

24th July, 2024

To
BSE Limited
Listing Dept. / Dept. of Corporate Services
Phiroze Jeejeebhoy Towers,
25th Floor, Dalal Street,
Mumbai – 400001

Scrip Code: 526638

Sub: Submission of newspaper advertisement under Regulation 30 of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015

Dear Sir/ Madam,

Pursuant to the provisions of Regulation 30 of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, please find enclosed herewith the copies of newspaper advertisement published in English and Regional newspapers (Gujarati) in respect of information regarding the 35th Annual General Meeting of the Company.


The enclosed newspaper advertisement is published pursuant to General Circular No. 09/2023 dated 25th September, 2023 read with General Circular No.10/2022 dated December 28, 2022, General Circular No. 02/2022 dated May 05, 2022 and General Circular No. 20/2020 dated May 05, 2020 issued by the Ministry of Corporate Affairs.

Kindly take the same on record.

Thanking you,

**Yours faithfully,
For Texel Industries Limited**




**Parth P. Niphadkar
Chief Financial Officer**

Encl(s): As above

Super Radar: Pioneering Research Overcomes Historic Trade-Offs Between Distance and Detail

New interference radar functions employed by a team of researchers from Chapman University and other institutions improve the distance resolution between objects using radar waves. The results may have important ramifications in military, construction, archaeology, mineralogy, and many other domains of radar applications.

This first proof-of-principle experiment opens a new area of research with many possible applications that can be disruptive to the multi-billion dollar radar industry. There are many new avenues to pursue both in theory and experiment.

The discovery addresses a nine-decade-old problem that requires scientists and engineers to sacrifice detail and resolution for observation distance — underwater, underground, and in the air. The previous bound limited the distance estimated between objects to be one quarter of the wavelength of radio waves; this technology improves the distance resolution between objects using radar waves.

"We believe this work will open a host of new applications as well as improve existing technologies," says John



Howell, the lead author of the article published in Physical Review Letters and highlighted as an Editors' Suggestion paper (see Radar Resolution Gets a Boost). "The possibility of efficient humanitarian demining or performing high-resolution, non-invasive medical sensing is very motivating," Howell adds.

Howell and a team of researchers from the Institute for Quantum Studies at Chapman University, the Hebrew University of Jerusalem, the University of Rochester, the Perimeter Institute and the University of Waterloo have demonstrated range resolution more than 100 times better than the long-believed limit. This result

breaks the trade-off between resolution and wavelength, allowing operators to use long wavelengths and now have high spatial resolution.

By employing functions with both steep and zero-time gradients, the researchers showed that it was possible to measure extremely small changes in the waveform to precisely predict the distance between two objects while still being robust to absorption losses. To an archaeologist, this creates the ability to distinguish between a coin deep underground from a pottery shard.

The breakthrough idea relies on the superposition of specially-crafted waveforms. When a radio wave reflects

from two different surfaces, the reflected radio waves add to form a new radio wave. The research team uses purpose-designed pulses to generate a new kind of superposed pulse. The composite wave has unique sub-wavelength features that can be used to predict the distance between the objects.

"In radio engineering, interference is a dirty word and thought of as a deleterious effect. Here, we turn this attitude on its head, and use wave interference effects to break the long-standing bound on radar ranging by orders of magnitude," says Andrew Jordan, director of Quantum Studies at Chapman University. "In remote radar sensing, only a small amount of the electromagnetic radiation is returned to the detector. The tailored waveforms that we designed have the important property of being self-referencing, so properties of the target can be distinguished from loss of signal."

Howell adds, "We are now working to demonstrate that it is possible to not only measure the distance between two objects, but many objects or perform detailed characterization of surfaces."

Revolutionizing Brain Health: Rice University Unveils Tiny, Implantable Brain Stimulator

Rice University engineers have developed the smallest implantable brain stimulator demonstrated in a human patient. Thanks to pioneering magnetolectric power transfer technology, the pea-sized device developed in the Rice lab of Jacob Robinson in collaboration with Motif Neurotech and clinicians Dr. Sameer Sheth and Dr. Sunil Sheth can be powered wirelessly via an external transmitter and used to stimulate the brain through the dura — the protective membrane attached to the bottom of the skull. The device, known as the Digitally Programmable Over-brain Therapeutic (DOT), could revolutionize treatment for drug-resistant depression and other psychiatric or neurological disorders by providing a therapeutic alternative that offers greater patient autonomy and accessibility than current neurostimulation-based therapies and is less invasive than other brain-computer interfaces (BCIs).

"In this paper, we show that our device, the size of a pea, can activate the motor cortex, which results in the patient moving their hand," said



Robinson, a professor of electrical and computer engineering and of bioengineering at Rice. "In the future, we can place the implant above other parts of the brain, like the prefrontal cortex, where we expect to improve executive functioning in people with depression or other disorders."

Existing implantable technologies for brain stimulation are powered by relatively large batteries that need to be placed under the skin elsewhere in the body and connected to the stimulating device via long wires. Such design limitations require more surgery and subject the individual to a greater burden

of hardware implantation, risks of wire breakage or failure, and the need for future battery replacement surgeries.

"We eliminated the need for a battery by wirelessly powering the device using an external transmitter," explained Joshua Woods, an electrical engineering graduate student in the Robinson lab and lead author on the study published in Science Advances. Amanda Singer, a former graduate student in Rice's applied physics program who is now at Motif Neurotech, is also a lead author. The technology relies on a material that converts magnetic fields into electrical pulses. This conversion process is very

efficient at small scales and has good misalignment tolerance, meaning it does not require complex or minute maneuvering to activate and control. The device has a width of 9 millimeters and can deliver 14.5 volts of stimulation.

"Our implant gets all of its energy through this magnetolectric effect," said Robinson, who is the founder and CEO of Motif, a startup formed through the Rice Biotech Launch Pad that is working to bring the device to market."

Motif is one of several neurotech companies that are probing the potential of BCIs to revolutionize treatments for neurological disorders.

"Neurostimulation is key to enabling therapies in the mental health space where drug side effects and a lack of efficacy leave many people without adequate treatment options," Robinson said.

The researchers tested the device temporarily in a human patient, using it to stimulate the motor cortex — the part of the brain responsible for movement — and generating a hand movement response. They next showed the device interfaces with the brain stably for a 30-day duration in pigs.

Breakthrough Device Brings Scientists a Step Closer to Successfully Growing Plants in Space

Researchers from the University of Illinois Urbana-Champaign have developed new, highly flexible sensors capable of monitoring and transmitting data on plant growth autonomously, according to a paper published in the journal *Device*.

The polymer sensors are resilient to humidity and temperature, can stretch over 400% while remaining attached to a plant as it grows, and send a wireless signal to a remote monitoring location, said chemical and biomolecular engineering professor Ying Diao, who led the study with plant biology professor and department head Andrew Leakey.

The study details some of the early results of a NASA grant awarded to Diao to investigate how wearable printed electronics will be used to make farming possible in space.

"This work is motivated by

the needs of astronauts to grow vegetables sustainably while they are on long missions," she said.

Diao's team approached this project using an Earth-based laboratory to create a highly dependable, stretchable electronic device — and its development did not come easily, she said.

"Honestly, we began this work thinking that this task would only take a few months to perfect. However, we quickly realized that our polymer was too rigid," said Siqing Wang, a graduate student and first author of the study. "We had to reformulate a lot of the components to make them more soft and stretchable and adjust our printing method to control the assembly of the microstructures inside the device so that they did not form large crystals during the printing and curing process."

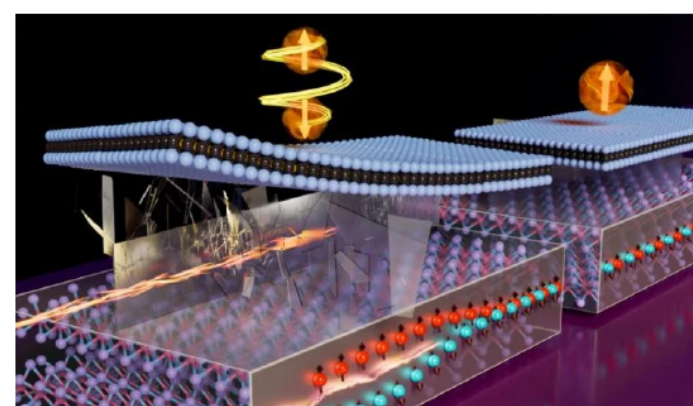
MIT Unlocks the Power of 2D Magnets for Future Computing

Globally, computation is booming at an unprecedented rate, fueled by the boons of artificial intelligence. With this, the staggering energy demand of the world's computing infrastructure has become a major concern, and the development of computing devices that are far more energy-efficient is a leading challenge for the scientific community.

Use of magnetic materials to build computing devices like memories and processors has emerged as a promising avenue for creating "beyond-CMOS" computers, which would use far less energy compared to traditional computers. Magnetization switching in magnets can be used in computation the same way that a transistor switches from open or closed to represent the 0s and 1s of binary code.

While much of the research along this direction has focused on using bulk magnetic materials, a new class of magnetic materials — called two-dimensional van der Waals magnets — provides superior properties that can improve the scalability and energy efficiency of magnetic devices to make them commercially viable.

Although the benefits of shifting to 2D magnetic materials are evident, their practical induction into computers has been hindered by some fundamental



challenges. Until recently, 2D magnetic materials could operate only at very low temperatures, much like superconductors. So bringing their operating temperatures above room temperature has remained a primary goal. Additionally, for use in computers, it is important that they can be controlled electrically, without the need for magnetic fields. Bridging this fundamental gap, where 2D magnetic materials can be electrically switched above room temperature without any magnetic fields, could potentially catapult the translation of 2D magnets into the next generation of "green" computers.

A team of MIT researchers has now achieved this critical milestone by designing a "van der Waals atomically layered heterostructure" device where a 2D van der Waals magnet, iron gallium telluride, is interfaced with another 2D material, tungsten ditelluride.

As an open-access paper published recently in *Science Advances*, the team shows that the magnet can be toggled between the 0 and 1 states simply by applying pulses of electrical current across their two-layer device.

"Our device enables robust magnetization switching without the need for an external magnetic field, opening up unprecedented opportunities for ultra-low power and environmentally sustainable computing technology for big data and AI," says lead author Deblina Sarkar, the AT&T Career Development Assistant Professor at the MIT Media Lab and Center for Neurobiological Engineering, and head of the Nano-Cybernetic Biotrek research group. "Moreover, the atomically layered structure of our device provides unique capabilities including improved interface and possibilities of gate voltage

tunability, as well as flexible and transparent spintronic technologies."

Sarkar is joined on the paper by first author Shivam Kajale, a graduate student in Sarkar's research group at the Media Lab; Thanh Nguyen, a graduate student in the Department of Nuclear Science and Engineering (NSE); Nguyen Tuan Hung, an MIT visiting scholar in NSE and an assistant professor at Tohoku University in Japan; and Mingda Li, associate professor of NSE.

When electric current flows through heavy metals like platinum or tantalum, the electrons get segregated in the materials based on their spin component, a phenomenon called the spin Hall effect, says Kajale. The way this segregation happens depends on the material, and particularly its symmetries.

"The conversion of electric current to spin currents in heavy metals lies at the heart of controlling magnets electrically," Kajale notes. "The microscopic structure of conventionally used materials, like platinum, have a kind of mirror symmetry, which restricts the spin currents only to in-plane spin polarization."

Kajale explains that two mirror symmetries must be broken to produce an "out-of-plane" spin component that can be transferred to a magnetic layer to induce field-free switching.

Crucial Connection Completed: Laying the Foundation for the Quantum Internet

The ability to share quantum information is crucial for developing quantum networks for distributed computing and secure communication. Quantum computing will be useful for

solving some important types of problems, such as optimizing financial risk, decrypting data, designing molecules, and studying the properties of materials.

However, this development is being held up because quantum information can be lost when transmitted over long distances. One way to overcome this barrier is to divide the network into smaller segments and link them all up with a shared quantum state.

To do this requires a means to store the quantum information and retrieve it again: that is, a quantum memory device. This must 'talk' to another device that allows the creation of quantum information in the first place. For the first time, researchers have created such a system that interfaces these two key components, and uses regular optical fibres



to transmit the quantum data.

The feat was achieved by researchers at Imperial College London, the University of Southampton, and the Universities of Stuttgart and Wurzburg in Germany, with the results published in *Science Advances*.

Co-first author Dr. Sarah Thomas, from the Department of Physics at Imperial College London, said: "Interfacing two key devices together is a crucial step forward in allowing quantum networking, and we are really excited to be the first team to have been able

to demonstrate this." Co-first author Lukas Wagner, from the University of Stuttgart, added: "Allowing long-distance locations, and even to quantum computers, to connect is a critical task for future quantum networks." In regular telecommunications — like the internet or phone lines — information can be lost over large distances. To combat this, these systems use 'repeaters' at regular points, which read and re-amplify the signal, ensuring it gets to its destination intact. Classical repeaters, however, cannot be used with quantum information, as any attempt to read and copy the information would destroy it. This is an advantage in one way, as quantum connections cannot be 'tapped' without destroying the information and alerting the users. But it is a challenge to be tackled

for long-distance quantum networking. One way to overcome this problem is to share quantum information in the form of entangled particles of light, or photons. Entangled photons share properties in such a way that you cannot understand one without the other.

To share entanglement over long distances across a quantum network you need two devices: one to create the entangled photons, and one to store them and allow them to be retrieved later. There are several devices used to create quantum information in the form of entangled photons and to store it, but both generating these photons on demand and having a compatible quantum memory in which to store them eluded researchers for a long time. Photons have certain wavelengths (which, in visible

light, creates different colors), but devices for creating and storing them are often tuned to work with different wavelengths, preventing them from interfacing. To make the devices interface, the team created a system where both devices used the same wavelength. A 'quantum dot' produced (non-entangled) photons, which were then passed to a quantum memory system that stored the photons within a cloud of rubidium atoms. A laser turned the memory 'on' and 'off', allowing the photons to be stored and released on demand. Not only did the wavelength of these two devices match, but it is at the same wavelength as telecommunications networks used today — allowing it to be transmitted with regular fibre-optic cables familiar in everyday internet connections.

Science Made Simple: How Do Lithium-Ion Batteries Work?



Lithium-ion batteries power the lives of millions of people each day. From laptops and cell phones to hybrids and electric cars, this technology is growing in popularity due to its light weight, high energy density, and ability to recharge.

A battery is made up of an anode, cathode, separator, electrolyte, and two current collectors (positive and negative). The anode and cathode store the lithium. The electrolyte carries positively charged lithium ions from the anode to the cathode and vice versa through the separator.

The movement of the lithium ions creates free electrons in the anode which creates a charge at the positive current collector. The electrical current then flows from the current collector through a device being powered (cell phone, computer, etc.) to the negative current collector. The separator blocks the flow of electrons inside the

battery. While the battery is discharging and providing an electric current, the anode releases lithium ions to the cathode, generating a flow of electrons from one side to the other. When plugging in the device, the opposite happens: Lithium ions are released by the cathode and received by the anode.

The two most common concepts associated with batteries are energy density and power density. Energy density is measured in watt-hours per kilogram (Wh/kg) and is the amount of energy the battery can store with respect to its mass. Power density is measured in watts per kilogram (W/kg) and is the amount of power that can be generated by the battery with respect to its mass. To draw a clearer picture, think of draining a pool. Energy density is similar to the size of the pool, while power density is comparable to draining the pool as quickly as possible.

TEXEL INDUSTRIES LIMITED
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NOTICE
 Notice is hereby given that the 35th Annual General Meeting ("AGM") of Texel Industries Limited (the "Company") will be held through Video Conferencing ("VC") or Other Audio Visual Means ("OAVM") on Saturday, 24th August, 2024 at 12:30 p.m. pursuant to the applicable provisions of the Companies Act, 2013 and Rules framed thereunder read with General Circular Nos. 20/2020 dtd. 5th May, 2020, 02/2021 dtd. 13th January, 2021, 2/2022 dtd. May 05, 2022, 10/2022 dtd. December 28, 2022 and 09/2023 dtd. 25th September, 2023 issued by the Ministry of Corporate Affairs and SEBI Circular Nos. SEBI/HO/CFD/CMD1/CIR/2020/79 dtd. 12th May, 2020, SEBI/HO/CFD/CMD2/CIR/2021/11 dtd. 15th January, 2021, SEBI/HO/CFD/CMD2/CIR/2022/62 dtd. May 13, 2022, SEBI/HO/CFD/PoD-2/P/CIR/2023/4 dtd. January 5, 2023 and SEBI/HO/CFD/PoD-2/P/CIR/2023/167 dtd. October 7, 2023 to transact the business set forth in the AGM Notice.

In compliance with the above circulars, the AGM Notice alongwith the Annual Report for the financial year 2023-24 will be sent through email to the members whose email addresses are registered with the Company/RTA/Depository Participants.

Procedure for registering email address:
 1. Members holding shares in physical mode, who have not registered their email address with the Company/RTA are requested to register/update their e-mail address by sending the following documents to the Company's Registrar and Transfer Agent, Link Intime India Pvt. Ltd. ("RTA") on ahmedabad@linkintime.co.in and also to the Company on invrelations@geotexelin.com;
 A request letter providing name of the Member, Folio No., scanned copy of the share certificate (front and back), Mobile No., self-attested scanned copy of PAN and Aadhar and email address to be registered/updated and signed by Member (in case of joint holding, the request letter shall be signed by the first named shareholder);
 2. Members holding shares in demat mode, who have not registered their e-mail address are requested to register/update the same with their Depository Participant(s).

Members holding shares in physical mode, who have not updated their bank details are requested to update the same by sending alongwith the above request letter, the self-attested scanned copy of cancelled cheque bearing the name of the Member (in case of joint holding, the cancelled cheque shall bear the name of first named shareholder).

The AGM Notice alongwith the Annual Report for the financial year 2023-24 will be available on the Company's website at www.geotexelin.com, on the BSE India Stock Exchange website at www.bseindia.com and on the Central Depository Services (India) Limited website at www.evotingindia.com. The manner of voting through remote e-voting or through the e-voting system during the AGM for Members has been provided in the AGM Notice. Members are requested to carefully read the AGM Notice.

For Texel Industries Limited
Sd/-
Shubham Kiran Shah
Company Secretary & Compliance Officer

Date: 23rd July, 2024
Place: Ahmedabad

WESTERN RAILWAY RAJKOT DIVISION ANNUAL MAINTENANCE CONTRACT

1. E-Tender Notice No. DRM-RJT-24-25-SnT-E-04R1 DT-17/07/2024; Address of the office: Divisional Railway Manager (S&T), Western Railway, Kothi Compound, Rajkot - 380001; Website particular: www.irps.gov.in; Tender No. DRM-RJT-24-25-SnT-E-04R1 DT-17/07/2024; Name of work: Rajkot Division - Annual Maintenance Contract (AMC) of various train arrival departure display boards like CGDB, MLDB, AGDB, PDB, SLDB etc with associated accessories for three years at Rajkot (RJT) (PF-1,2,3), Wankar (WKR) (PF-2), Than (THAN) (PF-1) stations; Tender Cost: ₹ 21,84,803.19; Earnest Money Deposit: ₹ 43700/-; Tender Form Fee: ₹ 00.00 (ZERO) As Per Para-3, GCC-July-2022; Last Date & time for online apply: on Date 16/08/2024 up to 15:30 hours. 61

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