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

Photo by ThisisEngineering RAEng on Unsplash.
Photo by Markus Spiske on Unsplash.
Photo by Alexander Shatov on Unsplash.
Photo by Randy Fath on Unsplash.

SCIENCE

Credit: Pxhere

Climate "fingerprinting" reveals clear human influence on atmospheric temperature changes.

(May 30, 2023)

New research by Lawrence Livermore National Laboratory scientists reveals that human activities are undeniably altering the thermal structure of Earth's atmosphere. By expanding climate "fingerprinting" to the mid-to upper stratosphere, the team has improved the detection of human effects on the climate by a factor of five. The distinct patterns of CO2-driven temperature changes in these areas underscore the impossibility of natural causes explaining these shifts.

Credit: NASA

Read more at:
https://scitechdaily.com/climate-fingerprinting-reveals-clear-human-influence-on-atmospheric-temperature-changes/

NASA's GUARDIAN: Innovative GPS-based tsunami detection system.

(June 1, 2023)

Scientists at NASA's Jet Propulsion Laboratory are testing GUARDIAN, an experimental tsunami detection system using global navigational satellite data. The system detects disturbances in the ionosphere caused by tsunamis, potentially providing up to an hour's warning. Currently focused on the Pacific Ocean's Ring of Fire, the team plans to expand coverage and refine the system for automatic detection. GUARDIAN's long-term objective is to augment early warning systems. The

experimental monitoring system taps into data from clusters of GPS and other wayfinding satellites orbiting our planet.

Read more at:
https://scitechdaily.com/nasas-guardian-innovative-gps-based-tsunami-detection-system/

Wheat crops in U.S. and china may be threatened by unprecedented heat and drought.

(June 2, 2023)

Representative Image

A recent study led by a researcher at the Friedman School of Nutrition Science and Policy at Tufts University found that the likelihood of extreme temperatures that could affect crop yields has increased significantly in wheat-producing regions of the U.S. and China. The findings predict heat waves that happened approximately once every hundred years in 1981 are now likely to happen once every six years in the Midwestern U.S. and once every 16 years in Northeastern China. The work shows the range of conditions that people need to prepare for, even if they haven't occurred yet.

Read more at:
https://scitechdaily.com/wheat-crops-in-u-s-and-china-may-be-threatened-by-unprecedented-heat-and-drought/

A sustainable solution – unlocking the hidden potential of wastewater.

(June 3, 2023)

Researchers have developed a method to extract and recover valuable nutrients like phosphate and ammonium from wastewater using a specially designed membrane containing inorganic particles. The research, which positions wastewater as a resource rather than a nuisance, could potentially contribute to a circular economy by providing materials for agricultural fertilizer production, and mitigate impending shortages of these nutrients which could threaten the global food supply.

Read more at:
https://scitechdaily.com/a-sustainable-solution-unlocking-the-hidden-potential-of-wastewater/

ARTS


Credit: Unsplash

How ‘Museum on Wheels’ aims to ‘revolutionise the way we experience art, culture, and history’.

(May 30, 2023)

‘Museum on Wheels’ — which aims to revolutionise the way we experience art, culture and history — is doing by bringing a museum directly to people in the most remote corners of the world. Launched in 2015, the ‘Museum on Wheels’ project was recently in the national capital with an aim to foster an appreciation for arts and culture. An initiative by the Mumbai-based Chhatrapati Shivaji Maharaj Vastu Sangrahalaya (CSMVS), the project attempts to bring the museum experience directly to diverse communities beyond its physical walls.

Read more at:
https://indianexpress.com/article/lifestyle/art-and-culture/museum-on-wheels-delhi-celebrates-history-8633663/lite/

Italy’s famous Farnesina Collection debuts in India with 72 contemporary artworks.

(May 30, 2023)

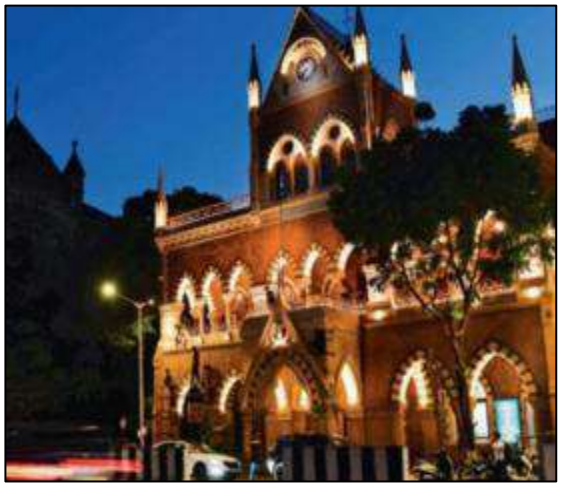
'The Grand Italian Vision', which showcases avant-garde works of sculpture, mosaic, painting, photography, and installations, also marks the 75th anniversary of diplomatic relations between India and Italy, Italian ambassador Vincenzo de Luca said at the opening ceremony. Iconic pieces of Italian contemporary art such as a futuristic bronze sculpture by Umberto Boccioni, titled ‘Unique Forms of Continuity in Space’, as well as ‘L’etrusco’, a gilded bronze version of the renowned Etruscan statue, by Michelangelo Pistoletto have also made their way to the exhibition.


Representative Image

Read more at:
https://indianexpress.com/article/lifestyle/art-and-culture/italys-famous-farnesina-collection-debuts-in-india-with-72-contemporary-artworks-8636546/lite/

Sassoon Library, 30k books, restored to 19th century glory.

(June 3, 2023)



Credit: Times of India

Even an heirloom jewel sometimes has to be polished and restored for it to reveal its magnificence. One such Mumbai gem, the David Sassoon Library at Kala Ghoda, south Mumbai, has been restored to its original glory within 16 months. The monumental makeover of the 1870 building entailed some historic sleuthing by the conservation team to find out what lay beneath the serial interventions that had been inflicted on the building. Jindal ensured that the library's original inhabitants - some 30,000 books in English, Hindi, Marathi and other languages - would also be restored.

Read more at:
https://timesofindia.indiatimes.com/city/mumbai/sassoon-library-30k-books-restored-to-19th-century-glory/articleshow/100691617.cms

The British Museum and BP's sponsorship deal will end after 27 years.

(June 3, 2023)

The British Museum and BP, the multinational oil and gas giant headquartered in London, will cease their sponsorship agreement after 27 years. The end of the partnership, first reported by The Guardian newspaper, comes after more than a decade of protests and creative disruptions at the museum by activist groups including BP or Not BP and Culture Unstained, which saw the agreement as a way for BP to “artwash” its historical and ongoing contributions to global warming.

Credit: Anna Branthwaite

Read more at:
https://www.theartnewspaper.com/2023/06/02/british-museum-bp-sponsorship-ends-27-years-protests-global-warming

TECHNOLOGY

Credit: Unsplash

Revamping energy recovery: New way to efficiently convert waste heat into electricity

(May 31, 2023)

Researchers at the National Institute of Standards and Technology (NIST) have fabricated a novel device that could dramatically boost the conversion of heat into electricity. If perfected, the technology could help recoup some of the heat energy that is wasted in the U.S. at a rate of about $100 billion each year. The new fabrication technique involves depositing hundreds of thousands of microscopic columns of gallium nitride atop a silicon wafer.

Read more at:
https://scitechdaily.com/revamping-energy-recovery-new-way-to-efficiently-convert-waste-heat-into-electricity/

Pushing boundaries: Smaller, lighter space-based imaging spectrometers with high spectral resolution

(May 31, 2023)

NASA researchers have created a new, lightweight, and cost-effective imaging spectrometer for space use. These designs deliver high-resolution spectroscopy in a compact form, potentially expanding their applications in atmospheric study. Researchers have developed a new smaller, lighter design for space-based imaging spectrometers with high spectral resolution.

Credit: NASA

Read more at:
https://scitechdaily.com/pushing-boundaries-smaller-lighter-space-based-imaging-spectrometers-with-high-spectral-resolution/

3D printing paves way for “designer” titanium alloys.

(May 31, 2023)

Representative Image

Researchers have developed a new class of ductile and strong titanium alloys using a combination of alloy design and 3D printing. The findings, published in Nature, could revolutionize applications in various sectors, including aerospace and energy, and promote sustainability by enabling the production of these alloys from industrial waste and low-grade materials. Their discovery holds promise for a new class of more sustainable high-performance titanium alloys for applications in aerospace, biomedical, chemical engineering, space and energy technologies.

Read more at:
https://scitechdaily.com/3d-printing-paves-way-for-designer-titanium-alloys/

Revolutionizing electrochemistry: Innovating with nanoporous model electrodes.

(June 2, 2023)

Researchers at Tohoku University and Tsinghua University have introduced a next-generation model membrane electrode that promises to revolutionize fundamental electrochemical research. This innovative electrode, fabricated through a meticulous process, showcases an ordered array of hollow giant carbon nanotubes (gCNTs) within a nanoporous membrane, unlocking new possibilities for energy storage and electrochemical studies.

Representative Image

Read more at:
https://scitechdaily.com/revolutionizing-electrochemistry-innovating-with-nanoporous-model-electrodes/

SPORTS

Credit: Unsplash

Thailand Open: India's Kiran George moves to quarters, Ashmita Chaliha bows out.

(June 1, 2023)

Credit: Twitter/BadmintonPhoto

India's Kiran George continued his good run as he cruised into the quarterfinals of the Thailand Open Super 500 tournament, beating world number 26 China's Weng Hong Yang in straight games. Kiran, the world number 59, took 39 minutes to beat his higher ranked Chinese opponent 21-11, 21-19 in the men's singles round of 16 clash. It is the first time that Kiran has reached the quarterfinal at a BWF World Tour Super 500 event.

Read more at:
https://indianexpress.com/article/sports/badminton/indias-kiran-geroge-moves-to-quarters-ashmita-chaliha-bows-out-of-thailand-open-8640369/

Manjeet wins bronze in UWW ranking series wrestling event in Kyrgyzstan.

(June 1, 2023)

Manjeet won a bronze in the men's Greco Roman 55kg category to open India's medal account in the UWW Ranking Series wrestling event. Manjeet lost to Ikhtiyor Botirov of Uzbekistan in the quarterfinals with the latter notching up victory by superiority (VSU1, 13-4). But, since Botirov reached the final, Manjeet got a chance to fight for one of the two bronze medals. The Indian

beat Yersin Abyir of Kazakhstan 14-9 via VPO1 (winner with no technical superiority but the loser scores atleast 1 point) to grab a bronze on the opening day of competitions.

Read more at:
https://indianexpress.com/article/sports/sport-others/manjeet-wins-bronze-in-uww-ranking-series-wrestling-event-in-kyrgyzstan-8641308/

England about to wrap up 4-day Test in 3 against Ireland at Lord's.

(June 3, 2023)

Credit: Reuters

England declared with a lead of 352 runs and Ireland lost three wickets in its bid to delay impending defeat in the one-off test at Lord's on day two. England seamer Josh Tongue, on debut, took his first three test wickets and an uncredited fourth when James McCollum retired hurt. This four-day test should be over in three. Ireland was 97-3 at stumps, 255 runs behind after England blasted 524-4 at a run rate of 6.33, declaring after tea.

Read more at:
https://indianexpress.com/article/sports/cricket/england-about-to-wrap-up-4-day-test-in-3-against-ireland-at-lords-8643314/

Hardik Pandya one of the best pace-bowling allrounders in world cricket: Lance Klusener.

(June 3, 2023)

Rating Hardik Pandya as one of the best fast-bowling allrounders, former South African great Lance Klusener on Saturday believes the Indian possibly gave up on Test cricket a bit too easily to manage his workload. "He (Pandya) is a fantastic cricketer, and if he can stay fit and continues to bowl 135+ kmph, he will always be challenging… as one of the best allrounders in the world," Klusener told reporters in a media interaction at the Calcutta Sports Journalists' Club.

Read more at:
https://indianexpress.com/article/sports/cricket/hardik-pandya-one-of-the-best-pace-bowling-allrounders-in-world-cricket-lance-klusener-8643997/

(For private circulation only)