



Issue 62 (December 2024)

Event



College of Engineering

The College of Engineering celebrated its 30th Pearl Anniversary with a gala dinner hosting 270 guests, including government officials, executives, alumni, and industrial partners. The event's theme, "Engineering the Future: Igniting Open Innovation," emphasised rekindling relationships and fostering new connections. The guest of honour, Prof SUN Dong, praised the College's growth and impact on technology. President Freddy BOEY highlighted the College's influence on the establishment of new colleges and institutes and entrepreneurship. Dean Jian LU emphasised research excellence and global partnerships. Distinguished alumnus Dr Sunny CHAI stressed innovation for economic growth. Dr Hon LO Wai Kwok humorously reflected on the College's history, culminating in a commitment to engineering a better future for Hong Kong and beyond, ending the evening with a magical touch.

Event



College of Engineering

A group of 75 students and faculty members from the College of Engineering and the College of Science visited BIEL Crystal in Huizhou, Guangdong Province on 25 October 2024. The participants had the opportunity to learn about cutting-edge glass manufacturing techniques and technological innovations and engaged in insightful discussions on engineering career prospects.

Faculty Achievement



College of Engineering

Congratulations to 17 scholars of the College who were listed as Highly Cited Researchers 2024 by Clarivate Analytics.

Name	Category
Prof Paul CHU	Cross-Field
Prof Gary FENG	Engineering
Prof HE Jr-Hau	Materials Science
Dr HUANG Zhaodong	Cross-Field
Prof Alex JEN	Materials Science
Prof LEE Chun-Sing	Cross-Field
Prof LU Yi	Social Sciences
Prof Andrey ROGACH	Cross-Field
Prof TAN Chaoliang	Chemistry; Materials Science
Prof YIP Hin-Lap	Cross-Field
Prof ZENG Xiaocheng	Cross-Field
Prof ZENG Zhiyuan	Cross-Field
Prof ZHANG Hua	Chemistry; Materials Science
Prof ZHANG Qichun	Cross-Field
Prof ZHANG Wenjun	Cross-Field
Prof ZHI Chunyi	Environment and Ecology; Materials Science
Prof ZHU Zonglong	Cross-Field

Faculty Achievement



Department of Architecture and Civil Engineering

A team comprising Prof S O CHEUNG, Dr Calvin KEUNG and Prof KIM Jung In was honoured as the Highly Commended Research Team of the Year of the RICS Hong Kong Awards 2024. This award recognises the team's research in developing an open BIM educational methodology enhancing student digital learning. Through this innovative initiative, the team aims to go beyond the current BIM campaigns in Hong Kong by positioning BIM education at the forefront of international practice.

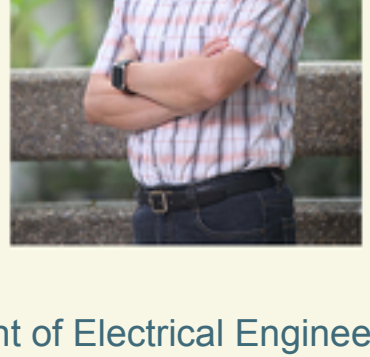
Faculty Achievement



Department of Electrical Engineering

A paper titled Adaptive Level-Shift Gate Driver with Indirect Gate Oxide Health Monitoring for Suppressing Crosstalk of SiC MOSFETs by Prof Henry CHUNG, his PhD student Mr TANG Ho Tin, and a professor at HKUST secured 2nd place at the 2023 IEEE Transactions on Power Electronics Prize Paper Award. Congratulations to Prof Chung and his team.

Faculty Achievement



Department of Electrical Engineering

Prof Henry CHUNG, in collaboration with scholars from Shanghai Maritime University, Aswan University, and Aalborg University, won the 2nd Prize Paper Award conferred by the Power Electronics Technical Committee of the Industrial Electronics Society.

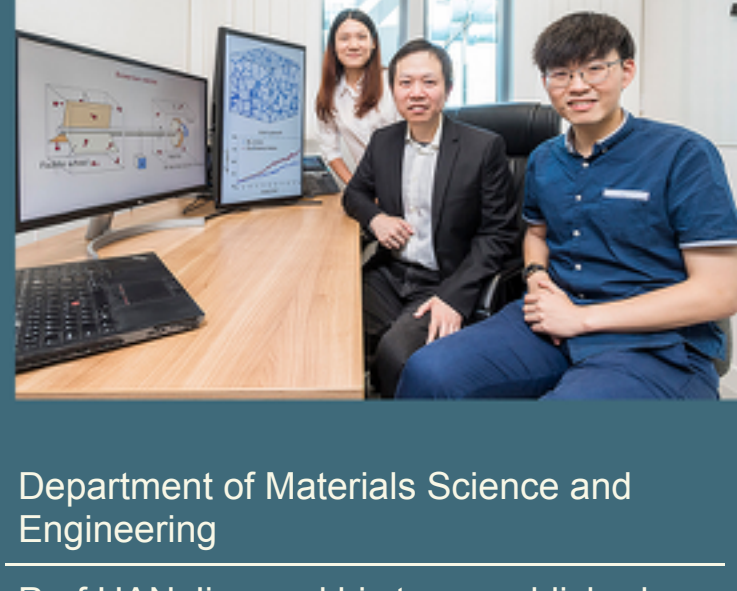
Faculty Achievement



Department of Mechanical Engineering

Prof DUAN Penghao was honoured with the National High-level Talent Program Award (Qi Ming Project) for his role as the founder of Suzhou Nuflux Co, a startup dedicated to advancing next-generation aero-engine blade design software. Additionally, Suzhou Nuflux Co has been acknowledged as a National High-tech Enterprise.

Faculty Achievement



Department of Materials Science and Engineering

Prof HAN Jian and his team published a paper titled Grain rotation mechanisms in nanocrystalline materials: Multiscale observations in Pt thin films in *Science*. These experts have reshaped scientists' fundamental understanding of the kinetic processes in crystalline materials, throwing light on new approaches for materials processing and microstructure tailoring.

Faculty Achievement



Department of Materials Science and Engineering

Prof Johnny HO has been awarded the Fellowship of the Institute of Physics (IOP), one of the highest honours bestowed by the IOP to recognise individuals who have demonstrated exceptional achievements and leadership in the field of physics.

Faculty Achievement



Department of Materials Science and Engineering

Prof Alex JEN and his team published a paper titled Advances in inverted perovskite solar cells in *Nature Photonics*, which delves into boosting inverted PSCs by reducing non-radiative recombination, elevating its power conversion efficiency by 26%. Tandem cells, incorporating inverted PSCs, achieve >33% efficiency. The study explores strategies such as device design, perovskite formulation, and interfacial engineering for improved performance and stability.

Faculty Achievement



Department of Electrical Engineering

A team led by Prof Derrick JIANG and comprising Dr MO Liping, Mr MA Tianlu, and Mr WANG Yibo won the 3rd Prize in the China (Shenzhen) Innovation & Entrepreneurship Competition 2024 for their project called Electric Vehicle: Next-generation Nanocrystalline Smart Wireless EV Charger.

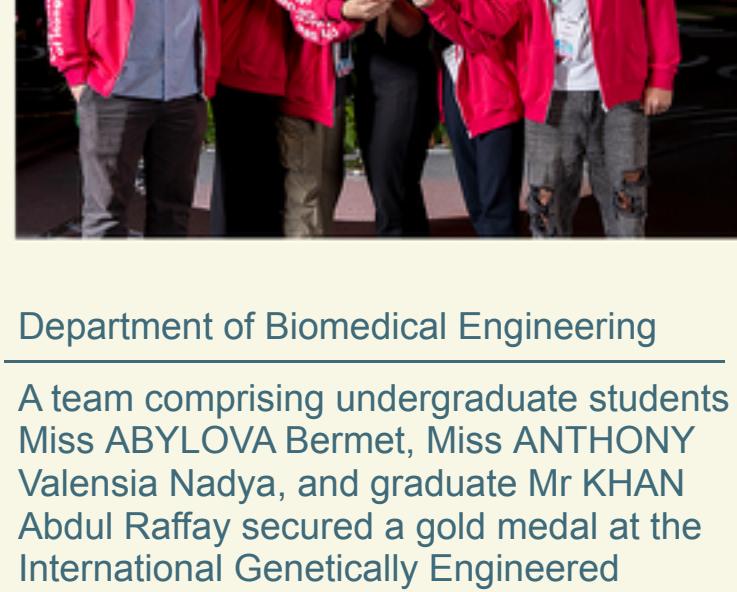
Faculty Achievement



Department of Materials Science and Engineering

Prof ZENG Xiaocheng, Prof ZHU Zonglong and their team published a paper titled Long-term stability in perovskite solar cells through atomic layer deposition of tin oxide in *Science*. They improved the stability of perovskite solar cells by using a new method that replaced a key layer with tin oxide. This change helped the cells maintain high-efficiency levels even after long-term use at high temperatures. The solar cells achieved over 25% efficiency and retained over 95% efficiency after 2000 hours of maximum power point operations at 65°C.

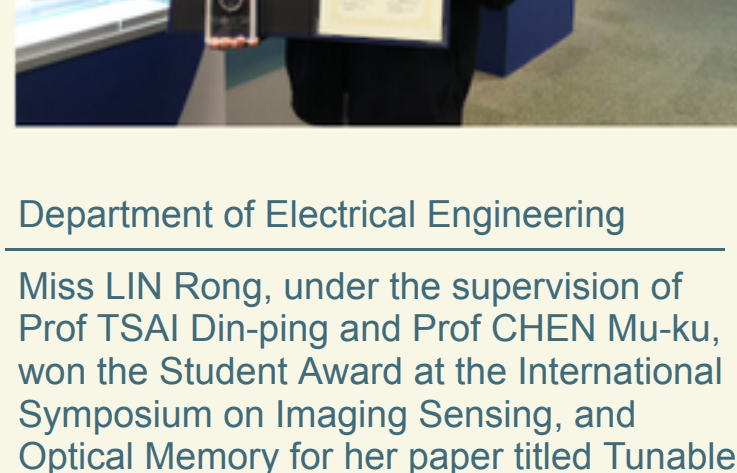
Student Achievement



Department of Biomedical Engineering

A team comprising undergraduate students Miss ABYLOVA Bermet, Miss ANTHONY Valensia Nadya, and graduate Mr KHAN Abdul Raffay secured a gold medal at the International Genetically Engineered Machine (iGEM) competition. Their outstanding performance led them to be ranked among the top 5 teams in the Best Therapeutic Project category and the top 10 teams in the Best Presentation category. The team was also honoured with the Best Education Award, a distinguished accolade presented to just one team among the 195 international teams participating in the undergraduate section.

Student Achievement



Department of Electrical Engineering

Miss LIN Rong, under the supervision of Prof TSAI Din-ping and Prof CHEN Mu-ku, won the Student Award at the International Symposium on Imaging Sensing, and Optical Memory for her paper titled Tunable abrupt autofocusing meta-devices.

