

# BERCHLY E WEEKLY

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

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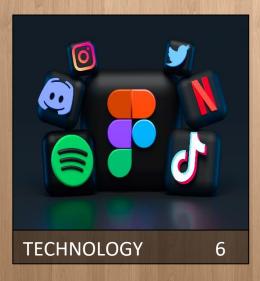
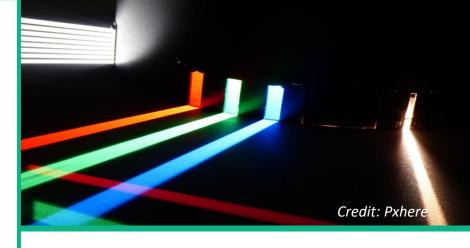


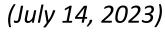


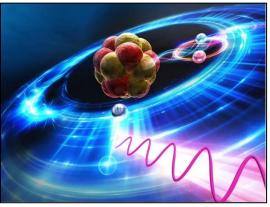
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# SCIENCE



Scientists Successfully Use Exotic Atoms To Verify Quantum Electrodynamics.





Credit: RIKEN

An international team of researchers, including members from the Kavli Institute for the Physics and Mathematics of the Universe (Kavli IPMU), has succeeded in a proof-ofprinciple experiment to verify strong-field quantum electrodynamics within exotic atoms, according to a recent study published in Physical Review Letters. This feat was accomplished through high-precision measurement of the energy spectrum of muonic characteristic X-rays, that are emitted from muonic atoms using a sophisticated X-ray detector.

### Read more at:

https://scitechdaily.com/scientists-successfully-use-exotic-atoms-to-verify-quantum-electrodynamics/

# Life on Mars? NASA's Perseverance Rover Finds Evidence of Diverse Organic Compounds.

## (July 14, 2023)

A new study using data from NASA's Mars Perseverance rover has found potential evidence of organic molecules on Mars, indicating a complex organic geochemical cycle and the possibility of prolonged habitability. The research used a novel technique with the SHERLOC instrument to detect signs of past life, setting the stage for future extraterrestrial investigations. The findings indicate the presence of a more intricate organic geochemical cycle on Mars than previously

understood, suggesting the existence of several distinct reservoirs of potential organic compounds.

### Read more at: https://scitechdaily.com/life-on-mars-nasas-perseverance-rover-finds-evidence-of-diverseorganic-compounds/

## New Research: Current Climate Policies Will Leave Billions Exposed to Dangerously Hot Temperatures.

(July 15, 2023)

New research suggests that more than 20% of the global population could be subjected to severe heat conditions by the year 2100 due to current climate strategies. The commitments outlined in the Paris Agreement aim to restrict the global temperature rise to less than 2°C relative to pre-industrial times. However, based on current policies, the world is anticipated to witness a temperature rise of about 2.7°C by the end of this century.



Representative Image

Read more at:

https://scitechdaily.com/new-research-current-climate-policies-will-leave-billions-exposed-todangerously-hot-temperatures/

# Powered by Dark Matter: Webb Space Telescope Catches Glimpse of Possible First-Ever "Dark Stars".

### (July 16, 2023)

A team of astrophysicists has discovered three potential "dark stars" using the James Webb Space Telescope. These theoretical bodies, thought to be powered by dark matter particles, are much larger and brighter than our sun. If confirmed, they could significantly illuminate our understanding of dark matter, one of the most significant unresolved issues in physics. Furthermore, their existence could reconcile the discrepancy between the current standard cosmology model and the observation of large galaxies early in the universe.

Read more at:

https://scitechdaily.com/powered-by-dark-matter-webb-space-telescope-catches-glimpse-of-possible-first-ever-dark-stars/





## Amrit Pal Singh's Toy Face Tour comes to Bengaluru.

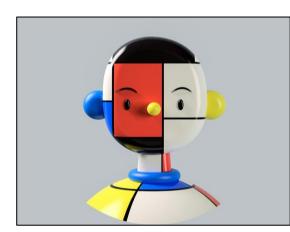
(July 12, 2023)

Visual artist Amrit Pal Singh brings his latest collection of toy faces to the city after stops at Delhi and Mumbai. Doll faces were a happy accident for Amrit. "I have been working in the design space for last the 12 years — from card games and t-shirts to publications and fin-tech apps. In 2020, I was working on a lot of illustrations and I crafted this style," says the Delhi-based artist, adding, "I put out these illustrations titled Toy Faces on my socials and they became a big hit."

#### Read more at:

https://www.thehindu.com/entertainment/art/amrit-pal-singhs-toy-face-tour-comes-tobengaluru/article67040702.ece

# Web 3 and the role of AI and digital art become hot topics of discussion at this Chennai event.



(July 12, 2023)

The convergence of art and technology has been a hot topic for connoiseurs and collectors alike since the beginning of this year as social media continues to flood with AI (Artificial Intelligence) art and photography. While the possibilities are endless, there is a fair amount of apprehension in the artworld about the relevance of NFTs, and the role that AI plays.

Read more at:

*Credit: The Hindu* https://www.thehindu.com/entertainment/art/web3and-the-role-of-ai-and-digital-art-become-hot-topics-of-discussion-at-this-chennaievent/article67067225.ece

# TECHNOLOGY



### GST: India's online game tax could kill a booming industry.

The Indian government's decision to impose a 28% tax on online gaming poses an "existential threat" to the booming industry and could spell its death knell, say experts. Shares of Indian online gaming platforms and casinos have crashed following the GST (Goods and Services Tax) Council's decision. The country's 900+ gaming start-ups had been paying a small tax on the fee they charged for offering games. But the imposition of a 28% GST on the full face value of a gaming transaction will mean the entire amount collected from players will now come under the ambit of taxation.



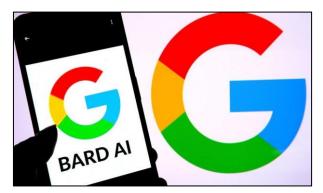
Credit: Getty Images

Read more at: https://www.bbc.com/news/world-asia-india-66161596

### **Bard:** Google's ChatGPT rival launches in Europe and Brazil.

(July 14, 2023)

(July 13, 2023)



Credit: Getty Images

### Google's parent company Alphabet is rolling out its artificial intelligence chatbot Bard in Europe and Brazil. It is the product's biggest expansion since its March launch in the US and the UK and heats up the rivalry with Microsoft's ChatGPT. Both are examples of generative AI that can respond to questions in a human-like way. Bard's launch in the EU had been held

up after the main data regulator in the bloc raised privacy concerns.

Read more at: https://www.bbc.com/news/technology-66187283

## Stratosphere test flight for Hampshire-designed solar plane.

(July 14, 2023)



Credit: Bae Systems

A solar-powered aircraft has successfully completed its first high-altitude flight into the stratosphere. The unmanned Phasa-35 has the wingspan of an airliner and is intended for surveillance and communications use. The plane, developed and designed by Alton-based Prismatic in Hampshire, climbed above 66.000ft (20,000m) during the test flight. Prismatic CEO Dave Corfield said the team had "done something absolutely fantastic". The name -

Phasa-35 - is short for Persistent High Altitude Solar Aircraft and refers to its 35-metre (115ft) wingspan.

Read more at: https://www.bbc.com/news/uk-england-hampshire-66188381

### The US military revives an idea for stealthy sea power.

Darpa is working on a marine propulsion system similar to the "caterpillar drive" described in the movie, Red October. Called a magnetohydrodynamic (MHD) drive, the system has no moving parts at all - just magnets and an electric current. Without propellers or a drive shaft churning up the water, a working MHD drive could provide fast and completely silent travel. Engineers have been working on MHD drives for decades and the original concept dates back to the 1960s.

Read more at: https://www.bbc.com/news/business-65958967



(July 14, 2023)

Credit: Mugu- Shisai



**SPORTS** 



### Harry Maguire stripped of Manchester United captaincy.



Credit: Indian Express

Manchester United defender Harry Maguire has been stripped of the team captaincy by manager Erik ten Hag, the 30-year-old said on Sunday. Maguire was named captain by former coach Ole Gunnar Solskjaer six months after his arrival at United in 2019, but made only 16 league appearances last season with midfielder Bruno Fernandes wearing the armband in his absence. "After discussions with the manager today he has informed me he is changing captain," the England international wrote on Twitter.

Read more at:

https://indianexpress.com/article/sports/football/harry-maguire-stripped-of-manchesterunited-captaincy-8842409/

# Avinash Sable qualifies for 2024 Paris Olympics after finishing 6th in Diamond League.

## (July 16, 2023)

(July 16, 2023)

Ace 3000m steeplechaser Avinash Sable on Sunday became the first Indian track athlete to qualify for the 2024 Paris Olympics after finishing sixth with his second career-best time in the Silesia Diamond League meet here. The 28-year-old Sable clocked 8 minute 11:63 seconds, just outside his national record time of 8:11.20, but that breached the Paris Olympics qualifying mark of 8:15.00 by a fair margin. The Olympics qualification period began on July 1, 2023 and will continue till June 30, 2024.

Read more at:

https://indianexpress.com/article/sports/sport-others/avinash-sable-qualifies-for-2024-paris-olympics-after-finishing-6th-in-diamond-league-8842384/

# SL vs PAK: Shaheen Shah Afridi gets presented with special souvenir after taking 100 Test wickets.

## (July 16, 2023)

Shaheen Shah Afridi was given a souvenir by teammate Mohammad Rizwan after he completed 100 Test wickets in the 1st Test match against Sri Lanka on Sunday. 'Many, many congratulations. You are an inspiration for our team. For the bowlers as well as the youngsters. Some players who play in the current team become inspiration for the whole unit. Like Babar Azam and you," Rizwan said to Afridi in the locker room after the match. Afridi became the 19th Pakistan player and the fourth quickest among fast bowlers from his country to the 100-wicket milestone when he had opening batsman Nishan Madushka caught behind.

Read more at:

https://indianexpress.com/article/sports/cricket/sl-vs-pak-shaheen-shah-afridi-gets-presented-with-special-souvenir-after-completing-100-test-wickets-8842323/

## Imam-ul-Haq takes one handed stunner during 1st SL vs PAK Test. (July 16, 2023)



Credit: AP Photo/Eranga Jayawardena

Pakistan Imam-ul-Haq took a player stunning catch at short-leg in the final over of the first day's play in the first Test between Sri Lanka and Pakistan at the Galle International Stadium on Sunday. Sri Lankan keeper batter Sadeera Samarawickrama who was looking to see off the over was stunned by off-spinner Agha Salman's delivery which took off of the surface and turned a bit. The batter stayed back in the crease and the ball took the

inside edge of the bat and popped up in the air when Imam leapt and grabbed a one-handed stunner.

Read more at:

https://indianexpress.com/article/sports/cricket/watch-imam-ul-haq-takes-a-one-handstunner-during-the-1st-sl-vs-pak-test-8842107/

## (For private circulation only)