

## **ATHARVA ROBOTICS CENTER**

### **Daily News on Innovation & Technology**

28<sup>th</sup> July, 2025

#### **Space Log: Shenzhou-20 crew completes various tasks over past week**

By CGTN, July 27, 2025

The Shenzhou-20 crew aboard China's space station conducted various scientific experiments and tests last week, according to the China Manned Space Agency.



#### **India Must Fast-Track Its Space Surveillance — Or Risk Being Blindsided**

By Karan Kamble, July 28, 2025

While rivals build vast, real-time satellite networks, India's space-based surveillance has not evolved fast enough, leaving dangerous blind spots. But behind the scenes, the third version of a three-decade-old spy satellite programme is trying to give India the intelligence edge it currently lacks in orbit.



#### **Rivalling Musk's Optimus Robot, China Unveils Rs 5 Lakh Bot That Can Fist-Fight**

By Abhinav Singh, July 27, 2025

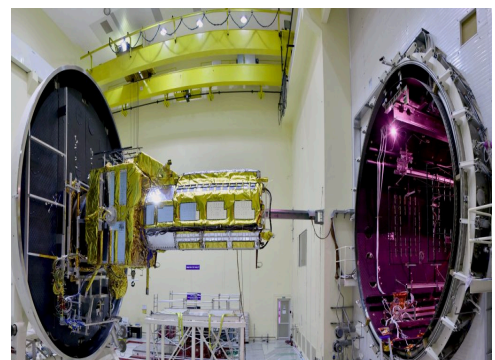
A humanoid robot that can fist-fight and even do cartwheels has been unveiled by a Chinese company that costs a little over Rs 5 lakh (\$6,000), rivalling other companies producing similar bots.



#### **NISAR satellite launch on July 30 to mark major leap in global space collaboration: Jitendra Singh**

By News, July 27, 2025

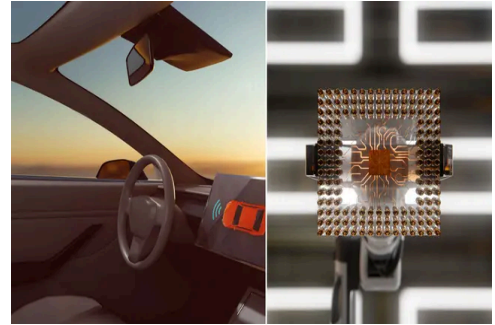
Union Minister of State for Science and Technology Dr. Jitendra Singh on Sunday said that the launch of NASA-ISRO Synthetic Aperture Radar (NISAR) satellite on July 30 at 17:40 hrs from the Satish Dhawan Space Centre in Sriharikota.



## [Semiconductor, EV autonomy testing becomes more efficient, faster with US firm's Nigel AI](#)

By Prabhat Ranjan Mishra, July 26, 2025

A new type of tool is set to make engineering innovations more efficient. Developed by an Austin-based engineering company, Nigel AI Advisor can help boost automation and the efficiency of latest innovations.



## [In a first, quantum entanglement is made reversible with the help of unique battery](#)

By Rupendra Brahmabhatt, July 27, 2025

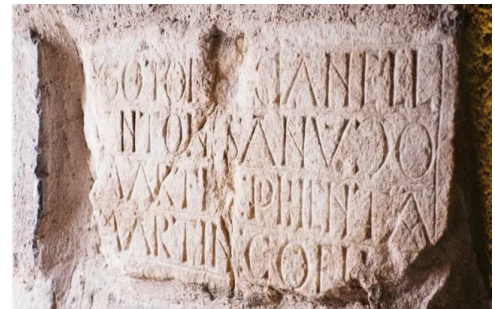
For more than a century, the laws of thermodynamics have helped us understand how energy moves, how engines work, and why time seems to flow in one direction.



## [Google AI makes breakthrough to crack Roman texts to unearth secrets of the past](#)

By Bojan Stojkovski, July 27, 2025

Each year, archaeologists uncover approximately 1,500 Latin inscriptions—etched into stone, metal, or pottery—that provide rare insights into the everyday lives, beliefs, and customs of ancient Romans. Yet interpreting these texts is no easy task.



## News Articles

# How AI integration is reshaping placements in management schools

Changing recruiter expectations, curriculum overhauls, and software-driven preparation have dramatically changed the demands of a tech-first job market

Debasmita.Dasgupta@timesofindia.com

Across campuses, AI proficiency is fast becoming a baseline requirement. At IIM Nagpur, AI's impact goes beyond roles to placement operations. Speaking to *Education Times*, Bhimaraya Metri, director, IIM Nagpur, says, "We use AI tools to classify our placement database by sectors, including FMCG, finance, and auto, and identify patterns in recruiter engagement. It helps us make faster, data-driven decisions to track the market trends, recruiter preferences and offer letters given to students."

IIM students continue to be in demand for AI-related roles across diverse sectors, reflecting the deepening integration of AI into business strategy and operations. Top global tech firms, including Microsoft, Google, Amazon, and IBM, hire

The growing impact of AI is prompting B-schools to update their curricula, especially in Decision Sciences and Information Systems. "We emphasise data and tech fluency," says Himadri Das, director general, IIM New Delhi. IIM Nagpur meanwhile has launched a Rs 4 crore Smart Campus with real-time AI features like parking updates.

graduates for roles such as AI product managers, ML engineers, and data scientists.

At TA Pai Management Institute (TAPMI), Manipal, AI-centric roles are on the rise. Between 2019 and 2024, roles requiring AI/analytics skills rose from 15% to over 35%. "FMCG, logistics, and real estate sectors are hiring managers for data-driven positions, while FinTech and SaaS firms are aggressively recruiting MBAs with AI expertise," says Gaurav Sarin, chairperson, MBA (AI & DS). At TAPMI, the key recruiters include Capgemini, Cognizant, Wells Fargo, Accenture, and Deloitte.

Echoing this trend, Phani Kumar Pullela, dean, Student Affairs, RV University, Bengaluru, adds, "Premium roles offering annual salary packages of Rs 10 lakh and above demand AI knowledge, coding, and analytical capabilities this year. Even standard roles now expect application of AI in market research and opportunity analysis."



### Interview Prep

Revolutionising not just learning: AI is reshaping how students prepare for placements.

"As AI transforms job roles without replacing the need for human managers, future leaders must learn to manage both people and AI systems. This calls for integrating AI tools like VMock, StandOut, and Google Interview Warmup into student training modules. Leading institutions now blend digital resources and MOOCs with AI-powered career tools, guiding students to use AI ethically – as a support tool, not a substitute. Universities are responding with varied AI usage policies, ranging from restrictions to structured integration. AIMA supports this transition through workshops and curated training programmes, aligning with industry needs and best practices," says Rohit Singh, director, Centre for Management Education, AIMA, adding, "Most students are way too tech-savvy. In our campus, we do not mandate AI tools for interview preparation, but students are using them organically."



### The Future of Hiring

From curriculum design to placement preparation, AI is redefining management education in real time.

"It is already being used to standardise assessments and streamline initial screening. But human-centered mentoring remains at the heart of our placement strategy," says Das. Pullela predicts that "group discussions, aptitude tests, and verbal assessments will soon be personalised and automated." TAPMI envisions adaptive scenario-based interviews, role-play assessments, and skill-based hiring that values real-world projects over CGPA, says Sarin. IIM Nagpur expects AI to become a teaching assistant and placement guide in the near future. "AI will help students and faculty focus more on innovation and critical thinking, rather than rote preparation," says Metri. "The future belongs to those who are digitally fluent and human centered. Our role is not just to prepare students for their first job—but for a lifetime of leadership in a tech-led world," Himadri Das concludes.

Image generated by AI

Source: The Times of India Newspaper, 28-07-2025  
Education Times Page

Link: <https://drive.google.com/file/d/1d66HixD9dCCa6wcoYNtGNqwKR5FQaNEf/view>

Built By Isro & Nasa, This Satellite Could Become Our Planet's Early Warning System For Floods, Crop Loss, Coastal Erosion

MONDAY, JULY 28, 2025

Chethan.Kumar@timesofindia.com

Our planet is constantly changing. The ground shifts, often unnoticed. Glaciers inch forward, coastlines retreat and forests thin or thicken with the seasons. Some of these changes unfold slowly; others strike without warning.

On Wednesday, July 30, a satellite called Nisar (Nasa-Isro Synthetic Aperture Radar), the first joint satellite mission for the two space agencies, will lift off to track these movements. It will scan the Earth's surface every 12 days, capturing changes as small as a few centimetres. Each pixel will represent an area roughly half the size of a tennis court.

The data Nisar will gather will serve a variety of purposes — it will warn of flooding, coastline erosion, guide real-time disaster response, improve food security and even track ships. It will be one of the most advanced Earth-observation satellites ever to go up.

**BEAMING TO VILLAGES**

Nisar's launch also comes 50 years after India and US collaborated on a very different kind of project: the Satellite Instructional Television Experiment, or SITE.

Launched a month after then PM Indira Gandhi declared the Emergency, SITE began broadcasting on Aug 1, 1975 to community TV sets in 2,400 villages across Karnataka, Rajasthan, Odisha, Bihar, Madhya Pradesh and Andhra Pradesh. It was seen as a mutually beneficial deal for Nasa and Isro.

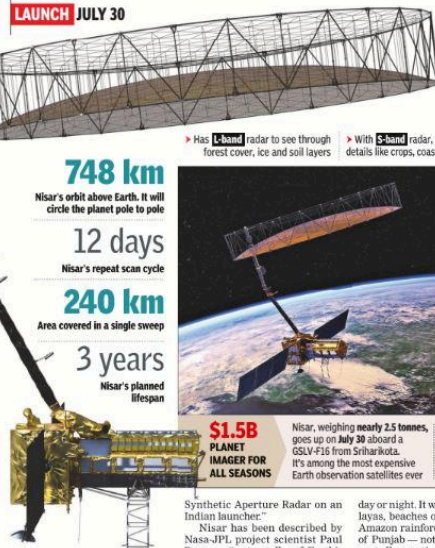
At the time, 40% of India's population was in hamlets with fewer than 3,000 people, and a quarter were in hamlets with fewer than 200. Traditional infrastructure alone couldn't reach them, but space tech could. So, an agreement was made: The US would supply its ATS-6 telecommunications satellite for a test run; India would build the ground infrastructure.

The experiment was a success. SITE reached around 2 lakh people, helped train 50,000 science teachers in primary schools and beamed advice to thousands of farmers, becoming "the largest sociological experiment in the world".

Before SITE, India and US had worked together in space for close to a decade, but this was the first time their efforts touched lives.

# Unique Space Radar Will Track Earth's Every Shake & Shift

**LAUNCH JULY 30**



**748 km**  
Nisar's orbit above Earth. It will circle the planet pole to pole

**12 days**  
Nisar's repeat scan cycle

**240 km**  
Area covered in a single sweep

**3 years**  
Nisar's planned lifespan

- ▶ Has **L-band** radar to see through forest cover, ice and soil layers
- ▶ With **S-band** radar, Nisar can detect details like crops, coasts, urban zones



**\$1.5B**  
**PLANET IMAGER FOR ALL SEASONS**  
Nisar, weighing nearly 2.5 tonnes, goes up on July 30 aboard a GSLV-F15 from Sriharikota. It's among the most expensive Earth observation satellites ever

Synthetic Aperture Radar on an Indian launcher.

Nisar has been described by Nasa-JPL project scientist Paul Rosen as "a storyteller of Earth's changing surface". The satellite will capture motion of land, ice, water and vegetation across seasons, which means data for seismologists, climatologists, agriculturalists, conservationists and many others. And the information will be freely available to them.

**A DUAL-BAND INSTRUMENT**

Equipped with dual radar systems — the L-band by Nasa and S-band by Isro — Nisar can see through clouds and observe Earth

day or night. It will scan the Himalayas, beaches of California, the Amazon rainforest and the farms of Punjab — not just once, but repeatedly, creating a time series of surface changes that show what has shifted, where and how fast. "It lets us read Earth's surface like a series of moving frames," Rosen said. "Using SAR, we can measure ground displacement down to even millimetre precision."

The longer-wavelength L-band penetrates vegetation and interacts with features such as rocks and tree trunks. Shorter S-band captures surface details like leaves and topsoil. Combined, they allow scientists to view the same landscape

**80TB** OF DATA EVERY DAY

... over the course of Nisar's prime mission. That's roughly enough data to fill about 150 hard drives of 512 GB every day

▶ Since radar signals pass through most cloud and smoke, Nisar could help guide response during large fires or volcanic eruptions

▶ **Flood Forecasting:** Nisar can warn communities if a flood is headed their way. It can even forecast how much flooding can be expected

▶ **Land Loss:** Nisar can warn cities about retreating wetlands or alert coastal areas of erosion

▶ **Forests:** L-band radar can penetrate canopies, bouncing off tree trunks and ground below. The signal that reflects can help estimate forest density in an area as small as a football field

We've also never had such a tool for studying Himalayan snow, glaciers and lake systems. Nisar will let us observe how glacial lakes evolve — critical for understanding GLOF (glacial lake outburst flood) risk

— **PG Diwakar** | PROFESSOR, NATIONAL INSTITUTE OF ADVANCED STUDIES

Nisar's Synthetic Aperture Radar (SAR) goes around the problem by beaming a radar signal to the surface and relying on the reflected signal for imaging

through two different lenses, revealing structure and change. "A dual-band SAR like this has never flown before. L-band opens up deeper imaging and new interferometric applications. You can track deformation, subsidence, and seismic shifts in much finer detail," said professor PG Diwakar of the National Institute of Advanced Studies.

One major focus will be the Himalayas. "We've never had such a tool for studying Himalayan snow, glaciers and lake systems. Nisar will let us observe how glacial lakes evolve — critical for understanding GLOF (glacial lake outburst flood) risk," Diwakar said. L-band's abil-

**50 YEARS AGO, A BROADCASTING EXPERIMENT**



Ahmedabad Earth Station beams TV during SITE

▶ Satellite Instructional Television Experiment, or SITE, ran from August 1975 to July 1976 using Nasa's Application Technology Satellite-6 (ATS-6), making India the first country to receive direct satellite TV broadcasts for development

▶ SITE broadcast educational content on agriculture, health, family planning, in local languages. TV sets placed in 2,400 villages in six states

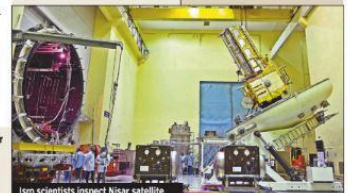
▶ It would prove to be a win-win project: Nasa got to test a powerful telecommunications satellite; India could transmit important information to remote villages

**SITE TO NISAR**

▶ SITE had a positive impact. Project evaluators of the time saw improved school attendance and discussions on nutrition and disease prevention among people. One unanticipated outcome was electrification of many villages, for television reception

▶ SITE was described by the British science writer Arthur C Clarke as the "greatest communications experiment in history"

▶ SITE is also the answer to the quiz on July 21, which asked: Name the landmark satellite-based rural communication experiment Isro launched jointly with Nasa amid the Emergency in 1975



Isro scientists inspect Nisar satellite

ity to see below the canopy also improves forest assessments. For farmers, it will help forecast yields and assess crop loss.

In disaster-prone areas, Nisar's interferometric accuracy will boost early detection, measuring ground shifts over wide regions. It will even aid during oil spills. "This will be the first mission between US and India to observe Earth in such a detailed way," said Nicola Fox, associate administrator, Nasa science mission directorate.

**ROOTS IN 1978**

Nisar's roots go back to a breakthrough launch in 1978, when Nasa put in orbit Seasat — the world's

first satellite with SAR. The mission lasted only 105 days, but the data this satellite produced reshaped Earth observation. Now, nearly 50 years after Seasat, Nisar is set to go up and stay there for at least three years, generating more data daily than any other previous remote-sensing satellite.

For India, which will handle its launch, the satellite dispense its scientific engagement with the world. For Nasa, it extends an Earth observation legacy.

Together, they have created something greater than the sum of their parts — a satellite that watches Earth not as a snapshot, but as a breathing, evolving whole.

Source: The Times of India Newspaper, 28-07-2025  
Times Science Page

Link: <https://drive.google.com/file/d/1d66HixD9dCCa6wcoYNtGNqwkR5FQaNEf/view>

# Chatbot Culture Wars Erupt as Bias Claims Surge

**ON CARDS** Conservatives accuse AI firms of left-wing bias, following a playbook that worked well against social media

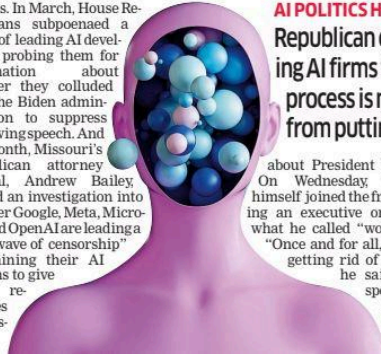
NYTNS

**San Francisco:** For much of the last decade, America's partisan culture warriors have fought over the contested territory of social media — arguing about whether the rules on Facebook and Twitter were too strict or too lenient, whether YouTube and TikTok censored too much or too little and whether Silicon Valley tech companies were systematically silencing right-wing voices.

Those battles aren't over. But a new one has already started.

This fight is over artificial intelligence, and whether the outputs of leading AI chatbots like ChatGPT, Claude and Gemini are politically biased. Conservatives have been taking aim at AI companies for

months. In March, House Republicans subpoenaed a group of leading AI developers, probing them for information about whether they colluded with the Biden administration to suppress right-wing speech. And this month, Missouri's Republican attorney general, Andrew Bailey, opened an investigation into whether Google, Meta, Microsoft and OpenAI are leading a "new wave of censorship" by training their AI systems to give biased responses to questions



## AI POLITICS HEATS UP

Republican officials are arguing that pressuring AI firms through federal procurement process is necessary to stop AI developers from putting their thumbs on the scale

about President Trump. On Wednesday, Trump himself joined the fray, issuing an executive order on what he called "woke AI." "Once and for all, we are getting rid of woke," he said in a speech.

Republicans have

been complaining about AI bias since at least early last year, when a version of Google's Gemini AI system generated historically inaccurate images of the American founding fathers, depicting them as racially diverse.

That incident drew the fury of online conservatives, and led to accusations that leading AI companies were training their models to parrot liberal ideology. Since then, top Re-

publicans have mounted pressure campaigns to try to force AI companies to disclose more information about how their systems are built, and tweak their chatbots' outputs to reflect a broader set of political views.

Now, with the White House's executive order, Trump and his allies are using the threat of taking away lucrative federal contracts — OpenAI, Anthropic, Google and xAI were recently awarded Defense Department contracts worth as much as \$200 million — to try to force AI companies to address their concerns.

The order directs federal agencies to limit their use of AI systems to those that put a priority on "truth-seeking" and "ideological neutrality" over disfavoured concepts like diversity, equity and inclusion.

**Source: The Economic Times Newspaper, 28-07-2025**

Page No 20

**Link:** <https://drive.google.com/file/d/1O6zLCBVnC1ATC9x7K2yjPToES1QnW4WT/view>



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