

DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT

NEWS CORNER

Date: 02.1.25

"FROM E-WASTE TO GOLD"

A research team has developed a method for extracting gold from electronics waste, then using the recovered precious metal as a catalyst for converting carbon dioxide (CO2), a greenhouse gas, to organic materials. A Cornell University-led research team has developed a method for extracting gold from electronics waste, then using the recovered precious metal as a catalyst for converting carbon dioxide (CO₂), a greenhouse gas, to organic materials. The method could provide a sustainable use for some of the approximately 50 million tons of e-waste discarded each year, only 20% of which is recycled, according to Amin Zadehnazari, a postdoctoral researcher in the lab of Alireza Abbaspourrad, professor of food chemistry and ingredient technology. one of his VCOFs was shown to selectively capture 99.9% of the gold and very little of other metals, including nickel and copper, from the devices.

FOR Ms S. DEEPIKA













DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT

NEWS CORNER

Date: 03.1.25

"WIRELESS BIOSENSING TECHNOLOGY"

Researchers developed a biosensing technique that eliminates the need for wires. Instead, tiny, wireless antennas use light to detect minute electrical signals in the solution around them. Monitoring electrical signals in biological systems helps scientists understand how cells communicate, which can aid in the diagnosis and treatment of conditions like arrhythmia and Alzheimer's. But devices that record electrical signals in cell cultures and other liquid environments often use wires to connect each electrode on the device to its respective amplifier. Because only so many wires can be connected to the device, this restricts number of recording sites, limiting the information that can be collected from cells. The devices, which are durable enough to continuously record signals for more than 10 hours, could help biologists understand how cells communicate in response to changes in their environment.

STAFF INCHARGE

FOR Ms S. DEEPIKA









DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT



NEWS CORNER

Date: 8 . 1 . 2 5

"SEISMIC SENSING: INTERNET'S HIDDEN POTENTIAL"

Early detection of earthquakes could be vastly improved by tapping into the world's internet network with a groundbreaking new algorithm, researchers say. Fiber optic cables used for cable television, telephone systems and the global web matrix now have the potential to help measure seismic rumblings thanks to recent technological advances, but harnessing this breakthrough has proved problematic. A new paper seeks to address these challenges by adapting a simple physics-based algorithm to include fibre optic data that can then be used hand-in-hand with traditional seismometer measurements. "The ability to turn fibre optic cables into thousands of seismic sensors has inspired many approaches to use fibre for earthquake detection. However, fibre optic earthquake detection is not an easy challenge to solve," said lead researcher Dr Thomas Hudson, a senior research scientist at ETH Zurich.

STAFF INCHARGE









DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT



NEWS CORNER

Date: 09 . 1.25

"SNAPDRAGON X- QUALCOMM's NEW LEAP"

Qualcomm brings Snapdragon X to mid-range Windows PCs with the PC market expected to reach \$247.10 billion by 2028 as growth picks up, mid-range segment largely dominated by Windows will continue to play a pivotal role. Both AMD and Intel have been eyeing a piece of this lucrative segment, with now Qualcomm throwing in its hat in the ring. The company is bringing in its Snapdragon X chipset to mid-range Windows PCs, as it looks to substantially increase the 0.8% (Q3'24) PC market share it currently holds. Earlier, the company launched the snapdragon 8 elite chip for premium smartphones in October last year – with AI remaining the focal point of it. Qualcomm unveiled the PC oriented Snapdragon X at the Consumer Electronics Show (CES) 2025. It comes with Qualcomm's Oryon CPU, featuring an 8-core count and a maximum clock speed of 3.0GHz.

ICHARGE











DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT



NEWS CORNER

Date: 10 · 1 · 25

"RAVEN THE ENGINEERED DRONE"

EPFL researchers have built a drone that can walk, hop, and jump into flight with the aid of birdlike legs, greatly expanding the range of potential environments accessible to unmanned aerial vehicles. "As the crow flies" is a common idiom referring to the shortest distance between two points, but the Laboratory of Intelligent Systems (LIS), led by Dario Floreano, in EPFL's School of Engineering has taken the phrase literally with RAVEN (Robotic Avian-inspired Vehicle for multiple environments). Designed based on perching birds like ravens and crows that frequently switch between air and land, the multifunctional robotic legs allow it to take off autonomously in environments previously inaccessible to winged drones. Birds can transition from walking to running to the air and back again, without the aid of a runway or launcher. Engineering platforms for these kinds of movements are still missing in robotics.

T.N. ITRON









DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT



NEWS CORNER

Date: 20. 1.95

"WIPRO's Q3 2024 FINANCIAL RESULTS"

IT services company Wipro on Friday reported 24% growth in its consolidated net profit for the quarter ended December 31, 2024, to Rs 3,354 crore, while revenue from operations rose by a marginal 0.5% to Rs 22,319 crore. The company's board has declared an interim dividend of Rs 6 per share and fixed January 28 as the record date for the same. The dividend will be paid on or before February 15. On a sequential basis, profit after tax (PAT) was up nearly 5% and the revenue increased just 0.1%. During the quarter, IT services segment revenue grew 1% YoY to Rs \$2.6 billion. We also achieved our highest margins in the past three years while continuing to invest in our people," said Srini Pallia, CEO and MD, Wipro.

STAFF INCHARGE











DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT



NEWS CORNER

Date: 21.01.25

"HUMPHREY-TRANSFORMING CIVIL SERVICE"

The UK government is developing a new set of AI tools called 'Humphrey' to help speed up the work of civil servants in the country. While still in its nascent stages, the project is aimed at reducing the daily workload of civil servants by essentially using generative AI to read and process vast amounts of data. It will do away with insensitive and antiquated processes that have been holding this country back for too long. That means scrapping the need for people to queue at the local council to register the death of a loved one getting in the way of growth, the UK government said in a press release on Tuesday, January 21. Humphrey is being developed by the UK's Department for Science, Innovation and Technology (DSIT) and will be made available to all government employees soon, with a few AI tools becoming accessible from Tuesday onwards, as per the press release.

Jan 21/1/25

. N and way









DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT



NEWS CORNER

Date: 22.01.25

"QUANTUM TELEPORTATION"

Northwestern University engineers are the first to successfully demonstrate quantum teleportation over a fibre-optic cable already carrying Internet traffic. The discovery introduces the new possibility of combining quantum communication with existing Internet cables greatly simplifying the infrastructure required for distributed quantum sensing or computing applications. Only limited by the speed of light, quantum teleportation could make communications nearly instantaneous. The process works by harnessing quantum entanglement, a technique in which two particles are linked, regardless of the distance between them. Instead of particles physically traveling to deliver information, entangled particles exchange information over great distances without physically carrying it.





R. No Iven







DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT

NEWS CORNER

Date: 23.1.25

"THE MOST AWAITED NVIDIA PROJECT"

Nvidia added the program after Huang in January said useful quantum computers are 20 years away, comments he sought to walk back on Thursday while joined onstage by executives from quantum computing firms. The Nvidia Accelerated Quantum Research Center, which Nvidia is calling NVAQC for short, will work with quantum firms including Quantum, Quantum Machines and QuEra Computing. Nvidia said the center will begin operating later this year. Huang discussed the state of the industry with executives from more than a dozen firms, some of which are trying to make money off quantum technology before the computers can outpace existing ones. Matt Kinsella, CEO of Inflection, said the company can already provide better computing clocks that help synchronize multiple classical computing chips. The quantum executives said that even when their machines outpace Nvidia's graphics processing units (GPUs) at certain tasks such as understanding how atoms interact with one another, quantum machines will not replace traditional computers.

STAFF INCHARGE









DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT

NEWS CORNER

Date: 24. 1.25

"SMART TRANSLATION IN FINGER RINGS"

A research team has developed an artificial intelligence-powered ring equipped with micro-sonar technology that can continuously and in real time track finger-spelling in American Sign Language (ASL). A Cornell University-led research team has developed an artificial intelligence-powered ring equipped with micro-sonar technology that can continuously and in real time track fingerspelling in American Sign Language (ASL). In its current form, which is used in ASL to spell out words without corresponding signs, such as proper nouns, names and technical terms. With further development, the device believed to be the first of its kind a doctoral student in the field of information science Lim is lead author of Spell Ring: Recognizing Continuous Fingerspelling in American Sign Language using a Ring, which will be presented at the Association of Computing Machinery's conference on Human Factors in Computing Systems (CHI), April 26-May 1 in Yokohama, Japan.

INCHARGE









DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT

NEWS CORNER

Date: 25.1.25

"ALL-TO-ALL QUANTUM CONNECTIVITY"

Researchers developed a scalable interconnect that facilitates all-to-all communication among many quantum processor modules by enabling each to send and receive quantum information on demand in a user-specified direction. They used the interconnect to demonstrate remote entanglement, a type of correlation that is key to creating a powerful, distributed network of quantum processors. Quantum computers have the potential to solve complex problems that would be impossible for the most powerful classical supercomputer to crack. Just like a classical computer has separate, yet interconnected, a quantum computer will need to communicate quantum information between multiple processors. Current architectures used to interconnect superconducting quantum processors are "point-to-point" in connectivity, meaning they require a series of transfers between network nodes, with compounding error rates.

INCHARGE









DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT

NEWS CORNER

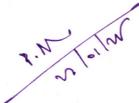
Date: 27.1.25

"MAKING THE BRAIN TO A CYBERPUNK"

In a paper recently published in the leading journal The Lancet Digital Health, a scientific team led by Stanisa Raspopovic from MedUni Vienna looks at the progress and challenges in the research and development of brain implants. As neural implants have an effect not only on a physical but also on a psychological level, researchers are calling for particular ethical and scientific care when conducting clinical trials. The research and development of neuroprostheses has entered a phase in which experiments on animal models are being followed by tests on humans. Only recently, reports of a paraplegic patient in the USA who was implanted with a brain chip as part of a clinical trial caused a stir. With the help of the implant, the man can control his wheelchair, operate the keyboard on his computer and use the cursor in such a way that he can even play chess.

STAFF INCHARGE











DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT

NEWS CORNER

Date: 28 1 2

"AI FOR BIRTH ANALYSIS"

AI tool analyses placentas at birth for faster detection of neonatal, maternal problems. a newly developed tool that harnesses computer vision and artificial intelligence (AI) may help clinicians from around the globe rapidly evaluate placentas at birth, potentially improving neonatal and maternal care. Early identification of placental infection could help mothers and babies receive antibiotics. The tool would be helpful for doctors in low-resource areas with no pathology labs or specialists to quickly spot issues. And in well-resourced hospitals, it could help doctors determine which placentas need a closer look. The study, which was published Dec. 13 in the print edition of the journal *Patterns* and featured on the journal's cover.

STAFF INCHARGE

7. Not Mark







DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT



NEWS CORNER

Date: 29.1.25

"TATA's NEW PARTNERSHIP"

Tata Technologies partners with Telechips to develop solution for software-defined vehicles. Global product engineering and digital services firm Tata Technologies on Tuesday said it has partnered with Telechips, an automotive semiconductor solutions company, aimed at innovations for vehicle software solutions for next-gen software-defined vehicles. Under the strategic partnership, the two companies aim to develop innovative solutions for ADAS (advanced driver-assistance system) platforms, automotive cockpit domain controllers, and central and zonal gateway controllers that will accelerate the realisation of software-defined vehicles (SDVs), Tata Technologies said in a statement. the realisation of software-defined vehicles (SDVs), Tata Technologies said in a statement

INCHARGE











DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT

NEWS CORNER

Date: 30 1 25

"JOE BIDEN'S PROJECT-A NEW COMPETITOR"

The Stargate AI project is shaping up to be one of the biggest AI investments in history, but it faces strong scrutiny from critics like Elon Musk. Meanwhile, Microsoft and OpenAI remain confident in their ability to fund and develop the project successfully. Elon Musk challenges Stargate project's funding: Tesla and SpaceX CEO Elon Musk has raised concerns over the financial viability of the Stargate AI project, a high-profile initiative which is approved under former US President Joe Biden. This project is said to aim at boosting the AI infrastructure in the United States. Still, Musk questioned the involved companies with the project which includes Microsoft, Oracle, OpenAI and SoftBank- who have the financial backing to sustain it. The Stargate project, which was approved by Biden's administration, is a USD 500 billion initiative which has been designed to accelerate AI development and infrastructure in the US.

STAFF INCHARGE

STAFF INCHARGE











DEPARTMENT OF COMPUTER SCIENCE (UG) DBT STAR SPONSORED DEPARTMENT

NEWS CORNER

Date: 31125

"PHOTONIC LATCH-THE NEXT GEN OPTICS"

Researchers have developed a new type of optical memory called a programmable photonic latch that is fast and scalable, enabling temporary data storage in optical processing systems and offering a high-speed solution for volatile memory using silicon photonics. The new integrated photonic latch is model after a set-reset latch, a basic memory device used in electronic devices to store a single bit by switching between set (1) and reset (0) states based on inputs. In the Optica Publishing Group journal *Optics Express*, the researchers describe a proof-of-concept experiment in which they demonstrated the photonic latch using a programmable silicon photonic platform. Features such as optical set and reset, complementary outputs, scalability and compatibility with wavelength division multiplexing (WDM) make this approach promising for faster and more efficient optical processing systems

