ANTHARIKSH

The Space...

DEPARTMENT OF AEROSPACE ENGINEERING

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

MYLAVARAM, ANDHRA PRADESH, INDIA.

Vision of the Department:

To achieve academic excellence and produce highly competent professionals in the field of Aerospace Engineering

Mission of the Department:

DM1: To impart high quality education in Aerospace Technology through class room teaching and laboratory practice.
DM2: To develop indigenous Aerospace Technology by carrying out research in collaboration with industry and research organizations.
DM3: To train and inspire the student community to possess effective communication and leadership skills with ethical values.
DM4: To harness the technological development by being consistently aware of societal needs and challenges.

Program Educational Objectives (PEOs)

PEO1: To provide students with sound mathematical, engineering and multidisciplinary knowledge to solve Aerospace and Allied Engineering problems.
PEO2: To prepare students to excel in higher education programs and to succeed in industry/academia profession.
PEO3: To inculcate ethical attitude, leadership qualities, problem solving abilities and life-long learning for a successful professional career.

PROGRAM OUTCOMES (POs)

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

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

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

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

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

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

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

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

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

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

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

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

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: To apply the knowledge of Aerodynamics, Propulsion, Aircraft structures and Flight Dynamics in the Aerospace vehicle design.
PSO2: To prepare the students to work effectively in Aerospace and Allied Engineering organizations.

FOCUS AND SCOPE

A department magazine bridges the gap between students and faculty. Typically, a department magazine consists of Technical articles, ideas, project outcomes, language skills, literary articles, technical updates, success stories, career tips, academic advice, the latest events and happenings related to campus. Cover-stories have to be written in an engaging format. We can also include interviews of former students who have achieved success through dedication and hard work.

PUBLICATION FREQUENCY:

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Send your articles to the following mail ID.

E-Mail: anthariksh.lbrce@gmail.com

Disclaimer

Some of the contents published in this magazine are from open sources. The contents of this magazine are for information purposes only, enabling the faculty and students to have easy and quick access to information and do not have any legal sanctity. This magazine is intended for circulation among students of the Department of Aerospace Engineering of LBRCE only.

FROM HOD's DESK

Failure Is Your Friend

Most people seem to have an innate fear of failure, but failure is really your best friend. People who succeed also fail a great deal because they make a lot of attempts. Those who have the most successes also have the most failures. There is nothing wrong or shameful in failing. The only regret lies in never making the attempt. So don't be afraid to experiment in your attempts to increase productivity. Sometimes the quickest way to find out if something will work, is to jump right in and do it. You can always make adjustments along the way. It's the ready-fire-aim approach, and surprisingly, it works a lot better than the more common ready-aim-fire approach. The reason is that after you've "fired" once, you have some actual data with which to adjust your aim. Too many people get bogged down in planning and thinking and never get to the point of action. How many potentially great ideas have you passed up because you got stuck in the state of analysis paralysis (i.e. ready-aim-aim-aim-aim-aim...)?

Dr. P. Lovaraju

Advances in Aerospace Structures

Mr. S Indrasena Reddy
Sr. Asst. Professor

Aerospace Industry focus on creating lighter, safer, and more sustainable aircraft and spacecraft through the integration of advanced composite materials, intelligent, self-healing alloys, and AI-driven design. Key innovations include multifunctional structures, additive manufacturing (3D printing), and improved structural health monitoring, which enhance performance and reduce weight.

Advanced Composite Materials: Use of carbon-fiber-reinforced polymers (CFRP) and fiber-metal laminates allows for high strength-to-weight ratios. Variations in fiber direction enable custom structural properties.

Intelligent/Self-Healing Alloys: Research into materials that can self-heal or adapt under stress helps in resisting heat and corrosion, crucial for both aerospace and specialized medical applications.

Multifunctional Structures: Development of structures that carry loads while performing other functions, such as energy storage or specialized thermal management, often utilizing truss-core sandwich designs to tailor acoustic and stiffness properties.

Additive Manufacturing (3D Printing): Enables the production of complex, optimized, and light-weight parts that were previously impossible to manufacture, reducing weight and material waste.

Structural Health Monitoring (SHM): Integration of sensors and smart actuators allows for real-time monitoring of structural integrity, fatigue detection, and damage tolerance assessment.

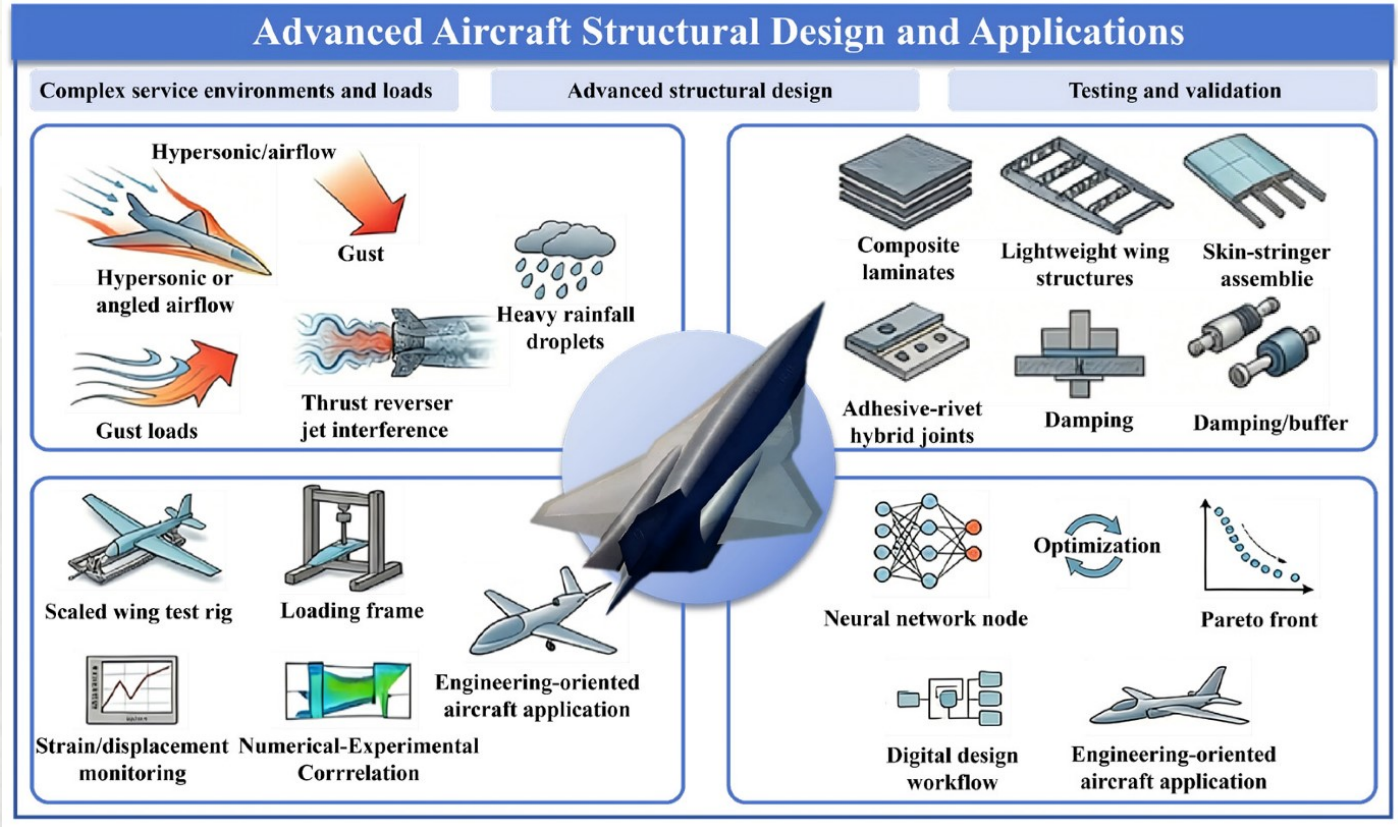
AI and High-Performance Computing (HPC): Artificial intelligence and machine learning are used to design and analyze structures, enabling, for example, morphing aircraft wings that optimize efficiency in real-time.

Innovative Design & Manufacturing Techniques:

Hybrid Nanocrystalline Micro trusses: Rapid -prototyped polymers coated with metals are used to create ultra-lightweight, strong, and tailored structures.

Fluid-Structure Interaction Analysis: Sophisticated simulation techniques (like CFD) are used to analyze the interaction between aerodynamic loads and structural deformation.

Tuned Mass Dampers: Utilization of specialized damping components to manage vibrations within structures



SKYWARD MISSION: INDIA'S NEXT SPACE SURGE

ISRO's Preparation for Multiple Satellite Launches in 2026 Reflects a Bold Leap Toward Scientific Excellence

Mr. G V Surya Narayana
Sr. Asst. Professor

The year 2026 is turning into an exciting chapter in India's growing space story as the Indian Space Research Organisation (ISRO) prepares for a series of important satellite launches. Known across the world for achieving remarkable missions with precision and cost efficiency, ISRO is now entering a phase of intensified launch activity. Communication satellites, Earth observation spacecraft, navigation missions, and advanced technology payloads are all being lined up for launch, making this one of the busiest periods in the organization's recent history.

Inside the Satish Dhawan Space Centre at Sriharikota, engineers and scientists are working continuously on rocket assembly, engine testing, payload integration, and mission rehearsals. Every section of the launch complex is active with preparation as PSLV, GSLV, SSLV, and LVM3 launch vehicles are readied for their upcoming flights. ISRO Chairman Dr. V. Narayanan recently stated that multiple launches are planned in the coming months, beginning with the next mission window from May onward. This announcement has created great enthusiasm because it signals India's readiness to maintain a regular and confident presence in space.

Among the most awaited missions are Earth observation satellites that will help in weather forecasting, disaster warning, agricultural planning, environmental monitoring, and strategic surveillance. Such satellites are extremely important for a country like India where real-time data can directly support farmers, scientists, and emergency services. Along with them, communication satellites are also under development to improve telecommunication services, broadcasting networks, and secure defence links. Navigation payloads are being prepared to strengthen India's own regional positioning capability and reduce reliance on foreign systems.

The preparation in 2026 is not only about sending satellites into orbit; it is also closely connected with India's future human spaceflight dream. Several launch-related tests under the Gagan Yaan programme are progressing side by side. These include orbital module checks, crew safety validation, re-entry experiments, and system reliability studies. Each successful mission this year will contribute valuable confidence toward sending Indian astronauts into space under an entirely indigenous programme.

What makes this preparation especially admirable is the level of scientific discipline behind it. Before any rocket leaves the launch pad, every engine, circuit, sensor, and software command passes through strict testing. Cryogenic propulsion systems are examined repeatedly, payloads are tested against vibration and thermal stress, and mission simulations are carried out many times to avoid failure. ISRO's engineers are treating each mission as a combination of caution and ambition—careful enough to ensure safety, yet bold enough to attempt advanced technological progress.

Another exciting feature of the upcoming launches is that some payloads are expected to carry futuristic experiments. These may include satellite docking trials, high-speed data communication systems, electric propulsion studies, and autonomous onboard navigation technologies. Such missions are not only useful for current applications but also essential for India's long-term plans involving lunar exploration, a national space station, and deeper planetary missions.

As the launch pads of Sriharikota prepare to roar back to life, the mood across the nation is one of anticipation and pride. Every satellite now under preparation carries the hopes of a country that sees science as the path to self-reliance and global recognition. ISRO's multiple launch plans for 2026 are therefore more than a set of technical events—they are a clear sign that India is steadily building its future beyond the boundaries of Earth.

A way to travel faster than light

Arun kumar. Ch
25761A5609

According to Einstein's special theory of relativity, Light is the fastest entity to ever exist. Nothing with mass can exceed the speed of light.

But there is a theory that validating objects with mass can travel faster than light. To make it possible , there are 2 most convenient and reliable ways:-

1.Transportation through Wormholes
2.Space-fabric manipulation

1.Wormholes journey:-These are also known as Einstein-Rosen bridges, connecting two distant places in the cosmos. But the creation of Wormholes is an impossible task as it requires a blackhole (as entrance) and whitehole (as exist) where black holes are the most dangerous due to its limitless gravity.

2.Space-fabric Manipulation:-Any object with mass cannot exceed the speed of light (even light itself) although when relative speed is taken into consideration according to S.T.O.R. But there is a possibility of travelling faster than light without exceeding 3Lakh km/s. It is to bend the space around the object and push the space around it in the direction opposite to the required direction of motion. It can only be possible if somehow we can create anti-matter & get safe access to the usage of it. Since anti-matter creates a planetary level explosion on exposure to matter. If we create a cloak of Anti-matter behind our spaceship then the space in front of the spaceship moves back making the spaceship travel in space without any velocity requirement of the spaceship. This holds the principles of S.T.O.R and paves the idea to travel faster in space. This helps to complete the interstellar and intergalactic journeys within minutes or even in seconds.

How General Relativity Keeps GPS Accurate

M. Chutika Charani
25761A5642

The Global Positioning System (GPS) is one of the most impactful technologies of the modern era, relied upon by billions of devices worldwide for precise navigation. However, few users are aware that without corrections rooted in Albert Einstein's theory of General Relativity, GPS would accumulate positioning errors of approximately 10 kilometres per day — rendering the system entirely useless. This article examines the two primary relativistic effects that act on GPS satellite clocks, quantifies their magnitudes, and explains how they are corrected in real-time to maintain centimetre-level accuracy.

Every time a smartphone pinpoints a user's location on a digital map, it is silently invoking one of the most profound scientific theories ever formulated — Albert Einstein's theory of General Relativity. This remarkable intersection of fundamental physics and everyday technology is not a coincidence; it is an engineering necessity. The GPS constellation consists of 31 operational satellites orbiting at an altitude of approximately 20,200 kilometres above Earth's surface. Each satellite carries an atomic clock of extraordinary precision, broadcasting time signals that ground receivers use to triangulate their position via trilateration. The accuracy of this process depends entirely on the synchronisation of those clocks. Without accounting for the relativistic distortion of time, positioning errors of roughly 10 km per day would accumulate — a margin that would make GPS useless for any practical application.

The Two Relativistic Effects:

Gravitational Time Dilation (General Relativity)

Einstein's General Relativity predicts that clocks in stronger gravitational fields tick more slowly. GPS satellites operate far from Earth's surface where the gravitational potential is significantly weaker than at sea level. Consequently, their clocks tick **faster** relative to ground-based clocks — by approximately 45.9 microseconds per day. Over the course of a single day, this alone would cause a positional drift of roughly 7.2 kilometres if left uncorrected.

Velocity Time Dilation (Special Relativity)

The second effect arises from Special Relativity, which states that a clock moving at high velocity runs more slowly than a stationary one. GPS satellites travel at approximately 3.87 km/s. This causes their onboard clocks to tick slower than ground clocks by about 7.2 microseconds per day, partially offsetting the gravitational effect.

The Net Effect and Engineering Correction:

The two effects act in opposition but do not cancel. The net result is that GPS clocks gain approximately 38.4 microseconds per day relative to Earth-based receivers. Given that the speed of light is 3×10^8 m/s, a timing error of 38.4 μs translates to a po-

The net result is that GPS clocks gain approximately 38.4 microseconds per day relative to Earth-based receivers. Given that the speed of light is 3×10^8 m/s, a timing error of 38.4 μs translates to a positional error of approximately 11.5 km — accumulated each day. To prevent this, GPS satellite clocks are deliberately set to run slightly slower before launch — pre-offset by 38.4 microseconds per day — so that when relativistic effects are applied, they tick in synchrony with ground clocks. Additionally, receivers apply continuous software corrections to account for residual relativistic and atmospheric perturbations.

General Relativity is not a relic of theoretical physics classrooms — it is embedded in the firmware of every GPS receiver and the design of every navigation satellite. Einstein's equations, derived over a century ago from pure thought experiments about gravity and space-time, are today baked into the infrastructure that guides aircraft, ships, emergency services, and smartphones. For students of aerospace engineering, this serves as a compelling reminder that no branch of physics is too abstract to find critical engineering application. The universe, it turns out, demands relativistic accuracy from even the most mundane of our daily technologies.

ROCKET ENGINES
(challenge with physics)

THOTA RAVITEJA
25761A5661

Introduction

Do you know, how much of Horse power produces a car..? A super car can produces maximum 800hp.Now , can you guess how much of horse power of a rocket engines .....? F-1 engine generates roughly 32millioin hp. Only for 800hp car engines generated more heat, lot of noise and sometimes it goes misfunction , but in case of rocket engines that don't melt not get misfunction during combustion. Here is a real challenge to physics.

The Principle behind this is....

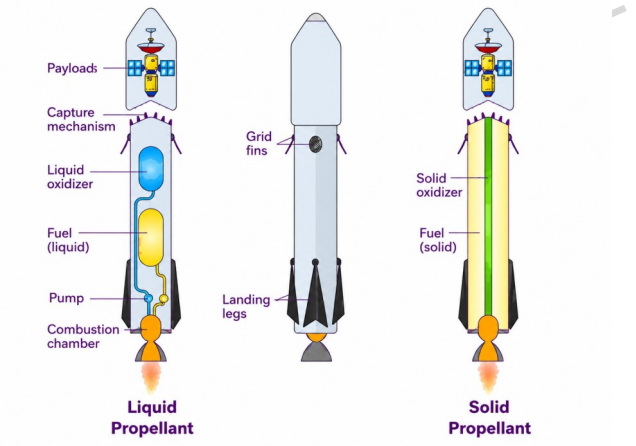
All of you know about how a rocket fly , that work on Newton's third law of motion. That is for very motion has a equal and opposite reaction motion. Not only depends on that there so many concepts to create a rocket engine that are thermodynamics, Material science, strength of materials, fluid mechanics and chemical propulsion. This topics are so hard and very difficult to learn.

Main components in rocket engines

Combustion chamber: In this region fuel and oxidizer burns to produce high pressure gases.
Nozzle: Here, after ignition of charge exit out with high kinetic energy through nozzle . Nozzle size depends on range of kinetic energy that we need.
Fuel and oxidizer tanks: here we store propellants.
Turbopumps: These are helps to injects propellants into combustion chamber with high pressure.

Types of rocket engines

There are so many rockets engine types.
Liquid propellent rocket engine: In this type both fuel and oxidizer are liquids. Eg: liquid Hydrogen and liquid oxygen
Solid propellent rocket engine: In this type ,mixture of fuel and oxidizer in a solid form . Eg: Ammonium perchlorate composite propellant
Hybrid rocket engine: this engine is combination of solid fuel with liquid oxidizer. Eg: Nitrous oxide with liquid oxygen
Electric rocket engine: Here in this type we use electricity to produce trust force. Eg: Ionic trust forces
Nuclear rockets: In this type we use Nuclear energy to produce trust force.



Challenges in Rocket engines

While making a rocket engine we face so many challenges
The following challenges are-
High temperature: rocket engines may face extreme temperature around at 3000°c.
High pressure: Rocket engines deals with pressure range is 700 - 4400+ psi.
Cooling system : Rocket engines operates at High temperature for facing this condition engines have defiantly a Good cooling system .

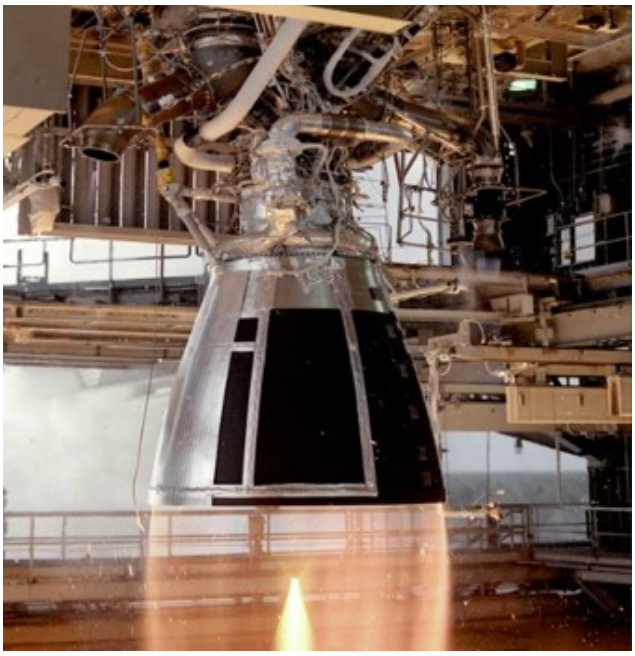
Why rocket engine doesn't melt ....

In introduction we consider a example of a race car engine . In that engine only have 800hp for also some times they don't work . In case of rocket engines are work in very few minutes but give massive horse power with out melting . Because of we use Nickel super alloys like : Inconel 718 & Inconel 625, etc...

The main reason for its efficiency and performance is its cooling technics:-

1.Regenarative cooling
2. Film cooling
3. Ablative cooling
4. Radiative cooling

These above technics are so useful to engines to keep it track (performance).



conclusion

Finally these rocket engines are really a challenge with physics and technology . These engines needs highly precision and perfection . Before these rockets only human thoughts went to space by some telescopes and calculations , After this rockets human can also go to space and acquire a lot of knowledge in space and stars. Making a rocket engine is a not a simple thing . We have sharp our human brains to make it.

Aerospace & Science Museum

A M M H P H I O J C A B G R N P E O O P
P S A S A T P O T O A H O S O W R M E F
O C S C C W S P N M P R L T I O E R A G
L I O R N R T A R M A N D I W M H X S A
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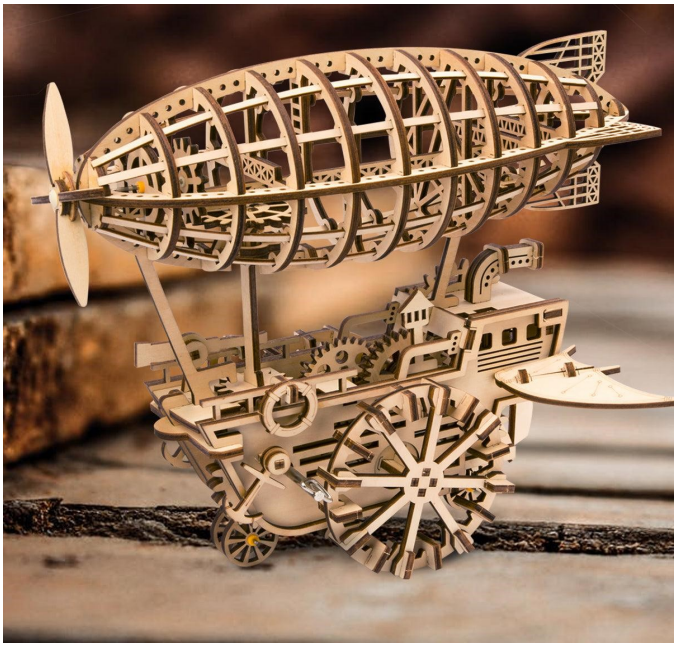
SHUTTLE ENDEAVOUR
NASA
WOMEN PILOTS
AERODYNAMICS
APOLLO MOON LANDING
TECHNOLOGY
SPACE EXPLORATION
COMMERCIAL PLANES
WORLD WAR TWO
ALIEN WORLDS
HALL OF FAME
GOLDEN AGE
ATMOSPHERE
PARATROOPER
FLEXHIBITS
WRIGHT BROTHERS
PETE PARISH
MILIITARY PILOTS
JET AGE



Space Tourism

The Future of Commercial Spaceflight

Dr. A Revanth Reddy
Associate Professor

Space tourism is one of the most exciting developments in modern aerospace engineering. What was once considered science fiction has now become a reality due to rapid advancements in technology and the growing involvement of private companies in space exploration. In recent years, commercial organizations have successfully launched civilians into space, opening a new era in human travel. Space tourism refers to the commercial activity of sending private individuals into space for recreational, leisure, or adventure purposes. Although still in its early stages, space tourism has the potential to revolutionize the aerospace industry and transform humanity's relationship with space.

For decades, space travel was limited only to highly trained astronauts working for government space agencies. Missions conducted during the twentieth century by organizations such as NASA and the Soviet space program focused mainly on scientific research, military applications, and national prestige. However, the emergence of private aerospace companies has dramatically changed the landscape of space exploration. Companies such as SpaceX, Blue Origin, and Virgin Galactic have developed reusable rocket systems and advanced spacecraft that significantly reduce the cost of space travel. These technological breakthroughs have made commercial spaceflight more achievable than ever before.

One of the major milestones in space tourism occurred in 2021 when civilian passengers successfully traveled to the edge of space aboard commercial spacecraft. These flights demonstrated that ordinary people, not just professional astronauts, could experience space travel. Suborbital flights, which briefly cross the boundary of space before returning to Earth, provide passengers with a few minutes of weightlessness and breathtaking views of the planet. This experience has attracted wealthy tourists, scientists, and even celebrities who wish to witness Earth from space. Reusable rocket technology plays a crucial role in the future of commercial spaceflight. Traditionally, rockets were used only once, making space missions extremely expensive. Modern aerospace companies have developed rockets that can land safely and be reused multiple times. This innovation has drastically lowered launch costs and increased the frequency of missions. Reusable launch systems not only improve economic efficiency but also pave the way for regular commercial operations in space. As technology continues to improve, the price of space tourism is expected to decrease, making it accessible to a larger number of people in the future.

Another important aspect of space tourism is the development of space hotels and orbital habitats. Scientists and engineers are exploring the possibility of constructing commercial space stations where tourists can stay for several days or even weeks. These stations may include sleeping areas, dining facilities, research laboratories, and entertainment systems designed for microgravity environments. Space hotels could become the next major destination for luxury tourism, offering unique experiences such as floating in zero gravity and viewing Earth from orbit. Although such projects are still under development, they represent a significant step toward establishing a permanent human presence in space.

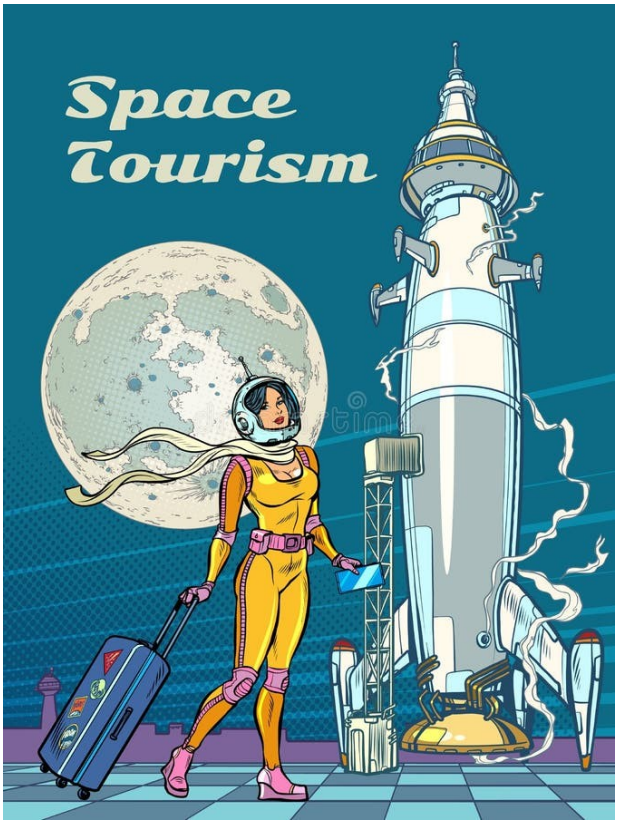
Space tourism also contributes to scientific advancement and technological innovation. The demand for safer and more efficient spacecraft encourages research in aerospace engineering, materials science, propulsion systems, and life-support technologies. Many technologies originally developed for space exploration later found applications in daily life, including satellite communication, weather forecasting, GPS navigation, and medical equipment. The growth of commercial spaceflight may therefore lead to new inventions that benefit society as a whole.

In addition to technological benefits, space tourism can inspire future generations to pursue careers in science, technology, engineering, and mathematics. Young students who witness civilians traveling to space may become motivated to study aerospace engineering or astrophysics. Public interest in space exploration often increases when major achievements capture global attention. The success of commercial space missions demonstrates that human innovation and
Despite its promise, space tourism faces several

determination can overcome challenges once thought impossible.

Despite its promise, space tourism faces several significant challenges. One major concern is safety. Space travel involves extreme conditions such as high acceleration, radiation exposure, and technical risks. Even minor system failures can lead to catastrophic consequences. Aerospace companies must therefore conduct extensive testing and follow strict safety standards to protect passengers. Training programs for tourists are also necessary to prepare them for the physical and psychological demands of spaceflight.

Another challenge is the high cost of space tourism. Currently, tickets for commercial spaceflights cost hundreds of thousands or even millions of dollars, making them affordable only to wealthy individuals. Critics argue that space tourism is an activity for the rich rather than a practical form of transportation. However, supporters believe that costs will gradually decrease as technology advances and competition increases within the industry. A similar trend



occurred in the aviation industry, where air travel was once considered a luxury but later became widely accessible.

Environmental impact is another issue associated with commercial spaceflight. Rocket launches release greenhouse gases and other pollutants into the atmosphere. Frequent launches could potentially contribute to climate change and atmospheric damage. Aerospace engineers are therefore researching cleaner propulsion technologies and sustainable fuels to reduce environmental harm. Balancing technological progress with environmental responsibility will be essential for the long-term success of space tourism.

Legal and ethical considerations must also be addressed. International space laws were originally designed for government missions rather than private commercial activities. As more companies enter the industry, governments and international organizations will need to establish regulations regarding passenger safety, environmental protection, property rights, and liability issues. Cooperation among nations will play an important role in ensuring the peaceful and responsible use of outer space.

Looking toward the future, space tourism may eventually expand beyond short recreational trips. Scientists envision commercial missions to the Moon, Mars, and other destinations within the solar system. Lunar tourism could allow visitors to walk on the Moon and experience lower gravity environments. Advances in propulsion systems and spacecraft design may one day make interplanetary tourism possible. Although such developments may take decades, the foundation for future commercial space travel is already being established today.

In conclusion, space tourism represents a remarkable advancement in aerospace technology and commercial innovation. The involvement of private companies, reusable rockets, and modern spacecraft has transformed the dream of civilian space travel into reality. While challenges related to safety, cost, environmental impact, and regulation remain significant, continued research and technological progress are likely to overcome these obstacles. Space tourism not only offers exciting opportunities for adventure and exploration but also drives scientific development and inspires humanity to look beyond Earth. As commercial spaceflight continues to evolve, it may eventually become as common and transformative as air travel is today, opening a new chapter in human history and expanding the boundaries of human experience.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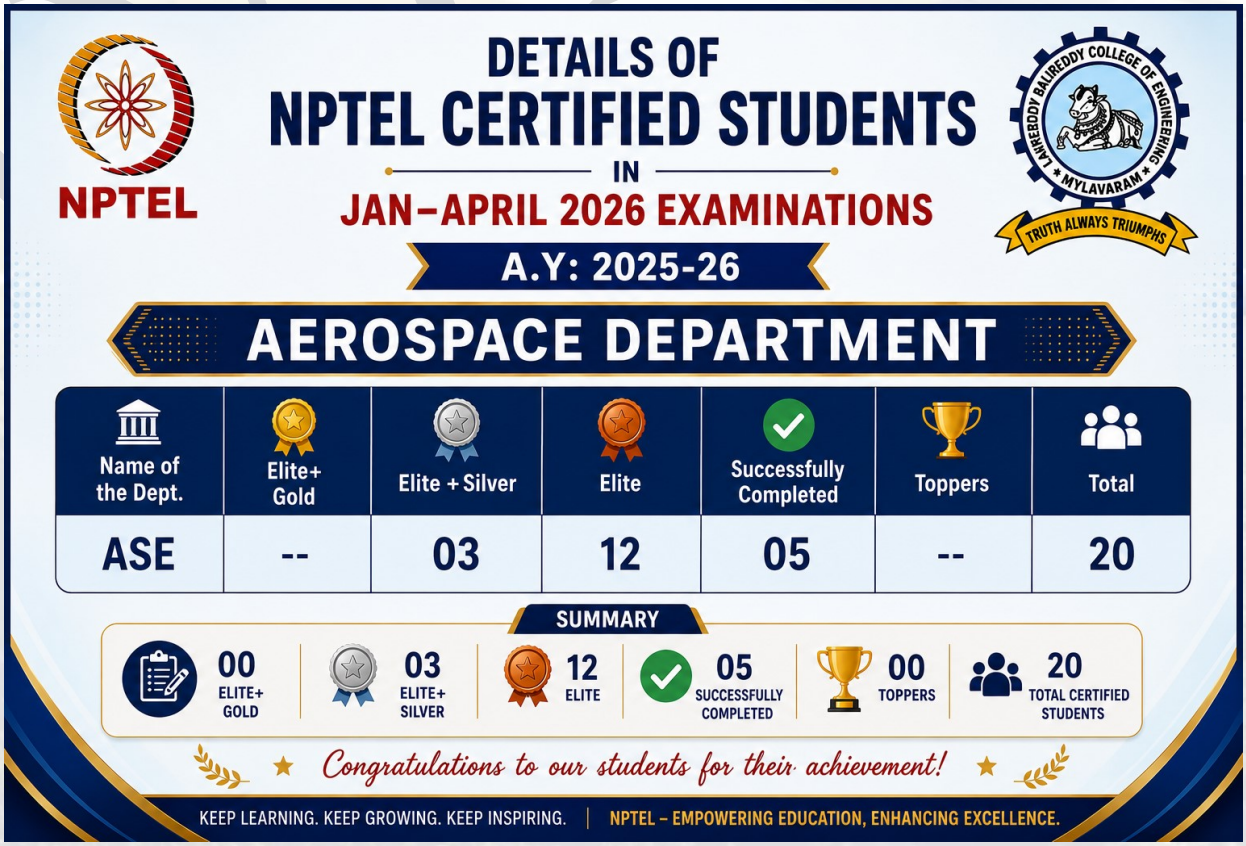
SRIHARIKOTA

NPTEL Certification for Faculty

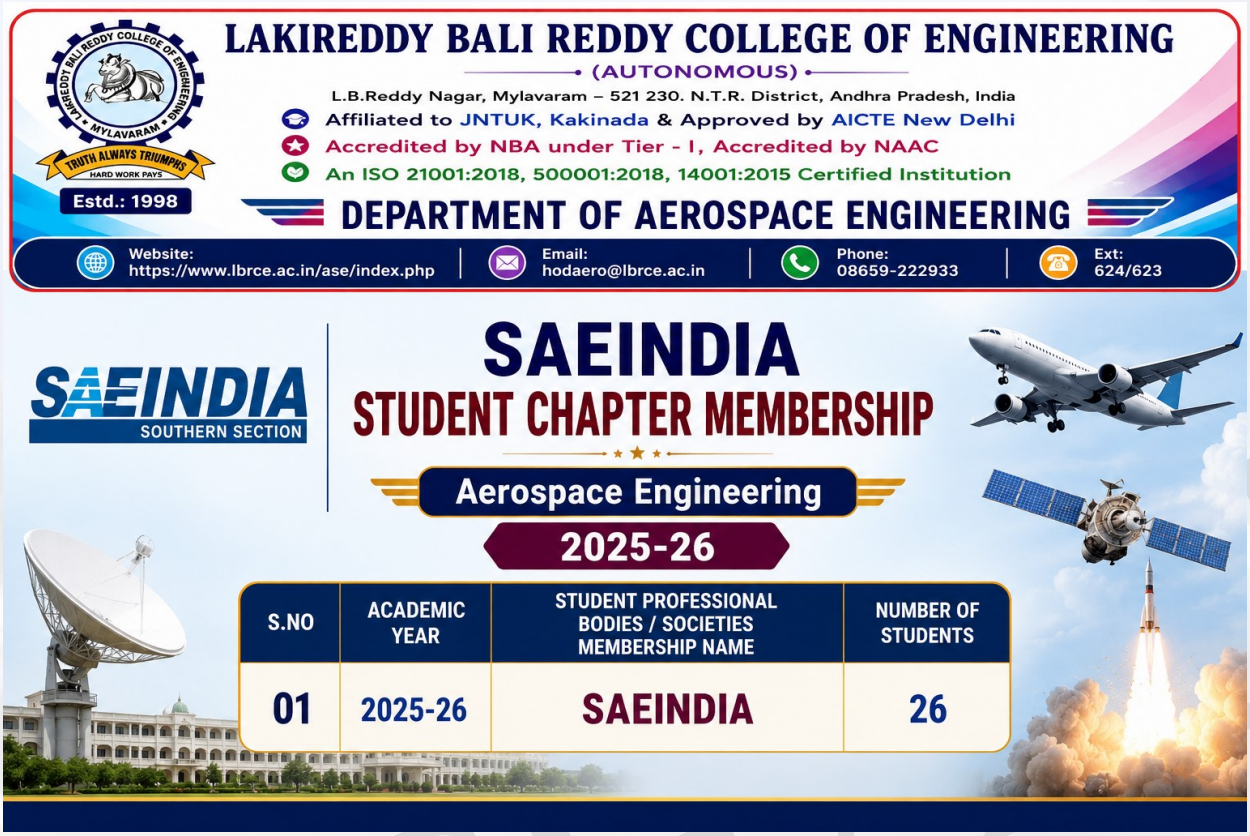
Name of the Dept.	Number of Faculty registered	Elite+ Gold	Elite+ Silver	Elite	Successfully Completed	Topper	Total
ASE	04	--	02	01	--	--	03

NPTEL Certification for Students



Name of the Dept.	Elite+ Gold	Elite + Silver	Elite	Successfully Completed	Toppers	Total
ASE	--	03	12	05	--	20

Student Chapter



NCC Events

Faculty Members

S. No.	Name	Designation	Qualification	Specialization	Institute (Highest Degree)
1	Dr. P. Lovaraju	Professor & HoD	M.E, Ph.D	Aerospace Engineering	IIT Kanpur
2	Dr. P. Ravindra Kumar	Professor	M.Tech, Ph.D	Mechanical Engineering	JNTUK, Kakinada
3	Dr. L. Prabhu	Associate Professor	M.E, Ph.D	Aerospace Engineering	NIT Rourkela
4	Dr. Ch. Sreenadh	Associate Professor	M.E, Ph.D	Aerospace Engineering	Polytechnic University of Madrid, Spain
5	Dr. A. Revanth Reddy	Associate Professor	M.E, Ph.D	Aerospace Engineering	Moscow Aviation Institute, Moscow, Russia
6	Mr. S. Indrasena Reddy	Sr. Assistant Professor	M.Tech, (Ph.D)	Aerospace Engineering	IARE, JNTUH, Hyderabad
7	Mr. I. Dakshina Murthy	Sr. Assistant Professor	M. Tech, (Ph.D)	Gas Dynamics in Aerospace Engineering	JNTUK, Kakinada
8	Mr. Nazumuddin Shaik	Sr. Assistant Professor	M. Tech, (Ph.D)	Aerospace Engineering	JNTUH, Hyderabad
9	Mr.G.V.Surya Narayana	Sr. Assistant Professor	M.Tech, (Ph.D)	Aeronautical Engineering	JNTUH, Hyderabad
10	Mrs. B. Udaya Lakshmi	Assistant Professor	M.Tech	Mechanical Engineering	JNTUK, Kakinada
11	Mr. A. Pratyush	Assistant Professor	M.Tech, (Ph.D)	Mechanical Engineering	JNTUK, Kakinada

Premier Institute/Organizations where our students undergone Internships

- Indian Institute of Technology Hyderabad, Hyderabad, India.
- Indian Institute of Technology Tirupathi, Tirupathi, India.
- National Institute of Technology Warangal, Warangal, India
- Indian Institute of Space Technology, Kerala, India
- IIEST, Shibpur, West Bengal, Kolkata
- National Institute of Technology Rourkela, Rourkela
- Indian Institute of Information Technology, Design and Manufacturing, Kurnool
- DRDO – RCI, Hyderabad
- Airport Authority of India, Vijayawada
- SIEMENS Centre of Excellence, NIT Warangal.

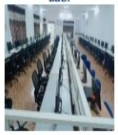
Program Specific Laboratories:

Aerodynamics Laboratory:

Propulsion Laboratory:

Aircraft Structures Laboratory:

Modelling & Analysis Lab:



3-D Printing Facility:

Other Laboratories:

- ✓ Engineering Workshop
- ✓ Engineering Mechanics & Fuel Testing
- ✓ Thermal Engineering
- ✓ Strength of Materials
- ✓ Fluid Mechanics and Hydraulic Machines
- ✓ Manufacturing Technology
- ✓ MATLAB Applications
- ✓ Phyton Programming
- ✓ ANSYS, CATIA, SolidWorks, Hypermesh LS-DYNA

GATE-2026

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(Autonomous since 2010)

L. B. Reddy Nagar, Mylavaram – 521 230, N.T.R. District, Andhra Pradesh, India

Affiliated to JNTUK, Kakinada & Approved by AICTE New Delhi, Accredited by NAAC with 'A' grade

Accredited by NBA under Tier – I, An ISO 21001:2018, 500001:2018, 14001:2015 Certified Institution

Estd.: 1998

DEPARTMENT OF AEROSPACE ENGINEERING

Congratulations

GATE – 2026 RANKS

K. Hemanth
AIR 171

Sk. Fiyaz
AIR 462

K. Roopasya
AIR 689

K. Spandana
AIR 913

K. P. S. S. V. Balaji
AIR 1032

A. Sushanth Joel
AIR 1216

P. Bharath Teja
AIR 1608

ALUMNI (2019-23)

Ravi Nagarjuna
AIR 324

V. Surya Sainadh
AIR 656

We also appreciate the efforts put in by the following students for securing Minimum Qualifying Marks

N. Karthikeya Sai Sk. John Pasha J. Bhanush Satya Y.S.N. Aditya M. Praneetha

ALUMNI (2021-25)

U. Harsha Kumar
Y. Rohit

We are Proud of you. We wish you Good Luck for your Future Endeavours

Department of Aerospace Engineering, LBRCE.

HIGHER EDUCATION 2026

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(AUTONOMOUS since 2010)

L. B. Reddy Nagar, Mylavaram – 521 230, N.T.R. District, Andhra Pradesh, India

Estd.: 1998

DEPARTMENT OF AEROSPACE ENGINEERING

Higher Education Details for the Academic Year 2025-2026

IIT Bombay

K. Hemanth
M. Tech
(Aerospace Structures)

IIT Hyderabad

K. P. S. S. V. Balaji
M.S (Research)
(Aerospace Propulsion)

IIT Madras

A. Sushanth Joel
M. Tech
(Aerospace Engineering)

IIST Thiruvananthapuram

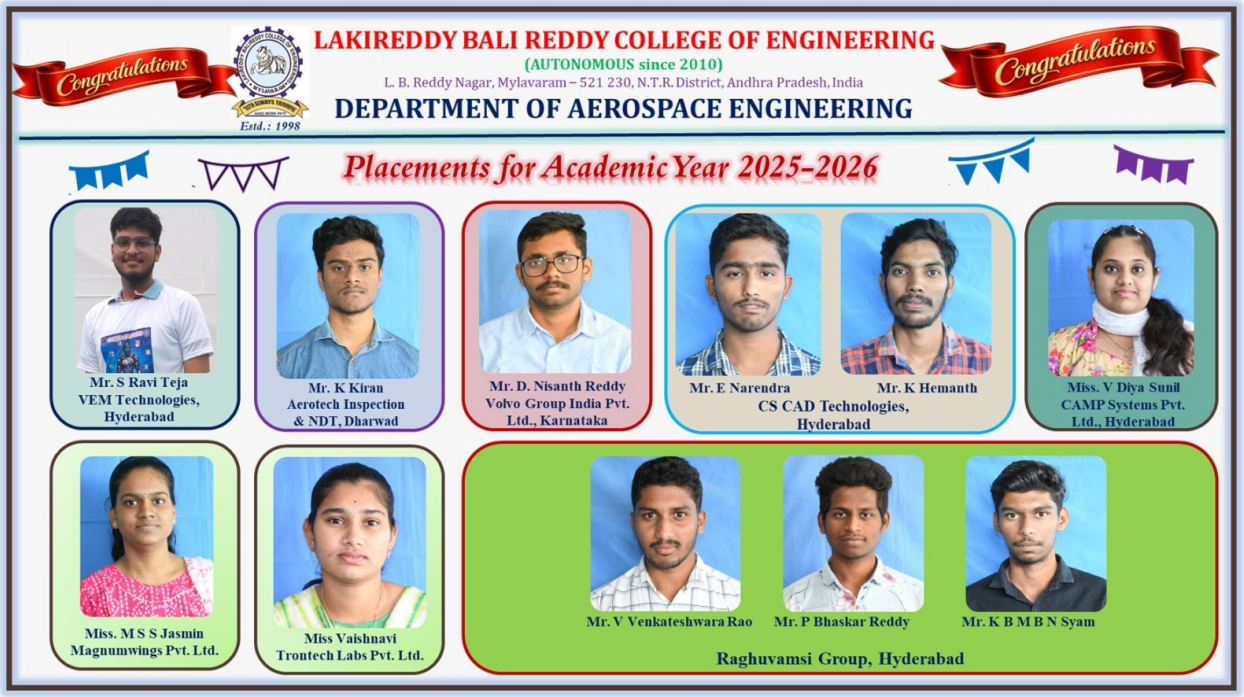
Shaik Fiyaz
M. Tech
(Structures & Design)

Anna University MIT Campus

Shaik Iliyaz
M. Tech
(Aerospace Technology)

PHOTO GALLERY

Placements (2025-26)



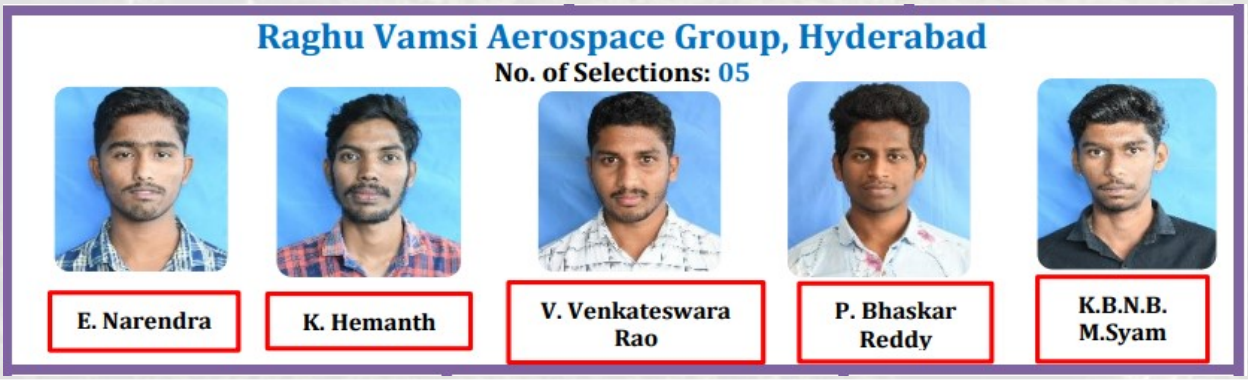


PHOTO GALLERY

Placements (2025-26)

Volvo Group India Pvt. Ltd., Bangalore
No. of Selections: 01

D. Nishanth Reddy

VEM Technologies Pvt. Ltd., Hyderabad
No. of Selections: 01

S. Ravi Teja

Skanda Aerospace Technology Limited, Hyderabad
No. of Selections: 01

K. Throni Saroja

Axirium Aerospace Private Limited, Hyderabad
No. of Selections: 08

D. Anithasri

G. Keerthi

S. Padmavathi

J Bhanush

MD. Sameer

MD. Zaheeruddin

J. Hitesh. S. Manikanta

E. Narendra

Total Number of Placements
25

International Fellowship
Mr. Abhuday Kumar Sahu

Awarded with Internship at

UNIVERSITI SAINS MALAYSIA

Institutes into which 2022-2026 Batch Students Admitted for Higher Education

- IIT Bombay, Mumbai, India.
- IIT Madras, Chennai, India.
- IIT Hyderabad, Hyderabad, India.
- IIST, Thiruvananthapuram, India
- DIAT, Pune, India
- USA and UK Universities.

PHOTO GALLERY

Events Organized for Students (2025-26)

Special Event Lakshya 2K26

SHAR Visit

Creative Minds - Event

Industrial Visit- Vijayawada Airport

Student Workshop on RC Planes

DEPARTMENT ACHIEVEMENTS

Events Organized for Faculty (2025-26)

DETAILED SESSION PLANNING

15-12-2025 to 20-12-2025
Offline (9:30 am – 5:30 pm)

15-12-2025	16-12-2025	17-12-2025
9:00 – 9:30 Inauguration	-	-
9:30 – 12:00 Session 1	9:30 – 12:00 Session 3	9:30 – 12:00 Session 5
12:00 – 1:00 Article Discussion	12:00 – 1:00 Article Discussion	12:00 – 1:00 Article Discussion
1:00 – 2:00 Lunch	1:00 – 2:00 Lunch	1:00 – 2:00 Lunch
2:00 – 4:30 Session 2	2:00 – 4:30 Session 4	2:00 – 4:30 Session 6
4:30 – 5:30 Practical Sessions/Labs	4:30 – 5:30 Practical Sessions/Labs	4:30 – 5:30 Practical Sessions/Labs

18-12-2025	19-12-2025	20-12-2025
9:30 – 12:00 Session 7	9:30 – 1:00 Industrial Visit	9:30 – 12:00 Session 10
12:00 – 1:00 Article Discussion		12:00 – 1:00 Reflection Journal
1:00 – 2:00 Lunch	1:00 – 2:00 Lunch	1:00 – 2:00 Lunch
2:00 – 4:30 Session 8	2:00 – 4:30 Session 9	2:00 – 4:00 MCQ, Feedback and Interactions
4:30 – 5:30 Practical Sessions/Labs	4:30 – 5:30 Practical Sessions/Labs	4:00 – 5:00 Valedictory session

Key Takeaways

- In-depth Understanding of AM Technologies
- Material Selection and Applications
- Hands-on Experience with 3D Printing Tools
- Post-Processing & Quality Control
- Exposure to Industry Trends and Research Opportunities
- Networking with Experts and Peers

AICTE Training & Learning (ATAL) Sponsored
One Week Faculty Development Program on
"Emerging Trends in Additive Manufacturing for Real Life Applications"
OFF-LINE (15-12-2025 to 20-12-2025)

Chief Patrons

Sri L. Jaya Prakash Reddy, Honorary *Chairman*

Sri L.N.R.K. Prasad Reddy, *Chairman*

Patrons

Sri G. Srinivasa Reddy, *President, LBRCT*

Dr. K. Appa Rao, *Principal*

Dr. B. Ramesh Reddy, *Vice-Principal*

Coordinator & Convener
Dr. P Lovaraju, *Head and Professor*
Co-Coordinator
Dr. A Revanth Reddy, *Assoc Prof.*
Dr. Murahari Kolli, *Assoc Prof. (Mech. Engg.)*
Department of Aerospace Engineering
Lakireddy Bali Reddy College of Engineering (Autonomous)
Mylavaram, N.T.R Dist-521230

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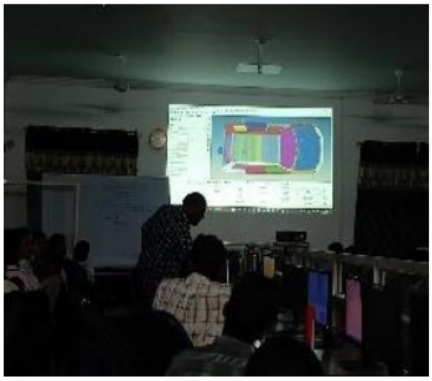
FDP Sponsored by ATAL

Guest Lecture

Students' certification Program

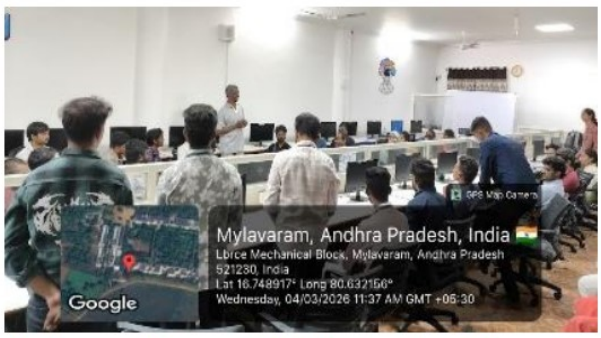
Guest Lecture (Alumni)

Scholarship to Students



Student Certification Program

Felicitation to Invited Speaker



Interaction with Industry People

ANTHARIKSH

THE SPACE...

DEPARTMENT OF AEROSPACE ENGINEERING

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

MYLAVARAM, ANDHRA PRADESH, INDIA.

anthariksh.lbrce@gmail.com