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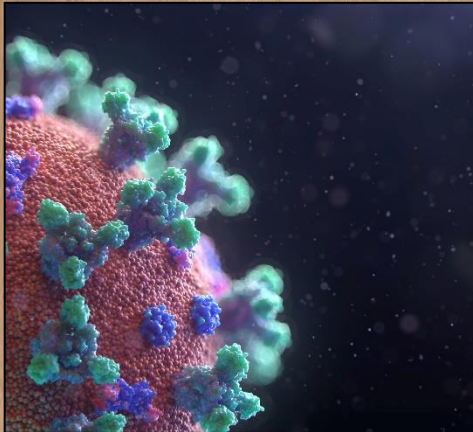
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COORDINATOR: SHEHITHA SALIM (ASSISTANT PROFESSOR, DLISc)

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SCIENCE

Credit: PxHere

James Webb Space Telescope discovers ‘most-distant supermassive black hole’ on record

(July 7, 2023)



Credit: NASA

According to NASA, the evidence was provided by Webb's Cosmic Evolution Early Release Science (CEERS) Survey, led by Steven Finkelstein from the University of Texas at Austin. The survey utilised Webb's highly detailed “near- and mid-infrared images and spectra data to make these discoveries”.

Read more at:

<https://www.hindustantimes.com/science/nasas-james-webb-space-telescope-discovers-most-distant-supermassive-black-hole-on-record-in-ceers-1019-galaxy-101688727188413-amp.html>

Brain surgery on an awake musician reveals the complexity of music and language processing.

(July 8, 2023)

Scientists have discovered that distinct brain regions are involved in music and language processing, with specific areas engaged for complexity in melodies and sentences. The research was conducted during an awake craniotomy on a musician, with his musical and language function fully preserved post-surgery. Distinct, though neighboring, areas of the brain are activated when processing music and language, with specific sub-regions engaged for simple melodies versus complex melodies, and for simple versus complex sentences, according to



Representative Image

research from the University of Texas Health Science Center at Houston.

Read more at:

<https://scitechdaily.com/brain-surgery-on-an-awake-musician-reveals-the-complexity-of-music-and-language-processing/>

The largest animals to ever walk on Earth – New research reveals how super-giant sauropods achieved their record-breaking sizes.

(July 8, 2023)

A new study provides new insights into how sauropods, the largest animals ever to have existed, achieved their massive sizes. Through measuring hundreds of weight-bearing bones and mapping reconstructed body masses of nearly 200 sauropod species, the study concluded that these super-giants evolved their unrivaled sizes multiple times, defying the popular 19th-century “Cope’s Rule” and suggesting sizes were dictated by ecological context and available niches.



Representative Image

Read more at:

<https://scitechdaily.com/the-largest-animals-to-ever-walk-on-earth-new-research-reveals-how-super-giant-sauropods-achieved-their-record-breaking-sizes/>

Toxic hitchhikers: How microplastics carry heavy metals across our rivers.

(July 9, 2023)

Tokyo Metropolitan University researchers have found that microplastics, particularly polystyrene foam, in Mongolia’s Tuul River carry high levels of heavy metals like copper and chromium. The study reveals that surface features such as holes and biofilms on microplastics enhance the collection of these pollutants, presenting potential environmental risks.

Read more at:

<https://scitechdaily.com/toxic-hitchhikers-how-microplastics-carry-heavy-metals-across-our-rivers/>

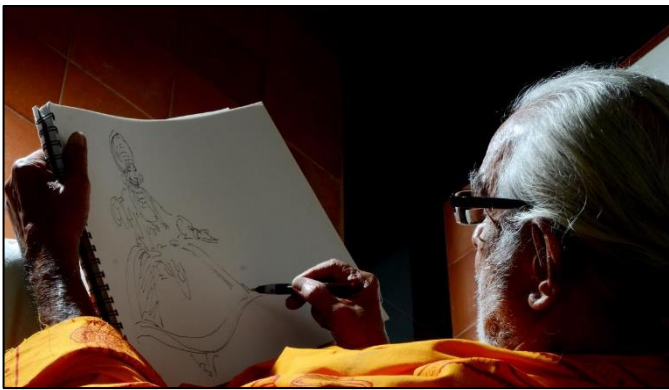
ARTS



Credit: Unsplash

Artist Namboothiri leaves behind a legacy of indelible images.

(July 7, 2023)



Credit: The Hindu

Karuvatta Mana Vasudevan Namboodiri, beloved to readers of Malayalam as Artist Namboodiri, passed away in the early hours of July 7 at Kottakkal in Malappuram. Artist, illustrator, cartoonist, art director and sculptor, he was at home in many realms of art and was master of all. With his passing, a glorious and indelible chapter in visual art of Kerala, nay India, comes to an end.

Read more at:

<https://www.thehindu.com/entertainment/art/artist-namboothiri-illustrator-and-artist-par-excellence-leaves-behind-a-legacy-of-indelible-images/article67052975.ece>

The journey of Bengal art from traditional to modernity.

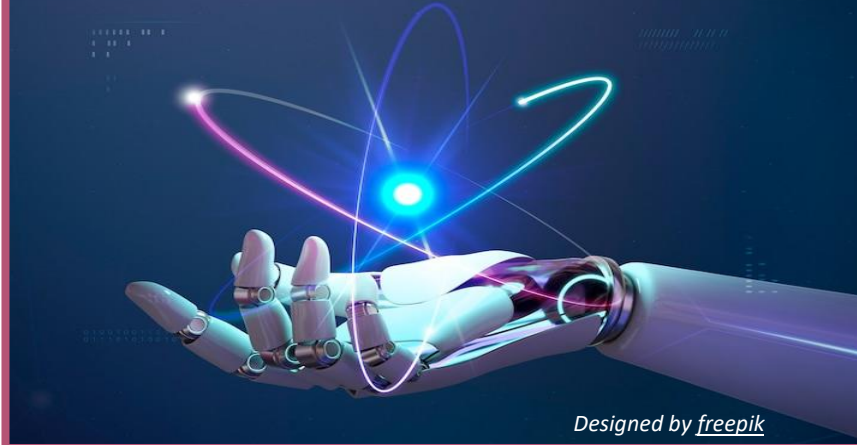
(July 7, 2023)

Art lovers in Delhi can see some masterpieces by legendary and contemporary artists of the Bengal School that have never been on public display before. The exhibition Bengal Beyond Boundaries opens at Bikaner House today. Three hundred watercolour and oil paintings, etchings, drawings, prints and sculptures by 100 artists spanning two centuries will adorn the Bikaner House galleries for the next 10 days, showcasing the social consciousness of Bengal and how it influenced and transformed the Indian art scene.

Read more at:

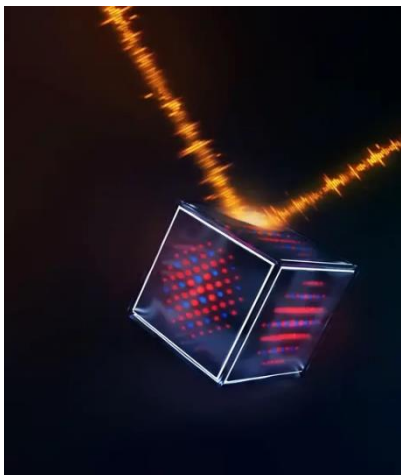
<https://www.thehindu.com/entertainment/art/the-journey-of-bengal-art-from-traditional-to-modernity/article67045714.ece>

TECHNOLOGY



Quantum error correction: Shattering the breakeven barrier.

(July 10, 2023)



Researchers have achieved a major milestone in quantum computing by extending the lifetime of quantum information beyond the breakeven point using Quantum Error Correction, opening the path for effective quantum information processing amidst real-world noise. A logical qubit is embedded into the state space of a harmonic oscillator using the grid code, represented here by faces of the cube. Quantum error correction protects these grid states from corruption by a noisy environment, symbolized by the ray.

Read more at:

Representative Image <https://scitechdaily.com/quantum-error-correction-outpacing-decoherence-shattering-the-breakeven-barrier/>

Earning cash while saving lives: How DiagnosUs is revolutionizing AI.

(July 10, 2023)

DiagnosUs, a mobile app, uses the collective intelligence of medical students and professionals to label and assess medical data. This process, gamified with cash prizes for accurate diagnoses, helps medical AI companies improve their algorithms. Centaur's approach delivers reliable results, often matching or exceeding expert diagnoses. Duhaime envisions a future where his company continuously monitors AI models, creating an integrated ecosystem of human expertise and AI.



Representative Image

Read more at:

<https://scitechdaily.com/earning-cash-while-saving-lives-how-diagnosus-is-revolutionizing-ai/>

A big step forward: New breakthrough could lead to cleaner hydrogen energy.

(July 10, 2023)



Representative Image

Scientists from the University of Kansas and the U.S. Department of Energy's Brookhaven National Laboratory have made significant progress towards separating hydrogen and oxygen molecules to produce pure hydrogen — without using fossil fuels. Results from pulse radiolysis experiments have laid bare the complete reaction mechanism for an important group of “water-splitting” catalysts.

Read more at:

<https://scitechdaily.com/a-big-step-forward-new-breakthrough-could-lead-to-cleaner-hydrogen-energy/>

Sonic thump not sonic boom: NASA's X-59 quiet supersonic aircraft rolls out.

(July 10, 2023)

NASA's X-59 aircraft, capable of supersonic flight while reducing sonic booms to quieter ‘thumps’, has been moved for testing in California. The collected data on human reactions to supersonic noise will potentially assist in enabling commercial supersonic flight over land. The X-59 aircraft—the centerpiece of NASA's Quesst mission—is designed to demonstrate the ability to fly supersonic, or faster than Mach 1, while reducing the loud sonic boom to a quiet sonic thump.

Read more at:

<https://scitechdaily.com/sonic-thump-not-sonic-boom-nasas-x-59-quiet-supersonic-aircraft-rolls-out/>

SPORTS



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Sharma in top 30, Lahiri hit by wind at Scottish Open.

(July 8, 2023)



Credit: Stuart Franklin

A closing bogey pulled India's Shubhankar Sharma down from a promising two-under to one-under in the first round of the Genesis Scottish Open here. Yet, by the time the day ended after a windy second session, Sharma found himself in top 30. He was tied 29th. Treated to a ringside view of a stunning nine-under 61 from American Cameron Tringale, the Indian did mention that his own 69 may not be all that bad considering the conditions expected later in the day at the Renaissance Golf Club.

Read more at:

<https://sportstar.thehindu.com/other-sports/july-8-indian-sports-news-bulletin-wrap/article65615559.ece>

Atwal shoots 2-under 70 at Barbasol Championship.

(July 8, 2023)

Arjun Atwal produced three birdies after being 1-over through the first 12 holes in the first round of the PGA Tour's Barbasol Championship. Atwal, who turns 50 next March and then hopes to play in the Champions Tour (for over 50), is the only Indian to have won on the PGA Tour with his Wyndham success in 2010. Atwal started on the 10th and birdied the 11th but gave back that gain on the 12th hole. Another bogey on second meant he was 1-over, but birdies on the third, fourth and eighth on what was his second nine saw him finish at 2-under 70 and T-71.

Read more at:

<https://sportstar.thehindu.com/other-sports/july-8-indian-sports-news-bulletin-wrap/article65615559.ece>

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