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**CHANGANASSERY, KERALA**

SCIENCE

ARTS

TECHNOLOGY

SPORTS

# BERCHLY

E WEEKLY

PREPARED BY

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*SCIENCE*



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# SCIENCE

## Cockatoos know to bring along multiple tools when they fish for cashews

(February 10, 2023)

Goffin's cockatoos have been added to the short list of non-human animals that use and transport toolsets. In a study publishing in the journal *Current Biology* on February 10, researchers show that the cockatoos carry multiple tools to their worksite when the job calls for it. This behavior has only been previously reported in chimpanzees, our closest relatives. Goffin's cockatoos are small white parrots that hail from the Tanimbar Islands archipelago in Indonesia. Captive Goffin's cockatoos use and manufacture tools, and a recent study of wild-caught cockatoos reported that they can use up to three different tools to extract seeds from a particular fruit.

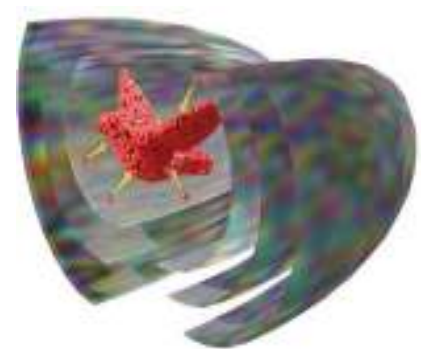
Read more at: <https://www.sciencedaily.com/releases/2023/02/230210115554.htm>

## Scientists assemble matter in 3D using sound waves for 3D printing

(February 13, 2023)

Scientists from the Max Planck Institute for Medical Research and the Heidelberg University have created a new technology to assemble matter in 3D. Their concept uses multiple acoustic holograms to generate pressure fields with which solid particles, gel beads and even biological cells can be printed. These results pave the way for novel 3D cell culture techniques with applications in biomedical engineering. Additive manufacturing or 3D printing enables the fabrication of complex parts from functional or biological materials.

Read more at: <https://www.sciencedaily.com/releases/2023/02/230213120734.htm>



## How to make hydrogen straight from seawater -- no desalination required

(February 14, 2023)

Researchers have developed a cheaper and more energy-efficient way to make hydrogen directly from seawater, in a critical step towards a truly viable green hydrogen industry. The new method from RMIT University researchers splits the seawater directly into hydrogen and oxygen -- skipping the need for desalination and its associated cost, energy consumption and carbon emissions. Hydrogen has long been touted as a clean future fuel and a potential solution to critical energy challenges, especially for industries that are harder to decarbonise like manufacturing, aviation and shipping. Almost all the world's hydrogen currently comes from fossil fuels and its production is responsible for around 830 million tonnes of carbon dioxide a year\*, equivalent to the annual emissions of the United Kingdom and Indonesia combined.

Read more at: <https://www.sciencedaily.com/releases/2023/02/230214154047.htm>

## Oldest spinosaur brains revealed

(February 13, 2023)

Researchers from the University of Southampton and Ohio University have reconstructed the brains and inner ears of two British spinosaurs, helping uncover how these large predatory dinosaurs interacted with their environment. Spinosaurus are an unusual group of theropod dinosaurs, equipped with long, crocodile-like jaws and conical teeth. These adaptations helped them live a somewhat-aquatic lifestyle that involved stalking riverbanks in quest of prey, among which were large fish. This way of life was very different from that of more familiar theropods, like *Allosaurus* and *Tyrannosaurus*.



Read more at: <https://www.sciencedaily.com/releases/2023/02/230213201105.htm>

## Better understanding on the way to a carbon-neutral economy

(February 12, 2023)

Pangaea was the name Alfred Wegener gave to the supercontinent that existed on Earth 250 million years ago. Over the course of many millions of years, this supercontinent broke into different pieces, which became the landmasses we see on the globe today. Extensional forces on the tectonic plates causes continents to break apart -- as Pangaea once did -- creating new ocean basins. Large parts of these extended continents are not visible because they lie under water and are named rifted margins.

Read more at: <https://www.sciencedaily.com/releases/2023/02/230214153908.htm>



# ARTS

## Gujarat This Week: Art exhibitions, film screening and much more

*(February 18, 2023)* <sup>A</sup>

morning concert of ragas by Hindustani vocalist Nirali Kartik.: An art exhibition on the works of Shahidul Alam, a Bangladeshi photojournalist and his early experiments in pictorialism and later in exploring the political space by developing a new vocabulary. Screening of 2018 South Korean- Japanese psychological thriller directed by Lee Chang Dong. It is about an aspiring young novelist who bumps into a childhood classmate living in the same neighborhood who asks him to look after her cat while she goes on a trip to Africa.



Read more at: <https://indianexpress.com/article/cities/ahmedabad/gujarat-this-week-art-exhibitions-film-screening-8453061/>

## Giving entry point for both artists and audiences': Lisa Ray

*(February 19, 2023)*

TheUpsideSpace (TUS), a curator-led digital arts platform is Lisa Ray's latest venture into the art space. TUS, she says, puts the spotlight on artists from Southeast Asia, South Asia and the Middle East via NFTs (digital art which is tokenised in the blockchain.) Through NFTs, she hopes to take the voices from the Global South to the mainstream.

Read more at: <https://www.theweek.in/theweek/leisure/2023/02/17/canadian-indian-actress-lisa-ray-interview.html>



## India Art Fair 2023 to kickstart this week

*(February 16, 2023)*

Taking place annually in India's capital, the India Art Fair is one of the foremost platforms for the commercial art market in India. Formerly known as the India Art Summit, the event has become a prominent one in the calendar of Indian art collectors. With India's latest growth to become the world's fifth-largest economy, the expansion of its art market has grown in parallel with the India Art Fair at its helm. As the 2023 edition is kick-starting on February 9, Jaya Asokan, Fair Director of India Art Fair commented, "The scale and diversity of the fair in 2023 reflects the expansion of the contemporary and modern art market across India and South Asia, as well as burgeoning interest from the international community."

Read more at: <https://luxebook.in/india-art-fair-2023-to-kickstart-this-week/>

## Khadi in focus on India Day at London Fashion Week 2023

*(February 19, 2023)*

'Khadi Utsav Fashion', organised on the opening day of London Fashion Week, showcased how the humble, home-spun fabric resonated with a message of empowerment. A series of pure khadi outfits took centre stage for India Day at the ongoing **London Fashion Week**, with a set of special designs curated to celebrate the message of self-reliance and spirit of swadeshi associated with the fabric.



Read more at: <https://indianexpress.com/article/lifestyle/fashion/khadi-focus-india-day-london-fashion-week-2023-8453229/>

## 5-day festival to showcase Govandi from next week

*(February 12, 2023)*

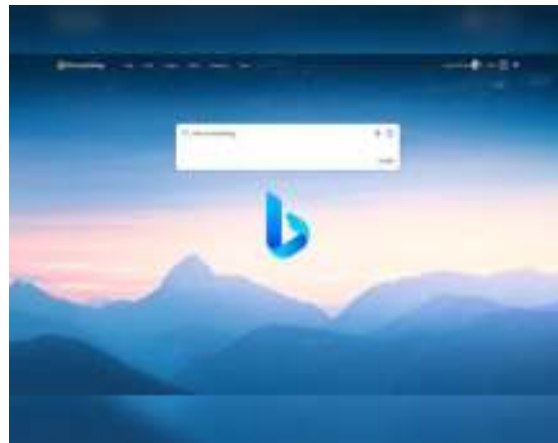
With a vision to show that there is more to Govandi than just being a poor and often ignored part of the city, the first edition of the Govandi Arts Festival will be held for five days, starting Wednesday. The festival, among others things, will have local youngsters trained in various art forms showcasing their talents through rap songs, exhibitions, screenings, performances, workshops and walks. The festival, being organised by the Community Design Agency (CDA), along with UK's Lamplighter Arts CIC and Streets Reimagined and the British Council, is part of the 'India/UK Together, a Season of Culture' initiative. Preparations began nearly six months ago when 45 youngsters from Govandi were selected to work with [Mumbai](#)-based artists or mentors.

Read more at: <https://indianexpress.com/article/cities/mumbai/5-day-festival-to-showcase-govandi-from-next-week-8439553/>



## **Creepy, harmful, dangerous: Microsoft tames new AI-powered Bing as users unsettled by chatbot's responses** *(February 17,2023)*

After trying, testing and lauding Microsoft's new AI-powered search Bing, users say they have changed their minds. According to many, the artificial intelligence that **Microsoft** integrated with **Bing** is not ready for human contact. The newly revamped Bing can write poems, songs and quickly summarise nearly everything that ever made it to the internet. But it does not just stop at that, the **AI chatbot** even mimics emotions of love, displeasure, and anger. The new Bing is built on technology from OpenAI, now widely known for the similar **ChatGPT** conversational tool it released late last year.



Read more at: <https://economictimes.indiatimes.com/tech/technology/creepy-harmful-dangerous-microsoft-tames-new-ai-powered-bing-as-users-unsettled-by-chatbots-responses/articleshow/98044337.cms>

## **Ola to invest \$920 million in Tamil Nadu on electric cars, batteries plant**

*(February 18, 2023)*

The state government has signed an MoU with the company for the production of four-wheeler electric vehicles and the establishment of 20 GW battery manufacturing capacity at an investment of Rs 7,614 crore. Ola will make investment through its subsidiaries **Ola Electric Technologies** and **Ola Cell Technologies**. Tamil Nadu government today announced that electric vehicle maker **Ola Electric** would invest \$920 million in the state to manufacture electric cars and batteries.

Read more at: <https://economictimes.indiatimes.com/industry/renewables/ola-to-invest-920-million-in-tamil-nadu-on-electric-cars-batteries-plant/articleshow/98039503.cms>

# YouTube's Neal Mohan is the newest Indian-origin CEO in the tech world

*(February 16, 2023)*

From Google and Microsoft to Cognizant and Adobe, a growing number of technology-focused firms are today led by Indian-origin chief executives. Neal Mohan, who was named the next CEO of streaming service YouTube, is the newest name added to the growing list of Indian-origin CEOs of global corporations. Mohan succeeds Susan Wojcicki, one of the early employees of Google. The search giant in its early days functioned out of Wojcicki's garage.



Read more at: <https://economictimes.indiatimes.com/tech/newsletters/ettech-unwrapped/youtubes-neal-mohan-is-the-newest-indian-origin-ceo-in-the-tech-world/articleshow/98031149.cms>

# Mechanical engineering meets electromagnetics to enable future technology

*(February 20, 2023)*

Researchers illustrated and designed a circular, iris-shaped patch antenna prototype using commercial electromagnetic simulation software. Though the prototype is only slightly larger than a human palm, the technology can be scaled to the integrated circuit level for higher frequencies or increased in size for lower frequency applications, according to researchers.



*Credit by: Jeff Xu/Penn State*

Read more at: <https://techxplore.com/news/2023-02-mechanical-electromagnetics-enable-future-technology.html>

# Efficient technique improves machine-learning models' reliability

*(February 12, 2023)*

A toy example of our proposed meta-model method in OOD detection application shows the diversity of features in different layers. MetaModel utilizes two intermediate features, while Layer1 and Layer2 only are trained with one individual feature. Powerful machine-learning models are being used to help people tackle tough problems such as identifying disease in medical images or detecting road obstacles for autonomous vehicles.

Read more at: <https://techxplore.com/news/2023-02-efficient-technique-machine-learning-reliability.html>





## SPORTS

### **IND vs AUS: 'That is called stress eating' Sanjay Manjrekar reacts to Virat Kohli's joy when offered 'chole bhature'**

*(February 18, 2023)*

Virat Kohli's face was filled with joy when he was purportedly offered chole bhature during the second Test match between India and Australia in Delhi. In the past his wife Anushka Sharma, the actress, had said that "he watches Delhi chole bhature videos in his free time!". Former Indian cricketer and broadcaster Sanjay Manjrekar perhaps attempted some humour when he called it, "That is called stress eating". [Virat Kohli](#) was sitting on the team balcony, chatting with the coach [Rahul Dravid](#), when a person nudged him, holding a food parcel. Kohli turned around and such was his delight that he clapped his hands in great joy, triggering a smile from Dravid.

Read more at: <https://indianexpress.com/article/sports/cricket/ind-vs-aus-that-is-called-stress-eating-sanjay-manjrekar-reacts-to-virat-kohli-s-joy-when-offered-chole-bhature-8453129/>

### **Vinícius turns playmaker to cue Madrid's 2-0 win at Osasuna** **(February 19, 2023)**

Vinícius, back from a one-game suspension, led Madrid's attack while Karim Benzema rested ahead of Tuesday's game at Liverpool in the Champions League round of 16. Soccer Football - LaLiga - Osasuna v Real Madrid - El Sadar Stadium, Pamplona, Spain - February 18, 2023 Real Madrid's Marco Asensio celebrates scoring their second goal with teammate Vinicius Junior Stymied by the goalkeeper.



Read more at: <https://www.hindustantimes.com/sports/football/vincius-turns-playmaker-to-cue-madrid-s-2-0-win-at-osasuna-101676771477160.html>

# Asian Mixed Team Badminton: India lose to China in semis

(February 18, 2023)

India lost 2-3 to China in the semi-finals of the Badminton Asia Mixed Team Championships at the Dubai Exhibition Centre on Saturday. India did not start well as HS Prannoy lost 13-21, 15-21 to Lei Lanxi in the men's singles contest before former world champion PV Sindhu lost 9-21, 21-16, 18-21 to Gao Fangjie, handing the defending champions a 2-0 lead. The scratch men's pair of Dhruv Kapila and Chirag Shetty and women's doubles pairing of Treesa Jolly and Gayatri Gopichand won their matches to level the contest at 2-all.

Read more at: <https://www.hindustantimes.com/sports/badminton/asian-mixed-team-badminton-india-lose-to-china-in-semis-101676742821559.html>

## ISL: Jamshedpur FC secure narrow 3-2 win vs Hyderabad

(February 14, 2023)

Jamshedpur FC secured a 3-2 win vs Hyderabad FC in the Indian Super League. Ritwik Das, Jay Emmanuel Thomas and Daniel Chukwu were the goalscorer for Jamshedpur, with Bartholomew Ogbeche scoring a brace for Hyderabad. Jamshedpur FC grabbed a hard-fought 3-2 victory against Hyderabad FC in an entertaining Indian Super League (ISL) match at the GMC Balayogi Stadium on Saturday. Ritwik Das (22nd minute), Jay Emmanuel Thomas (27th, penalty) and Daniel Chukwu (29th) scored in the space of 10 minutes to edge out Hyderabad for whom Bartholomew Ogbeche (12th, 79th) scored a brace, while Joao Victor missed a penalty.

## Cristiano Ronaldo produces world-class assist in Al-Nassr's win but incredibly misses sitter from four yards

(February 18, 2023)

Cristiano Ronaldo was in stunning form and registered an assist in Al Nassr's 2-1 win vs Al Taawoun. After his assist, the Portugal striker also missed a sitter. Cristiano Ronaldo was in red-hot form on Friday as Al Nassr secured a 2-1 victory vs Al-Taawoun at the King Saud University Stadium in Riyadh. Although the Portugal captain didn't score a goal, he did register an assist. Ronaldo joined Al Nassr on January 1 in a sensational transfer, for a 2-1/2 year contract, worth more than 200 million euros.

Read more at:

<https://www.hindustantimes.com/sports/football/watch-cristiano-ronaldo-produces-world-class-assist-in-al-nassr-s-win-but-incredibly-misses-sitter-from-four-yards-101676654073998.html>

