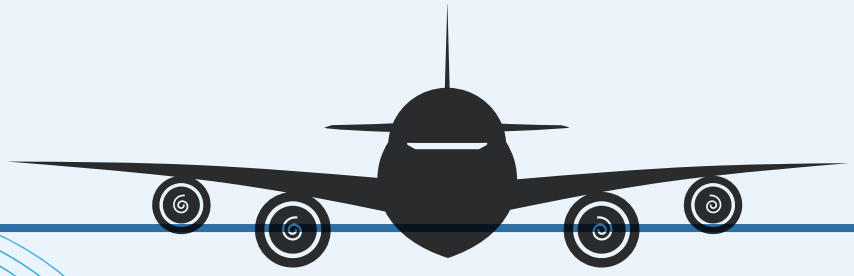
THE FLYING JOURNAL

EDITION 6

DEPARTMENT OF AERONAUTICAL ENGINEERING

"Give your dreams new wings and let us make things fly"



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NEWSLETTER 2024

SJC INSTITUTE OF TECHNOLOGY

Sri Sri Sri Dr. Bala Gangadharanatha Mahaswamiji.

Sri Sri Sri Dr. Nirmalanandanatha Mahaswamiji

Sri Adichunchanagiri Shikshana Trust (R) was founded in the year 1974 under the divine leadership of his Holiness Byravaikya Sri Sri Sri Dr. Bala Gangadharanatha Maha Swamiji.

Sri Adichunchanagiri Mahasamsthana Mutt, with its roots firmly embedded in the folds of time (1500 Years), Space on Rocky hill, 63 miles west of Bengaluru, the Capital City of Karnataka, has been working towards the betterment of human life and society.

SJCIT Chickballapur

Sri Jagadguru Chandrashekharanatha Swamiji Institute of Technology (SJCIT) is affiliated to the Visvesvarya Technological university and was established in 1986 with the objective of developing a standard institution offering engineering courses its main aim is to produce abled engineers to develop the nation and world.

Beginning with the potential of excellence we are Accredited by NAAC (A+), NBA & ISO certified where we try for better and improvised quality education from our auditors.

A premier institute imparting technical education since 1986 The college is situated on Bangalore-Hyderabad National Highway NH7, 45 kms from Bangalore city about, 20 kms from Kempe Gowda International Airport and about 5 kms from Muddenahalli, the birth place of Sir M Visvesvaraya. The famous hill resort Nandi hill is about 15 kms from the college.

Sri Sri Mangalanatha Swamiji
Secretary
Chickballapur Branch

Dr.G.T. Raju

Principal

SJC INSTITUTE OF TECHNOLOGY

I am very happy that the Department of Aeronautical Engineering has come out with the department newsletter for the year 2024 and the sixth edition of "The Flying Journal". I am proud of the achievements of Staff and students towards the development of the Department and the Institute. Would like to see our students working in renowned companies where they will explore much more and make us proud at each level in future.

Dr. Deepa M S

Professor and Head

Department of AERONAUTICAL ENGINEERING

I am extremely happy and overwhelmed at the interest and participation of our 6th Sem students of the Department of Aeronautical Engineering in continuing out this exceptional newsletter. It is indeed a great pride and honour to launch the sixth Edition of the Newsletter- "The Flying Journal" for 2023-24.

I wholeheartedly thank the editorial team for this edition of Newsletter "The Flying Journal" and wish them Good Luck.

DEPARTMENT OF AERONAUTICAL ENGINEERING

In the idyllic spot of the SJCIT, the Department of Aeronautical Engineering was founded in 2014. NBA certification and affiliation, recognised as the finest department. The foundation of the aeronautical engineering programme is in-depth demonstration that impacts knowledge and ensures greater prospects for students no matter where they are in the world.

EDITORIAL TEAM

Faculty Co-ordinator

Dr. Deepa M S
Professor & Head

Student Co-ordinator

Nayan Kumar K J
USN:1SJ21AE017

Nikitha H N
USN:1SJ21AE018

INVITED TALKS

1. Mahesh - CEO of Humming Bird Teksystems

Shri Mahesh V Kumar President & CEO, Humming bird TekSystems, California is a distinguished expert with extensive experience in avionics engineering and aerospace technology.

On 21st December 2023 he commenced the talk with an insightful overview of avionics, elucidating its significance in modern aircraft.

2. Prasad Belgundkar - Alumni Batch 2019-23

Mr Prasad belgundkar is currently working as Aerodynamics Engineer, R&D team at Skytex Unmanned Aerial Solutions Pvt. Ltd. On 9th September 2023 he gave brief information about skills to get into aero industry to the students. Which helped them to know about how industry is offering placement for outgoing students.

3. Meghana and Manjunath - Alumni Batch 2019-23

Ms. Meghana D and Mr. Manjunath J are graduate engineer Trainees at axis cades and they are alumni's of batch (2019 -2023) from Aeronautical engineering ,SJCIT. On 9th December 2023 they gave a brief discussion on Geometric dimensioning and tolerancing to the students.

4. Vignesh Gowda - Alumni Batch 2018-22

Mr. Vignesh Gowda, studying at Lawrence technological university, south field, Michigan, USA masters in engineering management. On 10th February 2024 he gave a talk on importance of research for future career to aeronautical students.

The talk series is mainly on Critical Role of Research in shaping students Future Career.

VISITS

1. HAL - AERDC

The Aero Engine Research and Development Centre (AERDC) of Hindustan Aeronautics Limited (HAL) in Bengaluru, Karnataka, is a key facility for the design and development of aircraft engines in India. Established in the 1960s, AERDC has the unique distinction of developing test beds for both Western and Russian origin engines.

The new state-of-the-art facility, spanning over 10,000 square meters, includes advanced setups, in-house fabrication facilities, and multiple test beds for these engines and other critical components.

On 5.01.2024, a group of 23 individuals, including students and faculty members from SJC Institute of Technology, had the opportunity to visit the Engine Division of Hindustan Aeronautics Limited (HAL). The visit aimed to provide participants with insights into the advanced manufacturing processes, research and development activities, and the overall functioning of the HAL Engine Division.

2.U R Rao Satellite center

U R RAO Satellite center (URSC), Bengaluru, the students of aeronautical engineering visited ISRO on 28th February 2024 , URSC formerly known as ISRO Satellite Center is the lead center for building satellites and developing associate satellite technologies . These spacecraft are used for providing applications to various users in the area of Communication, Navigation, Meteorology, Remote Sensing, Space Science and interplanetary explorations. The Centre is also pursuing advanced technologies for future missions. URSC is housed with the state-of-the-art facilities for building satellites on end-to-end basis. ISRO Satellite Integration and Test

Establishment (ISITE) is equipped with state-of-the-art clean room facilities for spacecraft integration and test facilities including a 6.5 Meter thermo vacuum chamber, 29 Ton vibration facility,

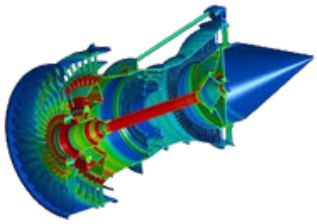
3. HAL Heritage Centre

HAL Aerospace Museum is India's first aerospace museum located at Hindustan Aeronautics Limited premises, in Bengaluru. Established in 2001, the Museum is part of the HAL Heritage Centre and Aero Space Museum, and showcases the growth of the Indian aviation industry and HAL for six decades.

The museum houses displays of various aircraft and helicopters, Aircraft engine models, Flight simulators, a mock Air Traffic Control Tower and exhibit of Indian aviation history. The Museum is maintained by HAL (one of Asia's largest Aerospace companies).

4. Heritage Walk

WORKSHOPS



1. ANSYS

The Department of Aeronautical Engineering in association with HRD, SJCIT conducted workshop titled “Application of Ansys in Aeronautical Industry” which provided a hands-on session on Ansys workbench 18.1 through CAD desk, Chikkabanavara for 9 days. This was a training workshop on the application of Ansys in Aeronautical Industries provided by the Department of Aeronautical Engineering for 7th-semester students. This workshop will and bridges the gap between the industry-academia and provide a platform & exposure to the need of the industry.

This familiarizes the students with the basics of Ansys for internship opportunities in Aeronautical industries. enable students to design and analyze the given models.

2.CATIA

Department of Aeronautical engineering organized one day workshop on fundamentals of Catia v5 on 15th march 2024 by Abhishek V. He is mechanical design software trainer at Jnana InfoTech, Bengaluru.

The one day workshop on the fundamentals of Catia v5 was organized to enhance the students understanding and skills in using this design software. The workshop aimed to equip attendees with the basic knowledge required to efficiently utilize Catia v5 for various design tasks. Participants were also introduced to advanced features of the software, enabling them to work on complex engineering projects.

STUDENTS ACHIEVEMENTS

1. GATE

We proudly congratulate Mr. Bharath Kumar S from the Department of Aeronautical Engineering for his outstanding achievement in qualifying for GATE 2024. With an impressive All India Rank (AIR) of 914 and a GATE score of 323.

Mr. Bharath Kumar's hard work and dedication have earned him this remarkable success. The management, principal, registrar, HODs, staff, and students of the institute extend their best wishes for his future endeavour and continued success in his academic and professional journey.

2. AEROTHON

The event, AEROTHON 2023, focused on Uncrewed Aircraft System (UAS) design, build, and fly competition. The finals were held on November 17-18, 2023, at SJC Institute of Technology.

It is a platform for students and enthusiasts to showcase their skills in designing, building, and flying Uncrewed Aircraft Systems (UAS). The event featured various technical challenges and competitive tasks aimed at fostering innovation and practical application of aerospace principles. The active involvement of students from the user's institute, both as participants and volunteers, helped them gain valuable experience in the field of aeronautics, teamwork, and project management while contributing to the event's overall success.

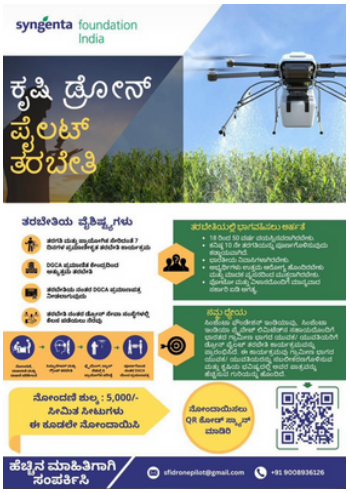
3. Bengaluru Tech Summit

5. Participation in International Conference at IISc

6. Drone Tech Summit and Exhibition @ BGSCET

7. Paper Published by Students

8. Drone Training



VEERESH G M
1SJ20AE040

CH BHANU PRAKASH
1SJ20AE010

9. Engineers Day Celebration at HAL

Paper presentation and model exhibition by 7th sem students

National Cadet Corps

We proudly Congratulate Ms. Sindhura C on her remarkable achievements for her selection as the leader of the team 40 cadets, performing before the Honorable Prime Minister, Narendra Modi. She played a key role in showcasing cultural excellence and leadership during the Republic Day Camp 2024. As part of the cultural team, Sindhura participated in various events, including group dance, group song, ballet, and the National Integration Awareness Programme (NIAP).

Her exceptional performance at the PM Rally on January 27, 2024, earned her recognition and praise. Additionally, Sindhura led the All India NCC cultural team during the 'PM at Home' event, where she coordinated and executed performances that highlighted India's diverse cultural heritage. Her contributions were pivotal in representing the college in the cultural narrative of the NCC at these prestigious events.

On January 28, 2024, Sindhura C was honored with the DG Medal by Lieutenant General Gurbirpal Singh, AVSM, VSM, of the Directorate General NCC. She also earned a Gold Medal for Best Directorate Group Dance and a Bronze Medal as the 2nd Runner-up in Group Song. Sindhura actively participated in various events, including group dance, group song, ballet, and the National Integration Presentation Program (NIAP). In the All India NCC Cultural Team during the PM Rally on January 27, 2024, as the captain. Prior to this, she attended the Inter Group Camp (IGC) RDC 2023-24, organized by 34 Kar BN NCC at PRTC, Toranagallu, Ballari, from October 11 to 20, 2023. This camp brought together cadets from Karnataka and Goa for intense training and was a key selection process for the Karnataka and Goa 2024 contingent.

KSCST FUNDING

The 47th series of student project programme, which was organised by the Karnataka State Council for Science and Technology (KSCST) and financed 1,230 projects from 170 colleges, gave us the chance to present our projects to the council. Among them 3 projects from our department has been founded.

The project work titled **"DESIGN AND FABRICATION OF BI-COPTER DRONE FOR MEDICAL PURPOSE"**. Which is a final year student major project was funded by Karnataka State Council for Science and Technology (KSCST) during 47th series of students programme during the AY: 2023-2024, Project Proposal Reference No: 47S_BE_0326 and the amount is of Rs. 7000/- which was sanctioned for the fulfilment of the project.

The project work titled **"TESTING AND DEVELOPMENT OF KENAF / PINEAPPLE / BANANA NATURAL FIBERS COMBINED COMPOSITE MATERIALS FOR AEROSPACE COMPONENTS"**. Which is a final year student major project was funded by Karnataka State Council for Science and Technology (KSCST) during 47th series of students programme during theAY: 2023-2024, Project Proposal Reference No: 47S_BE_0500 and the amount is of Rs. 6500/- which was sanctioned for the fulfilment of the project.

The project work titled **"DESIGN, CONSTRUCTION OF A SPINNING DRONE WITH REDUCED WEIGHT AND POWER CONSUMPTION"**. Which is a final year student major project was funded by Karnataka State Council for Science and Technology (KSCST) during 47th series of students programme during the AY: 2023-2024, Project Proposal Reference No: 47S_BE_0243 and the amount is of Rs. 7000/- which was sanctioned for the fulfilment of the project.

LECTURE SERIES

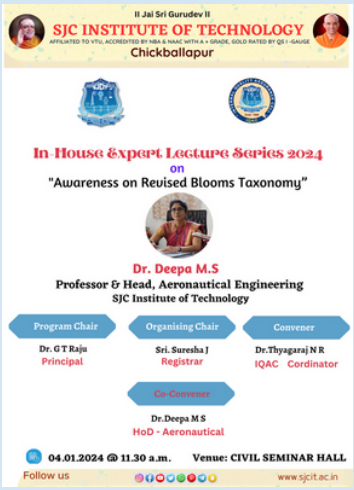
AWARENESS ON REVISED BLOOMS TAXONOMY & STEALTH AIRCRAFT

-Dr. Deepa M S

K- MAP: "Knowledge Mastery Among Peers". It likely refers to a structured program or lecture series aimed at fostering deep learning, knowledge sharing, and intellectual development among faculties.

S J C Institute of Technology & IQAC has organized a Seminar series – Knowledge Mastery Among Peers (2ndKMAP) on “STEALTH AIRCRAFTS” for Heads, Professors and Associate Professors of all the departments on 06.10.2023 at 3.30 PM, CSE Seminar Hall, IT Block, SJCIT.

The Resource Person for the session was Dr. Deepa MS, Professor & Head, Department of Aeronautical Engineering, S J C Institute of Technology, Chickaballapura. The speaker interacted with the faculty, cleared their doubts, and discussed few case studies. This event seems to be aimed at enhancing the participants' knowledge of stealth aircraft technologies, likely involving peers from the academic or professional aeronautical engineering community.



And the another Seminar on “AWARENESS ON REVISED BLOOMS TAXANOMY” for Faculty members on 04.01.2024 at 11.30AM, in Civil Seminar hall, SJCIT. The program was organized to give the awareness to Faculty on opportunities in use of blooms taxonomy. The Resource Person for the session was Dr. Deepa MS, Professor & Head, Department of Aeronautical Engineering, S J C Institute of Technology, Chickaballapura.

ARTICLES

Self - Discipline

Self-discipline is currently defined as the ability to regulate and correct oneself for self-improvement. It is the ability of someone to manage and push him/herself to behave and act in a particular manner without being directed or pushed by other individuals defined it as the capability to motivate or let oneself complete tasks and do responsibilities even if he/she does not have the desire to do it.

It is the ability to control responses to certain stimuli towards achieving higher goals. An ability that is not developed in one click but is developed through conscious effort. Self-discipline is a conscious control of one's actions and behavior, including surpassing challenges, hindrances, and obstructions, towards successful outputs. It is, as well, the ability to break or balance holistic health issues to obtain the best holistic health that someone could have classified this as one of the crucial elements of success.

It is an invaluable skill that everyone must learn and maintain throughout their life. Self-discipline is the number one characteristic to achieve a mission or a goal, which includes managing a healthy lifestyle. It is one of the three self control skills that include perseverance and conscientiousness. Self-discipline exists when someone can neglect, reconsider, or consider his/her conscience' desire in a wise manner. It is when someone has the skill to control his/her impulses, and feelings.

Although they failed to achieve their main objective, which is to boost the children's IQ, they found out that the program or study lessened the rates of criminal behavior, teen pregnancy, school dropout, and work absenteeism. It was not their intellectual quotient that was improved but it was their self control that was developed. It also projected that higher self-discipline is more impactful and powerful determinant in maintaining high academic performance than a higher IQ. This is supported by studies in which self-disciplined learners turned out to have higher grades, higher results in standardized achievement test scores, and often complete attendance, and many of them were admitted to a competitive higher school than those learners that only have high IQs.

Individuals with a higher level of self-control are more successful in completing health lifestyle program goals.

Conclusion: Based on the collected literature, self-discipline has a direct relationship with one's success; learners' behavior and academic performance; and, healthy lifestyle.

Collection: Ruth D. May-os

Dr. Deepa M S
Professor & Head, AE

Flying Cars

The Future is Here: Flying Cars Take Off
For decades, flying cars have been a staple of science fiction, symbolizing the promise of a future where commuting isn't limited by roads. Today, that dream is edging closer to reality, as technological advancements and investments in urban air mobility (UAM) are making flying cars a plausible transportation option.

The idea of a flying car isn't new. The first known attempt was in 1917 when Glenn Curtiss built the "Curtiss Autoplane," a vehicle that combined the elements of a car and an airplane. Although it never truly flew, it set the stage for future innovations. Over the decades, various prototypes have been developed, but none managed to break into the mainstream market.

Fast forward to the 21st century, and the landscape has dramatically changed. The convergence of electric vehicle technology, autonomous systems, and drone advancements has reignited interest in flying cars. Companies like Terrafugia, AeroMobil, and PAL-V are leading the charge, with some even receiving regulatory approvals to start testing.

Flying cars, also known as vertical take-off and landing (VTOL) vehicles, are typically designed to operate in both air and on the ground. Most modern concepts rely on electric propulsion, with multiple rotors similar to drones. This design allows for vertical take-off and landing, making them ideal for urban environments where space is limited.

These vehicles are equipped with advanced navigation systems, which could eventually enable fully autonomous flight. The goal is to create a seamless transition between driving and flying, with minimal input required from the operator. However, early models are likely to require some level of piloting skill, at least until the technology matures.

While we're still a few years away from seeing flying cars in everyday use, the progress being made is undeniable. The combination of technological innovation and significant investment suggests that the era of flying cars is no longer a distant dream but an emerging reality.

Dr. Nagesh D
Associate Proff., AE

Advanced Air Traffic Management

Air Traffic Management (ATM) is crucial for ensuring the safety, efficiency, and reliability of air travel. As air traffic increases globally, traditional ATM systems face significant challenges in managing growing volumes of flights, optimizing routes, and maintaining safety standards. Advanced Air Traffic Management (AATM) represents the next evolution in ATM, leveraging cutting-edge technology and new strategies to address these challenges.

Historically, air traffic management relied on radar-based systems and voice communications between air traffic controllers (ATCs) and pilots. This approach, while effective in its time, has limitations in handling high traffic volumes, managing complex airspace, and ensuring real-time situational awareness.

As air travel grew, it became evident that traditional systems needed enhancements to cope with increasing traffic demands and complexities. The limitations of radar, the static nature of existing airspace structures, and the manual processes involved led to the development of AATM

One of the cornerstone technologies in AATM is satellite-based navigation, primarily using the Global Positioning System (GPS). Unlike traditional radar, which relies on ground-based stations, satellite navigation provides continuous, global coverage. This technology allows for more precise tracking of aircraft, even in remote areas, and supports the implementation of more flexible and efficient flight paths.

ADS-B is a surveillance technology that allows aircraft to broadcast their precise position, velocity, and other information to air traffic controllers and other aircraft. This system improves situational awareness and provides more accurate data than traditional radar. ADS-B is crucial for managing traffic in non-radar-covered regions, such as oceans and remote areas. The working process of Advanced Air Traffic Management involves a dynamic and integrated approach to managing air traffic from pre-flight planning through post-flight operations. By leveraging advanced technologies, communication systems, and data analysis tools, AATM enhances safety, efficiency, and effectiveness in air traffic management. Continuous updates, training, and improvements ensure that the system adapts to evolving needs and technological advancements, contributing to a more reliable and sustainable aviation industry.

Sumanth M
6th Sem, AE

Advanced Medium Combat Aircraft (AMCA)

AMCA is a indigenous fighter jet which has been developing by DRDO (Defense Research and development organization) since 2008 with a total funding of 150 trillion . The design of the 5th generation jet AMCA was started on 2008, this organization made a deep research into the various avions and technology of fighter jets. Project definition was initiated on February 2013, on Jan 2014 Engineering technology and development phase, AMCA entered Frozen configuration on Feb 2015. After 2 years of gap the preliminary design phase has started, with continuous hard work towards AMCA the design was finalized on 2022. On Dec 2023 overall critical design review completed. On march 2024 the government approved this programme. The prototype will be created by 2029. The manufacturing of AMCA will be taken care by HAL (Hindustan aeronautics limited).

It is designed with shoulder mounted diamond shaped trapezoidal wings, which reduces drag at transonic speeds, and a stabilizer V-tail with large fuselage mounted tail-wing. Flight control surfaces include leading and trailing-edge flaps, ailerons, rudders on the canted vertical stabilizers, and all-moving tailplanes these surfaces also serve as air brakes. The AMCA will have some sixth generation characteristics such as an optionally crewed, directed energy weapons, capable of controlling UCAVs, and swarm drones.

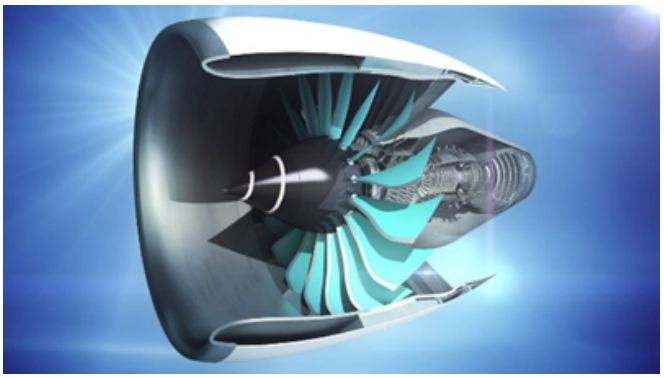
The AMCA design has inherent radar stealth, achieved through twin-tail layout, platform edge alignment and serration, body conformal antenna and low intercept radar, diverterless supersonic inlet (DSI) with serpentine ducts which conceal engine fan blades. AMCA will be equipped with a quadruple digital fly-by-optics control system using fibre optic cables to reduce weight, increase the rate of data transfer and reduce electromagnetic interference.

Specification of AMCA

Maximum speed of 2,600 km/h, Mach 2.15 Range of 3, 240 km, Combat range of 1,620 km, Ferry range of 5,324 km, Service ceiling of 20,000 m, Guns of 23 mm, GSh-23 cannon, Hardpoints of 14 with a capacity of around 6.5 tons, with provisions to carry combinations of Rockets of S-8 rocket pods Air to air missiles Astra IR Astra Mark 1, Astra Mark 2, Astra Mark 3,NG-CCM, Air to ground missiles, BrahMos NG, SANT, Rudram-1,Bombs of, Laser-guided bomb.

Tarun R
4th Sem, AE

UltraFan



UltraFan is a demonstrator aero engine the largest in the would containing a suite of new technologies that deliver greater fuel efficiency which in turn means lower emissions and greater sustainability. The ultrafan consists of composite fan, Power gearbox , Lean burn combustor , Advance 3 core. The ultrafan demonstrator is designed for the future it will be ready to run on 100% sustainable aviation fuel from day one of service .

A new engine architecture fan system technology new materials and a power gearbox all create a very high bypass ratio engine . And that means greater efficiency and sustainability ultrafan is 25% more efficient than the first generation trent and offers 40% less NOx and 35% less noise and almost zero NVPM particulates at curise . SAF is important as a drop in solution to the challenge of sustainability in aviation ,providing a lifecycle carbon reduction of at least 80% compared to the traditional jet fuel it replaces .

Rolls -Royce has distinctively adapted a three shaft drive architecture for their large commercial turbofans with three turbine stages to drive the fan , the intermediate pressure (IP) and HP compressors .This layout has allowed the trent XWB to reach an overall pressure ratio of 50:1. The higher OPR'S , a redistributed workload between the IP and HP shafts is more suitable as it increases overall compressor and turbine system efficiencies , improved internal air system and lower cooling requirements and reduced temperatures at principal internal structures and bearing chambers .

The Rolls-Royce ultrafan takes the evolution of advance even further , feauturing all the same technology and more to deliver a step change to increase in bypass ratio . One such addition is the introduction of a speed reduction power gearbox between the low speed Carbon – Titanium composite fan and the intermediate pressure turbine to accommodate the ultra – high OPR of 70:1 and BPR of 15:1 .

Additional stages of IP turbines will be added , allowing to eliminate the lower pressure turbine altogether and making the overall design smaller lighter and more compact and therefore more efficient .

Ramya M
4th Sem, AE

ACTIVITIES

1.AVION 5.O

The Department Club Pravega continues its legacy of conducting AVION as the department fest and promoting leadership qualities, innovation among students. AVION 5.O was conducted on 22nd and 23rd of December 2023. The main aim of the fest was to provide an interactive platform where students could enhance their knowledge and practical skills in various fields of aeronautical engineering. Activities included both technical and non-technical events.

This year's event was spearheaded by faculty coordinator Vidyashree KR with student coordinator Veeresh under the supervision of Dr Deepa M S Professor and Head of the department along with the Design Team playing crucial roles in organizing the fest. Their efforts resulted in a well-organized event that was both educational and entertaining.

The incredible aircraft models crafted exclusively for AVION5.0 the design team, aimed to capture the essence of innovation and celebration in every detail. From sketch to reality, these models symbolize the creativity that will take center stage at AVION 5.0.

Avion 5.0 featured a wide range of activities, including:

Aircraft sketching, Drone maneuvering , Fly without power , Treasure hunt, My big foot, Just imagine, Mind sweeper, Sight on site.

This edition also brought together our alumni's as sponsors, contributing to the success of the event by providing both financial and technical support.

The fest concluded with awards and Certificates for the winners, making Avion 5.0 a grand success and continuing the tradition in the Department of Aeronautical Engineering.


GPS Map Camera
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Long 77.728576°
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2. Entrepreneurship

The Department of aeronautical engineering in association with IIC – SJCIT organized an awareness program on entrepreneurship on 16th February 2024. The Resource Persons for the session was

Mr. Raghunandhan N K was an Academic, Corporate/Industry professional with more than 25 years in customer relations, Entrepreneurship, Consulting in strategy & Marketing and Mentor for Start – Ups.

Mr. Praveen Kumar M P is a Training In-Charge at MSME Technology Centre, Bengaluru.

They briefly explained the importance of entrepreneurship in economic growth, job creation and how government schemes support budding entrepreneurs. Introduction was about the concept of government schemes designed to support entrepreneurs. Creating awareness about entrepreneurship and government schemes like PMEGP among students is crucial for several reasons.

3.Space on Wheels

S J C Institute of Technology successfully hosted the ISRO-sponsored "Space on Wheels" exhibition on the 15th of November, 2023. The event, held at the BGS Auditorium and AERO Block, was a significant success, showcasing India's advancements in space technology. The exhibition, featuring a mobile display by ISRO. **Shri H L Srinivasa**, a distinguished scientist from the ISRO Satellite Centre, graced the event as the Chief Guest, inspiring students and faculty. Organized under the guidance of Dr. Deepa M S, Professor and Head of the Department of Aeronautical Engineering, Mr. Suresha J, Registrar, and Dr. G T Raju, Principal, the exhibition was well-received and marked another milestone in the institute's commitment to providing exposure to cutting-edge scientific advancements.

4.Prathidwani

The department organizes peer-to-peer learning sessions in the name “Prathidwani” for both 3rd and 5th-semester students, creating an interactive educational environment. In these sessions, students work together to improve their understanding of various subjects and develop their skills. Every day, different topics are assigned to the students, and they take turns explaining these topics using the chalk-and-talk method. This structured peer interaction helps students share knowledge, tackle academic challenges, and improve their grasp of the subject matter. In addition to enhancing their understanding of course content, this approach also helps build essential soft skills, such as communication and teamwork.

5.Universal Reiki

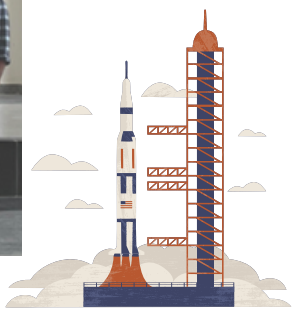
A Special Talk on "Universal Energies as a Blessing" was held on March 12, 2024, at S J C Institute of Technology. This special talk by Mrs. Lathakumari S T, a Reiki Master, as the resource person. The session focused on the exploration of universal energies and their influence on personal well-being and spiritual growth. The talk aimed to provide insights into how harnessing these energies could lead to a more balanced and harmonious life. The event was organized under the leadership of Dr. Deepa M S, Professor and Head of the Department of Aeronautical Engineering, Mr. Suresha J, Registrar, and Dr. G T Raju, Principal, who were instrumental in its smooth execution. The seminar attracted a diverse audience of students and faculty members who were keen to explore the benefits of universal energies in both personal and professional contexts.

6. Seed Activity

Paper plane making competition

7. Chandrayaan Mahotsav

Celebrating India's Lunar Mission – Poster Making Competition



8. Hydro Rocket

Project Based Learning

INTERNSHIP

AEREO

Aereo is the trailblazer in India's integrated drone solutions landscape. Formerly known as Aarav Unmanned Systems, Aereo was founded in 2013 by Vipul Singh and Suhas Banshiwala in the research labs of IIT Kanpur.

The Aereo Look Up Engineering Internship on Drone Technology, held from November 2, 2023, to November 30, 2023, provided participants with hands-on training and knowledge in modern drone technologies for 5th Sem students of batch 2021. The program covered key aspects such as drone design, flight mechanics, control systems, and their applications in areas like aerial surveying, remote sensing, and logistics. Interns were recognized for their dedication and hard work throughout the training, which aimed to enhance their technical skills and understanding of unmanned aerial vehicles (UAVs).

The internship was made possible through a collaboration between the department and Aereo, a company specializing in drone technology. This partnership provided students with the opportunity to gain industry-relevant experience directly within their field of study. Aereo's involvement ensured that participants received up-to-date knowledge and skills from professionals working at the forefront of UAV development. This tie-up not only enhanced the training experience but also strengthened the department's connection with cutting-edge technologies and industry practices, offering students a valuable step toward future career prospects.

The internship also emphasized practical learning, allowing participants to work directly with drones, gaining experience in troubleshooting, assembly, and flight operations. In addition to technical skills, the program encouraged problem-solving and innovative thinking.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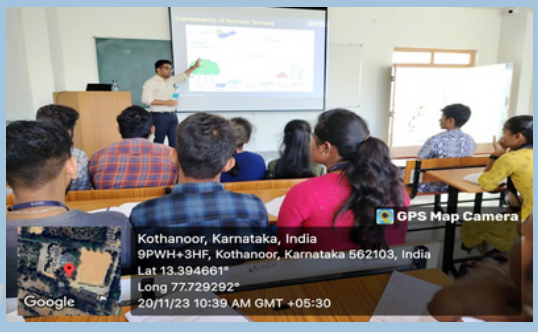
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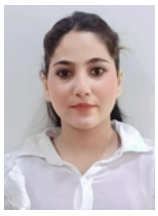

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