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VOICE OF VVIT

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RIDING THE GREEN TRACKS: HYDROGEN TRAINS REVOLUTIONIZE RAIL TRANSPORT

Explore how hydrogen-powered trains are driving the future of eco-friendly travel. This piece delves into the technology transforming rail transport with sustainable, zero-emission solutions.

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In this interview, Juhi shares her insights on prioritizing well-being while navigating a successful career. Discover her tips on achieving harmony between personal happiness and professional growth.

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OUR TEAM



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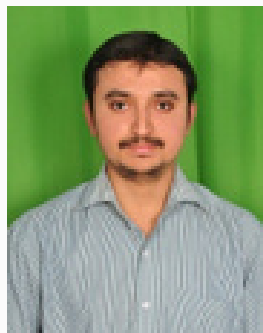
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FROM THE DEAN OF ACADEMICS' DESK



I am delighted to introduce this new edition of our college magazine, which has undergone a transformation to reflect the energy, creativity, and enthusiasm of our students. As always, this magazine is a true testament to the initiative of our student body, and I commend them for their hard work in bringing it to life.

As we begin 2025, this year brings new opportunities and challenges for all of us. It's essential that we continue to focus on academic excellence while also cultivating a mindset of social responsibility. At VVIT, we not only aim to produce skilled professionals but also individuals who understand their role in contributing to society's growth and well-being.

I encourage each of you to take full advantage of the resources available to you, whether in academics, extracurriculars, or community engagement. This is a time to push boundaries, explore new ideas, and prepare for the future. Let's work together to create a learning environment that values innovation, critical thinking, and personal growth.

As we navigate this year, remember that your efforts and actions today shape the future you will lead tomorrow.

Dr. K. Giri Babu
Dean of Academics
VVIT

Republic Day

2025

A Celebration of Unity and Progress

By Yuktha Sri Mayuka Kukunuri

On January 26, 2025, the nation will come alive with the vibrant hues of patriotism and pride as India celebrates its 76th Republic Day. This day, steeped in historical significance and national fervor, reminds us of the moment when the Constitution of India came into effect, transforming our nation into a sovereign republic. But beyond the parades, the flag hoisting, and the patriotic songs, Republic Day offers an opportunity to reflect on what it means to be a citizen of this great nation in a rapidly evolving world.

The Essence of Republic Day

For most of us, Republic Day is synonymous with the grand parade on Rajpath now renamed Kartavya Path a showcase of India's military prowess, cultural diversity, and technological advancements. However, its essence goes much deeper. On this day in 1950, India chose democracy over autocracy, equality over hierarchy, and hope over despair. The adoption of the Constitution signified a collective aspiration: to create a nation that upholds justice, liberty, and fraternity for all its citizens.

As college students, it's easy to see Republic Day as just another public holiday, a day to relax or catch up on assignments. But imagine the audacity of our forebears who, against all odds, envisioned and worked towards a nation where every individual has the right to dream, express, and thrive. The Constitution, often called a living document, is not just a set of rules but a guidebook for our collective journey.

The Youth's Role in Nation-Building

In 2025, the spotlight is firmly on the youth of India, who form more than half of the nation's population. With the world facing challenges like climate change, geopolitical tensions, and technological disruptions, the youth hold the power to steer the country toward progress and



sustainability. Republic Day serves as a reminder of our responsibilities as young citizens. It's not just about paying homage to the sacrifices of freedom fighters; it's about carrying forward their legacy with integrity and innovation.

Consider this: Bhimrao Ambedkar, the architect of the Indian Constitution, was just 39 years old when he took on the monumental task of drafting it. His determination and vision transformed the aspirations of millions into actionable laws. Today, each of us has the potential to be a change-maker, whether through scientific research, entrepreneurial ventures, social activism, or even small acts of kindness that uphold the values enshrined in the Constitution.

Celebrations Across the Nation

The 2025 Republic Day celebrations promise to be a spectacular affair, blending tradition with modernity. At the Kartavya Path parade, tableaux from various states will showcase India's rich cultural tapestry. Themes like digital

transformation, sustainable development, and women's empowerment are expected to take center stage. The fly-past by the Indian Air Force, with its precision and grandeur, is always a crowd favorite and a reminder of the country's robust defense capabilities.

In colleges and universities, the day is marked with flag-hoisting ceremonies, cultural programs, and discussions on constitutional values. These celebrations are more than just rituals; they are opportunities for students to connect with their heritage and envision their role in the nation's future.

Human Stories Behind Republic Day

While the grandeur of Republic Day is undeniable, it's the human stories that truly bring its spirit to life. Imagine the countless soldiers who stand guard in freezing conditions to protect our borders so that we can sleep peacefully. Think about the farmers who toil day and night to ensure food security, or the teachers who nurture young minds despite challenges. Republic Day is as much about these unsung heroes as it is about historical milestones.

Take the story of Neha, a college student in a small town who organized a local clean-up drive inspired by the Swachh Bharat Abhiyan tableau she saw during last year's parade. Or Ramesh, an engineer who developed a low-cost water filtration system for his village after attending a seminar on grassroots innovation. These individuals embody the spirit of Republic Day by turning ideals into actions.

Challenges and Opportunities

As we celebrate Republic Day 2025, it's important to acknowledge the challenges our nation faces—economic disparities, social injustices, and environmental concerns. Yet, every challenge is an opportunity for



growth. The Constitution empowers us to address these issues collectively. It's a reminder that democracy is not a spectator sport; it requires active participation.

Technology, for instance, has become a double-edged sword. While it offers tools for education, healthcare, and governance, it also raises concerns about privacy and misinformation. As digital natives, students can play a pivotal role in ensuring technology is used responsibly and inclusively.

Rekindling Patriotism

Patriotism in the 21st century is not just about waving flags or singing anthems; it's about contributing

positively to society. It's about being honest in our exams, mindful of our environment, and respectful of our diversity. As college students, we have the privilege and the platform to influence change, whether through volunteering, awareness campaigns, or innovative projects.

Looking Ahead

As the tricolor flutters against the January sky this Republic Day, let's pledge to be the architects of a brighter India. Let's move beyond passive admiration and take active steps to uphold the principles of justice, liberty, equality, and fraternity. In the words of Mahatma Gandhi, "The best way to find

yourself is to lose yourself in the service of others."

Republic Day 2025 is not just a date on the calendar; it's a call to action. It's an invitation to honor the past, embrace the present, and shape the future. As we stand together, celebrating the spirit of our republic, let's remember that the strength of India lies in its people—people like you and me—working tirelessly to turn dreams into reality.

MANMOHAN SINGH

THE ARCHITECT OF MODERN INDIA'S
ECONOMIC REFORMS

By Yuktha Sri Mayuka Kukunuri

Manmohan Singh, the 13th Prime Minister of India, is a name synonymous with economic reforms, visionary leadership, and academic excellence. A man of humble beginnings, Singh rose through sheer merit and perseverance to become one of India's most respected leaders. His contributions to India's economic liberalization and governance have left an indelible mark on the nation.



Early Life and Education

Born on September 26, 1932, in Gah, now in Pakistan, Manmohan Singh's early life was shaped by the partition of India in 1947. Despite the challenges, his dedication to academics remained steadfast. Singh completed his undergraduate degree in Economics from Panjab University and went on to pursue his postgraduate studies at the University of Cambridge. He later earned a doctorate in Economics from the University of Oxford, where his thesis on India's export competitiveness set the foundation for his understanding of global trade and economic policy.

The Economist's Journey

Manmohan Singh's career began in academia, where he served as a professor at Panjab University and later as a lecturer at the Delhi School of Economics. However, it was his transition into policy-making that showcased his intellectual prowess. Singh held several key positions, including Chief Economic Advisor, Governor of the Reserve Bank of India, and Deputy Chairman of the Planning Commission. These roles allowed him to shape India's financial and economic landscape.

Architect of Economic Liberalization

The pivotal moment in Singh's career came in 1991 when India faced a severe economic crisis marked by dwindling foreign exchange reserves and rising inflation. Appointed as the Finance Minister under Prime Minister P.V. Narasimha Rao, Singh introduced a series of bold economic reforms that transformed India's

closed economy into one of the fastest-growing markets in the world.

Key achievements of his tenure include:

- **Economic Growth:** India achieved an average GDP growth rate of 7.5%, making it one of the fastest-growing economies globally.
- **Flagship Programs:** Initiatives like the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and the Right to Education Act aimed to reduce poverty and improve literacy rates.
- **Nuclear Agreement:** The Indo-US Civil Nuclear Agreement, signed in 2008, marked a significant milestone in India's energy security and diplomatic relations.
- **Inclusive Development:** Singh's government emphasized inclusive growth, addressing the needs of marginalized communities through targeted welfare schemes.

Challenges and Criticism

Despite his achievements, Singh's tenure was not without challenges. Allegations of corruption, particularly in the allocation of coal blocks and the 2G spectrum case, marred the UPA government's image. Singh's perceived reticence and reluctance to address these issues publicly drew criticism from opposition parties and sections of the media. However, his integrity and personal honesty remained unquestioned, earning him the

nickname "The Accidental Prime Minister."

A Legacy of Humility and Vision

Manmohan Singh's life and career are a testament to the power of intellect, hard work, and humility. As

an economist, he laid the groundwork for India's economic resurgence. As a leader, he demonstrated that governance rooted in knowledge and ethics could transform a nation. Even after stepping down from office, Singh continues to inspire millions with his intellect and simplicity.

Conclusion

Manmohan Singh's journey from a small village in Punjab to the corridors of power in Delhi is nothing short of extraordinary. His role in shaping modern India's economic trajectory and his commitment to public service make him a figure of immense respect. As India continues to build on the foundation he helped lay, Singh's contributions serve as a reminder of the transformative power of vision and perseverance.



INDIA'S LEAP TOWARDS SPACE TOURISM: DEMOCRATIZING THE FINAL FRONTIER

By V.Chandrabhas

A Vision Beyond the Stars

Have you ever imagined floating weightlessly in space, gazing at Earth's gentle curvature, and experiencing the awe-inspiring silence of the cosmos? What if this dream, once reserved for astronauts or billionaires, could soon become a reality for common people in India?

But how realistic is it? Can India an emerging space power transform this dream into an accessible and affordable experience? Could space tourism become attainable for the average person, not just the elite?

India is on the verge of realizing this dream. With advances in space technology, the rise of private enterprise, and the innovative approach of the Indian Space Research Organization (ISRO), space tourism may soon become an affordable reality. This groundbreaking development could inspire aspirations across a billion-strong population, opening the door to transformative experiences that will forever alter our perspective on space exploration and tourism.

ISRO: Pioneering Affordable Space Exploration

For decades, ISRO has epitomized innovation and efficiency in space exploration. But what sets it apart in a field dominated by space giants like NASA and SpaceX?

ISRO's achievements are a testament to Indian ingenuity. Chandrayaan-3, India's third lunar mission, earned global acclaim not only for its technological feats but also for its cost effectiveness approximately \$75 million, less than the budget of many Hollywood blockbusters. This efficient model offers hope that space tourism could soon be within reach of the middle class, not just the wealthy elite.

While Western companies like SpaceX and Blue Origin have made strides in space tourism, their exorbitant costs keep it out of reach for most people. ISRO's innovative, low-cost model is poised to challenge this status quo, potentially making India a disruptor in the global space tourism industry.

Could ISRO's expertise in cost-effective space missions lay the groundwork for an era where ordinary citizens embark on journeys beyond Earth? With its proven track record, this possibility seems not only plausible but imminent.



Public-Private Partnerships: A New Era of Space Innovation

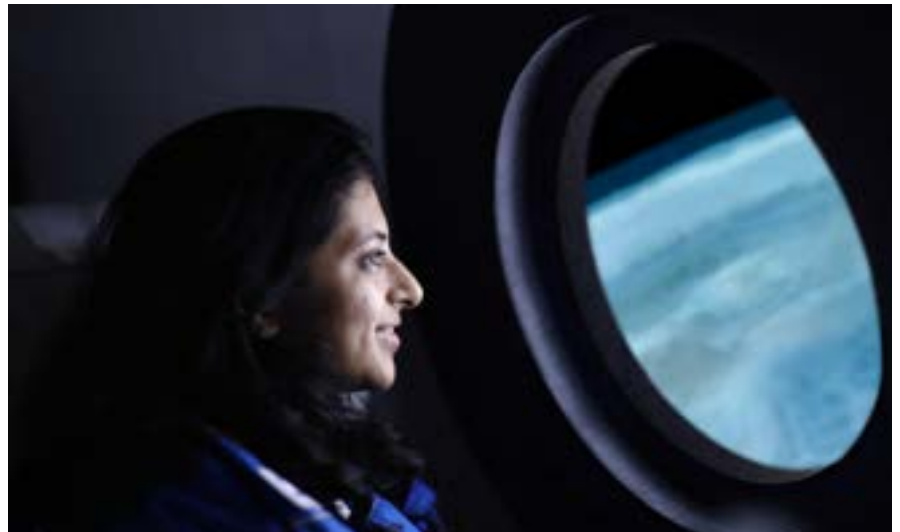
Can collaboration between private companies and government agencies unlock the potential of space tourism in India?

India's space tourism aspirations extend beyond ISRO. Private companies such as Skyroot Aerospace, Agnikul Cosmos, and Bellatrix Aerospace have become key players in this evolving narrative. These start-ups are developing cutting-edge technologies like reusable rocket engines and innovative propulsion systems—critical for making space travel more affordable.

Skyroot Aerospace made history in 2022 by launching Vikram-S, India's first privately developed rocket. This

By democratizing space tourism, India could enable millions to experience this life-changing phenomenon. Widespread access to the Overview Effect could inspire collective action on pressing global issues such as climate change, conservation, and international cooperation.

Would an Indian student gazing at Earth from space feel inspired to pursue ground breaking innovations? Could a teacher, moved by this experience, nurture future environmentalists? The possibilities are as boundless as the cosmos itself.



India's Moon shot: From Space Tourism to Interplanetary Dreams

Space tourism is just the beginning. Could India go beyond suborbital flights to offer vacations on the Moon or Mars?

India's ambitions extend far beyond tourism. Over the next decade, ISRO plans to establish lunar bases, explore Mars in greater detail, and even investigate asteroid mining. While these projects may seem futuristic, space tourism could play a vital role in funding and popularizing such endeavours.

The idea of interplanetary travel may currently seem like science fiction, but with ISRO's expertise and contributions from private enterprises, it might become a reality sooner than we imagine. Could India lead humanity's quest to expand its horizons beyond Earth?

Empowering a Billion Dreams

What if space tourism isn't just about technology but about inspiring an entire generation?

India's venture into space tourism symbolizes more than technological progress; it represents empowerment. By making space accessible, the nation can ignite the imaginations of its youth, inspiring students to pursue careers in science and technology

Imagine a classroom where students dream of becoming space tourists, scientists, or engineers, motivated by India's advancements. This ripple effect could drive innovation across

sectors, positioning India as a global hub of creativity and progress. This milestone is not only a testament to the technical prowess of Indian startups but also a sign of growing synergy between public and private sectors in space exploration.

Collaborations between ISRO and these emerging players could pave the way for unique and affordable experiences, such as suborbital spaceflights, zero-gravity adventures, and even luxury space hotels. These innovations have the potential to position India at the forefront of the global space tourism race.

Sustainability: Prioritizing Green Space Tourism

As space tourism gains momentum, how can its growth be balanced with environmental sustainability?

Rocket launches are often criticized for their environmental impact due to significant carbon emissions. With the prospect of increased space tourism, these concerns are valid. However, India's focus on green technologies could redefine the future of sustainable space travel.

ISRO is already developing eco-friendly propellants that reduce the environmental impact of rocket launches. These advancements could help India lead the way in making space tourism not only affordable but also environmentally responsible.



Imagine a future where Indian tourists journey to space, confident that their adventures leave a minimal environmental footprint. By setting high sustainability standards, India could inspire other nations to adopt similar practices, ensuring that space exploration grows responsibly for future generations.

Space tourism could become a movement that democratizes exploration and inspires India's rise as a global superpower.

The Way Forward: Transforming Vision into Reality

Is India ready to overcome the challenges of space tourism?

Despite its promise, space tourism in India faces obstacles. Infrastructure development, including spaceports and reusable rockets, is essential. Training programs for astronauts and significant investment will also be required.

Collaboration will be the key. Partnerships with global agencies and private companies could accelerate

progress. With India's rapid technological advancements, the dream of space tourism could become a reality within the next decade.

Conclusion: The Stars Await

As we gaze at the stars, one thing is clear: space is no longer the exclusive domain of astronauts or billionaires. It is a frontier for all humanity, and India is poised to lead the way

India's journey into space tourism heralds a new chapter in its history. By democratizing access to space, the country will not only establish itself as a global leader but also inspire generations of dreamers, innovators, and adventurers.

The vision of an ordinary Indian traveling to space is no longer confined to science fiction. It is a path being paved today—a testament to India's ingenuity and determination. As the nation charts its course to the stars, it offers hope for humanity's shared journey into the cosmos.



THE PULWAMA ATTACK

A TURNING POINT IN INDIA'S FIGHT AGAINST TERRORISM

By Yuktha Sri Mayuka Kukururi

On February 14, 2019, India endured one of the most devastating terrorist attacks in its history. A suicide bomber targeted a convoy of Central Reserve Police Force (CRPF) personnel in Pulwama, Jammu and Kashmir, killing 40 soldiers. The attack, claimed by Pakistan-based Jaish-e Mohammad (JeM), sent shockwaves across the nation and stirred a wave of national grief and anger. It not only underscored the persistent threat of terrorism but also marked a significant turning point in India's fight against militancy.

The Attack: Brutal and Heartbreaking

The attack took place on National Highway 44, the main route connecting Jammu and Srinagar. A convoy of over 2,500 CRPF personnel was traveling through Pulwama when the suicide bomber, Adil Ahmad Dar, rammed his explosives-laden vehicle into one of the buses in the convoy. The explosion was so powerful that it killed 40 soldiers instantly and injured many others. This act of violence was a deliberate attempt to cause maximum casualties and send a strong message to India.

Jaish-e-Mohammad, a militant group operating from Pakistan, claimed responsibility for the attack. This heightened the already tense relations between India and Pakistan, marking yet another grim chapter in the ongoing conflict over Kashmir. The attack was meticulously planned, and its devastating impact made it a defining moment in India's battle against terrorism.

The National Outrage and Military Response

In the days following the attack, India was gripped by grief and outrage. The country united in mourning, with people from all walks of life paying tribute to the fallen soldiers. Candle light vigils, public rallies, and social media tributes flooded the nation as citizens expressed their collective sorrow and anger.

Political leaders, including Prime Minister Narendra Modi, vowed to take decisive action. The loss of 40 brave soldiers served as a rallying point for the country, with demands for swift retaliation growing louder. The sense of helplessness that many Indians felt in the face of repeated terrorist attacks was replaced by a desire for retribution and justice.

India's military responded with force. On February 26, 2019, just days after the attack, India launched Operation Balakot, a targeted airstrike on a Jaish-e-Mohammad training camp in Balakot, Pakistan. The airstrike marked a significant escalation, as it was the first time in decades that India had carried out military action on Pakistani soil in retaliation for a terrorist attack. While the attack caused considerable damage to the terrorist camp, it also raised the stakes in the already volatile India-Pakistan relationship.

Diplomatic and International Reactions

The Pulwama attack had significant diplomatic ramifications. India worked relentlessly to bring global attention to Pakistan's role in harboring terrorists. The international community, including the United States, Russia, and key European nations, expressed strong support for India and condemned the attack. Several countries joined India in calling for Pakistan to act against militant groups like Jaish-e-Mohammad.

However, Pakistan denied any involvement in the attack, despite mounting evidence. India's diplomatic efforts bore fruit, as Masood Azhar, the leader of Jaish-e-Mohammad, was finally designated as a global terrorist by the United Nations in May 2019. This marked a diplomatic victory for India, as the international community recognized the threat posed by Pakistan-based terror groups.

At the same time, the Pulwama attack further complicated the situation in Kashmir. While India's security forces focused on neutralizing militants, the region continued to experience unrest, with locals caught between insurgent violence and military crackdowns. The attack reignited debates about Kashmir's troubled history and its complex relationship with both India and Pakistan.

Internal Security Measures and Counter-Terrorism Strategies

The Pulwama attack forced India to reevaluate its counter-terrorism

strategies. The attack highlighted the need for better security and intelligence mechanisms to prevent such incidents in the future. India's security agencies, military, and law enforcement authorities were put on high alert, with a renewed focus on intelligence gathering and operations targeting terrorist infrastructure.

The National Resolve: Unity in the Face of Tragedy

Despite the profound sorrow caused by the loss of the CRPF personnel, the Pulwama attack served to unite India in its resolve to combat terrorism. The tragedy brought people together, transcending regional and political differences, in a collective fight against the forces of terror. The families of the fallen soldiers became symbols of sacrifice, their grief shared by millions across the country.

The attack also led to a renewed sense of patriotism and national pride. It reinforced the determination to protect India's sovereignty and ensure that such an attack would not





go unanswered. The sacrifices made by the 40 soldiers who died in Pulwama were remembered as a powerful reminder of the price of security and peace.

In addition to military action, India began to strengthen its internal security measures in Kashmir and other regions vulnerable to militancy. The government implemented more stringent policies, including the use of modern surveillance techniques, enhanced border security, and better coordination between state and central agencies.

One of the key takeaways from Pulwama was the realization that

tackling terrorism required more than just military retaliation. It demanded a multifaceted approach, combining diplomatic pressure, enhanced intelligence, and regional cooperation to cut off terrorist financing and support.

Conclusion:

A Defining Moment in India's Fight Against Terrorism. The Pulwama attack will forever be etched in India's history as a tragic and pivotal moment in the ongoing fight against terrorism. The brutal loss of 40 soldiers highlighted the relentless nature of militant threats, while the nation's response, both military and diplomatic,

demonstrated its unwavering resolve to confront terrorism head-on.

While the attack left deep scars, it also forged a path toward greater national unity, stronger security measures, and more focused diplomatic efforts. India's response to the Pulwama attack reasserted its commitment to eradicating terrorism and protecting its people.

The fallen soldiers' sacrifices will continue to inspire India's efforts in the long battle for peace and justice, ensuring that their lives were not lost in vain.

In the face of terror, India remains united—stronger, more resilient, and determined to ensure that such tragedies are never repeated.

CELEBRATING EXCELLENCE



Shri. Vasireddy Vidya Sagar Garu, head of the VIVA and VVIT organizations, was honored with the prestigious తెలుగువారి కీర్తి and the Nandamuri Taraka Ramaravu (NTR) Atmiya Puraskaram by the NTR Kala Parishad for his contributions to the fields of education, social service, literature, and philanthropy. The felicitation took place in Guntur on 17th, January 2025.

VASIREDDY VENKATADRI INSTITUTE OF TECHNOLOGY, GUNTUR, PROUDLY ANNOUNCES

AICTE-IDEA LAB

SANCTION OF IDEA (IDEA DEVELOPMENT, EVALUATION & APPLICATION) LAB WITH ₹1.1 CRORES FUNDING FROM AICTE

Special Recognition to Our Team

VVIT
VASIREDDY VENKATADRI INSTITUTE OF TECHNOLOGY

Vasireddy Venkatadri Institute of Technology proudly announces sanction of IDEA (Idea, Development, Evaluation & Application) Lab with 1.1 Crores funding from AICTE.



Dr. A. V. Naresh Babu has been Elected as Honorary Secretary to the Institution of Engineers India (IEI), Andhra Pradesh State Centre for the sessions 2024-2026.



VVIT College has received the Academic Excellence 2024 award from Andhra Pradesh, at the Bharat Blockchain Yatra Grand Finale 2024 event, held at the All India Council for Technical Education (AICTE) headquarters in New Delhi. Received by Dr. A. Kalavathi.



Faculty And Student Achievements



Mr. S. Farooq Ahmed, Assoc. Prof. of Civil Dept. has been awarded with Ph.D, by Andhra University, Vizag.



Mr. Nuthalapati Ashok, Asst. Prof. of IT has been awarded with Ph.D, by Acharya Nagarjuna University, Guntur.



Mr. Thota Seshu Chakravarthy, Asst. Prof. of CSE has been awarded with PhD, by Anna University, Chennai.



Mr. A. Srinag Asst. Prof. of ECE Dept, has successfully awarded his Ph.D. thesis at Andhra University, Vizag.



Dr. Alla Srivani, S&H Dept, received "Innovative Research Technologist" Award from Asian institute of technology, Bangkok in Thailand.



Dr. Kedar Malik from Mechanical Department has successfully completed AICTE QIP PG Certification Program in 3D Printing and Additive Manufacturing from INDIAN INSTITUTE OF TECHNOLOGY (IIT), Thiruchurapalli.



Dr. Muralidhar V, Assoc. Prof. of CSM, and Dr. Orchu Aruna, Assoc. Prof. of CIC, have successfully completed the TalentNext Database Solutions Expert (DSE) Wipro Certified Faculty (WCF) certifications, on October 30, 2024.



Mr. B. Aditya from Mechanical Department has successfully completed AICTE QIP PG certification program on Data Science from INDIAN INSTITUTE OF TECHNOLOGY (IIT), Bhilal.



Dr. I. Luke John Baktha Singh from EEE Department has successfully completed AICTE QIP PG certification program on IOT from INDIAN INSTITUTE OF TECHNOLOGY (IIT), Kurnool.



Mr. B. Sekhar from EEE Department has successfully completed AICTE QIP PG Certification Program on Artificial Intelligence and Data Science from INDIAN INSTITUTE OF TECHNOLOGY (IIT), Kottayam.



ACHIEVEMENTS



VVIT is honored to receive the Diversity Champion Award from Salesforce in recognition of the exceptional number of diverse students who successfully completed Salesforce Virtual Internships in 2024.



VVIT's IETE, Student Forum of ECE Department has been presented with Appreciation Certificate for Outstanding performance in 2024, in a ceremony at VIT-AP.



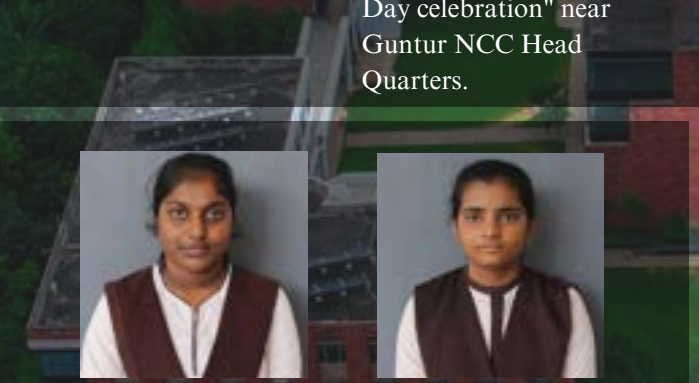
NITTTR Chennai signed an MoU with VVIT Guntur, focusing on Technology Enhancement, Education, Research, and Skill Development.



VVIT NCC Cadets Senior under officer (SUO) Anil Kumar, Junior under officer (JUO) Ajay, under the Best ANO Captain Syed Beeban Basha sir and Junior under officer (JUO) Veena Madhuri under ANO Lt. Dr. Alla Srivani for their selection as "Best Cadets" in "NCC Day celebration" near Guntur NCC Head Quarters.



Mr. M. Srikanth Reddy, 3rd CIC has been selected for JNTUK University Hockey Team (MEN). He will participate in South Zone Inter University Hockey Championship (MEN) that will be held at University of Madras, Chennai.



NSS volunteers Ms. Bhavya D (22BQ1A0546) and Ms. Sowmya A (22BQ1A0504) from 3rd CSE are selected under JNTUK for NIC 2024 which was conducted at Haryana.



VVIT Basketball Team won the Runners in JNTUK Inter-Collegiate Basketball Tournament held at SRKR Engineering College, Bhimavaram. Two of our students M. Gopinadh of ECE and A. Chandrasekhar Reddy of AID were also selected for the South Zone Inter-University Basketball Tournament to be held at Christ University, Bangalore.

Team - Mr. Manideep, Mr. Hemanth, Mr. Sai prakash, Mr. Sai Ram, Mr. Chiranjeevi, Mr. Sai Gopinath, Mr. Chandra Sekhar Reddy, Mr. Shyam, Mr. Rana Dev.



VVIT Basketball team secured first place at RVR&JC College Sports Fest.
Team - Mr. Manideep, Mr. Sai ram, Mr. Chandu, Mr. Syam, Mr. Chiranjeevi, Mr. Sai Gopi Nath, Mr. Nithin Kumar, Mr. Hemanth, Mr. Sai Prakash, Mr. Rana Dev.



Faculty And Student Achievements



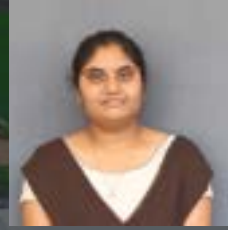
Mr. Yuvaraj
21BQ5A0308-MECH



Ms. Naga Sivani
20BQ1A4239-CSM



Ms. Sanghamitra
20BQ1A05G7- CSE



Ms. Tejaswi
20BQ1A05N7- CSE



Ms. Sai Lakshmi
20BQ1A0330- MECH



Ms. Sumathi
21BQ5A0527- CSE



Ms. Sai Pranavi
20BQ1A4745- CIC



Mr. Lokesh
20BQ1A04C9- ECE



Mr. Madan Gopal
20BQ1A0332 -MECH



Mr. Bharath Kumar
20BQ1A0418 -ECE

Eight students (Yuvaraj, Naga Sivani, Sanghamitra, Tejaswi, Sai Lakshmi, Sumathi, Sai Pranavi, Lokesh) have passed the A1 international exam, Two students (Madan Gopal, Bharath Kumar) have passed the A2 international exam in German language at Goethe institute with a first class.



VVIT Music Band secured 2nd prize and 3rd prize in group singing at RVR & JC fest.

Team:

Ms. Sindhu, Ms. Srujana, Mr. Karhtik, Ms. Varshini, Mr. Akhil.



VVIT Badminton team secured 3rd prize in JNTUK Central Zone Inter Collegiate Badminton Tournament organized by SRKR, Bhimavaram.

Team:

Mr. Ch. Ravi Teja, Mr. D. Bhargava, Mr. C. Nandu, Mr. P. Rishwith, Mr. K.Siva Ram Kumar.



NSS volunteers Ms. Cheedella Jeevana- 22BQ1A0532
Mr. Burla Ajay Kumar- 22BQ1A0418 from 3rd CSE, ECE are selected under JNTUK for NIC 2024.



EVERY ONE COUNTS



Mr. Karthik(23BQ1A4776) of CSM Dept, secured 1st place in western solo singing competition at RVR & JC Fest Cultural fest.



Ms. P. Bhavana (21bq1a05h4) of CSE Dept, secured 3rd position in Dance solo at RVR & JC Cultural fest.



The project "Aqua Water Tank Cleaning System" won as **outstanding model** with cash prize of Rs 5000. Developed by Mr. Ch.Maveen Balaji (IVth CIC) at AIF campus, Kuppam.



Students of 3rd year from Mechanical Department participated in the GoCart championship 2025 organized by SRKR Engineering College and received the Team spirit award and Excellence award.



Faculty And Student Achievements



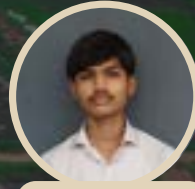
Ms. Thota Poojitha



Ms. B. Tejaswini



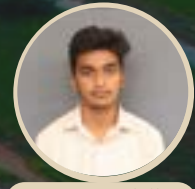
Ms. Nitya S



Mr. Sajid Shaik



Ms. Dakshaini P



Mr. S. Balaji



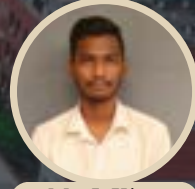
Mr. Maheshwar



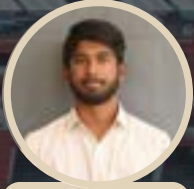
Mr. R. Lokesh



Ms. Jaya Keerthi K



Mr. J. Kiran



Mr. D. B. Chandra



Ms. N. Madhuri

- Mr. Lokesh Kumar Malladi
- Mr. Rohan Kudumula
- Mr. Addagatla Abhinav
- Ms. Nikhitha Shiny Bethala
- Ms. Isha Prasuna Bodavula
- Ms. Gajula Nandini
- Mr. Arjun Gogulamudi
- Mr. Gorre Bhargav Suman
- Mr. Maddula Udaykrishnavenkatasai
- Ms. Akhila Maguluri
- Mr. Nagarikanti Venkata Adithya
- Ms. Gnana Pravallika Pakanati
- Mr. Peram Venkata Naga T
- Mr. Ayub Malik Shaik
- Ms. Nikhat Anjum Shaik
- Ms. Sana Kowsar Shaik
- Ms. Shiny Kanaparathi
- Ms. Suhana Khatun Syed
- Ms. Yeramala Dherandar Reddy
- Mr. Jaya Suhas Kommu
- Mr. Ala Madan Gopal
- Ms. Sumasri Chimpiri
- Ms. Sai Jasmine Meka
- Mr. Pavan Jyothi Swaroop
- Ms. Yoshitha Reddy Nakka
- Mr. Vigneswar Reddy Bhemireddy
- Mr. Danda Pranav Krishna
- Ms. Lalitha Sri Gavini
- Mr. Venki Velpula
- Mr. Mahammed Muzeer Shaik
- Mr. Abhishek Thallam
- Ms. Pravallika Gudikandula
- Ms. Lalitha Kakumani
- Mr. Regulagadda Bhanu Prakash
- Mr. Kongara Pavan Kumar
- Ms. Maravajjula Tejaswini
- Mr. Nikith Majeti
- Ms. Mohana Sangeetha A
- Ms. Keerthi Mupparaju
- Mr. Padarathi Snehal Kumar
- Mr. Pavan Kumar Rallabandi
- Mr. Shaik Aashaq Basha
- Mr. Yogesh Valluri
- Ms. Yaparathi Vyshnavi
- Ms. Dabbakuti Likhitha
- Ms. Medam Chowdeswari
- Ms. Paruchuri Bindu Renuka
- Ms. Thrushitha Kaja
- Ms. Manjusha Navuluri
- Ms. Vasavi Priya Dadiga
- Ms. Jhansi Lakshmi Chandaluri
- Mr. Sathvik Bitra
- Ms. Narra Gopika
- Ms. Praveena Nelakurthi
- Mr. Ravula Rajeev Chowdary
- Ms. Tata Roja Anantha Komalangi
- Mr. Siddhartha Reddy Boddu
- Mr. Amarnadh Kanaparathi
- Ms. Shalem Jyothi Kumbha
- Mr. Balaji Bollimuntha
- Mr. Lakshmi Sivannarayana Gopalam
- Mr. Sai Surya Kurapati
- Mr. Nalluri Jagadeesh
- Ms. Namratha Parvathaneni
- Ms. Navya Parvathaneni
- Mr. Sri Bharath Pentela
- Ms. Tejaswini Sai Gundimeda
- Ms. Lakshmi Prasanna Patimalla
- Ms. Geethika Muvva
- Mr. Amarnath Mannava
- Mr. Arashad Ebrahim Khan Patan
- Mr. Sameer Ahammed Shaik
- Mr. Dinesh Kumar Beesabathuni
- Mr. Sri Siva Koti Reddy Karasani
- Mr. Sameer Babu Shaik
- Mr. Naga Abhinay Suda
- Mr. Yesubabu Meda
- Mr. Hanumath Sri Chakravarthy K
- Mr. Murali Saaketh Vangara
- Mr. Varun Yadavalli
- Mr. Venkata Karthik Chowdary B
- Mr. Sri Sai Harsha N
- Mr. Prabhas Chandra Nayak B
- Mr. Teja Vardhan Reddy B
- Mr. Narendra Derangula
- Mr. Yaswanth Naik Desavath
- Mr. Tirupathi Rao Karumanchi
- Mr. Harikrishna Koyala
- Mr. Naga Gopi Nadh Patoju
- Mr. Sai Sathwik Syba
- Mr. Mohan Krishna Konangi
- Mr. Saggireddy Ganesh
- Mr. Pasupuleti Sagar

- The above students are placed in PalTech with upto 5LPA, Cognizant with upto 6.75 LPA (GenC, GenC Pro, GenC Next), IMEG with upto 3.6LPA, Neolyne with upto 2.3 LPA, Surya Tech with upto 2.5LPA, Azista Industries with 5.5LPA, AMD India Private Limited with 7.2 LPA, Bosch with 5.5 LPA & 3 LPA, EY Global Delivery Services India LLP with 4.6 LPA, 7 Dots Smart Solutions with 4.4 LPA).
- 69 students got above 15000 INR/Month as stipend, 9 students got between 5000-15000 INR/Month as stipend, 8 students got under 5000 INR/Month as stipend.





URBAN GARDENING AND SUSTAINABLE LIVING: GROWING GREEN SPACES IN CITIES

By Yuktha Sri Mayuka Kukunuri

As our cities grow, we often lose touch with nature, leaving behind the green spaces that bring peace and balance to our lives. But there's a quiet shift happening in urban areas: people are discovering ways to bring nature back into their lives through urban gardening. Whether it's a few pots of herbs on a balcony or a small rooftop garden, urban gardening lets us create peaceful, sustainable spaces that brighten our surroundings and nurture our well-being.

Urban gardening is simply growing plants in city settings, like balconies, backyards, or rooftops. Even a few herbs on your windowsill can make a difference, adding color, fragrance, and a little slice of nature to your day. You don't need much to start—just a few pots, some sunlight, and a little curiosity about nurturing life.

Urban gardening brings so many benefits to individuals, communities,

and the planet. For one, it supports sustainable living. Growing your own vegetables, fruits, or herbs cuts down on the need for store-bought produce, reducing the environmental impact of transporting and packaging food. There's a simple joy in picking fresh basil for a recipe or watching tomatoes ripen on the vine, knowing you've grown them yourself.

Gardens also do wonders for air quality. Plants absorb carbon dioxide and release oxygen, helping to freshen up the air in neighbourhoods where green space might be scarce. Rooftop and vertical gardens even trap dust and pollutants, improving the local environment. In cities where concrete and traffic dominate, these little patches of green bring a breath of fresh air.

For those of us looking for a way to de-stress, urban gardening offers a

quiet escape from the noise and fast pace of city life. Tending to plants has been shown to reduce stress and boost mental health. It's deeply satisfying to care for something and watch it grow, giving us a sense of calm and accomplishment. In a world where we're constantly plugged in, spending time with plants helps us slow down, focus, and simply be present.

Urban gardening can also make a difference when it comes to food security. With fresh produce grown at home, there's no need to worry about availability or rising costs at the store. Growing fruits and vegetables in a small space ensures you have easy access to organic, nutritious food. Also, gardening connects us with where our food comes from—a refreshing change when so much of what we consume comes from distant places.

Gardens, even small ones, can attract butterflies, bees, and other pollinators, creating little ecosystems that support biodiversity. In cities, where green spaces are often rare, this connection to nature reminds us of the beauty of balance and life cycles beyond the hustle and bustle.

Urban gardening doesn't just improve our environment; it also brings people together. Green spaces encourage neighbours to connect, talk, and share tips, adding a human touch to city life. Gardening invites us to slow down, step away from screens, and interact face-to-face—a rare opportunity in our digital world.





Urban gardens also help combat climate change. Cities can be hotter than the countryside due to what's known as the "urban heat island" effect, with concrete and asphalt soaking up heat. But plants release moisture through transpiration, helping cool the surrounding air and providing shade. Rooftop gardens and vertical green walls can reduce the need for air conditioning in summer and help insulate buildings in winter, saving energy year-round.

If you're new to urban gardening, it doesn't take much to get started. Try planting a few herbs on a windowsill or a couple of flowering plants on a balcony. Look for plants that match your light conditions—succulents for sunny spots or leafy greens for shaded areas. For those with a little extra space, vegetables like tomatoes, spinach, and peppers grow well in containers and add freshness to your meals.

Urban gardening isn't just a trend; it's a meaningful way to reconnect with nature, build community, and add a touch of green to our cities. Whether you're a seasoned green thumb or just beginning, every plant you grow contributes to a healthier, more vibrant world. As you nurture your garden, you're helping create a greener, more sustainable future—one leaf, one flower, one tomato at a time.



THE SCIENCE OF TASTE & FLAVOR

By Chakradhar Potharlanka

Do you know that your sense of smell plays a bigger role in flavour than your taste buds? Food is more than just fuel for our bodies, it is a source of happiness, a reflection of culture, and a playground for creativity. The flavours we experience are shaped by biology, culture, and personal preferences. Let us explore how taste works, how culture shapes it, and how we can create magical flavour pairings.

- **Bitter:** Found in foods like coffee and dark chocolate
- **Umami:** The savoury taste of foods like mushrooms and soy sauce

These receptors send signals to the brain, allowing us to identify the taste.

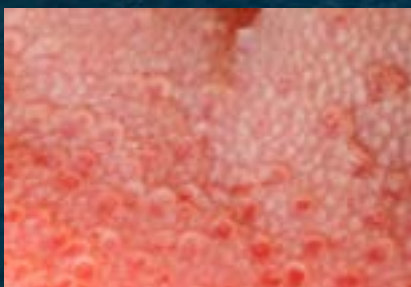
The Role of Smell in Flavor

How Culture Shapes Taste

Taste is influenced by biology, but culture plays a crucial role too. The food we love often reflects where we come from:

- **Indian cuisine** uses bold spices like turmeric and cardamom, influenced by the country's tropical climate and rich history of spice trade.

How Do Taste Buds Work?



Our ability to taste begins with the tiny but mighty taste buds, located on the tongue, palate, and throat. Each taste bud contains cells with taste receptors that are activated when they come into contact with molecules from food. These receptors detect five basic tastes

- **Sweet:** Triggered by sugars, like those in chocolate or fruits
- **Salty:** Activated by sodium ions, as found in chips
- **Sour:** Detected by acids in foods like lemons



While taste buds detect basic tastes, our sense of smell brings flavor to life. When you eat, aromas from the food travel up to the olfactory receptors in your nose. These receptors send signals to the brain, where they combine with taste signals to create the complex perception of flavor. This is why holding your nose makes food taste bland.



- **Japanese cuisine** highlights umami with ingredients like miso and soy sauce, reflecting the emphasis on balance and harmony in Japanese culture.



- **Italian** dishes often pair tomatoes with basil, a classic combination that reflects the Mediterranean region's abundance of fresh produce.



The Art and Science of Pairing Flavors



Pairing flavors is a creative process that combines scientific understanding with artistic intuition. Chefs often experiment with combinations that complement or contrast. Some popular pairings include:

- **Chocolate and sea salt:** Salt enhances chocolate's sweetness.
- **Strawberries and balsamic vinegar:** A surprising mix of tangy and sweet.

Why We All Taste Differently

Did you know that some people find cilantro soapy? This is due to a genetic variation in smell receptors. Personal preferences add another layer of complexity to taste. Whether it is loving coffee's bitterness or preferring a sweet latte, everyone's flavour profile is unique.

The Future of Flavour

As food science evolves, we are seeing innovations like plant-based meats and the potential for AI-driven flavor pairings. Imagine a world where technology can analyze individual taste preferences and create personalized flavor experiences. This exciting possibility is closer than you might think!

Conclusion

Taste is more than biology; it is a sensory adventure influenced by culture, creativity, and individuality. From the comforting sweetness of hot chocolate to the bold umami of ramen, every bite is a celebration of flavor. So, next time you eat, savor the experience, and maybe even try a new pairing to excite your taste buds!



Do You Know

- **Cats cannot taste sweetness.**
- **Some people genetically taste broccoli as more bitter than others.**
- **The average person has about 10,000 taste buds, but they decline with age.**

FUN FACT

The human tongue has about 10,000 taste buds, but they regenerate every two weeks! While taste buds detect basic tastes, our sense of smell brings flavour to life. When you eat, aromas travel through your nasal passages, combining with taste to create the full experience of flavour. This is why holding your nose makes food taste bland.



REMEMBERING STEVE JOBS - A VISIONARY LEADER WHO TRANSFORMED THE WORLD

By Varshitha

Steve Jobs, a name synonymous with innovation, leadership, and genius, is considered as the one of the most predominant figures in the tech world. Steve Jobs co-founded the apple Inc., one of the most popular and powerful companies in the world. It is the company which reshaped the way of communication by inventing the products like personal computers, also cascaded to lead the most powerful companies in history with the modelling of the greatest products ever made by the humans and those are nothing but iPod, iPhone, and the iPad. All this unimaginable success stemmed from the mind of its co-founder Steve Jobs, who is well known as genius among the tech stars.

Childhood and Education

Born on February 24, 1955, in San Francisco, California, Steve Jobs was adopted soon after his birth by Paul and Clara Jobs. He was raised in Cupertino, California. Since his early days he grew up in an environment neighbouring the enginery and electronics and this was feasible to him because of his father who worked as a machine operator. Since his budding adult age, Steve Jobs displayed an early interest in gadgets and machines, a spirit that later defined his profession.

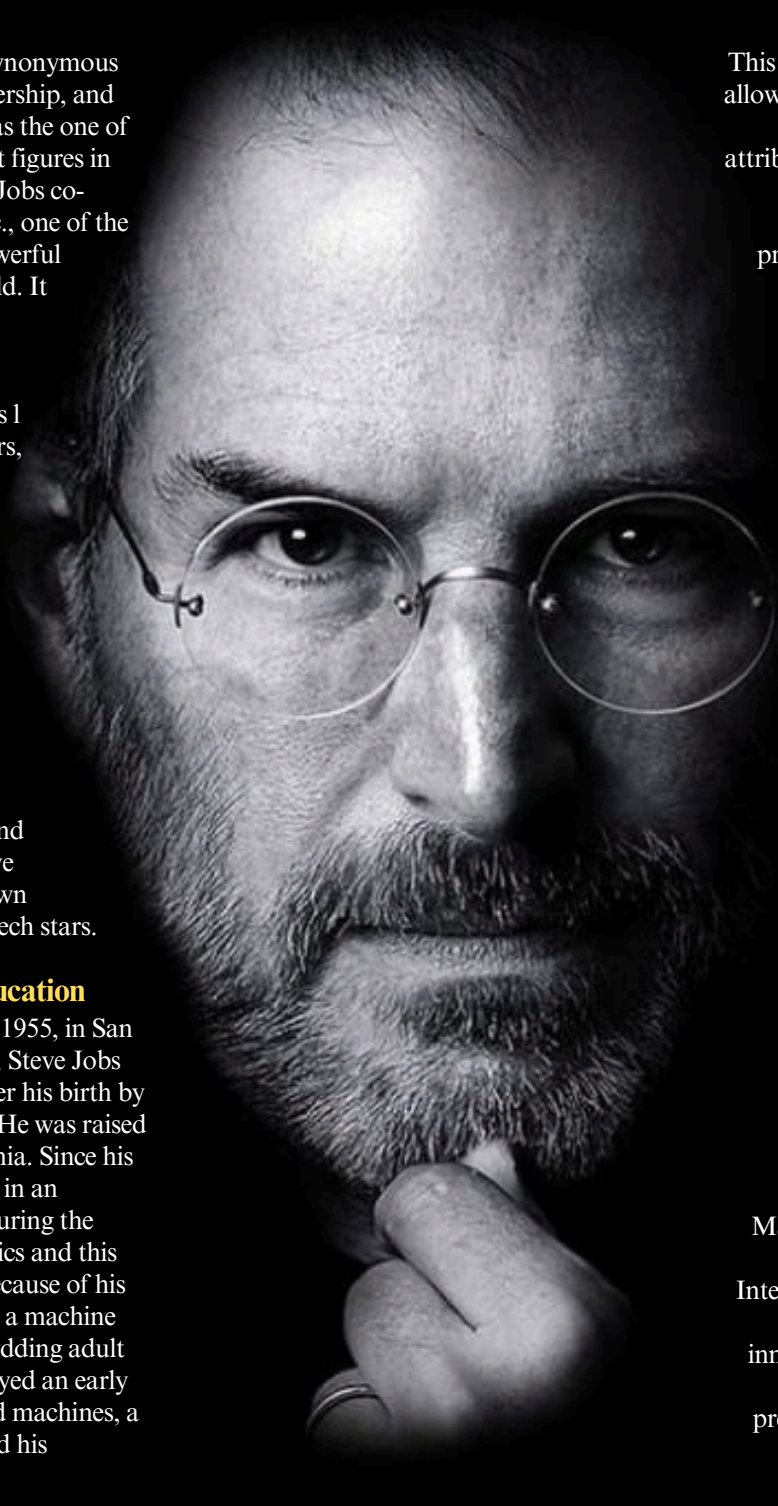
Steve Jobs attended Reed college in Portland, Oregon, but fell by the wayside after the immediate first semester.

This decision, although unorthodox, allowed him to search his passion for calligraphy and design. He later attributed this experience persuading the aesthetic choices for Apple's initial products, such as the Macintosh's elegant typography and interface. This was only a sample example of how his peculiar and special approach to design and technology sets him apart from his regular peers.

The origin of Apple Inc.

In 1976, Steve Jobs, at the age of 21, co-founded the Apple company with his childhood companion Steve Wozniak. The duo worked out in Jobs' family garage, where they fabricated the Apple I, a personal computer that was the king of its kind. The Apple II, introduced in 1977, was a greatest success, allowing Apple's entrance into the escalating personal computer market in those times.

In 1984, Apple delivered the Macintosh, which inaugurated the world to the Graphical User Interface (GUI), making computers more user friendly. Despite its innovative features, the Macintosh initially failed to meet market presumptions, and this, associated with internal conflicts, paved a way out to Steve Jobs from the company in 1985. This time period structured a turning point in his career, as Steve was forced to rethink his approach to creativity and business marketing.





The birth of Next and Pixar

After ousting from Apple, Steve Jobs founded NeXT, a company that mostly directed at the higher education and business markets. While NeXT's hardware was technologically very well advanced, the company initially wrestled to achieve profit-oriented success. However, NeXT engaged an important role in the development of the World Wide Web, as the software that was developed by the NeXT computers laid the foundation for the first web browsers.

In 1986, Steve Jobs purchased The Graphics Group, which would later become Pixar. Under his supervision, Pixar revolutionized the animation industry by initiating the first-ever fully computer animated feature film, Toy story (1995). Pixar's success reached the peak with films like Finding Nemo and The Incredibles, solidifying Jobs' status as a pioneer in both technology and entertainment. In 2006, Disney purchased Pixar for \$7.4 billion, making Steve Jobs as one of the Disney's largest shareholders and fixed his place on the top of both tech and entertainment industries.

Back to Apple and the Revolution

In the year 1997, Apple identified itself grappling to keep up with its challengers like Microsoft. Then the working team of Apple had only a single solution to fix this problem, and that was bringing back Steve to the company which he himself founded. Then he immediately started to sculpture the Apple back as a successful company after coming back into the Apple.

In 2001, Apple introduced the iPod, a portable music player that revolutionized and had an unforgettable impact in the music industry. The iPod's sleek design made instant success, rocketing Apple to the forefront of the consumer electronics market. Jobs' keen focus on integrating hardware and software bought him the iPod's success.

In 2007, Apple launched the iPhone, a product that paved a way to a whole new world. This iPhone is a mix of phone, the iPod, and internet device in one, completely changing the way people communicated, entertained themselves, and accessed information. The features in the iPhone, like touchscreen interface, app store, and integration with Apple's ecosystem set a new standard for smartphones. And this success mantra also gave him a dreamy success for the iPad in 2010, further cementing Jobs' position as a tech visionary.

Legacy and Influence

Steve Jobs' impact on the world extends far beyond the products he created. His approach to business, design, and innovation revolutionized multiple industries. He was a master of creating ecosystem around his products, ensuring that every element of the Apple experience – from hardware to software to services – was integrated seamlessly. Jobs was not just a technologist; he was a storyteller, a marketing genius, and a pioneer in creating the best designs that have influenced countless products across industries.

Jobs' relentless pursuit of perfection and his ability to foresee future trends in technology made him a visionary. However, his leadership style, often described as demanding and temperamental, was both revered and criticized. He pushed those around him to achieve the impossible and, in doing so, inspired some of the most innovative creations in modern history.

Steve Jobs passed away on October 5, 2011, after a long battle with pancreatic cancer. His death marked the end of an era, but his influence continues to shape the technology industry. Apple, under the leadership of Tim Cook, remains one of the most successful companies in the world, but the impact of Jobs' vision is felt in every product the company produces.

The heritage that was left behind by a real hero

Steve Jobs' life was a journey of relentless innovation, creativity, and passion. From his early days in a Silicon Valley garage to his transformative leadership at Apple, Jobs reshaped the world of technology and entertainment. His legacy continues to inspire entrepreneurs, designers, and tech enthusiasts, and his work has permanently altered the way we interact with the world through technology. Steve Jobs proved that with vision, determination, and a willingness to take risks, one person can change the world.

PS: I strongly recommend you to read the wonderful autobiography "Steve Jobs" by Walter Issacson.

ECHOES OF VVIT

A Spotlight on Events



EXOUSIA 2K24



PRAYUKTI 2K24



INNOVATION DAY (ANVESHANA)



AMEYA 2024



STUDENT TRIBE LEADER SUMMIT



IETE 71ST FOUNDATION 2K24



FRESHERS DAY



BLOOD DONATION CAMP



WORKSHOP-BUILD AI ENABLED APPLICATION BY GOOGLE



GURUVANDHANAM



TEDXVVIT



INDUSTRY TALK ON SAP



SWEEP BY NSS



SEMI CHRISTMAS



MAHAGATHE DHARMA GAMES



EENADU BAPU BOMMA



DESIGN THINKING WEBINAR







VIVA VVIT 2024-25





ALUMINI MEET



ANNUAL DAY



DARGA TO DURGA WALK



NATIONAL VOTER AWARENESS DAY



TALENT FARM



MECHANICAL GUEST LECTURE



NEW YEAR CELEBRATIONS



REPUBLIC DAY

MAPPING EARTH'S SECRETS: THE NISAR ODYSSEY

By P. RAMCHARAN



How NASA and ISRO are unlocking Earth's mysteries with radar technology?

On September 30, 2014, NASA and the Indian Space Research Organisation (ISRO) officially established their collaboration to create and launch the NASA-ISRO Synthetic Aperture Radar (NISAR) mission. This innovative partnership seeks to offer high-resolution satellite data to observe ongoing changes in the Earth's ecosystems, natural disasters, and rising sea levels, thus making a meaningful contribution to global environmental challenges, including climate change and natural calamities.

The NISAR mission is a result of the National Academy of Sciences' 2007 Decadal Survey, which identified three essential areas of Earth science: ecosystems, crustal deformation, and cryospheric studies. The survey underlined the necessity of comprehensive data to tackle urgent environmental issues. In response, NISAR was envisioned as a cutting-edge Synthetic Aperture Radar (SAR) mission that would provide crucial insights into the Earth's changing environments, including shifting ecosystems and the impacts of climate change and seismic events.

Functioning as a remarkable example of international collaboration, NISAR integrates NASA's advanced radar technology and data expertise with ISRO's capabilities in satellite launches and spacecraft design. This partnership represents a significant endeavour to confront global challenges by combining scientific innovation with technological skills. Through NISAR, both agencies aspire to enhance our comprehension of Earth's systems, equipping researchers with invaluable tools to address some of the most urgent issues facing the world today.

Mission details and capabilities

NISAR is intended to operate in a Sun-synchronous orbit at an altitude of around 747 kilometres. This orbit guarantees that the satellite will consistently pass over the same area on Earth at almost the same time each day, ensuring reliable and consistent data collection. The satellite will take ascending and descending observations every 12 days, providing average coverage of the planet every six days during its initial three-year period of operation.

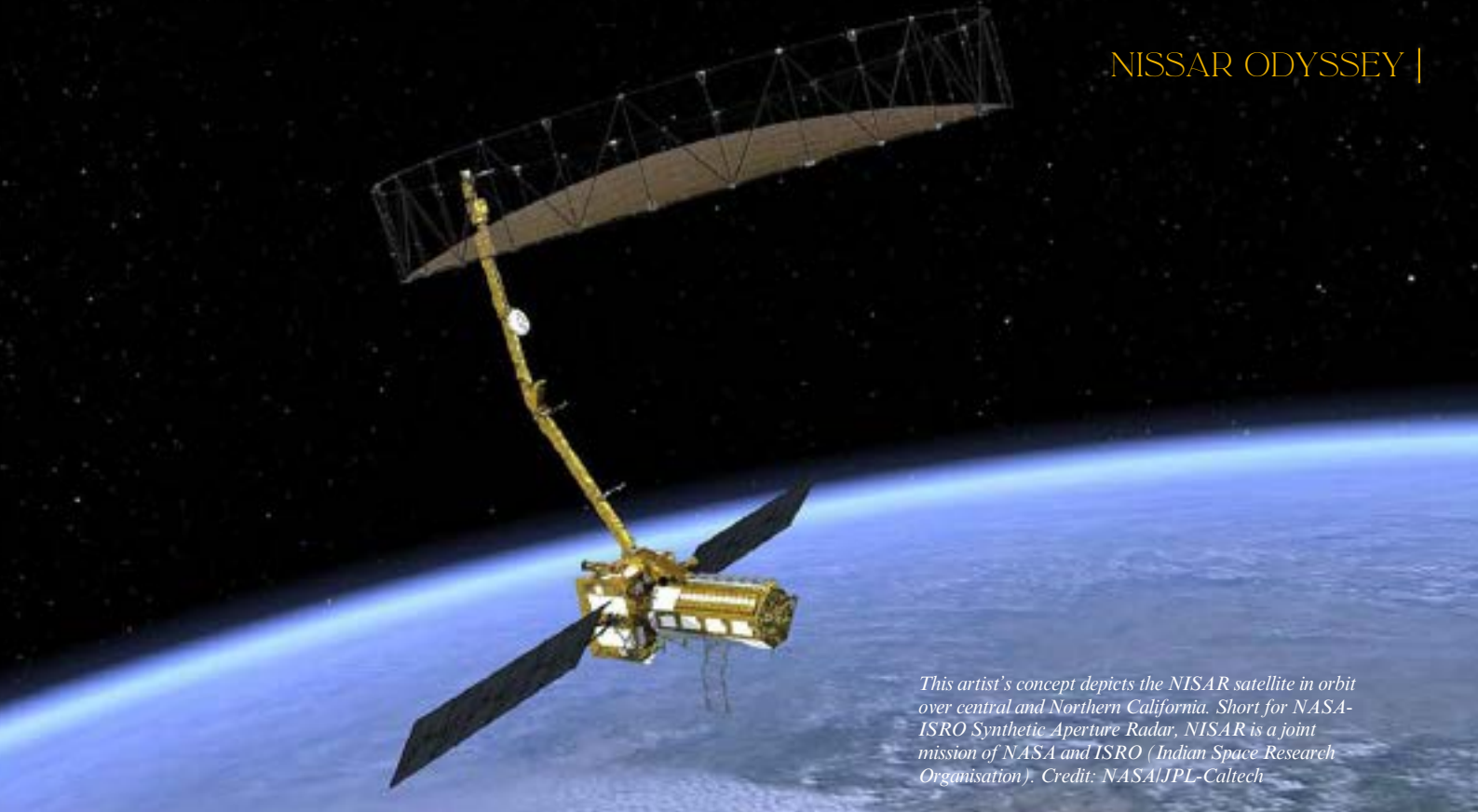
One of the most revolutionary aspects of NISAR is its implementation of both S-band and

L-band radar frequencies, allowing it to track even the slightest changes on Earth with centimetre-level precision. This dual-frequency method is unprecedented for a space-based radar mission, enabling NISAR to generate high-resolution data applicable to a wide variety of Earth observation requirements.

The spacecraft is outfitted with two sophisticated Synthetic Aperture Radar systems: the S-band radar, which has a wavelength of 10 cm, and the L-band radar, with a wavelength of 24 cm. Additionally, NISAR features the largest reflector antenna ever launched into space, improving its data gathering capabilities. Synthetic Aperture Radar (SAR) technology creates high-resolution images by employing radar systems that have limited resolution abilities. By moving in a straight line, whether in orbit or on an aircraft, SAR can penetrate cloud cover and function both day and night, allowing for continuous observation in all weather conditions.

Contributions and International Collaboration

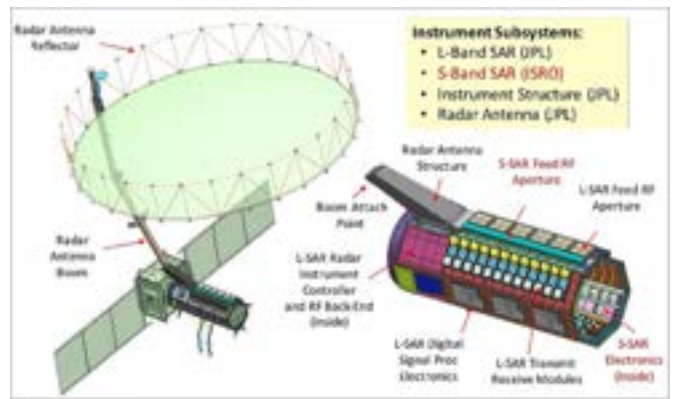
NASA and ISRO have assigned specific roles for the NISAR mission. NASA is responsible for the L-band radar, a high-rate communication system for transmitting scientific data, GPS receivers, a solid-state recorder, and the payload data subsystem. In contrast, ISRO is in charge of the spacecraft bus, the S-band radar, the launch vehicle, and associated launch services. This collaborative initiative ensures that NISAR is equipped with cutting-edge technology to effectively complete its mission. Once it is operational, the data gathered by NISAR's S-band and L-band radars will be made available to the public. Researchers and scientists globally will be able to access this crucial data through NASA's ASF DAAC and ISRO's Bhoonidhi platforms. The accessibility of this data guarantees that the international scientific community can leverage NISAR's findings, bolstering research efforts related to environmental monitoring and disaster response.



This artist's concept depicts the NISSAR satellite in orbit over central and Northern California. Short for NASA-ISRO Synthetic Aperture Radar, NISSAR is a joint mission of NASA and ISRO (Indian Space Research Organisation). Credit: NASA/JPL-Caltech

Mission timeline and delays

Initially planned for launch in 2024, the launch of NISSAR has been rescheduled for the first quarter of 2025. This postponement was due to essential modifications to the satellite's radar antenna reflector ensuring that the satellite achieves its ambitious scientific objectives. The prolonged timeline assures that NISSAR will be completely ready to deliver high-precision data for Earth observation once it is launched.



Real-world impact and future possibilities of NISSAR

The NISSAR mission uses advanced radar to track deforestation, detect illegal logging, and monitor the effects of pests and diseases. It helps watch volcanoes by measuring ground movements and tracking lava flows. NISSAR can predict disasters by detecting ground shifts, predicting landslides, and mapping floods. It also monitors glaciers and ice sheets to study climate change, checks soil moisture for farming, and tracks how cities grow and change. Looking ahead, NISSAR's technology will enhance climate models and improve disaster response and recovery. It will also support sustainable development by monitoring human impacts on the environment. Moreover, the advanced radar systems used in NISSAR could play a role in space exploration, such as mapping other planets or studying asteroids.



Conclusion

The NISSAR mission exemplifies how international cooperation can tackle the significant challenges our planet faces. By integrating NASA's radar technologies and data systems with ISRO's spacecraft engineering and launch expertise, both agencies are enhancing our comprehension of Earth's dynamic processes. NISSAR will supply essential data to scientists and researchers globally, allowing them to track environmental changes, evaluate natural hazards, and investigate sea level rise with unmatched precision. Upon its launch, NISSAR will serve as a crucial instrument in the worldwide initiative to alleviate the effects of climate change and natural disasters, establishing a lasting impact on the scientific community and the world as a whole.

RIDING THE GREEN TRACKS: HYDROGEN TRAINS REVOLUTIONIZE RAIL TRANSPORT

By Yamuna

The world is on the brink of a green revolution, and the rail industry is no exception. Among the most promising innovations is the hydrogen-powered train—an eco-friendly alternative poised to replace traditional diesel engines. Indian Railways, an emblem of connectivity in the nation, has announced ambitious plans to introduce hydrogen trains by 2047. As the country chugs toward a sustainable future, let's explore the transformative potential of hydrogen trains and what they mean for India and the world.

The Science behind Hydrogen Trains

At the heart of a hydrogen train lies an innovative power system: hydrogen fuel cells. These cells convert hydrogen and oxygen into electricity, with water vapor being the only emission. Unlike diesel engines that spew harmful pollutants, hydrogen trains glide along tracks silently, leaving a cleaner footprint. Excess energy generated during operation is stored in onboard batteries, ensuring efficiency and reliability.

These trains are particularly suited for non-electrified routes, which are common in countries like India. Electrifying tracks can be costly and complex, but hydrogen trains bypass this hurdle, offering a greener solution without the need for extensive infrastructure.

Who's leading the Charge?

Several nations have already embraced hydrogen trains, setting the stage for a global transformation in rail transport. Germany has been a pioneer in this field, introducing the world's first hydrogen-powered train, Coradia iLint, in 2018. These trains now operate on multiple routes, showcasing Germany's commitment to decarbonizing its transport sector.

Japan, known for its technological advancements, has also adopted hydrogen trains as part of its broader goal to achieve carbon neutrality by 2050. China, leveraging its industrial strength, unveiled its first hydrogen-powered train in 2022, aligning with its ambitious environmental targets. The United Kingdom is actively developing hydrogen-powered alternatives, aiming to phase out diesel trains by 2040. Meanwhile, France and Italy are investing heavily in hydrogen train technology, recognizing it as a vital tool for promoting greener and more sustainable public transport systems. Together, these nations highlight the growing global momentum toward cleaner rail solutions.

The road—or rather, the tracks—to a hydrogen-powered future comes with a hefty price tag. Manufacturing hydrogen trains is significantly more expensive than conventional ones, with each unit costing between \$5-7 million. Producing green hydrogen using renewable energy remains costly, although advancements in solar and wind energy are gradually making it more viable. Additionally, building the necessary infrastructure, such as refueling stations and supply chains, requires substantial investment. Continuous research and development efforts to evolve hydrogen technology also demand financial resources. Despite these high initial costs, the long-term benefits—such as reduced maintenance and operational expenses—make hydrogen trains a worthwhile investment.

Why Hydrogen Trains Matter

Hydrogen trains offer a range of significant advantages that make them a cornerstone of sustainable transportation. First and foremost is their environmental sustainability. Unlike traditional diesel-powered trains, hydrogen trains produce zero harmful emissions, with water vapor as their only byproduct. This translates to cleaner air and a dramatic reduction in the carbon footprint of rail transport, aligning perfectly with global efforts to combat climate change.

Another key benefit is their adaptability. Hydrogen trains are particularly effective on routes where electrification is either technically challenging or prohibitively expensive. Through bypassing the need for overhead electrification infrastructure, they provide a cost-effective and eco-friendly solution for connecting remote or less-developed regions.

In terms of operational efficiency, hydrogen trains outperform their diesel counterparts by offering quieter and smoother operations.



This not only enhances passenger comfort but also reduces noise pollution in communities near rail lines. Furthermore, they require less frequent maintenance due to their simpler mechanical systems, which leads to lower operational costs over time.

Lastly, hydrogen trains contribute to energy independence by utilizing domestically produced hydrogen. This reduces reliance on imported fossil fuels, bolstering a nation's energy security.

India's Journey towards Hydrogen Trains

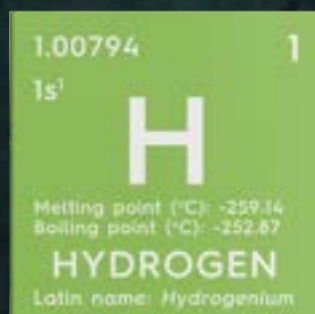
Indian Railways' green aspirations are gaining steam. The first hydrogen train is set to debut by December 2023, likely on iconic routes like Kalka-Shimla, combining heritage charm with cutting-edge technology. By 2047, the railway system envisions widespread hydrogen train adoption as part of its net-zero emissions goal.

Hydrogen trains could revolutionize Indian Railways, especially on its vast non-electrified network. However, success hinges on robust infrastructure, policy support, and affordable green hydrogen production.

A Sustainable Future on Tracks

As Indian Railways prepares to ride the hydrogen wave, the promise of cleaner, greener transport comes into sharper focus. Hydrogen trains symbolize more than technological progress—they represent a commitment to a sustainable planet.

The question isn't whether hydrogen trains will succeed but how quickly they can transform rail transport. With innovation surging globally and India stepping onto the green tracks, the world may soon witness a revolution where the hum of engines is replaced by the quiet progress of hydrogen.





Tata Punch Overtakes Maruti Suzuki to Become India's Best-Selling Car in 2024



For the first time in four decades, Maruti Suzuki lost its best-selling car title in India, with Tata Motors' subcompact SUV, the Punch, becoming the top-seller in 2024. Tata sold over 2.02 lakh units of the Punch, surpassing Maruti's Wagon R, which sold 1.91 lakh units. Notably, three of the top five selling cars in 2024 were SUVs, reflecting India's growing preference for premium vehicles. Maruti Suzuki's market share dropped from 52% in 2018 to 41% in 2024, impacted by limited offerings in the SUV and Rs 10 lakh-plus segments. This shift contrasts with Maruti's historical dominance, dating back to the Maruti 800 in 1985 and the Alto's 13-year reign as a bestseller. Regulatory changes and evolving consumer preferences have driven this transformation. Tata Motors achieved its fourth consecutive year of record sales, with 5.65 lakh units in 2024. The Punch's success highlights the surging demand for SUVs, which grew by 19%, and the increasing traction for eco-friendly powertrains, according to Shailesh Chandra, MD of Tata Motors Passenger Vehicles.

Parental Consent and Data Localisation Highlighted in Draft Data Protection Rules



The Indian government has proposed new Digital Personal Data Protection Rules, mandating parental consent and identity verification for children under 18 to create social media accounts. Parents must provide validated identification, possibly via services like Digital Locker, to ensure compliance. The draft rules also introduce stricter cross-border data-sharing regulations, requiring oversight for significant data fiduciaries. Personal data specified by the government may face localisation requirements, restricting its transfer outside India. Entities must notify affected individuals promptly in case of data breaches, detailing the breach's nature and mitigation measures. These rules aim to enhance data security and privacy across platforms.

AP Govt Pushes for Double-Decker Metro Rail in Vijayawada and Visakhapatnam

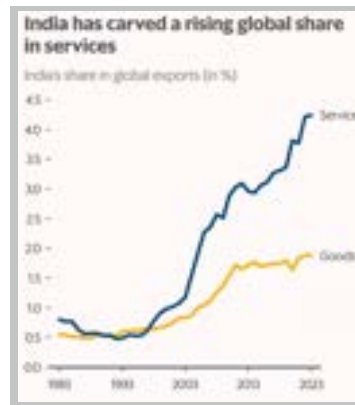


Andhra Pradesh Chief Minister Chandrababu Naidu has approved the construction of double-decker metro rail systems for Vijayawada (66 km) and Visakhapatnam (76.9 km). The innovative design integrates roadways, flyovers, and metro lines. Discussions with the Centre are underway to secure funding, with Naidu aiming for project completion within four years.

Microsoft to Invest \$3 Billion in India's AI and Cloud Revolution



Microsoft plans a \$3 billion investment in India to expand AI and cloud services while training 10 million individuals in AI. The initiative includes scaling its data centers, supporting AI start-ups, and promoting entrepreneurship in smaller cities. Collaborations with Indian firms like Infosys, Air India, and Tech Mahindra highlight Microsoft's commitment to making India "AI-first."



India's share in global exports over the years. (goods and services)

ISRO has sent cowpea seeds into the orbit in the recent PSLV-C60 rocket, which have now sprouted and revealed its first leaves in space.



V Narayanan Appointed as ISRO Chief, Succeeding S Somanath



V Narayanan, an expert in cryogenic propulsion, has been appointed Chairman of ISRO, Secretary in the Department of Space, and Chairman of the Space Commission. A veteran of over 40 years at ISRO, Narayanan previously led the Liquid Propulsion Systems Centre and played key roles in Gaganyaan, Chandrayaan, and Aditya L1 missions. Known for pioneering indigenous cryogenic technology, he aims to steer ISRO's advancements in next-generation propulsion systems and ambitious projects like the Venus Orbiter and Bharatiya Antariksha Station.

India has officially become the fourth country in the world to successfully dock two satellites in space.



TOP CES GADGETS OF 2025: REDEFINING THE FUTURE OF TECHNOLOGY



• Best TV: Panasonic Z95B OLED TV



The Panasonic Z95B OLED TV made waves with its four-layer OLED structure, delivering unparalleled brightness and visual clarity. With a built-in soundbar featuring up-firing and side-firing channels, it's designed to be a home-theater centerpiece. While Fire TV OS remains a sticking point for some, the Z95B's picture quality and immersive audio make it a top contender.

Key Features: Four-layer OLED structure for enhanced brightness. Built-in soundbar with multidirectional audio. Fire TV OS integration. Expected availability: Later in 2025.

• Best Wearable: Rokid Smart Glasses



The Rokid Smart Glasses deliver a stylish and functional AR experience. Combining live translation, teleprompter capabilities, and discreet micro-edge displays, these glasses redefine what it means to be hands-free.

Key Features: Micro-edge AR display for seamless integration. Live translation and teleprompter functionalities. Compact and lightweight design inspired by Ray-Ban aesthetics. Ideal for multitasking professionals and AR enthusiasts.

• Best Beauty Tech: L'Oréal Cell BioPrint



L'Oréal's Cell BioPrint transforms skincare diagnostics. Using a protein-isolating cartridge system provides detailed insights into your skin's biological age and health, allowing for a more targeted approach to skincare.

Key Features: Analyses biological age, skin barrier function, and more. Reduces unnecessary skincare purchases by identifying specific needs. Positioned for use in dermatology clinics but with potential consumer expansion.

• Best Laptop: Lenovo ThinkBook Plus Gen 6



A laptop that transforms at the touch of a button, the Lenovo ThinkBook Plus Gen 6 features a rollable display that expands from 14 inches to 16.7 inches. Perfect for professionals needing extra-screen real estate, this quirky design is expected to retail at \$3,500.

Key Features: Rollable display technology. Compact 14-inch design expandable to 16.7 inches. Business-focused yet innovative. Availability: 2025.

• Best Car: Honda Zero Series



Honda's Zero Saloon and SUV models combined retro aesthetics with modern EV technology. Channeling the vibes of 70s and 80s automotive designs, these vehicles promise a mix of style, innovation, and environmental consciousness, set to launch in 2026.

Key Features: Retro-inspired design. Advanced software-defined vehicle platforms. Set for consumer delivery by 2026.

• Best Smart Home Tech: K20 Plus Pro Modular Robot



The K20 Plus Pro is a modular smart home robot with interchangeable functionalities, from delivering an air purifier to monitoring home security. Its modularity and versatility make it a game-changer for smart homes.

Key Features: Modular design with swappable functionalities. Supports future upgrades like robot arms. Multi-use docking system for video streaming and more.

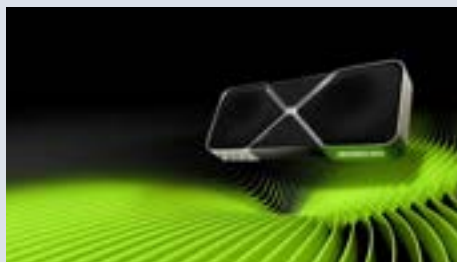
• Best Gaming Handheld: Lenovo Legion Go S



The Legion Go S handheld gaming device impressed with its 120Hz variable refresh rate screen and Steam OS integration, offering gamers a premium experience for \$499. While battery life could be a concern, the value-for-money and innovative design stand out.

Key Features: Steam OS integration. 120Hz variable refresh rate. Compact and comfortable design. Price: \$499.

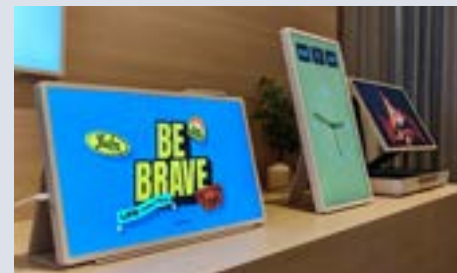
• Best GPU: Nvidia RTX 50 Series



Nvidia's RTX 50 Series GPUs showcased incredible AI-powered features like DLSS 4. The flagship RTX 5090, priced at \$1,999, promises to double frame rates in games like Cyberpunk 2077, pushing the boundaries of PC gaming.

Key Features: DLSS 4 with multi-frame generation. 32GB GDDR7 memory. AI-enhanced gaming performance. Launch date: January 30, 2025.

• Best Sequel: LG StanbyMe 2



LG's StanbyMe 2 takes portability and functionality to the next level with a detachable design, improved resolution, and extended battery life. Accessories like a folio case and wall mount make it versatile for various use cases.

Key Features: Detachable design. 1440p resolution. Upgraded battery life (4 hours). Multiple accessories for added functionality.

CES 2025 highlighted the convergence of innovation, practicality, and a touch of whimsy in tech. From modular robots to AI-enhanced GPUs, these gadgets showcase the limitless possibilities of the future.

Personal happiness and work-life balance are important too.

Interview By Zahira Shaik

Juhi Yeturu is a vibrant 24-year-old who has a clear path ahead of her. She studied at VVIT and graduated in 2022. Currently, she is pursuing Masters in Management at ESSEC Business School. Excitingly, Juhi is an intern as Assistant Merchandiser at Christian Dior Couture. In addition to her studies and internship, she is also a mentee in both the UNESCO and Women@Dior programs, showcasing her commitment to personal and professional growth.



How do you stay motivated and manage your time effectively given your numerous responsibilities and achievements?

I believe motivation comes from within. For me, it's essential to stay engaged in projects; without them, I feel bored and restless. I often dive into new tasks because they excite me, but if I don't, I end up feeling down. I know some people are motivated by external validation, but I'm driven by my own interests. When managing my time, I work in bursts of energy and prioritize tasks

that others depend on. I've tried using lists for urgent tasks, but I typically end up completing everything last minute—often submitting assignments at 11:59 PM!

Can you tell us about your experience with the University Innovation Fellows (UIF) program at Stanford? How did it shape your approach to innovation and leadership?

I was selected as a University Innovation Fellow candidate at the end of my first year, and the six-week training during my second year was

transformative. Many think creativity is an inherent trait, but I believe it's a skill that can be developed, much like training a muscle. We learned a systematic approach to problem-solving based on five principles: empathize, define, ideate, prototype, and test. These principles extend beyond project innovation; they can also help when facing personal challenges. Instead of seeking external advice, I suggest taking a moment to reflect in a calm space and follow those five steps to gain clarity. At ESSEC, we have a mandatory Imagination Week for first years, which covers design thinking principles through presentations and guest speakers. As technology takes over routine tasks, the need for creativity falls on us, humans. If you're feeling stuck, explore different schools of thought and brainstorm ideas. It's an excellent way to exercise your mind.

Can you share a memorable moment or achievement during your tenure as SAC president that you are particularly proud of?

I was surprised to run for the presidency of the SAC despite having no prior experience in their councils. My role as a UIF fellow didn't fully prepare me for the administrative



Take time to self-reflect, meditate whenever you can, and pursue your happiness! It really does make a world of difference.

tasks involved, and balancing our team was initially challenging. However, once we hit our stride, we functioned effectively. One of my proudest moments was organizing the VIVA-VVIT fest. We had only 10 days to plan instead of the usual 60 due to COVID-19. It was hectic, but everyone stepped up, and it was a success. Holding the presidencies of both IUCEE and EWB, I had to establish a solid foundation for the newly formed chapters - this was essential to ensure their enduring success and to create a lasting legacy for future students, which would not have been possible without the incredible support of my team. My experience co-founding a startup during the lockdown taught me the importance of documentation, networking, and recruitment. Notably, through EWB, we launched campaigns and re-engaged schools, resulting in nearly 250 applicants that year. The journey has been fulfilling, and the smiling faces of the kids are a wonderful reminder of the meaningful impact one can have.

Being one of 120 mentees in the Women@Dior program is a significant achievement. Can you share some insights from this experience?

I've just started my one-year program. Surprisingly, instead of focusing solely on project management for NGOs, the modules emphasize self-awareness, introspection, yoga, and breathing. It is essential to nurture your relationship with yourself before helping others. This program isn't just about women empowering women; it's about finding inner peace

and purpose. Given that yoga and meditation originated in India, it's surprising to see fewer Indians discussing these practices compared to others abroad.

I had a memorable experience during the program's launch in March at the UN headquarters in Paris, where we met people we had previously connected with virtually, listened to presentations from top teams, and were privileged to hear speeches by wonderful women across various fields, including a moving account by Leymah Gbowee, Nobel Peace Prize Laureate of 2011! The connections made are invaluable, inspiring personal growth. Conversations with accomplished women broaden your perspective and can change who you are. I'm excited to learn from diverse cultures and improve myself over the next year.

What are your goals and vision for the ESSEC Grande Ecole-LVMH Chair under your leadership?

My goal was to go big or go home - Among the prestigious business schools I applied to in Europe, ESSEC was the perfect fit for what I was seeking at that moment. I value flexible course selection and access to esteemed professors, which will prepare me for strategic decision-making in business. My passion for luxury, rooted in my Asian background, drives me to consider a dual specialization in luxury and strategy, particularly consulting. I have worked on live business cases, including a trip to Champagne and luxury brand consulting. Having started a company that grew quickly but lacked a strong foundation, I see business school as essential for my entrepreneurial vision. I aim to reflect daily to ensure I seize opportunities and live a fulfilling life while leaving a meaningful legacy.



TEDx VVIT

Redefining the Horizons – Inspiring Change, One Idea at a Time

By Yuktha Sri Mayuka Kukunuri



TEDx VVIT has returned this year with the theme "Redefining the Horizons," a platform designed to spark innovation and ignite passion among attendees. The event showcased an extraordinary array of speakers from diverse fields, offering insights that ranged from technological innovation to the beauty of human resilience. Held amidst an electrifying atmosphere at VVIT, this edition of TEDx left the audience inspired and revitalized to explore unmapped areas in their personal and professional lives.

Setting the Stage for Exploration

The day began with an air of anticipation as students, faculty, and guests gathered to experience the line up of exceptional speakers. The opening remarks set the tone for the event, highlighting the importance of pushing boundaries and embracing new perspectives in an ever-changing world. As one of the anchors for the event and later delivering the vote of thanks, I witnessed direct the energy and enthusiasm that TEDx VVIT brought to our campus

A Glimpse into the Sessions

Trishitha Chatarjee commenced the series with an enlightening talk on her journey as an eDiscovery and forensic professional. Her experiences navigating complex investigations underscored the importance of resilience and adaptability in a high-stakes field. Her words resonated with those keen on pursuing challenging careers that demand intellectual precision and a moral compass.



Next, **Prof. Ajay Katragada**, a physiologist and passionate nature conservationist, mesmerized the audience with his insights into the interconnectedness of human health and environmental well-being. His talk served as a gentle yet urgent reminder of our role as stewards of the Earth.

Suvidha Pilla, a student from VVIT, who shared her inspiring journey of self-discovery and affirmations. Her story underscored the power of perseverance and self-belief, leaving the audience with the message that every individual can achieve greatness when they embrace their authentic selves.



Sougata Bhattacharjee, a Senior Staff Engineer at Samsung Semiconductor, brought a tech-savvy angle to the stage, exploring the potential of emerging technologies. His talk shed light on how innovation in semiconductors is reshaping industries and enhancing human life, prompting aspiring engineers to dream big.



Dr. Shivanand Reddy, a Senior Consultant Neurosurgeon at Continental Hospital, offered a profound exploration of the human brain's resilience and vulnerabilities. His talk bridged the gap between cutting-edge science and everyday health, inspiring many to delve into the mysteries of neuroscience.





Adding a touch of wanderlust, **Ojasvi Varma**, Manager at Air India, regaled the audience with stories from the aviation industry. Her insights into managing a global airline amidst challenges painted a picture of perseverance, adaptability, and the joy of reaching for the skies literally.

Bharath, another student speaker from VVIT, used his platform to discuss the power of youthful energy and fresh perspectives in driving social change. His speech emphasized that age is no barrier to effecting meaningful transformation.



Filmmaker **Vidhyadhar** captivated the audience with his creative journey in the film industry. His anecdotes highlighted the art of storytelling and the importance

of authenticity in creative expression, resonating deeply with aspiring artists and filmmakers.

Closing the event on a high note, **Vikas Madhok**, Chief Information Security Officer at Lentra, addressed the critical issue of cybersecurity in today's digital world. His talk was both an eye-opener and a call to action, emphasizing the need for robust security measures in an increasingly interconnected era.



Redefining Horizons, One Idea at a Time



TEDx VVIT was more than just a series of talks it was a celebration of ideas that have the potential to transform lives. Each speaker brought a unique perspective, challenging the audience to think beyond conventional boundaries. From addressing global challenges like environmental conservation and cybersecurity to personal growth stories of resilience and creativity, the event truly embodied the spirit of "Redefining the Horizons."

Behind the Scenes

Organizing such an event required meticulous planning and teamwork. The TEDx VVIT team worked tirelessly to ensure every detail was perfect, from curating an exceptional line-up of speakers to creating an immersive experience for the audience. As an anchor, it was an honour to contribute to this remarkable journey and witness the event unfold seamlessly.

Leaving a Lasting Impact

As the day drew to a close, the atmosphere was one of inspiration and hope. The diverse array of ideas presented encouraged attendees to embrace challenges and explore the uncharted. Many left the event with renewed vigour to contribute to their fields, equipped with fresh insights and a broader perspective on what is possible.



TEDx VVIT 2024 was not just an event—it was a movement, a catalyst for change that will echo in the hearts of its attendees for years to come. Through thought-provoking talks and a shared spirit of curiosity, it reminded everyone that the horizons are not limits but opportunities waiting to be redefined.

For those who missed the event, the sessions are available online, offering a chance to experience the magic of TEDx VVIT and the incredible stories that unfolded on its stage.

Shifting Seasons

The Realities of Climate Change and Our Role in It

By D.Bala Srinivas

We all know that climate is the average weather conditions for a specific area over a long period of time, such as months, years, or even millions of years. But around the world, for the past few years, we had started to talk and listen more on climate change, and what it refers to is simply stated as the disturbance of climate patterns that have happened due to human influence.

Now we got the idea of what climate change actually is; we are directly or indirectly experiencing it. The climate extremes once in a while are natural phenomena. The trend had changed from the past few years as we are experiencing intense heat waves, cloudbursts, and extreme winters, which are unlike the trend. The changes in nature are visible as we are part of it.

Globally and nationally, the impacts of climate change are not confined to statistics; they are visible and often devastating. From melting glaciers to erratic monsoons, these changes paint a vivid picture of the planet in distress.

Global Evidence of Climate Change

Around the world, the signs of climate change are undeniable. According to the World Meteorological Organization (WMO), 2023 was the hottest year on record globally, with the average temperature rising by 1.2°C above pre-industrial levels. This brings humanity dangerously close to the

1.5°C threshold of the Paris Agreement, a critical point where the impacts of climate change could become irreversible.

The Arctic is warming four times faster than the rest of the world, leading to melting ice caps and rising sea levels. Countries like Bangladesh and Pacific Island nations are already facing displacement.

Elsewhere, extreme heatwaves have devastated parts of Europe, North America, and Asia. In Canada, wildfires have destroyed vast stretches of forest, sending plumes of smoke across continents. Dr. Gavin Schmidt, NASA's climate director, stated [below quote].

India, too, has felt the brunt of these changes. This year, the Indian Meteorological Department (IMD) reported 536 heatwave days, marking one of the hottest summers in history.

Temperatures in Andhra Pradesh and other states crossed 45°C, stressing public health and agriculture. Unseasonal rainfall and cyclones have also disrupted livelihoods. A famous observation by Sir David Attenborough, British broadcaster and biologist highlights the gravity of the issue [quote on top of following page] This resonates deeply in India, where extreme weather events are no longer anomalies but regular occurrences.

“These fires are not isolated; events they’re fueled by the broader destabilization of ecosystems due to global warming.”

Dr. Gavin Schmidt, NASA's climate director

The Shapes of Economic Recovery

How Nations Rise from Recession

By V. Chandrahas

What does recovery look like after a crisis? Let's think of one of the biggest economic crises i.e. the pandemic of an extremely harmful virus which is named SARS-CoV-2 shortly referred to as COVID-19. The COVID-19 pandemic plunged the global economy into a deep recession, wiping out trillions of dollars an amount comparable to the combined GDP of the world's largest nations. While recessions are universally disruptive, history shows that recovery is not only possible but inevitable, though it often manifests in different ways. Some economies rebound quickly, others take years to recover, and some experience uneven growth. The "shapes" of recovery V, U, W, L, K, and Swoosh offer valuable insights into how nations, industries, and societies respond to crises. But what do these recovery shapes tell us about the future?

What Triggers Economic Decline?

A global recession occurs when economies around the world experience simultaneous declines in output, employment, and trade. Unlike localized recessions, which affect specific regions, global recessions have far-reaching consequences, often pulling interconnected markets into prolonged downturns.

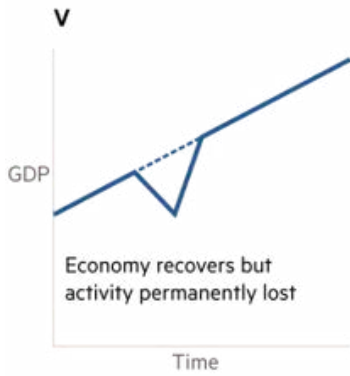
The 2008 Financial Crisis, driven by risky lending and a housing market collapse, exposed severe vulnerabilities in the global financial system. Similarly, the 2020 Pandemic Recession was triggered by a global health crisis that led to widespread business closures, disrupted supply chains, and halted international trade. These crises leave economies struggling, but the path to recovery is shaped by the extent of the damage, government responses, and societal adaptability.

Recovery Shapes: The Narratives they Unveil

The "shapes" of economic recovery provide a framework for understanding how economies bounce back after a crisis. Each shape reflects distinct challenges, opportunities, and long-term

implications for growth and stability.

1. V-Shaped Recovery: A Rapid Rebound



What if recovery could be quick and sharp? A V-shaped recovery represents the ideal scenario, where a steep economic decline is followed by a swift and robust recovery. This type of recovery is often fueled by strong economic fundamentals, decisive government intervention, and businesses quickly adapting to new circumstances.

Example: Many countries experienced a V-shaped recovery after the initial COVID-19 lockdowns in 2020.

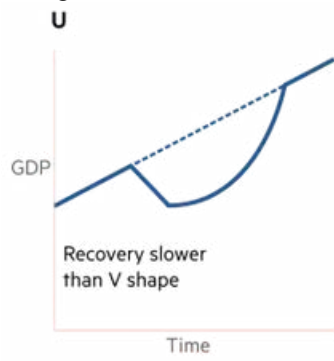
Significance: The V-shaped recovery underscores the power of resilience

and effective crisis management, demonstrating the ability to recover lost ground rapidly

2. U-Shaped Recovery: A Gradual Ascent

What if recovery takes time? A U-shaped recovery occurs when an economy remains in a prolonged recessionary phase before slowly beginning to recover. This typically happens when deep-rooted structural issues prevent a swift rebound.

Example: The recovery from the 1973 oil crisis took several years, primarily due to persistent inflation and energy shortages.



Significance: The U-shaped recovery highlights the cost of delayed action and the importance of addressing systemic issues for long-term growth.

3. W-Shaped Recovery: The Double Dip

What if the recovery is interrupted? A W-shaped recovery occurs when an economy initially rebounds, only to face another downturn, often due to secondary crises or premature optimism. This results in repeated setbacks and delays in full recovery.

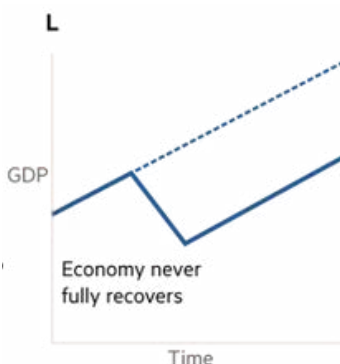


Example: The early 1980s U.S. recession saw multiple setbacks due to fluctuating policies and external shocks

Significance: The W-shaped recovery emphasizes the need for sustained vigilance, consistent policy measures, and long-term stability to avoid setbacks.

4. L-Shaped Recovery: Prolonged Stagnation

What if the recovery never fully materializes? An L-shaped recovery represents the worst-case scenario, where an economy experiences a sharp decline followed by a prolonged period of stagnation. Recovery, in this case, is either slow or non-existent.



Example: Japan's "Lost Decade" in the 1990s, marked by deflation and stagnant growth, is a prime example

Significance: The L-shaped recovery warns of the dangers of unresolved systemic issues and the need for deep, structural reforms to avoid long-term stagnation.

5. K-Shaped Recovery: Uneven Outcomes

What if some sectors recover while others struggle? A K-shaped recovery occurs when different sectors or demographics recover at different rates, leading to a polarized economy. Some industries, such as technology, may thrive, while others, such as retail or hospitality, continue to struggle.

Example: During the COVID-19 recovery, the technology sector boomed, while industries like retail and hospitality lagged.

Significance: The K-shaped recovery underscores the need for inclusive policies that ensure the benefits of recovery are shared across all segments of society

6. Swoosh-Shaped Recovery: Steady Progress



What if the recovery is gradual and consistent? A swoosh-shaped recovery is characterized by a sharp initial decline followed by a steady, consistent recovery. This recovery type suggests that recovery will take time and involve long-term adjustments rather than quick fixes.

Example: The global tourism industry's slow rebound after the pandemic is a prime example of this type of recovery.

Significance: The swoosh-shaped recovery highlights the importance of resilience and adaptability in navigating long-term recovery challenges

Beyond the Numbers: The Human Impact

Economic recovery is not just about GDP growth; it's about restoring livelihoods, reducing inequality, and

rebuilding trust in institutions. For example, while a V-shaped recovery might restore stock market performance, it doesn't necessarily address issues like high unemployment or income inequality. The K-shaped recovery during COVID-19 revealed deep disparities, where wealthier individuals and tech companies thrived, while small businesses and low-income workers continued to face hardships. True recovery must address these disparities to ensure that all segments of society benefit from growth.

The Future of Economic Recovery

As the world faces emerging challenges like climate change, geopolitical tensions, and rapid technological advancements, future recoveries will likely take new forms. Policymakers will need to innovate, businesses must adapt, and individuals must prepare for a rapidly changing world. Future recoveries will likely focus on three key areas:

1. **Sustainability:** Transitioning to green economies to address climate change.
2. **Equity:** Ensuring that recovery benefits all segments of society.
3. **Resilience:** Building systems capable of withstanding future crises.

Conclusion: Rethinking Recovery

Economic recovery is not simply about bouncing back; it's about building a stronger, more resilient future. The shapes of recovery reveal not just how economies respond to crises, but also how they adapt and prepare for future challenges. Will we settle for short-term fixes, or will we pursue sustainable, inclusive growth? The choice is ours to make. Let's aim for a recovery that not only rebuilds what was lost but also creates a fairer, and more resilient world.



CANVAS OF IMAGINATION



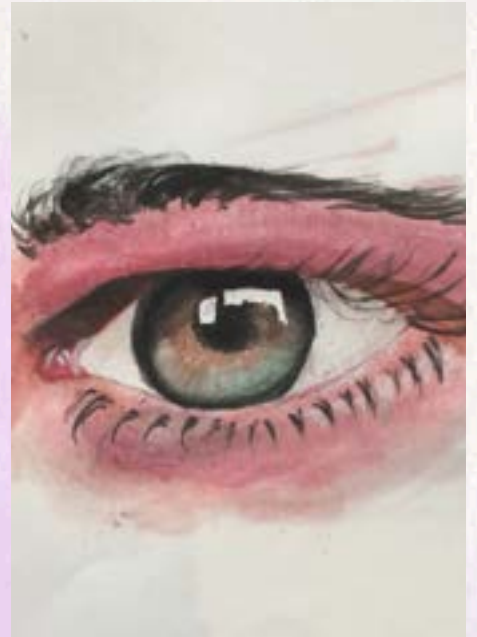
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M.Bala Raghava



23BQ1A0465

Karampudi Geetha



23BQ1A0509

Yeswin Dasyam



21BQ1A42F1

Pavan Kumar



CREATIVE
CANVAS



24BQ1A0503

Addala Geyaka



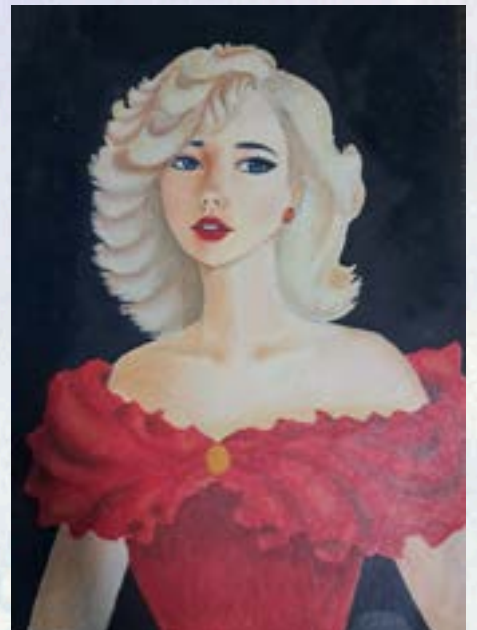
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Rayan Khan



21BQ1A05H2

Sreeja Pandraju



22BQ1A6107

B.Ratna hema



23BQ1A0461

Tejesh



22BQ1A1291

M.S.L.Sri Nithya



23BQ1A4215

Seshanjali Bandikatla



23BQ5A0317

Dodda sumanth



21BQ1A42H2

Charan Sai



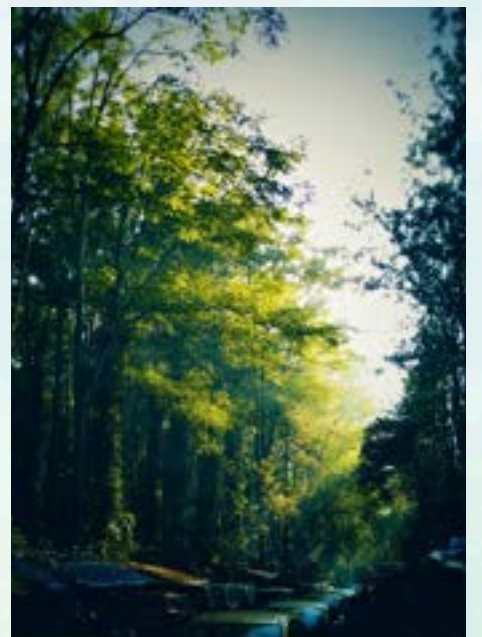
23BQ1A42D7

Peddu Tanishkha



Yeswin

Yeswin



23BQ5A0354

Panchakarla. Karthikeya

Sankranthiki Vasthunnam

A Festive Treat Full of Fun and Family

REVIEW BY Chakradhar

Sankranthiki Vasthunnam, starring the beloved Venkatesh and directed by Anil RaviPudi, is a delightful mix of humor, family emotions, and festive charm. With its entertaining storyline and engaging characters, this movie is a perfect watch for Sankranti celebrations.

The Story in a Nutshell

The story revolves around Y.D. Raju (Venkatesh), a retired encounter specialist who is enjoying a peaceful life in a picturesque village. His calm routine takes a fun twist when his ex-girlfriend Meenakshi.

Meenakshi (Meenakshi Chaudhary), now a determined police officer, shows up at his doorstep. She seeks his help to solve a kidnapping case, which plunges Raju into a whirlwind of hilarious and heartwarming situations. Adding to the chaos is his loving yet slightly possessive.

Bhagyalakshmi,

(Aishwarya Rajesh), Wife who keeps Raju on his toes.

Performances

Venkatesh is at his best, effortlessly portraying the humorous and emotional sides of Raju. His charismatic performance keeps the audience entertained throughout. Aishwarya Rajesh excels as Bhagyalakshmi, bringing warmth and humor to her role. Her natural chemistry with Venkatesh adds depth to their on-screen relationship.

Meenakshi Chaudhary, as the confident and focused police officer, brings a refreshing energy to the film. Revanth as Bulli Raju steals the show with his unique comic timing and lively antics, adding a layer of fun to the story.

Direction and Writing

Director Anil RaviPudi sticks to his signature style, blending comedy with heartwarming family moments. The first half of the film is filled with witty dialogues and lighthearted scenes that keep the audience hooked. The transition into the investigation plot is handled well, maintaining the overall lighthearted tone while adding some intrigue. Although some parts in the second half could have been shorter, the film's humor and emotional core keep the narrative engaging.

Technical Excellence

Sameer Reddy's cinematography beautifully captures the scenic charm of the village near Rajahmundry, enhancing the film's visual appeal and immersing the audience in its rural setting.

Complementing this, Bheem's Ceciroleo's festive tracks, particularly the catchy "Godari Gattu," elevate the celebratory mood, making the music an integral part of the film's festive essence. A.S.

Prakash's authentic production design further adds to the movie's appeal by perfectly reflecting the rural charm and vibrant spirit of the festival. While the editing could have been sharper in a few places to improve the pacing, the overall flow of the film remains smooth and enjoyable.

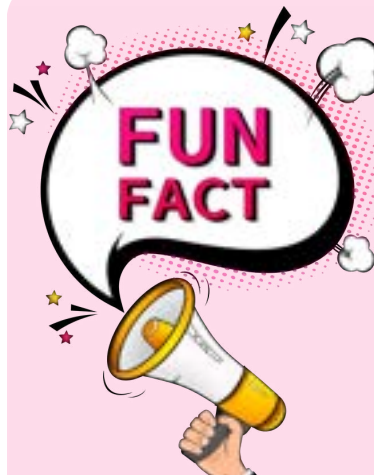
Finally in my opinion "Sankranthiki Vasthunnam" is a wholesome entertainer filled with laughter, emotions, and festive cheer. The movie is a celebration of family, love, and the joy of togetherness, making it an ideal pick for the Sankranti season. While it does not aim to be groundbreaking, it succeeds in delivering a light-hearted and enjoyable cinematic experience.

FUN ZONE



Bananas are berries, but strawberries aren't! Botanically speaking, bananas meet the criteria of a berry, while strawberries do not. Mind-blowing, right?

Octopuses have three hearts! Two pumps blood to the gills, and one pumps it to the rest of the body. Interestingly, the heart that pumps to the body stops beating when they swim.



Archaeologists have found pots of honey in ancient tombs that are over 3,000 years old and still perfectly edible

A day on Venus is longer than a year on Venus! It takes Venus 243 Earth days to complete one rotation, but only 225 Earth days to orbit the Sun.

SPOT THE DIFFERENCE

FIND AS MANY DIFFERENCES AS YOU CAN

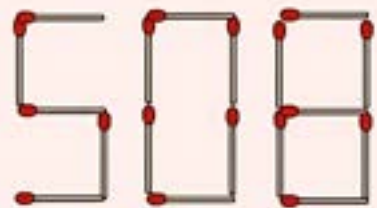


RIDDLES

I have no voice, yet I speak volumes.
I have no life, yet I can bring things to life.
I have no feelings, yet I can evoke emotions.
What am I?

MAKE A VIDEO ON THIS AND TAG @voice_of_vvit

What is the biggest number you can make by moving exactly 2 matches?



TONGUE TWISTER

Red lorry, yellow lorry.
Six sticky skeletons.
Freshly fried flying fish.

PALINDROME

"A man, a plan, a canal, Panama!"

"Madam, in Eden, I'm Adam."

MATH RIDDLE

I am thinking of a number.
When I multiply it by 5 and
subtract 4, the result is 26.
Then, if I divide that result by 2, I
get 11.
What is the number I started
with?

HARD WORDS

1. Destitute: Without the basic necessities of life.
2. Eloquence: fluid and persuasive speech or writing.
3. Supine: lying face upward or in a position of helplessness
4. Sesquipedalian: characterized by long words; long-winded or overly complex in speech or writing.

EMOJI QUIZ

Guess the movie?



**ANSWERS FOR THE ABOVE
FUNZONE WILL BE UPDATED
IN @voice_of_vvit. Stay tuned!**

SHORT STORY

The Key

Maya found an old, rusted key while cleaning her grandmother's attic. It was heavy, with strange symbols etched into its surface. When she asked her grandmother about it, the old woman simply smiled and said, "It's for the door that only opens once. You'll know when."

Weeks passed, and Maya couldn't stop thinking about the key. One evening, during a walk in the woods, she stumbled upon an ancient stone door hidden beneath vines. Heart pounding, she slid the key into the lock. The door creaked open to reveal a garden glowing with golden light, filled with flowers that hummed softly, as though alive.

Maya stepped inside, and the door closed behind her. A voice whispered, "Welcome to the place where dreams grow." She knew then she could only take one flower. Carefully, she chose the brightest bloom. When she returned home, her world began to change in ways she'd never imagined.

FEEDBACK



I attended the TEDx VVIT event as a speaker and came across an article in the college's first magazine a review of my film, Gaami. Out of curiosity, I started reading it, and as I went through each line, I was deeply moved. The review was genuine, thoughtful, and beautifully written. It showed how much effort the students had put into understanding the story and its essence.



Their words captured the heart of the film in a way that truly resonated with me. I felt an overwhelming sense of gratitude for their sincerity and support. I expressed my appreciation to them for such a heartfelt review. It was a moment that left a lasting impression on me and made my visit to the event even more special.



DIA RY

OF
2024

1. Ouster Syrian president
2. 2 years of conflict: Russia's war with Ukraine reaches a stalemate.
3. Bangladesh and 2024 unrest transition.
4. Iran President Raisi killed in air crash.
5. Julian Assange walks free: a landmark victory for free speech.
6. US elections: A year of unpredicted twist.
7. First woman President of Mexico Claudia Sheinbaum.
8. Labour returns to power in the United Kingdom
9. Putin retains Russia amid doubts of foul play.
10. South Korea in air crash.
11. Baltimore bridge collapse.
12. Azerbaijan air crash.
13. PM Modi wins historic 3rd term.
14. Ram temple inaugurated in Ayodhya .
15. Rg kar horror.
16. Wayanad landslides kill over 400 in Kerala .
17. TN illegal alcohol tragedy.
18. Neet controversy.
19. India-China border agreement
20. Strained relations with Canada .
21. Diplomatic row with Maldives.
22. Remission granted to bilkis Bano convicts with drawn.
23. Electoral Bonds scheme ruled as invalid.
24. One Nation One Election.
25. Changes to banking law.
26. Bhartiya Nyaya Sanhita comes into effect.
27. Astronauts choose in for Gaganya mission.
28. Aditya L1 reaches halo orbit .
29. Chandrayan 3 provides clues to the moons past
30. Hab 1 tested in the mountains of Ladakh.
31. ISRO launches INSAT 3D metrological satellite .
32. The growing concern of space junk.
33. Sunita Williams and Barry Wilmore stuck in space.
34. NASA announces further delays in Artemis moon mission.
35. Polaris Dawn mission complete 9. Bopanna becomes oldest world No.1 nadal bids adieu.
36. Voyager 1 spacecraft has once again established communication with earth.
37. NASA lodges Europa clipper to Jupiter's moon.
38. China's change 6 bring back samples from moon.
39. Construction of Guowang mega constellation begins.
40. China geospace launches 10 low orbit satellites.
41. China space station crew returns to earth after 6 months in space.
42. sycamore gap tree: New life springs from rescued tree.
43. 2024 prices in both physics and chemistry goes to ai related discoveries.
44. Scientist map fruit fly brain.
45. Salmon returns to Oregons K lamath basin.
46. Humans and Neanderthals lived side by side in Northern Europe 45000 years ago.
47. A blood test could accurately diagnose Alzheimer's.
48. Ai in gene editing.
49. Cop 29 at Baku yields a mixed bag.
50. floods in Tripura killed 31 people injure to destroyed or severely damaged 3243 houses and partially dammit 17046 others.
51. In Himachal Pradesh flooding and landslide kill. 31 people and left 33 people missing from June 27th August 26.
52. About 46 people drawn in rivers and water bodies during the Jivitputrika festivals in Bihar in September hundreds of thousands of civilians were displaced by flooding and hundreds more were killed as a result of flooding.
53. Hottest year on the record.

54. Vijayawada experience severe flooding triggered by exceptionally heavy rainfall that begin on August 30 the floods result in at least 35 days in NTR district No.1 Nadal bids adieu.

55. Sprain floods.

56. Hurricane beryl.

57. Hurricane helen.

58. The elusive plastics treaty.

59. New Zealand MP honours haka tradition.

60. Notre-dame reborn after a devastating blaze 5 years ago.

61. A yodhya sets to Guinness World records on the Deepotsav.

62. Moo deng: the baby hippo who went viral.

63. Icons we lost in 2024: Dr Manmohan Singh, Sitaram Yechury, S.M. Krishna, Jimmy Carter Shyam benegal, M.T. Vasudevan Nair, Zakir Hussain, Liam Payne, Maggie Smith, Ratan Tata, Peter higgs, bibek Debroy, osamu Suzuki .

64. "All the imagine as light" to Cannes.

65. The rise of Tollywood with Pushpa 2.

66. Taylor Swift eras tour.

67. Coldplay concert.

68. Anant Ambani wedding.

69. Laapataa ladies to Oscar.

70. Movies of 2024: Kung Fu Panda 4, inside out 2, the wild robot, Mona 2, Mufasa.

71. 70th film awards: A attam (best feature film), Rishab Shetty, Kantara (best actor) Nithya Menon, Thiruchitrambalam (best actress), Manasi Parekh, Kutch express (best actress), Arijit Singh, Kesariya (best male playback singer), Bombay Jayashree, Chaayum Veyil (best female playback singer).

72. Best novels of the year: Diary of a Wimpy kid- Hot mess, by Jeffrey Kinney, Percy Jackson and the Olympians: wrath of the triple goddess, by rick Riordan, My friends, by hisham matar, James, by percival everett, Kiran Desais's return.

73. Mickey mouse enters the public domain.

74. Nobel and booker prize winners: Korean author Han Kang, Samantha Harvey and her novel orbital.

75. EU ushers in the worlds first AI law.

76. Dutch literature prize won by Belgian author Tom Lanoye .

77. AI whistleblower dies after exposing tech risk.

78. The India Ai mission 2024.

79. Open ai launched search engine for all.

80. Will Google sell Chrome the decision is not yet made.

81. Willow chip the new solution for error correction.

82. 2024: a year of scams powered by AI in India.

83. Chipleets: A modern extension of Moores law.

84. Indian crickets crazy ride.

85. Golden run for Indian chess.

86. A new teenaged king.

87. Manu Bhaker, Indias new shooting star.

88. Indias best ever showing at Paralympics.

89. Djokovic finally completes golden slam.

90. Duplantis soars to great heights; Ledecy becomes most decorated female Olympics swimmer.

91. Rise of sinner Alcazar.

92. World records go tumbling in athletics.

93. Bostons Celtics record 18th NBA title.

94. Verstappen makes it four in a row.

95. Martin triumphs in closely fought MotoGP season.

96. Pogacar achieves triple crown of cycling.

97. Real madrid win the champions league, again.

98. Argentina complete hatrick of major titles Chhetri retires.

99. Bopanna becomes oldest world.



Eitkoppaka Bommalu, traditional wooden toys from Andhra Pradesh, were recently showcased at India's 76th Republic Day parade. These toys, crafted for over 400 years, depict mythological figures, animals, and household items. Artisans use local materials and traditional methods, preserving a craft possibly dating back to the Indus Valley Civilization. The toys represent a blend of cultural heritage and sustainable artistry.