



St Berchmans College

Founded 1922

AUTONOMOUS

College with Potential for Excellence | Reaccredited by NAAC with A Grade

CHANGANASSERY, KERALA



BERCHLY

E WEEKLY

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

CONTENTS



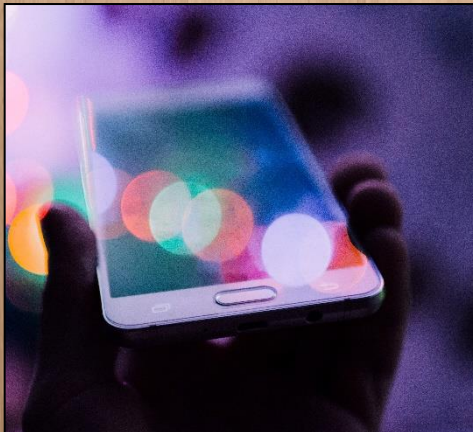
SCIENCE

3



ARTS

6



TECHNOLOGY

9



SPORTS

12

Photo by Braño on Unsplash.

Photo by Anna Kolosyuk on Unsplash.

Photo by Rodion Kutsaev on Unsplash.

Photo by Connor Coyne on Unsplash.

SCIENCE

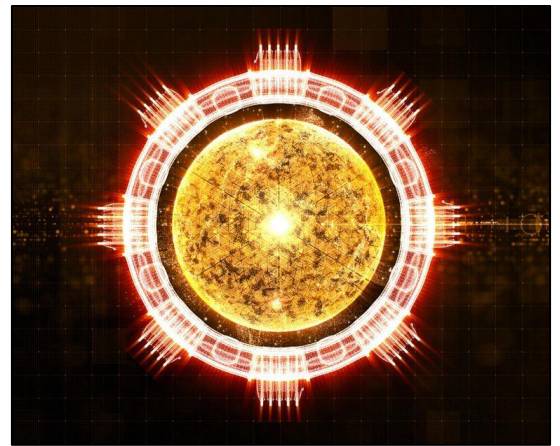


Credit: Unsplash

MIT quantum sensor can detect electromagnetic signals of any frequency.

(July 10, 2022)

With the ability to detect the most minute variations in magnetic or electrical fields, quantum sensors have enabled precision measurements in materials science and fundamental physics. Now, MIT researchers have developed a method to enable such sensors to detect any arbitrary frequency, with no loss of their ability to measure nanometer-scale features. The team has already applied for patent protection for the new method.



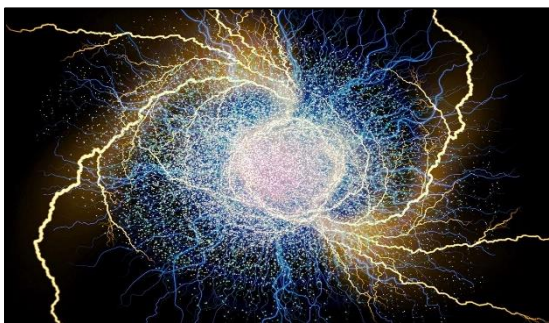
Credit: MIT

Read more at:

<https://scitechdaily.com/mit-quantum-sensor-can-detect-electromagnetic-signals-of-any-frequency/>

Electron whirlpools seen for the first time – Fluid flow could enable next-generation electronics.

(July 11, 2022)



Credit: Christine Daniloff, MIT

Physicists at MIT and the Weizmann Institute of Science have finally observed electrons flowing in vortices, or whirlpools — a hallmark of fluid flow that theorists predicted electrons should exhibit, but that has never been seen before now. Long predicted but never observed before, this fluid-like electron behavior could be leveraged for efficient low-power next-generation electronics.

Read more at:

<https://scitechdaily.com/electron-whirlpools-seen-for-the-first-time-fluid-flow-could-enable-next-generation-electronics/>

Biden releases Webb’s first image: Deepest infrared view of Universe yet – Compare to Hubble.

(July 12, 2022)



Credit: NASA, ESA, CSA, and STScI

On Monday, July 11, President Joe Biden released one of the James Webb Space Telescope’s first images in a preview event at the White House in Washington. This first image from NASA’s James Webb Space Telescope is the deepest and sharpest infrared image of the distant universe to date. Known as Webb’s First Deep Field, this image of galaxy cluster SMACS 0723 is overflowing with detail. Thousands of galaxies – including the faintest objects ever observed in the infrared – have appeared in Webb’s view for the first time.

Read more at:

<https://scitechdaily.com/biden-releases-webbs-first-image-deepest-infrared-view-of-universe-yet-compare-to-hubble/>

“Boom, Boom, Boom” – MIT astronomers detect a strange “heartbeat” billions of light-years from Earth.

(July 13, 2022)

Astronomers at Massachusetts Institute of Technology (MIT) detected a persistent radio signal from a far-off galaxy that appears to flash with surprising regularity. Named FRB 20191221A, this fast radio burst, or FRB, is currently the longest-lasting FRB, with the clearest periodic pattern,

detected to date. Within this window, the team of researchers detected bursts of radio waves that repeat every 0.2 seconds in a clear periodic pattern, similar to a beating heart.

Read more at:

<https://scitechdaily.com/boom-boom-boom-mit-astronomers-detect-a-strange-heartbeat-billions-of-light-years-from-earth/>

Astronomers discover binary system ejecting common envelope at 450,000 mph.

(July 14, 2022)

A team of astronomers has jointly discovered a binary system ejecting a common envelope at a speed of about 200 kilometers per second (450,000 miles per hour). This is the first-time astronomers have observed direct evidence of common envelope evolution, which is a key process of binary star evolution. This significant discovery provides a way to accurately characterize the common envelope evolution of binary stars through observation.

Read more at:

<https://scitechdaily.com/astronomers-discover-binary-system-ejecting-common-envelope-at-450000-mph/>

MIT professor wins European Inventor Award for liquid metal batteries.

(July 15, 2022)

For his work on liquid metal batteries that could enable the long-term storage of renewable energy, MIT Professor Donald Sadoway has won the 2022 European Inventor Award, in the category for Non-European Patent Office Countries. The award is one of Europe's most prestigious innovation prizes. It is presented annually to outstanding inventors from Europe and beyond who have made an extraordinary contribution to technological progress, society, and economic growth. His work could enable long-term storage of renewable energy.



Credit: Tom Maurer Photography

Read more at:

<https://scitechdaily.com/mit-professor-wins-european-inventor-award-for-liquid-metal-batteries/>

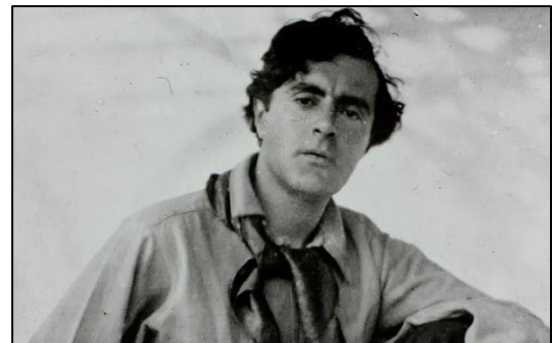
ARTS



Israeli museum finds sketches hidden in Amedeo Modigliani painting.

(July 13, 2022)

Curators at an Israeli museum have discovered three previously unknown sketches by celebrated 20th-century artist Amedeo Modigliani hiding beneath the surface of one of his paintings. The unfinished works by Modigliani, an Italian-born artist who worked in Paris before his death in 1920, came to light after the canvas of “Nude with a Hat” at the University of Haifa’s Hecht Museum was X-rayed as part of a sweeping forensic study of his work for an upcoming exhibit in Philadelphia.



Credit: Getty Images

Read more at:

<https://indianexpress.com/article/lifestyle/art-and-culture/israeli-museum-finds-sketches-hidden-in-amedeo-modigliani-painting-nude-with-a-hat-8026854/>

After box office, Kamal Haasan’s Vikram creates records on OTT.

(July 13, 2022)



Credit: Red Giant Movies

Tamil superstar Kamal Haasan’s latest blockbuster Vikram has emerged as one of the top movies on streaming platform Disney Plus Hotstar. The film was made available last week and it has recorded the highest opening weekend in terms viewership. Vikram is the biggest ever commercial hit in Kamal Haasan’s career spanning over six decades. The movie created a box office storm by raking in more than Rs 400 crore from its

worldwide ticket sales. In India alone, the film is said to have earned a whopping Rs 300 crore.

Read more at:

<https://indianexpress.com/article/entertainment/tamil/after-box-office-kamal-haasan-vikram-creates-records-on-ott-8026308/>

Outdoor sketching events are gaining momentum in Hyderabad.

(July 14, 2022)

Outdoor sketching events have picked up momentum in Hyderabad after a two-year hiatus. A motley group of art enthusiasts — amateurs, hobby and practising artists and students meet every weekend (weather permitting) to interact, document and interpret the sketches from their own perspective. “The focus is to show how the same structure/landscape can be viewed differently, through drawings,” shares Sayyad who has resumed these art meetups this June.



Credit: The Hindu

Read more at:

<https://www.thehindu.com/entertainment/art/outdoor-sketching-events-are-gaining-momentum-in-hyderabad/article65619328.ece>

Claire Keegan wins Orwell prize for novel about 1980s Ireland.

(July 14, 2022)



*Credit: Murdo Macleod/
The Guardian*

Small Things Like These by Claire Keegan and My Fourth Time, We Drowned: Seeking Refuge on the World’s Deadliest Migration Route by Sally Hayden have won the Orwell prizes for political fiction and writing. Keegan’s “beautifully written evocation of Ireland in the 1980s” has won the fiction prize, while Hayden’s “urgent and compassionate” book took the political writing prize. Both authors will be awarded £3,000. Small Things Like These is set in an Irish town in the weeks leading up to Christmas 1985.

Read more at:

<https://www.theguardian.com/books/2022/jul/14/claire-keegan-wins-orwell-prize-for-novel-about-1980s-ireland>

Portraits of characters from 'The Mahabharata' on display at Chennai exhibition.

(July 15, 2022)

A series of paintings by artist Shuvaprasanna Bhattacharjee zooms in on the characters of The Mahabharata, particularly their faces at the Chennai exhibition. They are flawed, almost human. And this is one of the reasons why Kolkata-based artist Shuvaprasanna Bhattacharjee finds these characters fascinating. In his latest series of works, Faces: A Race from Epic, that are now displayed at Sarala's Art World, faces take centrestage. These faces carry unmissable expressions that speak volumes of their varied personalities.



Credit: The Hindu

Read more at:

<https://www.thehindu.com/entertainment/art/portraits-of-characters-from-the-mahabharata-on-display-at-chennai-exhibition/article65630957.ece>

Actor-director Prathap Pothen of 'Meendum Oru Kaathal Kathai' fame passes away.

(July 15, 2022)



Well-known multi-lingual actor and filmmaker Prathap Pothen died in Chennai following a cardiac arrest. He had acted in over 100 films in Malayalam, Tamil, Hindi, and Telugu. He has worked as a scriptwriter, director, and producer, too. He made his acting debut with the 1978 Malayalam film Aaravam. The senior actor-director was known for his unique dialogue delivery and has acted in a number of movies.

Read more at:

<https://www.newindianexpress.com/entertainment/malayalam/2022/jul/15/actor-director-prathap-pothen-of-meendum-oru-kaathal-kathai-fame-passes-away-2476849.html>

TECHNOLOGY

Credit: Unsplash

Smaller than a flea – The smallest remote-controlled walking robot ever.

(July 10, 2022)

The smallest-ever remote-controlled walking robot has been created by Northwestern University engineers, and it takes the shape of a tiny, cute peekytoe crab. The tiny crabs, which are about half a millimeter wide, can bend, twist, crawl, walk, turn, and even leap. The study is experimental at this time, but the researchers think their technique might move the field closer to developing tiny robots that can carry out useful tasks in small, cramped areas.



Credit: Northwestern University

Read more at:

<https://scitechdaily.com/smaller-than-a-flea-the-smallest-remote-controlled-walking-robot-ever/>

Zephyr breaks own record for longest unmanned flight.

(July 12, 2022)



AIRBUS

Airbus has broken the record for the longest flight of an unmanned aircraft, flight-tracking data suggests. The solar-powered Airbus Zephyr S has spent 26 continuous days airborne, beating the record it set in 2018. The unmanned craft flies high in the atmosphere, to avoid commercial air traffic and adverse weather. The aircraft has on-board

batteries to keep it airborne overnight, meaning it does not need to stop to re-supply fuel.

Read more at:

<https://www.bbc.com/news/technology-62123819>

Qualcomm, Ericsson, Thales plan to introduce space-based 5G network for global connectivity.

(July 12, 2022)

Thales, Qualcomm and Ericsson unveiled Monday a plan to allow smartphones to communicate directly with satellites, a "space-based network" they hope will bring connectivity to the entire globe. The three firms envisage launching hundreds of satellites with 5G capabilities to bring coverage to "extreme geographies or remote areas across seas". The plan would potentially cut out the base stations and antennas that current mobile networks need to send and receive data.



Representative Image

Read more at:

<https://gadgets360.com/telecom/news/qualcomm-ericsson-thales-unveil-plan-launch-space-based-5g-network-global-connectivity-3151193>

Bank invests £10m in light technology firm pureLiFi.

(July 14, 2022)



Credit: Getty Images

A Scottish firm is set to roll out its wireless communications technology on a global scale after securing £10m from the Scottish National Investment Bank. The firm pureLiFi, said that the bank's investment would help it develop new technology. It also wants to open up other markets in areas such as mobile phones, tablets, wearables and other connected devices.

Read more at:

<https://www.bbc.com/news/uk-scotland-scotland-business-62168244>

Researchers create octopus-inspired glove to grip objects underwater.

(July 14, 2022)

A research team led by Virginia Tech's Michael Bartlett have developed a glove capable of securely gripping objects underwater, inspired by the octopus. The underwater environment is not really made for humans and our hand is also poorly equipped to hold onto things. "The octopus became an obvious choice for inspiration.," said Bartlett, an assistant professor in the department of mechanical engineering.



Credit: Pixabay

Read more at:

<https://indianexpress.com/article/technology/science/researchers-create-octopus-inspired-gloves-to-grip-objects-underwater-8029675/>

Gaming engagement, spending increased drastically in India after 2021: Krafton India exec.

(July 15, 2022)



Credit: Krafton

A year after it was launched, Krafton's popular game — Battlegrounds Mobile India (BGMI) — has crossed 100 million users in India. For Krafton, the first year of the pandemic (2020) came with its own set of challenges in India. However, Krafton bounced back with its new game, BGMI, which was launched in July 2021. BGMI's success coupled with the changes in consumer behaviour are some of the reasons why Krafton is approaching the Indian market more seriously now.

Read more at:

<https://indianexpress.com/article/technology/gaming/post-2021-gaming-engagement-spending-increased-dramatically-in-india-krafton-india-exec-8031884/>

SPORTS



Credit: Unsplash

Shingo Kunieda wins Wimbledon, becomes 1st man to complete career Grand Slam in men's wheelchair singles.

(July 10, 2022)

Shingo Kunieda won his first Wimbledon title in wheelchair singles on Sunday and his 28th Grand Slam singles title overall. It was his fourth straight major singles title and finally allowed him to complete a career Grand Slam. The 38-year-old Japanese player defeated Alfie Hewett of Britain. Kunieda had only reached one Wimbledon singles final in four previous appearances, finishing as runner-up in 2019.



Credit: AP

Read more at:

https://www.espn.in/tennis/story/_/id/34221707/shingo-kunieda-wins-wimbledon-becomes-1st-man-complete-career-grand-slam-men-wheelchair-singles

Wimbledon 2022 Final Highlights: Novak Djokovic defeats Nick Kyrgios to win 21st Grand Slam.

(July 11, 2022)



Credit: Alastair Grant/AP Photo

Novak Djokovic has won his seventh Wimbledon title after coming from a set down to beat Nick Kyrgios 4-6, 6-3, 6-4, 7-6 (3) in the men's final. Djokovic raced out to a 6-1 lead in the fourth-set tiebreaker and converted his third match point when Kyrgios netted a backhand. It is Djokovic's 21st Grand Slam title overall, putting him one behind record-holder Rafael Nadal. Kyrgios was playing in his first Grand Slam final.

Read more at:

<https://indianexpress.com/article/sports/tennis/wimbledon-2022-mens-singles-final-live-8020334/>

Ruthless England smash record eight goals past Norway at Euros.

(July 12, 2022)

England hammered Norway by a record 8-0 margin in a sensational display at the Women's European Championship, as the hosts became the first team to book a place in the quarter-finals and the first to score eight goals at a Euro finals. The Lionesses went 1-0 up through Georgia Stanway's 12th-minute penalty and netted again three minutes later with Lauren Hemp bundling Beth Mead's cross over the line.



Credit: Reuters

Read more at:

<https://www.hindustantimes.com/sports/football/ruthless-england-smash-record-eight-goals-past-norway-at-euros-101657593019834.html>

Sindhu, Prannoy advance to quarterfinals of Singapore Open.

(July 14, 2022)



Credit: BAI/Twitter

Two-time Olympic medallist PV Sindhu and in-form HS Prannoy stormed into yet other quarterfinals after registering fighting wins at the Singapore Open Super 500 badminton tournament. Third seed Sindhu staved off a spirited challenge from Vietnam's world number 59 Thuy Linh Nguyen 19-21 21-19 21-18 in the women's singles competition to set up a clash with China's Han Yue.

Read more at:

<https://indianexpress.com/article/sports/badminton/sindhu-prannoy-advance-to-quarterfinals-of-singapore-open-8028256/>

IND vs ENG 2nd ODI: Topley topples Indian batting order as England win by 100 runs.

(July 15, 2022)

England's Reece Topley recorded career-best figures of 6-24 as the hosts roared back in style after their drubbing in the first one-day international against India to level the three-match series with a 100-run win in the second game on Thursday. Chasing 247 on a Lord's wicket that had eased up after the first innings, India never found their stride and folded for 146 in 38.5 overs.

Read more at:

<https://indianexpress.com/article/sports/cricket/india-vs-england-2nd-odi-live-score-updates-8027743/>

Murali Sreeshankar becomes first ever Indian to qualify for men's long jump final at World Championships.

(July 16, 2022)

India's Murali Sreeshankar and Avinash Sable qualified for the finals of the Athletics World Championships for the medal event of men's long jump and men's 3000m steeplechase respectively. Murali Shreeshankar would be the one to watch out for in the finals of the event as he is the first ever Indian to have made it in the finals of the World Athletics Championships in the long jump category.



Credit: Olympic Khel/Twitter

Read more at:

<https://www.indiatoday.in/sports/other-sports/story/murali-sreeshankar-becomes-first-ever-indian-to-qualify-for-men-s-long-jump-final-at-world-championships-1976246-2022-07-16>

(For private circulation only)