded processor long before an aircraft takes flight.

The vision of Atmanirbhar Bharat must extend beyond building aircraft—it must include building the electronics that power them. If the next generation of engineers embraces indigenous hardware development, India can emerge not only as a leader in aerospace manufacturing but also as a global hub for aerospace electronics and avionics innovation. I aim to evolve into a successful career at the intersection of aerospace engineering and artificial intelligence.



**Mr. Sheshaprasad Bhat,**

IV Year Student,  
Department of AE, MITE

## From Classroom Concepts to National Aerospace Programs

Looking back at my journey as a student in the Department of Aerospace Engineering, I realize that the most valuable lessons I learned were not confined to textbooks or examinations. The department gave me a platform to question, experiment, fail, improve, and most importantly, develop the mindset of an engineer.

During my undergraduate years, I had the opportunity to lead national-level engineering teams in automobile and drone design competitions. These experiences taught me that engineering is far more than calculations and software—it is about teamwork, leadership, problem-solving, and making informed decisions under pressure. Every design review, every failed prototype, and every successful test contributed to shaping my confidence as an engineer.

One of the most defining milestones of my academic journey was my research on Fluidic Thrust Vectoring using Dual-Throat Nozzles, where I focused on optimizing nozzle design parameters through computational analysis. The project challenged me to bridge theoretical fluid dynamics with practical engineering design and numerical simulation. Presenting this work at the 10th Symposium on Applied Aerodynamics and Design of Aerospace Vehicles (SAROD) hosted by Vikram Sarabhai Space Centre (ISRO) was a proud moment that reinforced my passion for aerospace research.

Beyond academics, I learned the importance of consistency, discipline, and attention to detail. Whether preparing technical reports, conducting CFD studies, or participating in design projects, I discovered that engineering excellence is built through countless small improvements rather than a single breakthrough.

After graduation, I joined the Gas Turbine Research Establishment (GTRE–DRDO) as an Aerospace Engineer. This opportunity became possible not only because of the technical foundation I built during my undergraduate years but also through the guidance and support of one of my seniors from the department, who encouraged me and helped me secure this opportunity. It reminded me of the strong alumni network our department has built over the years and how meaningful mentorship can be in shaping a young engineer's career. Transitioning from college to a national defence research organization was both exciting and challenging. Working alongside experienced scientists and engineers exposed me to engineering practices where precision, validation, and quality are uncompromising requirements. It made me appreciate how the strong technical foundation developed during my undergraduate years prepared me to contribute effectively in such a demanding environment.

To the current students, my advice is simple: never limit your learning to the classroom. Participate in projects, competitions, internships, and research opportunities. Learn the engineering principles behind every design instead of merely completing assignments. Build strong fundamentals, ask questions without hesitation, and develop the habit of continuous learning. Technical skills will open doors, but curiosity, integrity, and perseverance will define your career.

I remain grateful to the faculty members and my department

Wishing the department continued success in producing engineers who are ready to solve the challenges of tomorrow.



**Mr. Lithikshan M**

Aerospace Engineer,  
GTRE Bangalore

## Beyond the Runway: The Many Horizons of Aeronautical Engineering



When we first step into Aeronautical Engineering, most of us imagine designing aircraft, studying aerodynamics, or working on engines. While these are undoubtedly the foundations of the discipline, they represent only a small part of what the aviation and aerospace world has to offer. In reality, this field is like a vast ocean filled with countless opportunities waiting to be explored. After completing a bachelor's degree, every student has a unique path to choose. Some may wish to enter the industry directly, contributing to aircraft manufacturing, maintenance, research, defence, airlines, or airport operations. Others may pursue careers in organizations such as HAL, DRDO, ISRO, DGCA, AAI, or private aerospace companies, while some may explore roles in air traffic management, aviation safety, certification, quality assurance, systems engineering, or unmanned aerial systems. For those eager to deepen their knowledge, higher education offers another exciting avenue. Pursuing a master's degree whether in India at prestigious institutions such as IITs and NITs, or at internationally renowned universities allows students to specialize in areas like Aerospace Engineering, Avionics, Flight Mechanics, Propulsion, Space Systems, Air Transport Management, Aircraft Design, Artificial Intelligence in Aviation, and many more.

The true value of a master's lies not in where it is pursued, but in the knowledge gained, the skills developed, and the opportunities it creates. The aviation industry is evolving faster than ever. Sustainable aviation, autonomous aircraft, drones, electric propulsion, digital engineering, and space exploration are reshaping the future of flight. Alongside technical expertise, professionals today also contribute in operations, management, certification, safety, policy-making, and innovation. As an alumna, one lesson I have learned is that a degree in Aeronautical Engineering is not a destination, it is the beginning of an exciting journey. Whether you choose to work, pursue higher studies, or explore a completely new specialization, every path contributes to the growth of this remarkable industry. So, stay curious, keep learning, and remember: the sky is not the limit, it is only where the journey begins.

**Mr. Vaibhav Yogeesh & Mr. Gagan Shettigar**

Masters Student at International Air Transport Operations Management(IATOM) at ENAC, France

**Ms. Krithi**

Masters Student at Aerospace Engineering (MAE) at ISAE SUPAERO, France





**Mahindra Aerostructures Pvt. Ltd.**  
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Apeksha U Saadhana  
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C Lakshith  
Harish Nayak A. R.  
Mithul Ganesh  
Ramya K G  
Sahil  
Nitheesha



**HAL – Rotary Wing Research & Design Centre (RWRDC), Bangalore Bangalore**

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Praveen

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**Darshan**



**G Ananya Prabhu**



**Megha B**



**Mehreen Ara**



**Sagar H**



**Shruti Patil**



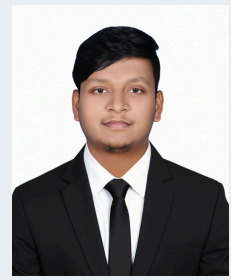
**Harish Nayak A R**



**Mithul Ganesh**



**Yashin Rajeev**



**Abhishek B**



**Pallavi B**



**Srushti S D**



**Praveen**



**Ramya K G**

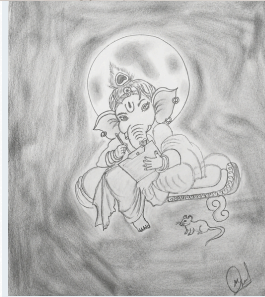
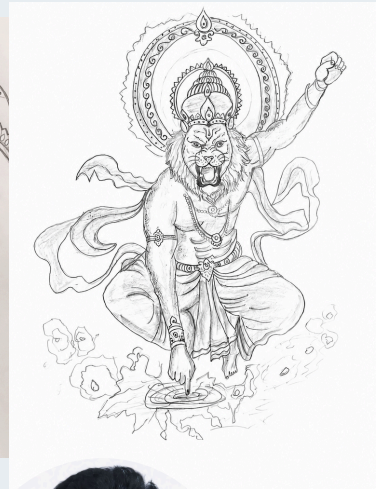
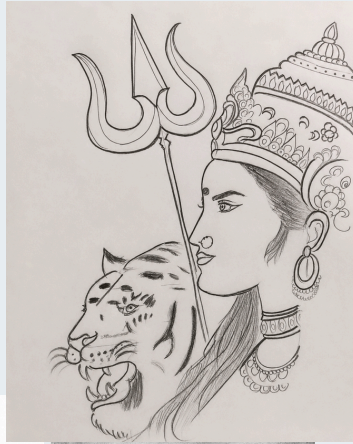


# ASTRUM



THE MASTER'S  
PALETTE





**Manoj Mounesh Kammar - 4MT23AE029**

***A Window Never Opened**  
It is the path for day break  
Sealed like a cell door  
Fright of flower garden outside.  
It's trapped by the bees  
Wandering for nectar in.  
Forgot its role in this busy world  
Carrying settling powder and hackle like a  
freight train  
Forgot its role.....*

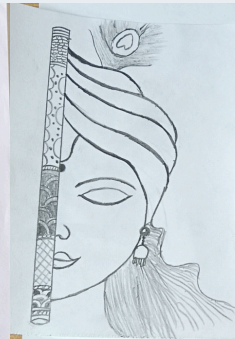


**Keerthi- 4MT23AE027**

***Where We Once Belonged**  
I met my old friends;  
Not in real ,but in dream.  
I could only see their faces;  
And faded surrounding space.  
Walls were emitting emotions;  
Love was pure without restrictions.  
Brown desks with shiny uniforms;  
Unaware that things may go beyond  
our tiny arms.....*



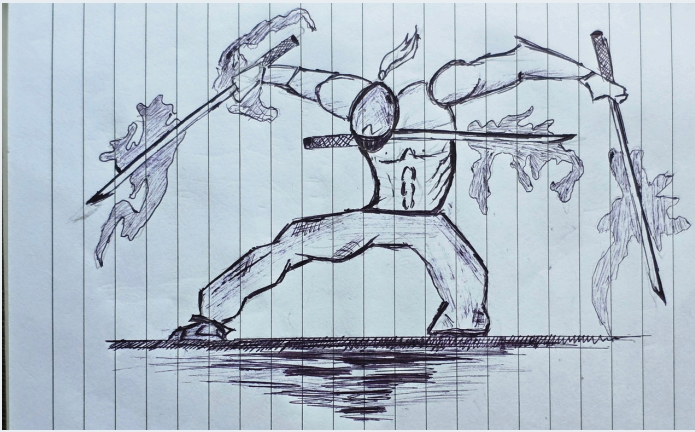
Sinchana P D - 4MT23AE049



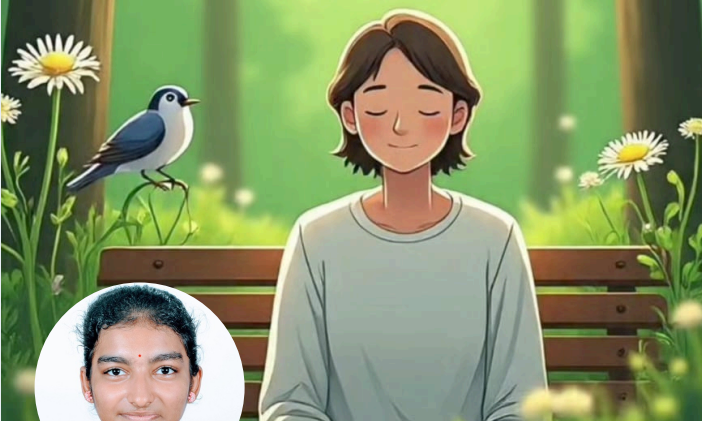
Amruth - 4MT23AE006



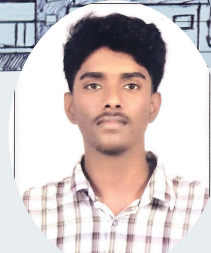




Being true.....  
 No need of being fear if u r true to yourself.....  
 Act of goodness protects u.....  
 No need of hiding the truth as it gives life to devil  
 within us ...  
 As it take away all the joy and peace.....  
 Being true keep free from fearful and tensioned mind..  
 Being open to truth removes away all impurities...  
 Relationship also becomes strong if we r true to  
 them .....  
 Not hiding anything especially to the loved ones...  
 Be open minded as it is the reflection of being true...  
 Being true comes from heart...  
 It take away all the dirts within us and create happy  
 environment...  
 Being true is being urself....  
 Being true is also the key of happiness 😊



Esha – 4MT23AE019



Kishan Nayak B.R- 4MT24AE016









# FAREWELL CLASS OF 2026



Looking back, my time at MITE was an important foundation in my engineering journey. The Department of Aeronautical Engineering provided me with strong technical knowledge, practical exposure, and the confidence to pursue a career in the aerospace sector. The subjects I studied, the guidance from faculty members, and the learning environment at the college helped shape my understanding of space engineering principles. Over the past seven years, I have been working in space and satellite industry, gaining experience across complex spacecraft engineering activities. Today, I work as a Space System Engineer at the European Space Operations Centre (ESOC), part of the European Space Agency (ESA), in Darmstadt, Germany, under a Starion GmbH contract. I value deeply the academic foundation and discipline developed during my study time at MITE college days, as they support the way I approach complex engineering challenges in the space/satellite domain.

MITE gave me more than classroom knowledge, it gave me confidence, resilience, professional values, and memories that continue to inspire me. I am proud to be an alumnus of this institution and sincerely thank the Aeronautical department, faculty, and college for their support in my professional journey. I wish MITE and the Aeronautical Engineering Department continued success in shaping skilled aerospace engineers for the future.



**Basavaraj Siddappa**

Space System Engineer at the European Space Agency (ESA)  
Germany, under a Starion GmbH contract.  
Darmstadt, Germany

The four years I spent at MITE were truly the best of my life—a "total package" of academic growth and cherished personal experiences. The faculty were exceptional mentors, providing a supportive learning atmosphere and guiding me at every step. They beautifully bridged the gap between textbook concepts and hands-on application, encouraging us to learn from our mistakes and gain practical mastery through drone workshops and my internship at the HAL Helicopter & Aircraft Division. The institute's top-tier infrastructure, including the library and well-equipped labs, combined with a vibrant hostel life and unforgettable fests like Sentia and Onam, created a perfect balance. Beyond the organized activities, it was the simple moments—like our relaxing after-dinner walks—that made my time there truly unique. I am incredibly grateful for the industry-ready skills and confidence MITE instilled in me. Currently working as a Machine Learning Developer and Data Scientist, I aim to leverage this strong foundation to directly advance the future of AI within the aerospace sector.

**Ms. Chaithanya N,**

Engineer II – Data Scientist/Machine Learning Developer  
Thermo Fisher Scientific, Bengaluru

My journey at MITE as an Aeronautical Engineering student has been one of learning, growth, and unforgettable experiences. At MITE, I have experienced the perfect mix of academic excellence and practical exposure in the form of well-equipped labs, projects, and industrial training. All this was supplemented by the continuous guidance and mentoring from the faculty which not only improved my technical skills but helped me gain confidence and professionalism as well. Apart from this, there were many other activities which allowed me to improve my leadership, team-building, and communication skills. I would like to thank all the faculty members, friends, and staff members for making my stay at MITE memorable.



**Deviprasad R,**

Private Pilot,  
Treasure Coast Flight Training,  
Stuart, Florida, USA

I am grateful to the Aeronautical Engineering Department and the college for providing me with a strong technical foundation that has helped me build my career as a Finite Element Analysis (FEA) Engineer in the aerospace industry. The subjects taught during my course, particularly Aircraft Structures, Strength of Materials, Structural Analysis, and Finite Element Methods, have been extremely valuable in my professional work. In my current role, I perform structural analysis of aerospace components and complex engineering structures, where a clear understanding of structural behavior, loads, stresses, and design principles is essential. The knowledge gained from the department continues to help me solve real-world engineering challenges with confidence. The faculty members were supportive and encouraged both academic learning and practical understanding. The college also provided a positive learning environment with good laboratories, library facilities, and a pleasant campus atmosphere that supported my overall development. I am proud to be an alumnus of this institution and sincerely thank the department and faculty for their contribution to my professional journey. I wish the department and college continued success in producing skilled and capable engineers for the future.



**Mr. Junaid M J**  
Finite element Analysis Engineer  
Military aviation,  
BHSPL Bangalore

I Looking back, my time at MITE was not just a chapter of engineering studies, but a journey of growth and self-discovery. Beyond classrooms and textbooks, it was about the people I met, the challenges I faced, and the experiences that shaped my mindset. Those moments built my confidence, resilience, and the ability to face life beyond college. MITE gave me more than an education it gave me memories, lessons, and a foundation that continues to define who I am today.



**Mr. Siddarth Shetty,**  
Technical Service Engineer,  
Sanad - Turbine Services and  
Solutions, Abu Dhabi

I My journey through Aeronautical Engineering at MITE has been truly rewarding. The department provided a strong foundation in technical knowledge, hands-on learning, and problem-solving skills, while the dedicated faculty continuously encouraged innovation and growth. MITE offered an excellent learning environment, modern facilities, and numerous opportunities for both academic, cultural and personal development. I am grateful to the department and the institution for helping shape my career and prepare me for future challenges.



**Mr. Adithya**  
Technology Lead  
Infosys Private Limited



My four years at MITE shaped not just my career, but my identity as an engineer. Set against the backdrop of mountains surrounding Moodabidri, the campus offered a calm, green environment that made even the most demanding academic days feel manageable — a quiet reminder to slow down and think clearly.

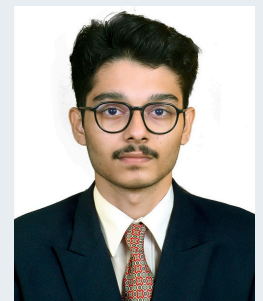
One of the proudest chapters of my journey was being a founding member of Aireino, MITE's very first aeromodelling team. Along with my close friend and co-founder, Keerthi, we built this team from scratch — with no blueprint to follow and no seniors to guide us through it. That uncertainty pushed us to learn faster and dream bigger. We went on to represent MITE at several national-level competitions, including NIT Warangal, NIT Surathkal, and IIT (BHU) Varanasi, testing our designs against some of the best technical minds in the country. Alongside another incredible team, I also had the opportunity to compete in the Go-Kart competition at LPU, Jalandhar — an experience that taught me as much about teamwork and troubleshooting under pressure as it did about engineering itself.

None of this would have been possible without the constant support of our HoD and lecturers, who believed in a first-of-its-kind student initiative and gave us the freedom to experiment, fail, and rebuild. I owe special gratitude to our President, Mr. Rajesh Choutha Sir, whose encouragement gave Aireino the platform it needed to grow. It was this same spirit that led us to conduct MITE's first-ever RC Aircraft building workshop, passing on what we had learned to the next batch of students eager to explore aeromodelling. Looking back, MITE gave me more than a degree — it gave me a team, a purpose, and friendships that carried me through every high and low of college life. I am deeply grateful to my professors, friends, and mentors who made this journey unforgettable, and I proudly carry the lessons I learned into everything I build today. To every student who walks through its gates, MITE doesn't just teach you engineering — it teaches you to dream, to build, and to fly. I am, and will always remain, proud to be a MITEian



**Mr. Dinakar C**  
Team Lead – CAE (CFD)  
TATA Technologies Ltd, Pune

My journey in the Aeronautical Engineering Department at MITE has been truly transformative. The department provided a strong academic foundation while encouraging research, innovation, and hands-on learning through projects, competitions, and internships. Faculty guidance and practical exposure helped me develop technical, leadership, and teamwork skills, leading to valuable opportunities at TEAL and Collins Aerospace. The supportive environment inspired me to think beyond the classroom and grow both professionally and personally. I encourage every student to actively participate in projects, research, and internships. I will always be grateful to MITE for shaping my career and am proud to be a MITEan.



**Mr. Harshith S Bhandary**  
Analyst, Technical Publications  
(Associate Engineer)  
Collins Aerospace, Bangalore

Every meaningful journey has a place where it truly begins. For me, that place was MITE where teachers didn't just teach engineering, they inspired engineers. What truly transformed me was everything I chose to do beyond the classroom. Testing an aerofoil in a wind tunnel, volunteering on India's first indigenous microlight seaplane, interning at Air India, researching biodiesel - none of these were in my syllabus. Each was a choice to seek knowledge beyond boundaries. That habit, built at MITE, carried me to NITK Surathkal and beyond into work I had never imagined as a student.

To every student at MITE today - your degree is your foundation, but your curiosity is your future. Step out, explore, seek mentors beyond your department, build, fail, and build again. MITE was one such place that gave me the space to be that kind of student and for that, I am forever grateful. Above all, I bow in gratitude to the Almighty and to those souls whose silent love remains the foundation of everything I am. I am proud to be a MITEan.



**Manish Poojari**

M.Tech (Research), NITK Surathkal  
Sr. Operations Officer - ME,  
IF MedTech Pvt. Ltd.

MITE has given me my best four years of life. One of the main aspects I value most about MITE is its strong focus on overall development. Along with academics, the college encourages participation in technical events, workshops, cultural programs, and sports activities. This helped me build confidence, teamwork skills, and leadership abilities. Another wonderful part of MITE is the supportive student community. The friendships and memories I have made here will stay with me for a lifetime. The campus culture promotes mutual respect, innovation, and continuous learning. My experience at MITE has been extremely fulfilling. I am grateful for the guidance, opportunities, and growth I have received here. I would highly recommend MITE to anyone looking for quality education and a vibrant campus life.



**Mr. Lionel Claude Dcosta ,**

IT Operations,  
Associate Manager  
Accenture

Completing my degree in Aeronautical Engineering at MITE has been a transformative journey. The curriculum provided a solid foundation in both the theoretical and practical aspects of aerospace systems. Beyond the classroom, the faculty's commitment to academic excellence and the exposure to industry-relevant projects equipped me with the technical rigor and analytical mindset necessary to thrive in the engineering field. I am grateful for the environment at MITE, which truly fostered both my professional development and personal growth.



**Ms. Sonu N,**

Engineer 3,  
Thales India Pvt.Ltd.



### *Editor's Note*

It gives me immense pleasure to present Altitude XI, the Annual Newsletter of the Department of Aeronautical Engineering, MITE. More than a record of events, Altitude reflects the department's unwavering commitment to academic excellence, innovation, research and holistic student development.

This edition showcases the remarkable achievements of our students and faculty through technical talks, workshops, industrial visits, alumni interactions, competitions, research activities, community outreach programmes and professional society initiatives. It also highlights our continuous efforts to create an ecosystem that nurtures technical competence, leadership, creativity and lifelong learning.

The title Altitude symbolizes our aspiration to rise above challenges, explore new horizons, and pursue excellence in aeronautical engineering. Just as aircraft reach greater altitudes through precision, determination and innovation, we encourage our students to elevate their knowledge, skills and professional aspirations to achieve greater heights.

I extend my sincere gratitude to the management, Principal, faculty members, students, alumni, contributors and the editorial team whose enthusiasm and support made this publication possible. I hope this edition serves not only as a chronicle of our accomplishments but also as an inspiration for future innovations and continued excellence.

With best wishes,

**Mr. Ajith Kumar**

Senior Assistant Professor, Dept. of AE

Editor, Altitude XI (2025–26)

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4MT23AE011









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