

FORM A**PUBLIC ANNOUNCEMENT**

(Under Regulation 6 of the Insolvency and Bankruptcy Board of India (Insolvency Resolution Process for Corporate Persons) Regulations, 2016)

**FOR THE ATTENTION OF THE CREDITORS OF
SHEBA MARINE ENGINEERING PRIVATE LIMITED**

RELEVANT PARTICULARS		
1.	Name of corporate debtor	Sheba Marine Engineering Private Limited
2.	Date of incorporation of corporate debtor	October 14, 2014
3.	Authority under which corporate debtor is incorporated / registered	Registrar of Companies, Chennai
4.	Corporate Identity No. / Limited Liability Identification No. of corporate debtor	U74900TN2014PTC097690
5.	Address of the registered office and principal office (if any) of corporate debtor	Registered Office: No. 46 Thenbazar Post, Villupuram, Thindivanam, Tamil Nadu – 604001
6.	Insolvency commencement date in respect of corporate debtor	June 21, 2024 (copy of order made available on June 24, 2024)
7.	Estimated date of closure of insolvency resolution process	December 17, 2024
8.	Name and registration number of the insolvency professional acting as interim resolution professional	Mr. Prakul Thadi IBBI/IPA-002/IP-N01149/2021-2022/13806
9.	Address and e-mail of the interim resolution professional, as registered with the Board	Address: Flat No. 1405, J Block, Rainbow Vistas Green Hills Road, Moosapet, Hyderabad, Telangana – 500018 Email id: prakulthadi@hotmail.com
10.	Address and e-mail to be used for correspondence with the interim resolution professional	Address: 470/12, II Floor, HIG-1, Block-5, Baghlingampally, Hyderabad - 500044 Email id: prakulthadi@hotmail.com cirp.shebamarine@gmail.com
11.	Last date for submission of claims	July 08, 2024
12.	Classes of creditors, if any, under clause (b) of subsection (6A) of section 21, ascertained by the interim resolution professional	Not Applicable (As per the information available with the Interim Resolution Professional)
13.	Names of Insolvency Professionals identified to act as Authorised Representative of creditors in a class (Three names for each class)	Not Applicable
14.	(a) Relevant Forms and (b) Details of authorized representatives are available at:	Relevant Forms for submission of claims can be downloaded from: https://www.ibbi.gov.in/

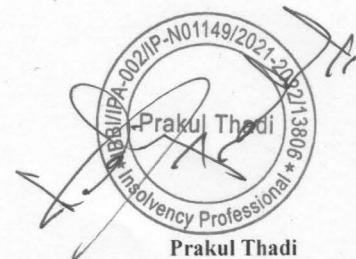
Notice is hereby given that the National Company Law Tribunal, Chennai Bench, has ordered the commencement of a corporate insolvency resolution process of M/s Sheba Marine Engineering Private Limited on June 21, 2024.

The creditors of M/s Sheba Marine Engineering Private Limited are hereby called upon to submit their claims with proof on or before **July 08, 2024**, to the interim resolution professional at the address mentioned against Entry No. 10.

The Financial Creditors shall submit their claims with proof by electronic means only. All other creditors may submit the claims with proof in person, by post or by electronic means.

Submission of false or misleading proofs of claim shall attract penalties.

Date: June 26, 2024
Place: Hyderabad



Prakul Thadi
Interim Resolution Professional of
Sheba Marine Engineering Private Limited
IBBI/IPA-002/IP-N01149/2021-2022/13806
AFA Validity: September 07, 2024

IT matters

Using AI to sift through genome data points

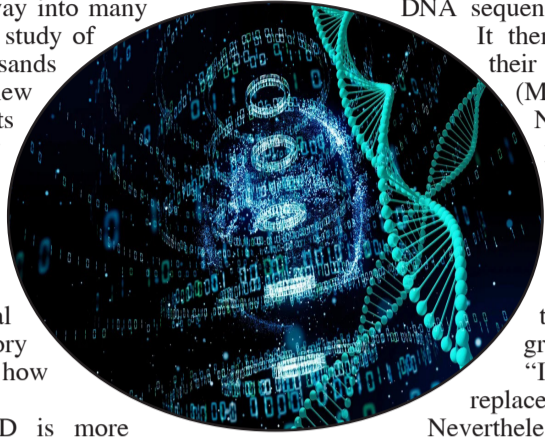
Artificial intelligence continues to squirm its way into many aspects of our lives. But what about biology, the study of life itself? AI can sift through hundreds of thousands of genome data points to identify potential new therapeutic targets. While these genomic insights may appear helpful, scientists aren't sure how today's AI models come to their conclusions in the first place. Now, a new system named SQUID arrives on the scene armed to pry open AI's black box of murky internal logic.

SQUID, short for Surrogate Quantitative Interpretability for Deepnets, is a computational tool created by Cold Spring Harbour Laboratory (CSHL) scientists. It's designed to help interpret how AI models analyse the genome.

Compared with other analysis tools, SQUID is more consistent, reduces background noise, and can lead to more accurate predictions about the effects of genetic mutations.

How does it work so much better? The key, CSHL assistant professor Peter Koo says, lies in SQUID's specialised training. "The tools that people use to try to understand these models have been largely coming from other fields like computer vision or natural language processing. While they can be useful, they're not optimal for genomics. What we did with SQUID was leverage decades of quantitative genetics knowledge to help us understand what these deep neural networks are learning," explains Koo.

SQUID works by first generating a library of over 100,000 variant



DNA sequences. It then analyses the library of mutations and their effects using a program called MAVE-NN (Multiplex Assays of Variant Effects Neural Network). This tool allows scientists to perform thousands of virtual experiments simultaneously.

In effect, they can "fish out" the algorithms behind a given AI's most accurate predictions. Their computational "catch" could set the stage for experiments that are more grounded in reality.

"In silico [virtual] experiments are no replacement for actual laboratory experiments. Nevertheless, they can be very informative. They can help scientists form hypotheses for how a particular region of the genome works or how a mutation might have a clinically relevant effect," explains CSHL Associate Professor Justin Kinney, a co-author of the study.

There are tonnes of AI models in the sea. More enter the waters each day. Koo, Kinney, and colleagues hope that SQUID will help scientists grab hold of those that best meet their specialised needs.

Though mapped, the human genome remains an incredibly challenging terrain. SQUID could help biologists navigate the field more effectively, bringing them closer to their findings' true medical implications.

Security vulnerability in 5G wireless apps

A research team led by Rice University's Edward Knightly has uncovered an eavesdropping security vulnerability in high-frequency and high-speed wireless backhaul links, widely employed in critical applications such as 5G wireless cell phone signals and low-latency financial trading on Wall Street.

Contrary to the common belief that these links are inherently secure due to their elevated positioning and highly directive millimeter-wave and sub-terahertz "pencil-beams," the team exposed a novel method of interception using a metasurface-equipped drone dubbed MetaFly.

"The implications of our research are far-reaching, potentially affecting a broad spectrum of companies,

government agencies and individuals relying on these links," said Knightly, the Shear-Lindsay Professor of Electrical and Computer Engineering and professor of computer science. "Importantly, understanding this vulnerability is the first step toward developing robust countermeasures."

Wireless backhaul links, crucial for the backbone of modern communication networks connecting end users to the main networks, have been assumed immune from eavesdropping because of their underlying physical and technological barriers. Knightly and electrical and computer engineering Ph.D. research assistant Zhambyl Shaikhanov, in collaboration with researchers at Brown University and

Northeastern University, have demonstrated how a strong adversary can bypass these defenses with alarming ease. By deploying MetaFly, they intercepted high-frequency signals between rooftops in the Boston metropolitan area, leaving almost no trace. "Our discovery highlights a critical oversight in the perceived security of our wireless backhaul links," Shaikhanov said. As wireless technology advances into the realms of 5G and beyond, ensuring the security of these networks is paramount. The Rice team's work is a significant step toward understanding sophisticated threats such as MetaFly and also safeguarding the communication infrastructure.

Super smooth ride of electricity

Continuing its tryst with ChatGPT, Trinity Mirror asked, "Explain what a superconductor is to a five-year-old." And the quicky reply: "Sure! Imagine you have a really, really long slide. When you go down the slide, sometimes you go fast, and sometimes

you slow down because of bumps or rough spots. Now, imagine a special, super-smooth slide that has no bumps at all. You would go down super quickly and smoothly without slowing down! Superconductors are like that super-smooth slide, but instead of



kids going down, it's electricity moving through a material. Normally, electricity slows down because of

little bumps (resistance) inside the wires. But in a superconductor, there are no bumps at all, so electricity can flow super smoothly and very fast without slowing down. And the best part? This only happens when the superconductor is really, really cold!

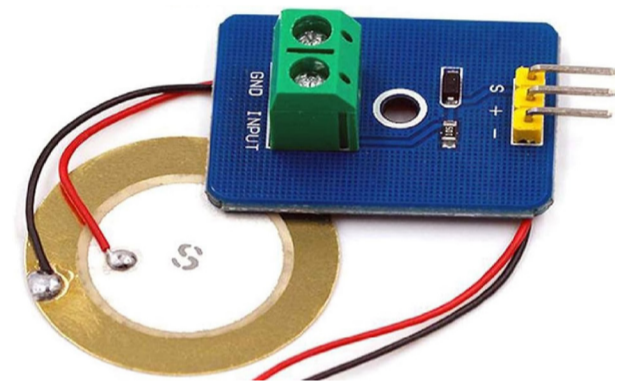
Flexible piezoelectric sensors for humans & robots

Flexible piezoelectric sensors are essential to monitor the motions of both humans and humanoid robots. However, existing designs are either are costly or have limited sensitivity. In a recent study, researchers from Japan tackled these issues by developing a novel piezoelectric composite material made from electrospun polyvinylidene fluoride nanofibers combined with dopamine. Sensors made from this material showed significant performance and stability improvements at a low cost, promising advancements in medicine, healthcare, and robotics.

The world is accelerating rapidly towards the intelligent era - a stage in history marked by increased automation and interconnectivity by leveraging technologies such as artificial intelligence and robotics. As a sometimes-overlooked foundational requirement in this transformation, sensors represent an essential interface between humans, machines, and their environment.

However, now that robots are becoming more agile and wearable electronics are no longer confined to science fiction, traditional silicon-based sensors won't make the cut in many applications. Thus, flexible sensors, which provide better comfort and higher versatility, have become a very active area of study. Piezoelectric sensors are particularly important in this regard, as they can convert mechanical stress and stretching into an electrical signal. Despite numerous promising approaches, there remains a lack of environmentally sustainable methods for mass-producing flexible, high-performance piezoelectric sensors at a low cost.

Against this backdrop, a research team from Shinshu University, Japan, decided to step up to the challenge and improve flexible piezoelectric sensor design using a well-established manufacturing technique: electrospinning. Their latest study, which was led by distinguished



professor Ick Soo Kim in association with Junpeng Xiong, Ling Wang, Mayakrishnan Gopiraman and Jian Shi. The proposed flexible sensor design involves the stepwise electrospinning of a composite 2D nanofiber membrane. First, polyvinylidene fluoride (PVDF) nanofibers with diameters in the order of 200 nm are spun, forming a strong uniform network that acts as the base for the piezoelectric sensor. Then, ultrafine PVDF nanofibers with diameters smaller than 35 nm are spun onto the preexisting base. These fibers become automatically interwoven between the gaps of the base network, creating a particular 2D topology.

After characterization via experiments, simulations, and theoretical analyses, the researchers found that the resulting composite PVDF network had enhanced beta crystal orientation. By enhancing this polar phase, which is responsible for the piezoelectric effect observed in PVDF materials, the piezoelectric performance of the sensors was significantly improved. To increase the stability of the material further, the researchers introduced dopamine (DA) during the electrospinning process, which created a protective core-shell structure.

"Sensor fabricated from using PVDF/DA composite membranes exhibited superb performance, including a wide response range of 1.5-40 N, high sensitivity of 7.29 V/N to weak forces in the range of 0-4 N, and excellent operational durability," remarks Kim. These exceptional qualities were demonstrated practically using wearable sensors

and diagnostics, but also robotics. "Despite the current challenges, humanoid robots are poised to play an increasingly integral role in the very near future. For instance, the well-known Tesla robot 'Optimus' can already mimic human motions and walk like a human," muses Kim. "Considering high-tech sensors are currently being used to monitor robot motions, our proposed nanofiber-based superior piezoelectric sensors hold much potential not only for monitoring human movements, but also in the field of humanoid robotics." To make the adoption of these sensors easier, the research team will be focusing on improving the material's electrical output properties so that flexible electronic components can be driven without the need for an external power source. Hopefully, further progress in this area will accelerate our stride towards the intelligent era, leading to more comfortable and sustainable lives.

Using tech to decipher visual communication

A new way to teach artificial intelligence (AI) to understand human line drawings - even from non-artists - has been developed by a team from the University of Surrey and Stanford University. The new model approaches human levels of performance in recognising scene sketches. Dr Yulia Gryaditskaya, Lecturer at Surrey's Centre for Vision, Speech and Signal Processing (CVSSP) and Surrey Institute for People-Centred AI (PAI), said: "Sketching is a powerful language of

