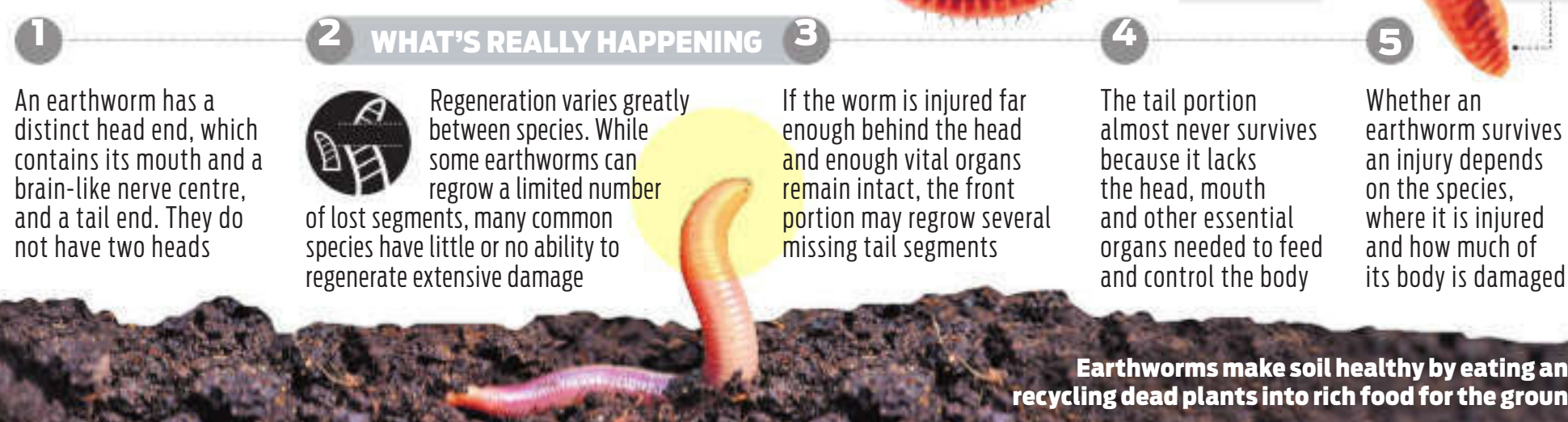


THINK AGAIN

If you cut earthworm in half, both the halves will regrow



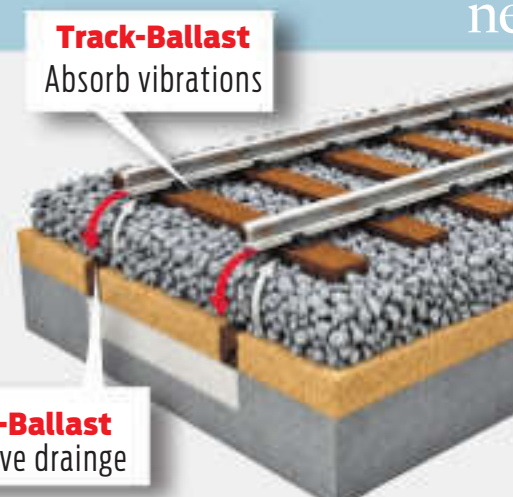
BRAIN CANDY • Neuroscientists have found that the human brain can create theoretical structures in up to 11 dimensions

Why railway tracks are laid on crushed stones

THOSE jagged stones beneath railway tracks are called track ballast, and they're doing far more than just supporting the rails. The crushed stones distribute the enormous weight of passing trains evenly across the ground, preventing the tracks from sinking or shifting. Their rough, angular shape locks together, keeping sleepers firmly in place and preventing movement under heavy loads and vibrations.

The stones also drain rainwater quickly, prevent erosion, stabilise the track and absorb vibrations, reducing wear on the rails.

Engineers use crushed rock instead of smooth pebbles because the sharp edges interlock, while rounded stones would roll and make the tracks unstable.



BUZZ OFF

Mosquitoes are learning to survive insecticides

TWO separate studies by North Carolina State University have found that chemical insecticides used in home backyards to deal with mosquitoes do more harm than good — they help mosquitoes survive the very insecticides meant to kill them by allowing them to develop resistance. The studies focussed on a mosquito species, *Aedes albopictus*, which is not only widespread in India, but along with the *Aedes aegypti* species, is a primary vector for diseases like dengue.

The research focused on pyrethroids, widely used insecticides that kill adult mosquitoes and are considered relatively safe for use around people and pets. One study analysed archived mosquito samples from 2016 to 2024 to track the spread of resistance mutations, while the other identified factors predicting where insecticide resistance was most common. From 2016-17 to 2023, mosquito resistance to insecticides spread rapidly, with resistance-linked mutations rising from undetectable levels to 84% of sampled residential blocks, while 39% of mosquitoes carried the mutation. Researchers have stressed the need for integrated pest management strategies rather than using chemical insecticides alone.



Science is a world in itself. Here are some interesting facts that connect with you

Nirad Mudur

WHAT'S NEW?

'Earth's waters are running out of oxygen at alarming rate'



Scientists have warned that oxygen levels in the world's oceans, lakes and rivers are falling rapidly due to climate change, nutrient pollution and changing ocean

circulation. The review, led by researchers at the Scripps Institution of Oceanography, argues that aquatic deoxygenation threatens biodiversity, and climate stability, and should be recognised as a planetary boundary requiring urgent action.

Assam fossils show Kevda predates human civilisation



Researchers have discovered 24-million-year-old fossil leaves of the fragrant Kevda (screw pine) plant in Assam's Makum Coalfield, revealing that the lineage existed in India long

before humans and even before the Himalayas formed. The fossils, identified by scientists from the Birbal Sahni Institute of Palaeosciences, help fill a major gap in the plant family's evolutionary history.

Meteorite that killed the dinosaurs finally identified



Scientists have identified the rare meteorite that triggered the dinosaur extinction 66 million years ago as a carbonaceous CO chondrite. By analysing nickel

isotopes preserved in impact debris, researchers found the asteroid likely came from the outer Solar System. The study also suggests fine dust, rather than sulfur, drove the climate collapse.

AI blood test predicts heart disease 15 years early

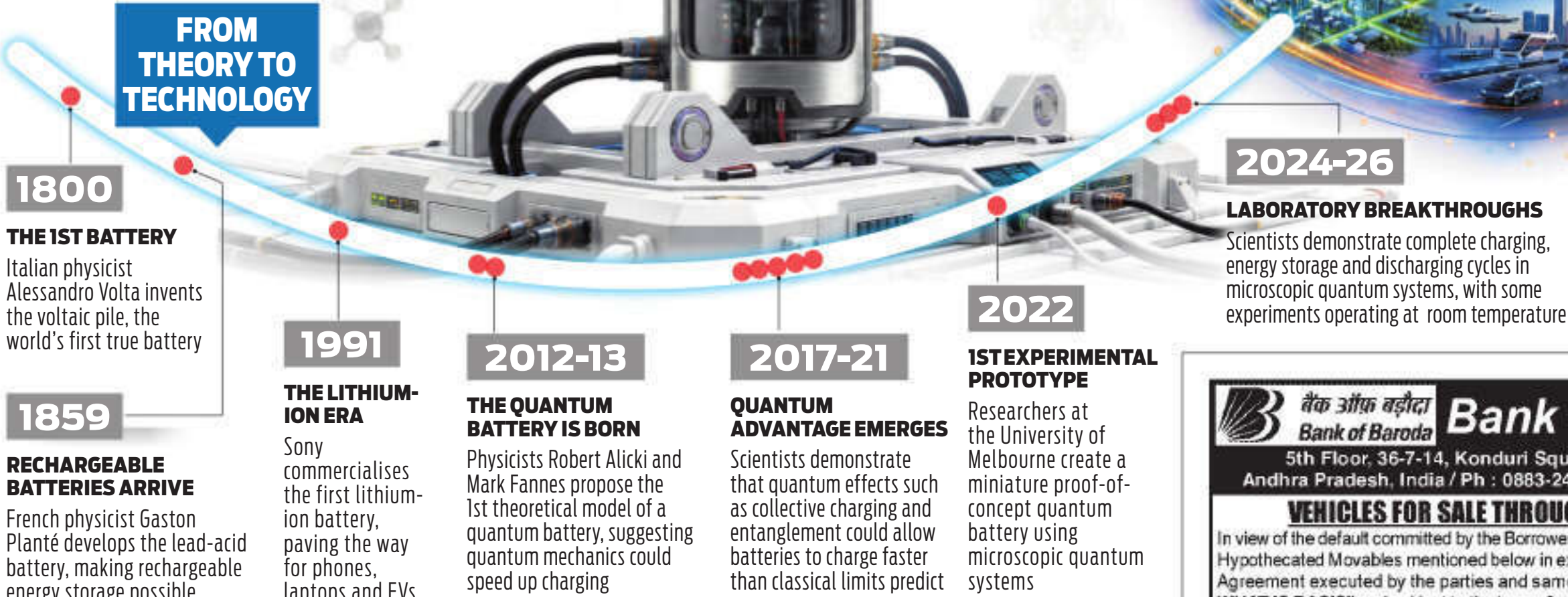


Researchers at the University of Hong Kong have developed an AI-powered blood test that can predict the risk of six major cardiovascular diseases up to 15 years before symptoms

appear. It analyses proteins in a blood sample, offering a picture of a person's health that outperformed conventional genetic risk scores.

QUANTUM BATTERIES

CHARGING INTO THE QUANTUM Age



BATTERIES have powered modern life for more than two centuries, from Alessandro Volta's first electric battery to the lithium-ion cells in today's smartphones, laptops and electric vehicles. Conventional or "classical" batteries, whether rechargeable or non-rechargeable, store and release energy through electrochemical reactions. While rechargeable batteries can be reused, they gradually lose their ability to hold charge.

Despite their success, classical batteries have limitations. They require repeated charging, store only finite amounts of energy and degrade over time. Supercapacitors charge much faster but have lower energy density, limiting their use for long-term power storage. To overcome these challenges, researchers have turned to an entirely different approach: storing and transferring energy using quantum mechanics instead of electrochemistry. The result is a new class of energy-storage devices known as quantum batteries.

Unlike conventional batteries, quantum batteries are not miniature lithium-ion cells. They use quantum phenomena such as coherence, collective interactions and entanglement to store energy in the excited states of atoms, molecules, superconducting qubits, quantum dots and other quantum systems rather than through chemical reactions. As quantum technologies reshape computing, communication and sensing, scientists believe the same principles could transform energy storage by enabling faster charging, more efficient energy transfer and greater energy extraction.

Like any battery, a quantum battery must charge, store energy and release it when needed. During charging, an external source such as a laser, microwave pulse or electromagnetic field excites the system from a lower- to a higher-energy state.

A simple example is the qubit, the basic unit of quantum computing. Because qubits obey the laws of quantum mechanics, they offer entirely new possibilities

for storing and extracting energy.

One of the most promising features of quantum batteries is the quantum charging advantage. In classical batteries, charging power generally increases in proportion to the number of batteries. Quantum batteries can do better. When multiple battery units interact collectively with a common energy source, they cooperate during charging, allowing power to increase faster than would be expected by simply adding more independent cells. Like a well-coordinated team outperforming individuals working separately, interacting quantum systems, particularly through entanglement, can transfer energy more efficiently. This phenomenon, known as superextensive charging, is considered one of the defining theoretical advantages.

(This piece is written by Dr MS Ramkarthik, a theoretical physicist at VNIT Nagpur whose work has focused on quantum computing for over a decade)

ACCIDENTAL ARCHITECT OF INDIAN BIOLOGY

EXPRESS NEWS SERVICE @ Hyderabad

OBALD Siddiqi, the pioneering molecular biologist and neurogeneticist, did not believe that scientists were born with a calling. Looking back on his childhood, he once admitted, "I was interested in literature, poetry, politics and sports as a student."

A stroke of bad luck nudged him towards that future. While working on disease-resistant wheat at the Indian Agricultural Research Institute in Delhi, Siddiqi spent a year nurturing experimental crops, only to see them destroyed in a hailstorm in 1954. Disheartened, he turned to M. S. Swaminathan, whose advice to pursue his real interests changed the course of his life. Within a few years,

Siddiqi was in Glasgow studying genetics under Guido Pontecorvo before moving to the University of Pennsylvania, where his work in bacterial genetics drew international attention.

In 1962, an invitation from Homi J Bhabha brought him back to India to establish the Molecular Biology Unit at the Tata Institute of Fundamental Research (TIFR). At a time when molecular biology was still in its infancy in India, Siddiqi built a small but influential research group that helped lay the foundations of modern genetics research. He later founded the National Centre for Biological Sciences (NCBS) in Bengaluru, nurturing it into one of India's premier life science institutes.

Siddiqi never stayed in one field for long. After pioneering work in

bacterial genetics, he turned to the fruit fly, *Drosophila melanogaster*, uncovering genes that influence taste, smell and the electrical activity of nerves and muscles. His discoveries sparked international research into how genes shape sensory perception, learning and memory.

Colleagues remembered him as much for his intellect as his science. Tall, elegant and fiercely independent, Siddiqi demanded originality and rigorous thinking. He could be sharply critical, yet students also recalled a generous mentor who often traded scientific debates for long conversations about music.

Away from the lab, he played the sarod, loved Hindustani classical music, read Rumi, Ghalib and philosophy, and encouraged his kids to pursue whatever interested them.

Bank of Baroda					
Bank of Baroda REGIONAL OFFICE (RAJAHMUNDARY) 5th Floor, 36-7-14, Konduri Square, Innispeta, Rajahmundry-533102, Andhra Pradesh, India / Ph : 0883-2490509, Email : sarjy@bankofbaroda.com					
VEHICLES FOR SALE THROUGH E-AUCTION https://banknet.com In view of the default committed by the Borrowers mentioned below, Bank has repossessed/seized the Hypothecated Movables mentioned below in exercise of the powers conferred under Hypothecation Agreement executed by the parties and same is being auctioned on "AS IS WHERE IS & AS IS WHAT IS BASIS" and subject to the terms & conditions mentioned in Detailed Auction Notice.					
Sl. No.	Name & Address of Borrower	Amount Due	Vehicle Make & Model RTO Registered No	Reserve Price	EMD
1)	Mr. Irlapati Rama Rao, S/o. Irlapati Manganna, D. No. 133, Pragadapalli, West Godavari, Andhra Pradesh - 534315	Rs. 24,49,706.50/- + Interest from 23-09-2025	Vehicle No : AP39UK 7189 Make: Ashoka Leyland Model: GM4220/66 H CO	Rs 22,00,000/- (with applicable GST)	Rs. 2,20,000/-
2)	Mr. Junupeti Arun Kumar # 3-33/1B, Near Ambedkar Street, Rajanagar, East Godavari, AP-533294	Rs. 22,07,926.50/- + Interest from 08-08-2024	Eicher PRO 3015XP J HSD BS6 Vehicle No : AP39UP 9889	Rs 13,00,000/- (with applicable GST)	Rs. 1,30,000/-
3)	Mrs. Shaik Gousia Begum, W/o Lal Basha, 6-129, Torredu, Near Gangalamma Temple, East Godavari, AP-533293	Rs. 36,29,359/- + Interest from 13-11-2024	Vehicle No: AP39VA 2339 Make: Mahindra & Mahindra Ltd Model: BLA2035MLBS6P61CB	Rs 19,50,000/- (with applicable GST)	Rs. 1,95,000/-
4)	Mr. Nandikolla Srinivasa Rao D. No. 5-26, Ambedkar Street, Ramachandrapuram, Seethanagar, East Godavari District Andhra Pradesh 533287	Rs. 21,25,722/- + Interest from 13-05-2024	Ashok Leyland CA1615/47 H FBL AP 39 UQ3969	Rs 9,50,000/- (with applicable GST)	Rs. 95,000/-
Place of Auction : Bank of Baroda, ROSARB Branch, Rajahmundry Date of Auction : 12.08.2026, Time 02.00 PM to 06.00 PM. Bid Increment : Rs.10,000/- The intending purchasers/bidders may inspect the Hypothecated Movables on 11.08.2026 (on or before) during the time 10.30 a.m. to 4.00 p.m. at place of Auction. EMD Amount Paid to "Bank of Baroda, ROSARB Branch, Rajahmundry, A/c No.62670015181869, IFSC CODE : BARB05ARRJY". DETAILED AUCTION NOTICE & TENDER FORM is uploaded in Banks website www.bankofbaroda.co.in & also available in Branch, please refer the same. For more details please contact the Branch on Cell : 75699 61199. Email ID : support.BAANKNET@psballiance.com. Successful bidder responsible for vehicle registration (FRC) and Vehicle will be handover only after the registration name is changed. Note : Yard charges to be paid by successful bidder. Date : 20.07.2026, Place : Rajahmundry Sd/- Authorised Officer, Bank of Baroda					

SYMBOLIC POSSESSION NOTICE			
ICICI Bank Branch Office: ICICI Bank Ltd. 4/10, Mythree Tower, Bommanahalli Hosur Main Road Bangalore- 560068 The undersigned being the Authorised Officer of ICICI Bank Limited under the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 and in exercise of the powers conferred under section 13 (12) R/W Rule 3 of the Security Interest (Enforcement) rules 2002, issued demand notices upon the borrowers mentioned below, (on the underlying pool assigned to ICICI Bank by Dewan Housing Finance Ltd.) in relation to the enforcement of security with respect to a Housing Loan facility granted, pursuant to a loan agreement entered into between DHFL and the borrower, to repay the amount mentioned in the notice within 60 days from the date of receipt of the said notice. As the borrower failed to repay the amount, notice is hereby given to the borrower and the public in general that the undersigned has taken symbolic possession of the property described herein below in the exercise of powers conferred on him/her under Section 13(4) of the said Act with read Rule 8 of the said rules on the below-mentioned dates. The borrower in particular and the public in general is hereby cautioned not to deal with the property and any dealings with the property will be subject to the charge of ICICI Bank Limited.			
Sr. No.	Name of the Borrower(s)/ Co-Borrower(s) (DHFL Old LAN & ICICI New LAN)	Description of Property/ Date of possession	Date of Demand Notice/ Amount in Demand Notice (Rs)
1.	Balakrishna Baki/ Sri Harika Baki/ QZVJW00005041212	Schedule-A Guntur District, Mangalagiri Sub Register, Tadepalli Mandal, Kolanukonda Gram Panchayath Area Kolanukonda Gram Taluk Survey No. 110/3, 391.75 Sq Yrds Kolanukonda Gram Taluk Survey No. 110/4, 2028.25sq Yds, 2420sq Yrds Vacant Land of These Boundaries: East: Seshamsetti Krishnarao Boundary of Land South: Boundary of Road West: Mandapati Sambaiiah Boundary of Land North: Yenumula Eswarao And Other Boundary of Land In These Boundaries: 2420 Sq Yrds or 2023.12 Sq Mtrs In Joint Rights of 55 Sq Yrds. or 46.98 Sq Mtrs. Schedule-B Above Schedule-A Total Land C.R.D. A (Capital Regional Development Authority) R.C.No. C32547/14 Date: 29-05-2015 Approval of Stilt And Ground, first, Second, Third, Fourth Floor "R.S. Srighda's Residency" Second Floor Flat No. 6 Uncompleted Triple-Bedroom Plot Boundaries: East: Open To Sky South: Open To Sky West: Common Corridor North: Open To Sky In These Boundaries Plinth Area 1152sq Fts And Common Area 288sq Fts Total 1440 Sq Fts In This Stilt Floor 100sq Fts With All The Ammentities./ Symbolic Possession on/ 16/07/2026.	06.03.2026 Rs. 62,55,456.01/-
The above-mentioned borrowers(s)/ guarantors(s) are hereby given a 30 day notice to repay the amount, else the mortgaged properties will be sold on the expiry of 30 days from the date of publication of this Notice, as per the provisions under Rules 8 and 9 of Security Interest (Enforcement) Rules, 2002. Date : July 22, 2026 Place : Guntur & Tadepalli Authorized Officer, ICICI Bank Limited			