



Issue 60 (October 2024)

Award

CENG Research Excellence Awards 2024

Research Excellence Award



Research Excellence Award for Junior Faculty



College of Engineering

Congratulations to the following faculty members for receiving the highly competitive CENG Research Excellence Awards 2024.

Research Excellence Award:

- Prof HU Jinlian, Department of Biomedical Engineering
- Prof Alex JEN, Department of Materials Science and Engineering
- Prof LUK Kwai Man, Department of Electrical Engineering

Research Excellence Award for Junior Faculty:

- Prof Derrick JIANG, Department of Electrical Engineering
- Prof WANG Cheng, Department of Electrical Engineering
- Prof WANG Shiqi, Department of Computer Science
- Prof YANG Tao, Department of Materials Science and Engineering

Faculty Achievement

National Natural Science Foundation of China (NSFC) Schemes

- National Science Fund for Distinguished Young Scholars
- Young Scientists Fund
- Young Scientists Fund via Shenzhen Research Institute
- General Program via Shenzhen Research Institute

College of Engineering

Congratulations to the following faculty members who have been awarded the NSFC grants.

National Science Fund for Distinguished Young Scholars

Principal Investigator	Project Title
Department of Biomedical Engineering	
Prof XU Chenjie	新型微針診療器件的設計和醫學應用 (RMB 4M)

Young Scientists Fund

Principal Investigator	Project Title
Department of Architecture and Civil Engineering	
Prof JIAO Dengwu	基於磁流變響應的鋼纖維砂漿界面過渡區微結構調控機理研究 (RMB 0.3M)
Prof YIN Xianfei	數據驅動的城地下排水管網病害智能診斷與時空級聯機理研究 (RMB 0.3M)
Department of Biomedical Engineering	
Prof FU Bing	活細菌單分子成像與追蹤揭示 CpxA/CpxR信號傳導中的動態互作機制及與耐藥性的聯繫 (RMB 0.3M)
Department of Electrical Engineering	
Prof WU Gengbo	基於時空調製超表面天線的多諧波實時成像技術研究 (RMB 0.3M)
Department of Materials Science and Engineering	
Prof LI Nan	用於鈣鈦礦應變調控的聚合物界面材料及其光伏性能研究 (RMB 0.3M)
Department of Systems Engineering	
Prof LIU Cheng	航空複合材料疲勞裂紋損傷診斷研究：一種融合物理機理的數據驅動方法 (RMB 0.3M)

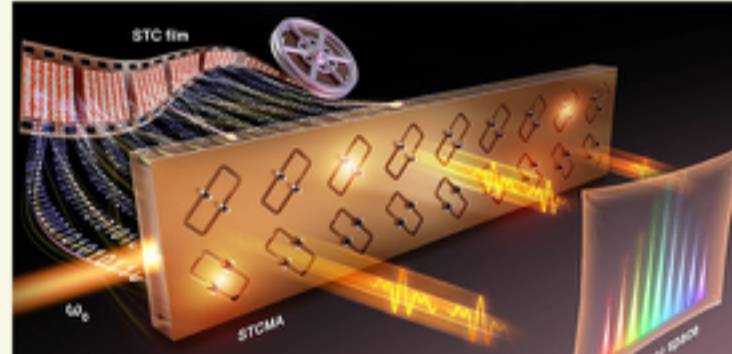
Faculty Achievement



Department of Systems Engineering

Prof Alan CHAN has been awarded the 2024 Hal W Hendrick Distinguished International Colleague Award for his immense contributions to the human factors/ergonomics field.

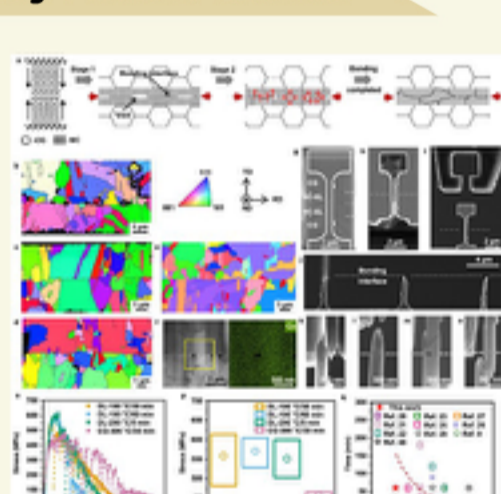
Faculty Achievement



Department of Electrical Engineering and State Key Laboratory of Terahertz and Millimeter Waves

A collaborative team, comprising Prof C H CHAN, Prof WU Gengbo, Dr SHUM Kam Man, Dr CHAN Ka Fai and scholars from Southeast University, has published a paper titled A synthetic moving-envelope metasurface antenna for independent control of arbitrary harmonic orders in *Nature Communications*. This novel antenna design enables precise and simultaneous control of multiple harmonic orders in a software-defined manner, surpassing current limitations in spectral manipulability and offering applications such as frequency transition, comb generation, and frequency-division multiplexing. By leveraging 1-bit spatiotemporal switching of meta-atoms, this advancement holds promise for diverse fields like wireless communications, spectroscopy, metrology and quantum science.

Faculty Achievement



Department of Systems Engineering

Prof Tony FENG, in collaboration with Prof TU King-Ning, pioneered a low-thermal-budget copper-to-copper bonding technique using electroplated nanocrystalline Cu with a double-layer structure, functioning below 200°C within minutes. Their work, published in *Nature Communications* as Nanocrystalline copper for direct copper-to-copper bonding with improved cross-interface formation at low thermal budget, introduces a promising solution for electronic packaging. This innovative approach reduces operating temperatures and increases industrial working throughputs. The team is working with industry partners to implement this technology in real products.

Faculty Achievement



Department of Architecture and Civil Engineering

Prof Jeff WANG has been honoured with the IAAM Award, which is bestowed by the International Association of Advanced Materials (IAAM) upon eminent researchers (IAAM) and scientists in acknowledgement of their significant contributions to the fields of materials science, engineering, and technology.

Student Achievement



Department of Architecture and Civil Engineering

Mr ZHOU Yuxuan, supervised by Prof LU Yi, won the 2024 IACP Urban Digital Transformation and Healthy City Award. This accolade recognises top papers on urban digital transformation, health city planning, climate change, Sustainable Development Goals, and post-pandemic urban planning. Additionally, Mr LI Zhenhua received the 2024 IACP Karen R Polenske Best Student Paper Award for outstanding research on China's urban planning and development at international planning conferences.

