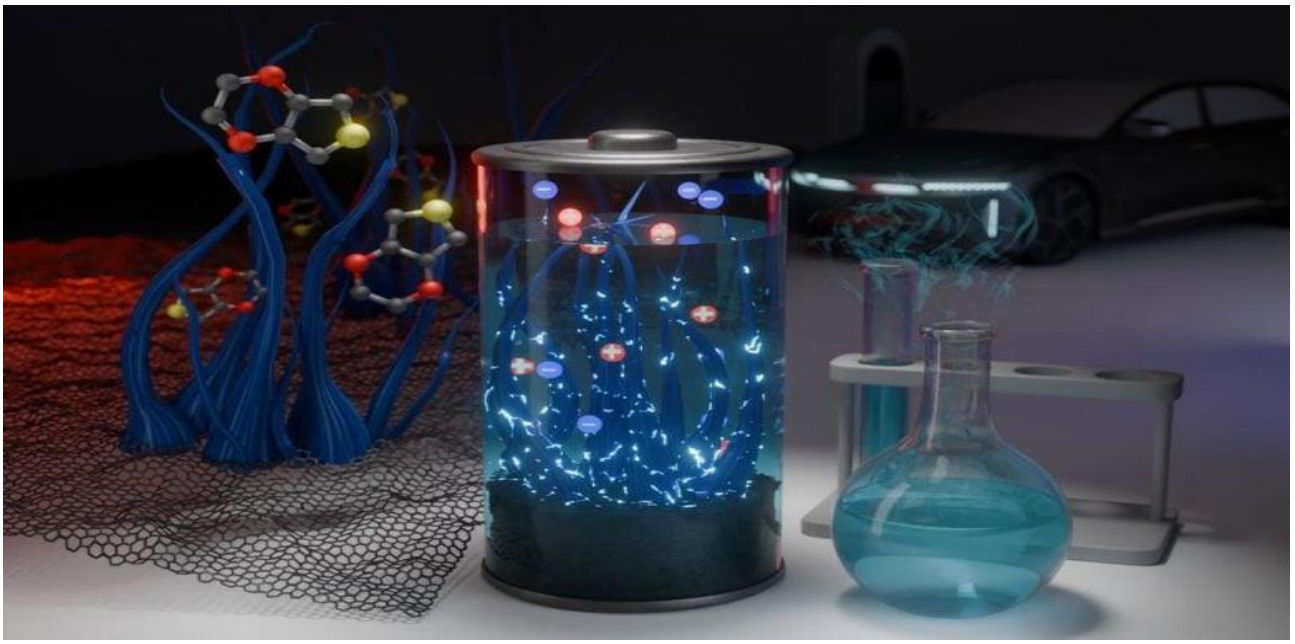
ATHARVA EDUCATIONAL TRUST'S
COLLEGE OF HOTEL MANAGEMENT & CATERING TECHNOLOGY
(Recognized by Government of Maharashtra & Affiliated to University of Mumbai- Estd. 2007-2008)
ISO 9001:2015 ISO 22000:2018
NAAC Accredited

Department of Data Science

Weekly Data Science Bytes

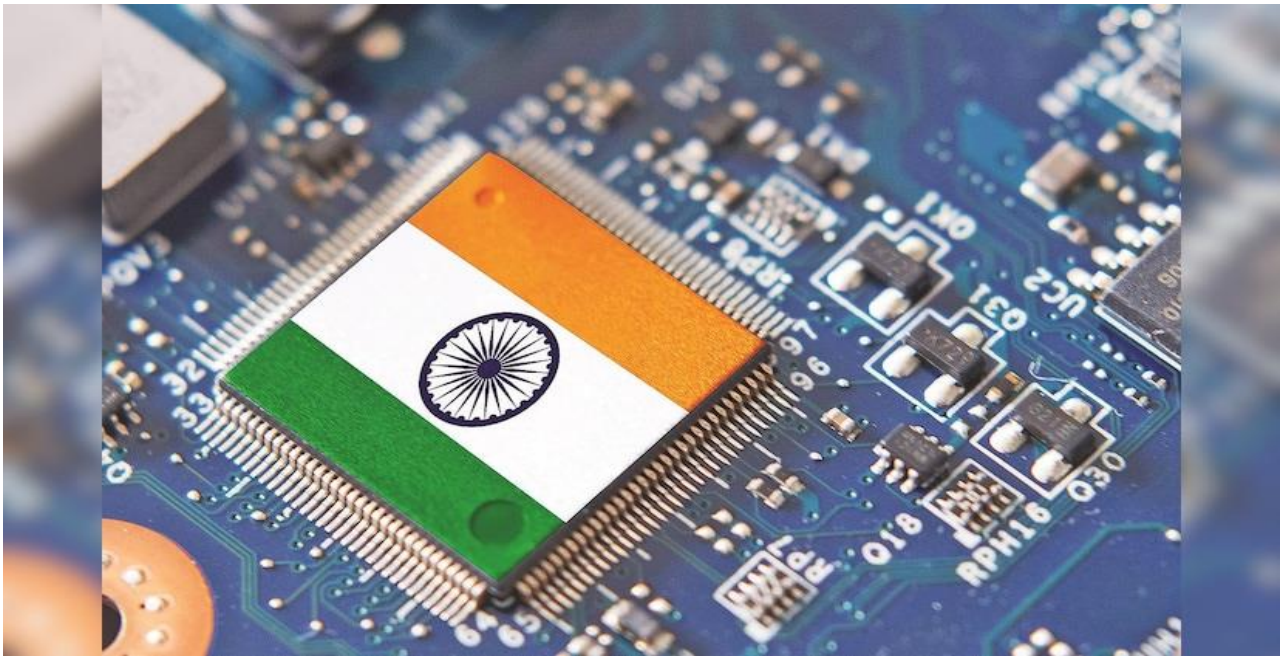
Plastic Supercapacitors Could Help Solve the Energy Crisis



- A new method produces PEDOT nanofibers with enhanced electrical conductivity and increased surface area for improved charge storage
- Plastics have shaped our modern world and transformed the way we live. For decades, they were primarily used in electronics for their excellent insulating properties. However, in the 1970s, scientists accidentally discovered that some plastics can also conduct electricity. This breakthrough revolutionized the field and paved the way for new applications in electronics and energy storage.
- One of the most widely used electrically conductive plastics today is poly(3,4-ethylenedioxythiophene), commonly known as PEDOT. This material forms a flexible, transparent film that is often applied to surfaces such as photographic films and electronic components to prevent static buildup. PEDOT is also used It touchscreens, organic solar cells, and electrochromic devices, like smart windows that change transparency with the push of a button.

Source: https://ground.news/article/plastic-supercapacitors-could-help-solve-the-energy-crisis

From chips to training models: Tracking progress of India's AI Mission



- The government launched the INDIAai Mission on March 7 last year to "bolster" the country's leadership in artificial intelligence and "democratise" the technology's benefits. The programme has a total outlay of ₹10,300 crore over five years.
- These funds are earmarked for investments in AI projects, including developing computing infrastructure and large language models (LLM, AI systems capable of understanding and generating human language by processing vast amounts of text data).

Source: https://www.business-standard.com/technology/tech-news/from-chips-to-training-models-tracking-progress-of-india-s-ai-mission-125033000748_1.html

China launches internet technology test satellites with Long March 2D

- HELSINKI — China conducted a new launch for a nebulous series of internet technology test satellites early Tuesday.
- A Long March 2D rocket lifted off at 12:00 a.m. (0400 UTC) April 1 from Jiuquan Satellite Launch Center in the Gobi Desert. Insulation tiles fell away from the payload fairing as the rocket climbed into a clear blue sky, propelled by a hypergolic exhaust plume.
- The Shanghai Academy of Spaceflight Technology (SAST), a state-owned rocket maker, announced the success of the launch, revealing the payload to be a satellite Internet technology test satellite.
- The satellite will be used mainly for technical tests and verification for direct-to-cell satellite broadband and space-ground network integration, according to SAST. It did not provide further details nor images of the satellite.

Source: https://spacenews.com/china-launches-internet-technology-test-satellites-with-long-march-2d/

Tech Wrap April 1: Apple Intelligence, Copilot Plus PCs, Motorola launch

Apple Intelligence debuts in India on iPhones, Macs: All you need to know

- Apple has rolled out iOS 18.4, iPadOS 18.4, and macOS Sequoia 15.4, bringing Apple Intelligence support to more regions, including India. The update introduces localized English (India) language support alongside other languages such as French, German, Italian, Portuguese (Brazil), Spanish, Japanese, and more.

Microsoft brings Copilot Plus features to eligible AMD, Intel-powered PCs

- Microsoft has begun rolling out exclusive Copilot Plus PC features, including Live Captions, Cocreator, Restyle Image, and Image Creator, for devices equipped with AMD Ryzen AI 300 series and Intel Core Ultra 200V processors. These features were previously available only on Copilot Plus PCs powered by Qualcomm chips.

Source: https://www.business-standard.com/technology/tech-news/tech-wrap-april-1-apple-intelligence-copilot-plus-pcs-motorola-launch-125040100918_1.html

Your Car May Soon Anticipate Traffic Surprises, Thanks to NASA

- NASA's DRF helps machines from different sectors share data securely and make smarter decisions – turning everyday travel into a coordinated, predictive experience.
- Imagine cars that don't just respond to what's in front of them, but predict what's coming – thanks to real-time conversations with road signs, weather systems, and other vehicles. This futuristic vision is getting closer, thanks to NASA's Data & Reasoning Fabric (DRF), a powerful framework enabling secure, intelligent data-sharing across diverse technologies. Originally designed for autonomous drones, DRF is now being adapted for safer, smarter ground transportation, where collaboration between systems can make travel more efficient and intuitive.
- Imagine your car could communicate with traffic signals, other vehicles, and road systems as you drive. These real-time conversations would allow your car to anticipate what's ahead, such as a truck slowing down to make a turn or a hidden traffic light turning red. At the same time, the system could navigate you toward the nearest charging or fuel station and prepare your brakes and windshield wipe for incoming rain based on weather updates

Source: https://x.com/SciTechDaily1/status/1903534345622855861

Private SpaceX crew set for launch to novel polar orbit around Earth

- Elon Musk's SpaceX on Monday was set to launch a crew of four private astronauts led by a crypto entrepreneur on a mission to orbit Earth from pole to pole, a novel trajectory in which no humans have traveled before.
- Maltese investor Chun Wang, a Chinese-born magnate who founded a bitcoin mining company, is the bankroller and commander of the SpaceX mission, named Fram2, a reference to the Norwegian "Fram" ship that pioneered Arctic exploration at the turn of the 20th century.
- The four crew members on Monday afternoon were driven to the launch pad in a caravan of Teslas – the electric cars of Musk's other company – winding through the roads of Cape Canaveral, Florida, with a police escort, as a SpaceX Falcon 9 rocket launched overhead in an unrelated Starlink mission.

Source: https://indianexpress.com/article/technology/science/private-spacex-crew-set-for-launch-to-novel-polar-orbit-around-earth-9917215/