



# BERCHLY E WEEKLY

### PREPARED BY DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE COORDINATOR: SHEHITHA SALIM (ASSISTANT PROFESSOR, DLISC)













### Rocky planets might have been able to form

Rocky planets might have been forming since the beginning of the universe. A stellar nursery in a neighboring galaxy <u>has the</u> <u>right materials for such planet formation</u>, researchers report April 24 in *Nature Astronomy*. The overall chemical makeup of the tiny galaxy, called the Small Magellanic Cloud, is akin to that of the early universe. The finding suggests that rocky planets might have been able to develop in the relatively pristine chemical environment that pervaded the cosmos just a couple billion years after the Big Bang.



(March 27, 2023)

Read more at: <u>https://www.sciencenews.org/article/rocky-planets-early-universe-james-webb-telescope</u>

### A graphene "tattoo" could help hearts keep their beat

(March 30, 2023)

In rats, a graphene "tattoo" stuck to the heart could treat an abnormally sluggish beat. Like a futuristic pacemaker, the device <u>delivered electrical signals that kept the heart pumping</u> <u>properly</u>, scientists report online March 25 in *Advanced Materials*. The electronic device is currently a proof of concept, but a version for use in human hearts could be ready for testing within five years, estimates Igor Efimov, a cardiovascular engineer at Northwestern University in Chicago.

Read more at: <u>https://www.sciencenews.org/article/graphene-tattoo-heart-beat-pacemaker</u>

# Methane may not warm the Earth quite as much as previously thought

Methane is a greenhouse gas with dual personalities. It heats Earth's atmosphere 28 times as potently as carbon dioxide, gram for gram. But its absorption of the sun's radiation high in the atmosphere also alters cloud patterns — casting a bit of shadow on its warming effect.So rather than adding even more thermal energy to the atmosphere, as previously thought, methane's solar absorption sets off a cascade of events that <u>reduces its</u> <u>overall warming effect by about 30 percent</u>, researchers report March 16 in *Nature Geoscience*. (March 30,2023)



Read more at: <u>https://www.sciencenews.org/article/methane-warm-earth-atmosphere-</u> radiation

### A vegan leather made of dormant fungi can repair itself

Fungi's threadlike structures called mycelium (shown) have been made into a leather alternative. Researchers have found a way to coax the mycelium in the leather to regrow after the material has beenpunctured.Imagine if a ripped leather jacket could repair itself instead of needing to be replaced. This could one day be a reality, if the jacket is fashioned from fungus, researchers report April 11 in Advanced Functional Materials. The team made a self-healing leather from mushrooms' threadlike structures called mycelium, building past on iterations of the material to allow it to fix itself.



(March 31, 2023)

Read more at: <u>https://www.sciencenews.org/article/vegan-leather-fungi-repair-</u> <u>mycelium</u>



### Artists give new life to lvory Coast's neglected 'Pyramid' (March 30, 2023)

A general view of a mural painted by the duo Fabio Lopez Gonzalo and Elodie Arshak who are known as Dourone, on a facade of the 'Pyramid', the emblematic tower of the Ivorian capital. International and local artists paint giant, colourful murals on the exterior of a 15-storey building in Ivory Coast's commercial capital called "the Pyramid," an architectural gem that fell into disuse 20 years ago. A symbol of Ivorian prosperity in the 1970s and one of the first towers built in the central business district of Plateau in Abidjan, this futuristic pyramid-shaped building was neglected for years. The project "Pyramid 2023, tomorrow is already born" aims to give it a second life.



Read more at: https://indianexpress.com/article/lifestyle/art-and-culture/artists-give-new-life-toivory-coasts-neglected-pyramid-8573316/

### Into the world of fashion photographer Kriti Bisaria's dreamlike aesthetic

New York-based photographer Kriti Bisaria's latest work titled "The Plunge" was showcased at Art Magnum, New Delhi. Kriti, an Indian-born photographer, has a keen eye for images that are inspired by the vivacious colours of the natural world and the serene movement of water across a landscape; The Swimaway Bride.



Credited by:Kriti Bisaria

Read more at: https://indianexpress.com/photos/lifestylegallery/kriti-bisaria-underwater-modelling-fashion-photographer-aesthetic-imagery-exhibition-8380459/2/

### Donald Trump and the dying art of the courtroom sketch

(April 02, 2023)

For the first time in its history, The New Yorker featured a courtroom sketch on its cover. The image, which appears on its April 17, 2023, issue, gives viewers a glimpse of a historic court proceeding that could not be captured by cameras: the arraignment hearing of Donald Trump weeks two earlier.Because **Trump** is the first former U.S. president to be criminally indicted, there is immense public interest in this case. However, when Trump pleaded not guilty to 34 felony counts of falsifying business records, his reactions and expressions could be visually recorded only by three approved courtroom artists.



Read more at: <u>https://indianexpress.com/article/lifestyle/art-and-culture/donald-trump-</u> <u>courtroom-sketch-dying-art-8566161/</u>

# Jatin Das: 'I do what I like; don't work according to the demands of buyers and galleries'

With a career spanning almost six decades, Jatin Das is a well-known painter, muralist, and sculptor who had exhibited his works in many **exhibitions** in India and abroad. A recipient of the Padma Bhushan (2012), the artist is credited with creating a 7 x 68 ft mural — titled *Mohenjo-Daro to Mahatma Gandhi* — at the Parliament of India. (March 29, 2023)



Credited by:Renuka Puri

Read more at:

https://indianexpress.com/article/lifestyle/art-andculture/jatin-das-artist-journey-evolution-of-indian-art-exhibitions-8550058/

# SL envoy gifts to India two paintings depicting arrival of Ashoka's son, daughter in Lanka

### (March 28, 2023)

Sri Lankan envoy Milinda Moragoda gifted to India two <u>paintings</u> depicting the arrival of Emperor <u>Ashoka</u>'s son and daughter in the country, officials here said on Saturday. The paintings, replicas of the original paintings at a temple located close to the Sri Lankan capital Colombo, will be housed at the National Gallery of Modern Art (NGMA), they said.

Read more at: <u>https://indianexpress.com/article/lifestyle/art-and-culture/sri-lanka-envoy-gifts-india-two-paintings-depicting-arrival-of-ashoka-son-daughter-8571315/</u>

### TECHNOLOGY

# Elon Musk and others urge Al pause, citing 'risks to society'

(April 01, 2023)

Elon Musk and a group of artificial intelligence experts and industry executives are calling for a six-month pause in developing systems more powerful than OpenAI's newly launched GPT-4, in an <u>open letter</u> citing potential risks to society.Earlier this month, Microsoft-backed OpenAI unveiled the <u>fourth iteration</u> of its GPT (Generative Pre-trained Transformer) AI program, which has wowed users by engaging them in human-like conversation, composing songs and summarising lengthy documents.

Read more at: <u>https://www.reuters.com/technology/musk-experts-urge-pause-training-ai-</u> systems-that-can-outperform-gpt-4-2023-03-29/

# Origami-inspired robots can sense, analyze and act in challenging environments

(March 29,2023)

Roboticists have been using a technique similar to the ancient art of paper folding to develop autonomous machines out of thin, flexible sheets. These lightweight robots are simpler and cheaper to make and more compact for easier storage and transport. However, the rigid computer chips traditionally needed to enable advanced robot capabilities -- sensing, analyzing and responding to the environment -- add extra weight to the thin sheet materials and makes them harder to fold. The semiconductor-based components therefore have to be added after a robot has taken its final shape.

Read more at: <u>https://www.sciencedaily.com/releases/2023/04/230403162632.htm</u>

### Plastic transistor amplifies biochemical sensing signal

(March 31, 2023)

The molecules in our bodies are in constant communication. Some of these molecules provide a biochemical fingerprint that could indicate how a wound is healing, whether or not a cancer treatment is working or that a virus has invaded the body. If we could sense these signals in real time with high sensitivity, then we might be able to recognize health problems faster and even monitor disease as it progresses.



credit by:Indian express

Read more at: https://www.sciencedaily.com/releases/2023/03/230331162704.htm

# Advanced electrode to help remediation of stubborn new 'forever chemicals'

(March 28, 2023)

As new environmental regulations are rolling out to mitigate the industry-retired long-chain chemicals known as PFAS in drinking water, there are concerns regarding a new breed of "forever chemicals" called short-chain PFAS. Research from the University of Illinois Urbana-Champaign is helping shift the focus to include mitigation of the chemicals -- which researchers say are just as persistent as, more mobile and harder to remove from the environment than their long-chain counterparts.

Read more at; https://www.sciencedaily.com/releases/2023/03/230328144532.htm

# Proper electronic structure of near-infrared absorbing functional dyes discovered

(March 27, 2023)

A research group has discovered that near-infrared absorbing dyes, which had previously been considered to have closed-shell electronic structures, have an intermediate electronic structure, between closed- and open-shell structures. They also found that as the wavelength of near-infrared light that can be absorbed becomes longer the contribution of open-shell forms increases within the dye. These newly discovered characteristics are expected to be utilized to develop new near-infrared absorbing dyes that can absorb longer wavelength near-infrared light.

Read more at: <u>https://www.sciencedaily.com/releases/2023/03/230327114838.htm</u>

### SPORTS

# Shotgun World Cup: Gurjoat Singh Khangura and Ganemat Sekhon make semifinal exit

### (March 29, 2023)

Ganemat Sekhon shot the third-best score of 117 in women's skeet, but was not at her best in the semifinals, in the shotgun World Cup in Cairo, Egypt, on Saturday. It was a commendable performance by Ganemat as she shot a series of 24, 23, 22, 23 and 25, spread over three days. Qualification topper Jiang Yiting of China won the gold, as she beat Simona Scocchetti of Italy 35-33 with a golden hit.In men's skeet, Gurjoat Singh Khangura missed the chance to make the semifinals, after shooting 120 following a series of 25, 25, 24, 23 and 23. Only eighth spot was available for the score of 120 that had six shooters tied.

Read more at: <u>https://sportstar.thehindu.com/other-sports/indian-sports-news-april-29-updates-results-highlights-scores/article66793960.ece</u>

# TVS Racing creates a new top speed record in the first round of 2023 TVS Asia One Make Championship

(March 30,2023)

With a 40-year heritage of racing, TVS Racing, the flagbearer of One Make Championship in India rung in the 2<sup>nd</sup> edition of TVS Asia One Make Championship 2023 in a thrilling manner by breaking its last year records at the Chang International Circuit, Thailand.Further solidifying its position as India's leading racing team in the two-wheeler motorsports arena, TVS Racing created a new top speed record of 215.9 km/hr in the first round of the global championship that happens on the side lines of ARRC.

Read more at: <u>https://sportstar.thehindu.com/other-sports/indian-sports-news-march-29-updates-results-highlights-scores/article66674827.ece</u>

## India's SD Prajwal Dev advances to pre-quarterfinals of Mysuru Open

India's SD Prajwal Dev made his way into the singles pre-quarterfinals of the ITF Mysuru Open with a 6-4 7-5 win over compatriot S Abhinav Sanjeev at the Mysore Tennis Club on Wednesday.Prajwal was scheduled to meet experienced Indian player Ramkumar Ramanathan, who was seeded fifth here, but the latter had to withdraw from the tournament owing to an injury.Prajwal, the 26-year-old Mysuru player, will face his countryman Vishnu Vardhan in the Round of 16. (March 30 ,2023)



Credit: PERIASAMY M

Read more at: https://sportstar.thehindu.com/other-sports/indian-sports-news-march-29-updates-results-highlights-scores/article66674827.ece

### Kochi to host first marathon with prize money

### (March 28,2023)

The Federal Bank Kochi Marathon, the city's first 42.195km run with a prize-money, will be held on May 1. Apart from the main event, there will be a half marathon, a 10-km event and a 3km green run which hopes to attract colleges, housing societies, institutions and women's groups in big numbers. The marathons held earlier in the city did not have any prize-money but the Kochi Marathon.

Read more at: <u>https://sportstar.thehindu.com/other-sports/indian-sports-news-march-</u>29-updates-results-highlights-scores/article66674827.ece

# Delhi International Open: Aravindh Chithambaram takes lead with win over Murzin

(March 29,2023)

Aravindh Chithambaram took a giant step towards winning the Delhi International chess title when he defeated fellow joint-leader Volodar Murzin and opened a half-point lead going into Thursday's 10th and final round. The top-board battle in the ninth and penultimate round lasted 40 moves when Murzin, outplayed by the more experienced Indian, resigned.

Read more at: <u>https://sportstar.thehindu.com/other-sports/indian-sports-news-march-</u>29-updates-results-highlights-scores/article66674827.ece