

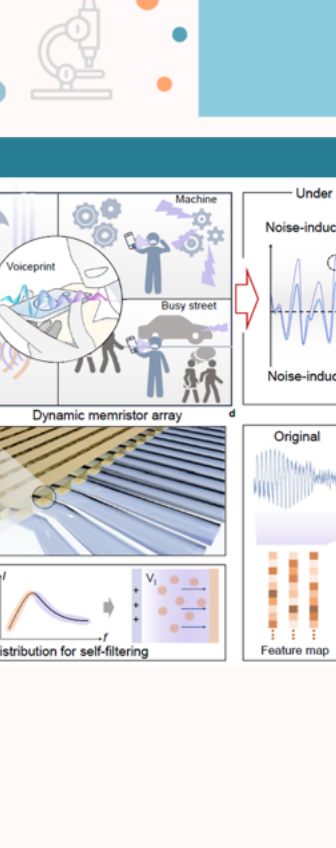


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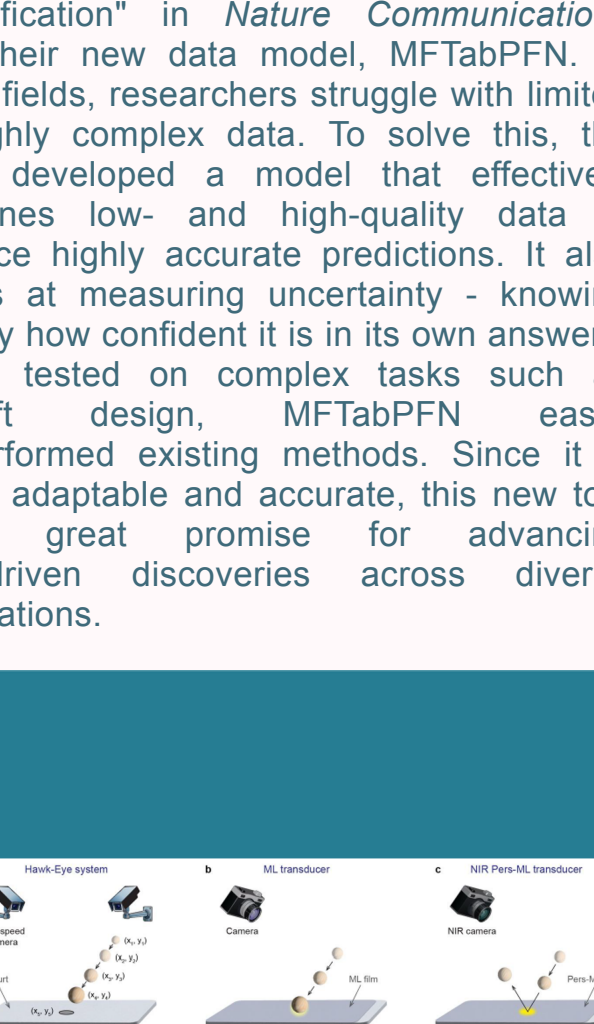
Professor of
traffic and
configuration
systems

Prof ZHOU Guoan, Presidential Assistant Professor of Department of Materials Science and Engineering

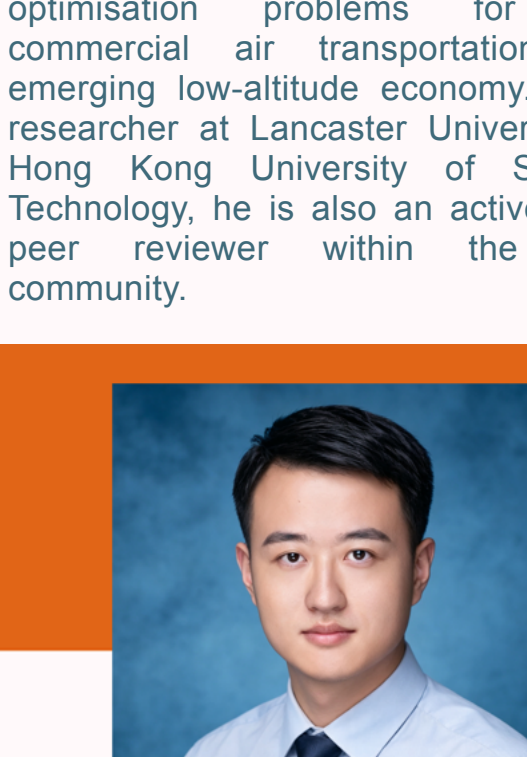
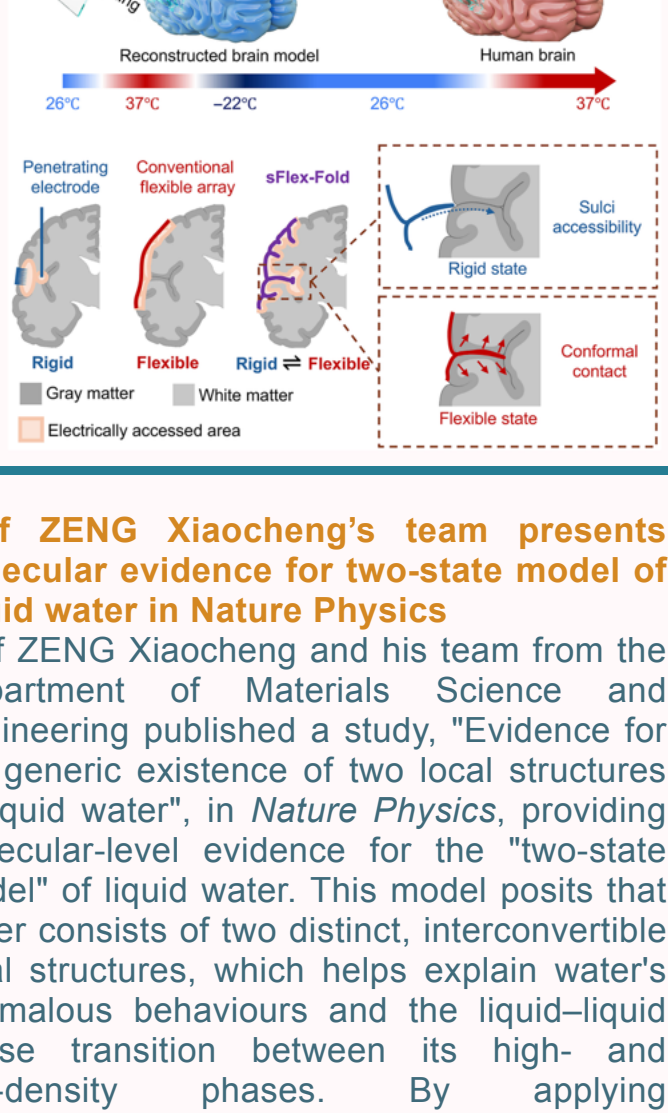
Prof ZHOU Guoan joined the Department of Materials Science and Engineering as a Presidential Assistant Professor in July 2026. He earned a PhD from the Hong Kong University of Science and Technology. Prof ZHOU is a Fellow of the International



Engineering have published a breakthrough in solar technology in *Nature*, titled "Recycling of Spin-Triplet Excitons in Organic Photovoltaics". In organic solar cells, certain energy states called "spin-triplet excitons" typically act as traps, dissipating absorbed light energy as heat. However, the research team discovered a way to "recycle" these trapped states back into usable electrical charges using a specially designed material.

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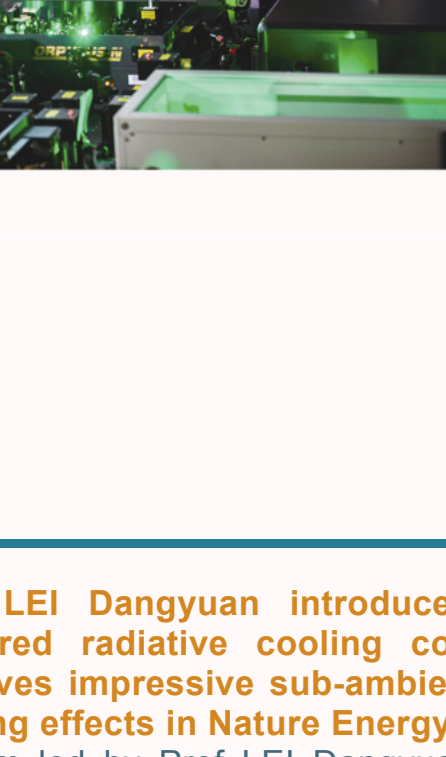
has published a paper, "Bulk spinodal-architected compositionally complex alloy with enhanced energy absorption across a wide temperature range", in *Nature Communications*. The researchers used AI-guided techniques to design a new metal alloy that acts like an ultra-strong sponge. By

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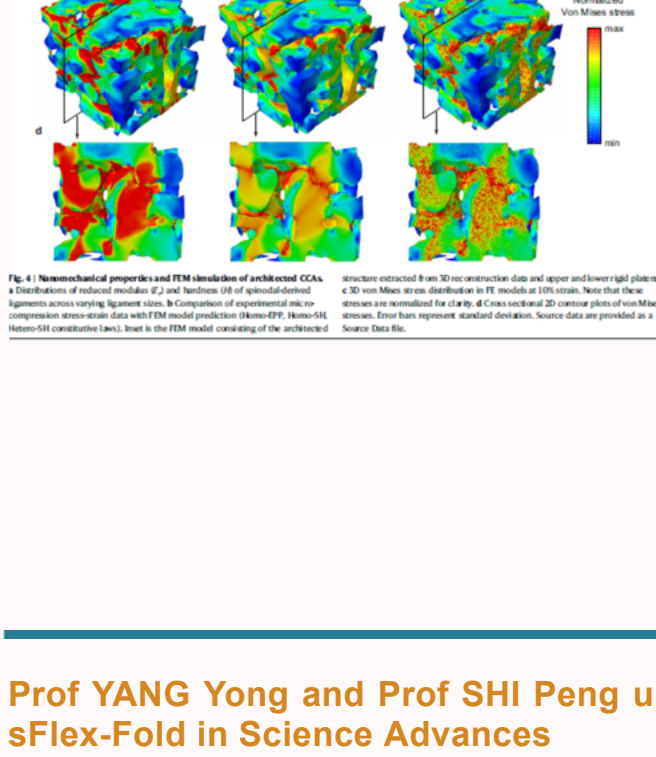
Prof Johnny HO's team reveals in Nature Communications a new memristor

technology voiceprint environments	that achieves recognition	highly in	accurate noisy
Prof Johny Department of Engineering	HO's research of Materials recently	team from the Science and published	
"Gradient-distributed memristors for adaptive recognition" in <i>Nature Communications</i> .	metal-halide and robust voiceprint	dynamic recognition	
Identifying people by their voices is often difficult in noisy environments due to variations in speech frequency and volume.			
To solve this, the researchers developed a new, highly responsive device inspired by the human auditory system. By using a specially designed material layer, this technology processes sound signals incredibly fast and significantly filters out background noise. As a result, the system achieved an impressive 99.3% voice recognition accuracy, maintaining a high 93.2% even in noisy conditions, offering a secure and reliable solution for identity authentication.			



colours while maintaining negligible solar absorption and high long-wave infrared emission. As a result, the coating can achieve sub-ambient daytime cooling of up to 9°C even in direct sunlight.

Figure 1 Schematic diagram of the deep learning architecture for near-infrared emission detection. (a) Training architecture: A sequence of CNN layers (Conv1, Conv2, Conv3, Conv4, Conv5) and fully connected layers (FC1, FC2, FC3) with ReLU and MaxPool operations. (b) Inference architecture: Similar to (a), but with a final 'Prediction' step. (c) Performance metrics: A bar chart showing accuracy (Acc) for different models (ResNet, VGG, etc.) and a line graph showing the loss function (Loss) over training steps.



mechanical Engineering and Professor Sui Feng from the College of Biomedicine has been featured in *Science Advances*. In the paper, they detailed the creation of a brain interface called sFlex-Fold, a flexibility-switchable neural interface that achieves non-destructive 3D access to both cortical gyri and deep sulci, resolving a decade-long trade-off between deep-tissue reach and gentle tissue compatibility in neurotechnology. Using an Al-designed liquid metal, this new device is stiff at room temperature, making it easy to

Figure 1: Schematic of the design and characterization of the hydrogel. (a) Schematic of the hydrogel design showing the crosslinking of PEG and PAA chains with a photocrosslinker (UV) to form a hydrogel. (b) Plot of storage modulus (G') and loss modulus (G'') versus frequency (Hz). (c) Plot of storage modulus (G') and loss modulus (G'') versus frequency (Hz) for the hydrogel. (d) Plot of storage modulus (G') and loss modulus (G'') versus frequency (Hz) for the hydrogel. (e) Plot of storage modulus (G') and loss modulus (G'') versus frequency (Hz) for the hydrogel.



transmission electron microscopy" in *Nature Communications*. Lithium batteries are excellent for storing energy, but often develop dangerous, spiky growths called dendrites that cause them to fail. Using advanced microscopes to observe batteries in real time, the team studied how different chemical solutions affect lithium as it forms. They discovered that certain chemicals create a strong, double-layered protective shield. This shield prevents those dangerous spikes.

forcing the lithium to grow smoothly and safely instead. This research provides a valuable guide for designing better chemical mixtures to build safer, longer-lasting lithium batteries.

Success rate and total funding	
Success rate and total funding	

In addition to these top-tier faculty, the school also recorded an impressive 60% pass rate for Mechanical Engineering, with seven of its faculty members receiving the highest teaching award.

recognised for submitting highly ranked applications, further underscoring its high calibre of research.

Prof XIE Min receives most influential paper award

At the 2026 Annual Conference on Engineering Management, Prof XIE Min from the Department of Systems Engineering and his former postdoctoral researcher, Prof DU Hongyan (currently at Zhengzhou University) were honoured with the Most Influential Paper Award. The accolade recognises their outstanding 2024 publication in *Engineering Management*. Supervised by the Chinese Academy of Engineering and co-published by Higher Education Press and Springer Nature, *Engineering Management* is a premier scholarly journal boasting a Journal Citation Reports impact factor of 9.8 and ranking 7th out of 69 in the Industrial Engineering category.



mining expertise, the collaboration aims to significantly enhance coal mine safety and drive innovations in intelligent mining.

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Prof ZHU Yuntian honoured with 2025 State Natural Science Award

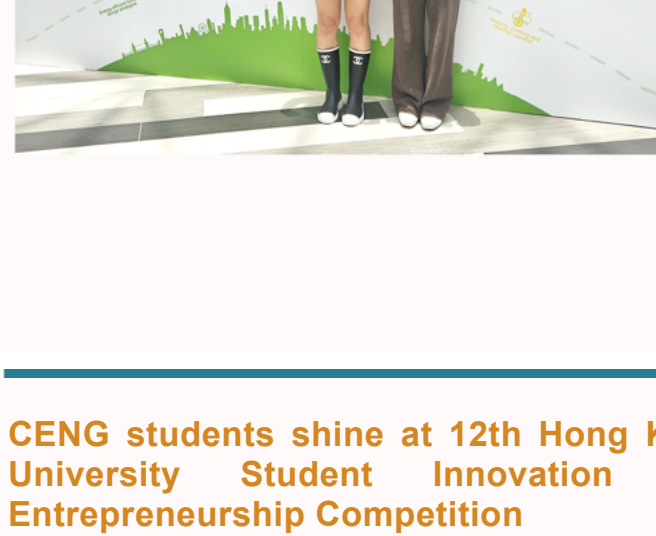
Prof ZHU Yuntian from the Department of Materials Science and Engineering has been awarded the Second Prize in the 2025 State Natural Science Award for his collaborative research, "Strengthening and Toughening of Heterostructured Metallic Materials", conducted alongside Prof WU Xiaolei from the Chinese Academy of Sciences. Overcoming the traditional trade-off between a material's strength and ductility, their pioneering work on heterostructured materials allows internal structures to work synergistically, achieving both high strength and high ductility simultaneously. This breakthrough provides a crucial theoretical foundation for designing next-generation, high-performance engineering materials, advancing sustainable development in the



ACHIEVEMENT

Civil Engineering student Ms LAI Wing Yiu recognised with 2026 Greater Bay Area Award for sustainable eco-concrete research project

Congratulations to Ms LAI Wing Yiu from the Department of Architecture and Civil Engineering for winning the 2026 Outstanding Undergraduate Graduate Award in Civil Engineering for Universities in the Guangdong-Hong Kong-Macao Greater Bay Area, presented by the Guangdong Society of Civil Engineering and Architecture. This prestigious award recognises her exceptional academic performance, leadership, and research excellence. Her final-year project, supervised by Prof Amy TAN, is titled "Investigating the Potential of Up-cycling Sludge Digestate from Micro-aeration Anaerobic Digestion into Eco-concrete". This innovative research explores the transformation of food waste sludge into sustainable eco-concrete, paving the way for greener construction materials.



Entrepreneurship Competition, organised by Hong Kong New Generation Cultural Association.

	Winning Team
for Pet Health	Dr DONG Shuqin (EE)

Supervised by Mr GUO Zhaojin (PH) Mr LI Lyu (PH) Miss WANG Ziyi (SCM) Mr ZHANG Zheng (DAOS)	Supervisor: Prof GUO Yongxin (EE) Prof LIU Kai (PH)
	Mr XU Zijun (ACE)
	Supervisor: Prof LU Guoyang (ACE)
	Mr REN Sheng (EE) Mr CAO Hanying (EE) Mr ZHU Zhaozhong (EE) Mr YANG Junhui (EE) Mr GUO Hao (EE)

Mechanical Engineering (MNE)	Second Prize: Business Plan Category	Key Technologies and Equipment for Multi-Water-Source-Compatible AEM Hydrogen Production Systems	Prof Derrick JIANG (EE) Hydroforce Tech* (Mr FAN Zhongyi and Mr Omar ISMAIL) Supervisor: Prof LI Weihong (MNE)
Electrical Engineering (EE)	Third Prize: Innovation - Information Technology Category	A-EYE Shopping Assisting System with Immersive Navigation for Visually Impaired Individuals	Mr MOCHIZUKI Ken (EE) Mr PUN Ming Ho (EE) Two students from HKUST Supervisor: Prof Andy CHAN (EE)

* Hydroforce Tech is a green hydrogen startup founded by PhD students from the Department of Mechanical Engineering (MNE) at City University of Hong Kong.

Engineering (MNE), was awarded the prestigious Heidenhain Scholarship. Sponsored by the precision measurement

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