



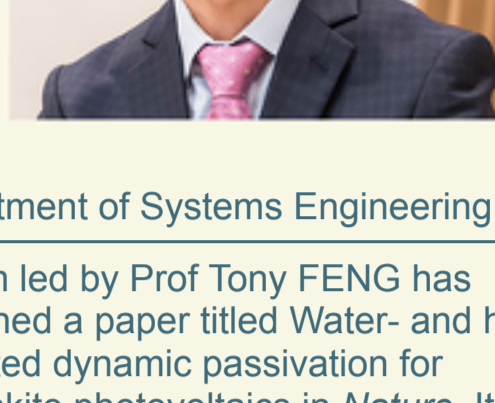
Faculty Achievement

General Research Fund (GRF)
&
Early Career Scheme (ECS)

College of Engineering

In this round of GRF and ECS applications, the College has secured a total of 71 grants with a funding amount of approximately HKD72.14M. The College ranked first (tied) in "Mechanical, Production & Industrial Engineering" and second in "Computing Science & Information Technology" disciplines for the GRF scheme. In the ECS scheme, the College received the highest number of awards (tied) in "Civil Engineering, Surveying, Building & Construction" among all institutions. Additionally, our success rate for ECS grants in the "Electrical & Electronic Engineering" discipline stands at a remarkable 100%. Additionally, the College takes pride in the fact that 18 of our faculty members were listed in the highly-ranked applications, further highlighting their outstanding research contributions.

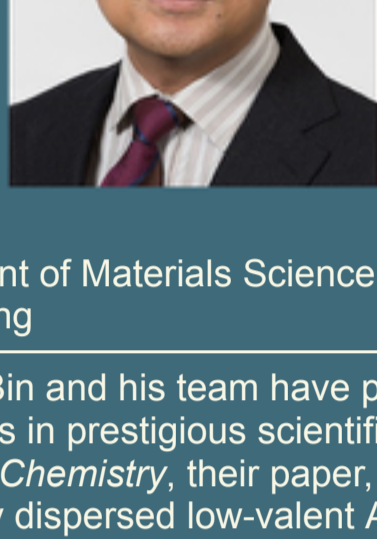
Faculty Achievement



Department of Systems Engineering

A team led by Prof Tony FENG has published a paper titled Water- and heat-activated dynamic passivation for perovskite photovoltaics in *Nature*. It reports a living passivation strategy using a hindered urea/thiocarbamate bond Lewis acid-base material (HUBLA), where dynamic covalent bonds with water and heat-activated characteristics can dynamically heal the perovskite to ensure device performance and stability. Upon exposure to moisture or heat, HUBLA generates new agents and further passivates defects in the perovskite. This innovative coating mimics the sustained-release capsule in drugs, which continuously releases chemicals to heal the defects caused by environmental stressors like water and heat, making it a promising solution for next-generation perovskite photovoltaics.

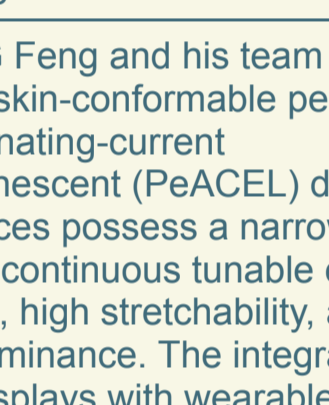
Faculty Achievement



Department of Materials Science and Engineering

Prof LIU Bin and his team have published two papers in prestigious scientific journals. In *Nature Chemistry*, their paper, titled Atomically dispersed low-valent Au boosts photocatalytic hydroxyl radical production, explores advancements in photocatalysis using atomically dispersed low-valent Au. Additionally, in *Nature Communications*, their paper, titled Heterogeneous organophotocatalytic HBr oxidation coupled with oxygen reduction for boosting bromination of arenes, presents a novel approach for enhancing the bromination of arenes through heterogeneous organophotocatalysis.

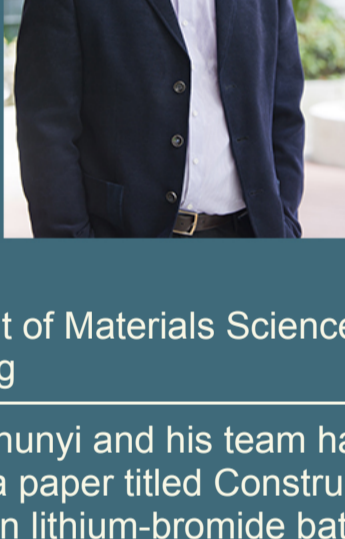
Faculty Achievement



Department of Materials Science and Engineering

Prof WANG Feng and his team have developed skin-conformable perovskite-based alternating-current electroluminescent (PeACEL) devices. These devices possess a narrow emission bandwidth, continuous tunable emission wavelength, high stretchability, and sufficient luminance. The integration of PeACEL displays with wearable electronics offers exciting possibilities for dynamic interactive displays and real-time temperature monitoring. This pioneering research, published in *Nature Photonics*, under the title Multicolour stretchable perovskite electroluminescent devices for user-interactive displays, opens up new avenues for flexible electronics, artificial skins, robotics, and biomedical devices.

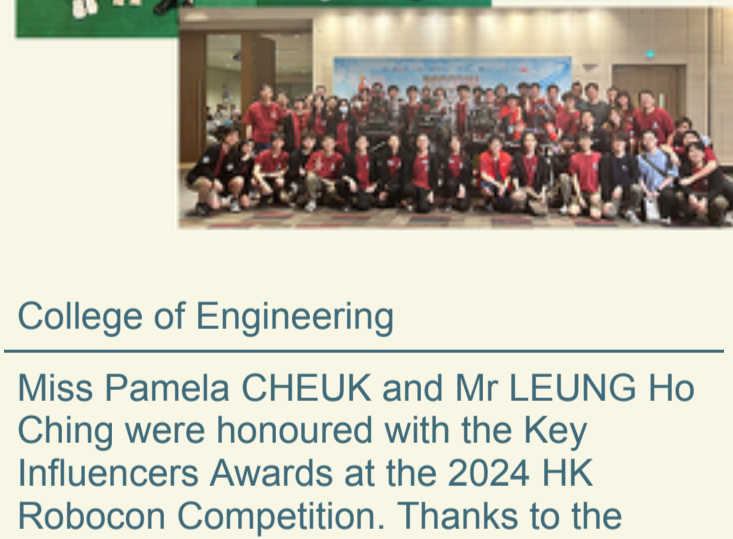
Faculty Achievement



Department of Materials Science and Engineering

Prof ZHI Chunyi and his team have published a paper titled Constructing static two-electron lithium-bromide battery in *Science Advances*. They overcome the limitations of static lithium-bromide (SLB) batteries by developing a high-performance version. The battery exhibited a voltage plateau at 3.8 V, increased discharge capacity and energy density, and demonstrated excellent stability over 1000 cycles. This breakthrough brings SLB batteries closer to the state-of-the-art Li-halogen batteries, showcasing the potential of the established two-electron redox mechanism for halogen batteries.

Student Achievement



College of Engineering

Miss Pamela CHEUK and Mr LEUNG Ho Ching were honoured with the Key Influencers Awards at the 2024 HK Robocon Competition. Thanks to the guidance and coaching provided by Prof Andy CHAN, Prof King LAI, Dr Louis LIU and Dr LUK Bing Lam, students from diverse engineering disciplines actively participated in this annual event.

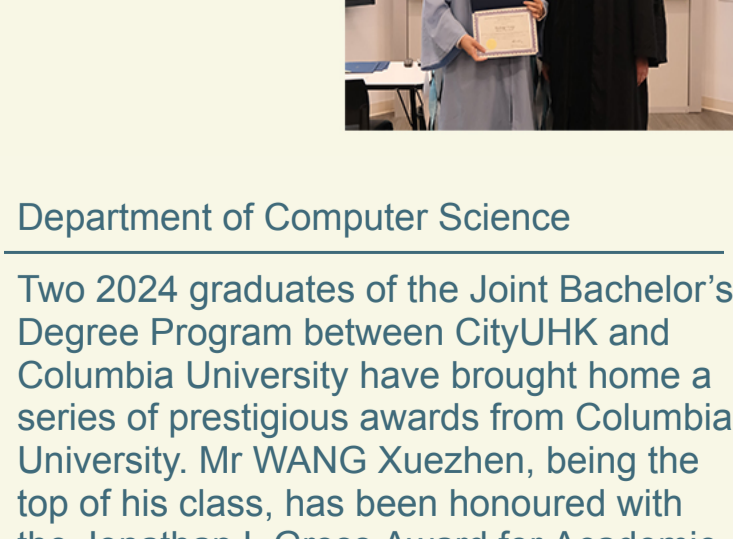
Student Achievement



Department of Architecture and Civil Engineering

Congratulations to the 1st Runner-up team comprising Miss CHEN Lu, Mr GU Yuzhou, Miss LIU Di, Miss WANG Zhilin, Mr XU Ruohen, and Miss ZHANG Jiahui, the 2nd Runner-up team composed of Mr CHOW Chun Kit, Mr NG Man Lung, Miss WONG Wing Huen, and Mr WONG Tat, and the Merit awardees Miss ARUL Philomena, Miss CHAN Cheuk Yan, Miss CHEN Tak Yin, Miss DAO Suet Tsun, Miss LAI Wing Yiu, and Miss LUK Lai Yu for their outstanding achievements in the BIM Competition organised by the Construction Industry Council.

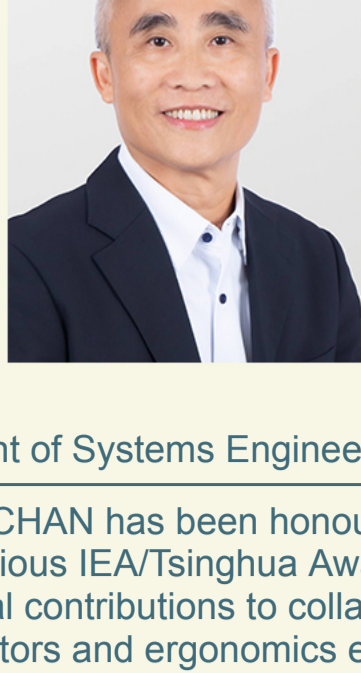
Alumni Achievement



Department of Computer Science

Two 2024 graduates of the Joint Bachelor's Degree Program between CityUHK and Columbia University have brought home a series of prestigious awards from Columbia University. Mr WANG Xuezheng, being the top of his class, has been honoured with the Jonathan L Gross Award for Academic Excellence. He has also been bestowed with the title of Valedictorian for the General Studies Class of 2024. Meanwhile, Mr WANG Yucheng has received the distinguished Russell C Mills Award. This accolade includes a cash prize and is presented to a computer science major who has exhibited excellence in the field of computer science.

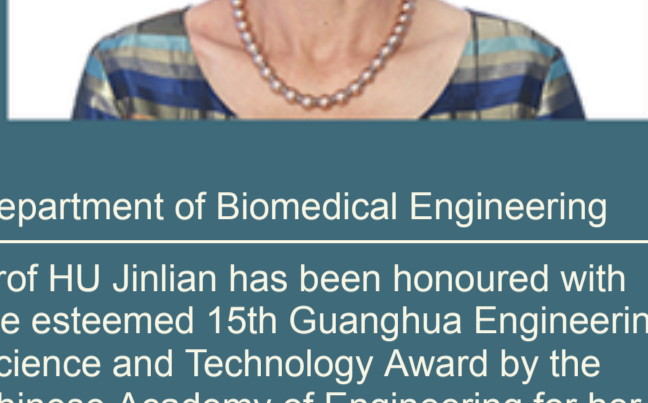
Faculty Achievement



Department of Systems Engineering

Prof Alan CHAN has been honoured with the prestigious IEA/Tsinghua Award for his exceptional contributions to collaborative human factors and ergonomics education. This esteemed award recognises Prof Chan as a leader and facilitator of collaborative, programmatic initiatives in the field of human factors and ergonomics education.

Faculty Achievement



Department of Biomedical Engineering

Prof HU Jinlian has been honoured with the esteemed 15th Guanghua Engineering Science and Technology Award by the Chinese Academy of Engineering for her remarkable contributions to the field of textile materials science. Established in 1996, the Guanghua Engineering Science and Technology Award is a prestigious biennial national-level recognition in the broad field of engineering science and technology within China.

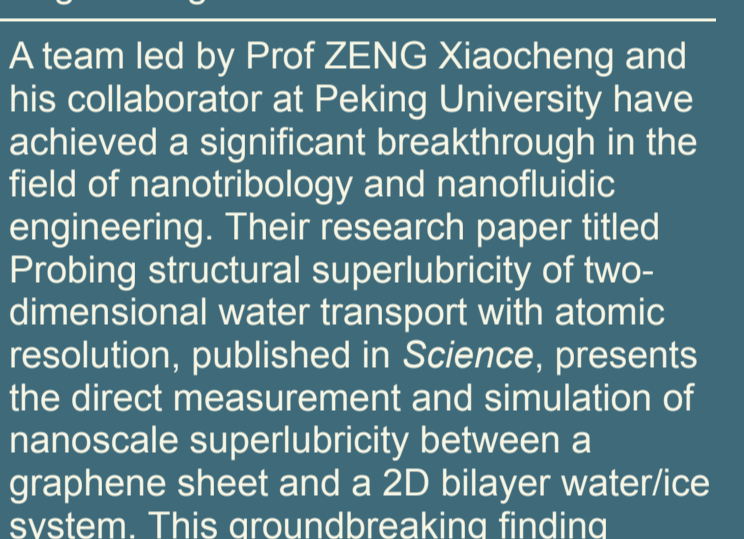
Faculty Achievement



Department of Biomedical Engineering

Prof LIU Lu and her research team, including Dr HAO Yuhui and Ms ZHENG Boyin, were awarded the Best Paper in Control at the 2024 IEEE International Conference on Real-time Computing and Robotics. Their winning paper, titled Event-Triggered Cooperative Robust Output Regulation for Nonlinear Multi-Agent Systems with Uncertain Exosystems, presents a novel event-triggered internal model-based observer method that effectively addresses uncertain exosystems. Their innovative approach conserves communication resources by requiring only intermittent agent communication while preventing Zeno behaviour through the use of timers as event-triggering thresholds.

Faculty Achievement



Department of Materials Science and Engineering

A team led by Prof ZENG Xiaocheng have achieved a significant breakthrough in the field of nanotribology and nanofluidic engineering. Their research paper titled Probing structural superlubricity of two-dimensional water transport with atomic resolution, published in *Science*, presents the direct measurement and simulation of nanoscale superlubricity between a graphene sheet and a 2D bilayer water/ice system. This groundbreaking finding reveals the nearly vanishing static friction behaviour, offering potential applications in nano-filtration and reduced tribological consumption.

Student Achievement

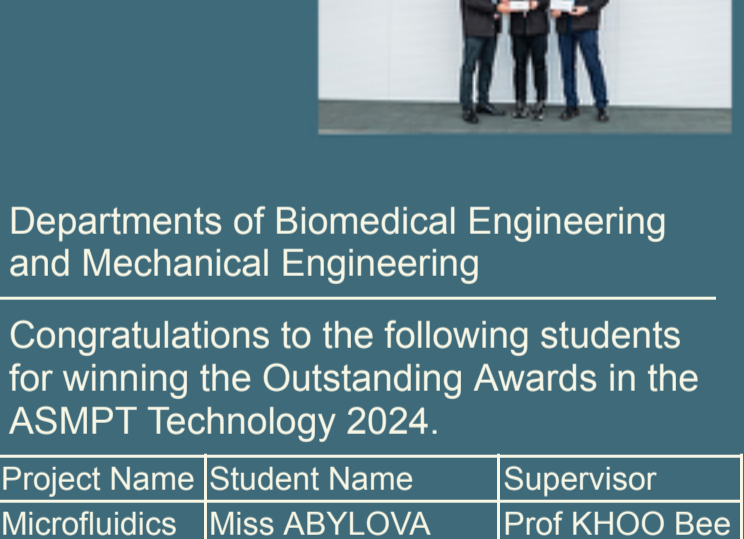


College of Engineering

CityUHK Underwater Robotics Team has achieved a remarkable accomplishment by securing Third Place at the prestigious 2024 MATE ROV World Championship. The competition witnessed the participation of 21 teams from around the globe in the Explorer class. The interdisciplinary team demonstrated their exceptional skills under the guidance of Prof Ray CHEUNG and Prof Pakpong CHIRARATTANANON. Their success showcases CityUHK's dedication to fostering excellence in robotics and engineering education.

Department	Team Members
Biomedical Engineering	Mr CHAN Ho Lam
Computer Science	Mr CHEUNG Wai San Mr WONG Tak Shing
Electrical Engineering	Mr GUO Yicheng Mr KONG Pak Hei Miss SUNG Wing Yan Miss SIT Yan Tung Mr WEI Mau Chun
Mechanical Engineering	Mr CAI Zichen Miss NG Chi Oi

Student Achievement



Departments of Biomedical Engineering and Mechanical Engineering

Congratulations to the following students for winning the Outstanding Awards in the ASMP Technology 2024.

Project Name	Student Name	Supervisor
Microfluidics platform for particle enrichment and capture	Miss ABYLOVA Bernet Miss AITKULOVA Daria Mr CHU Hon Man Herman Miss WONG Ching Yu	Prof KHOO Bee Luan
Developing a membrane-based seawater electrolyser for hydrogen generation	Mr KAM Sin Yeung Mr SUN Chin Wai Miss CAI Xinyi	Prof LI Weihong

Student Achievement



Department of Biomedical Engineering

Ms WANG Lu, a PhD student under the supervision of Prof LIU Lu, has been honoured with the Outstanding Student Paper Award at the 18th IEEE International Conference on Control & Automation for their paper titled Cooperative Source Seeking for Uncertain Networked Euler-Lagrange Systems Over Unbalanced Digraphs. It proposes a novel algorithm to locate the source of multiple unknown scalar fields using complex multi-agent systems, and relaxes the connectivity condition among agents to unbalanced communication topologies. This marks a significant advancement in gradient-free distributed optimisation, allowing for more robust and flexible networked system operations in dynamic environments.