

**Announcement of the list of award-winning works in "CCB Cup" the 16th National University Student Social Practice and Science Contest on Energy Saving and Emission Reduction (Hong Kong, Macao, Taiwan and International Group)**

Adopted by the evaluation and vote of the committee of the National University Student Social Practice and Science Contest on Energy Saving and Emission Reduction on August 2, 2023, a total of 2 works were awarded Gold Awards, 14 works were awarded Silver Awards, 24 works were awarded Copper Awards, and 40 works were awarded Excellence Awards in "CCB Cup" the 16th National University Student Social Practice and Science Contest on Energy Saving and Emission Reduction (Hong Kong, Macao, Taiwan and International Group).

The specific list is as follows (regardless of order):

<b>Awards</b>	<b>Title of the work</b>	<b>University</b>	<b>Member name</b>
Gold Award	Carbon Teller: A Data-driven Digital System for Carbon Emission Monitoring from Coal-fired Power Plant	Monash University	Yushuang Jiang (江宇泷), Jiahui Lu (陆佳慧), Tong Li (李桐), Xinyi Guo (郭鑫怡), Yi Wan (万仪), Haixin Sun (孙海鑫), Shengwei Fan (范圣玮)
Gold Award	Healthy and energy-saving green nano air purifier	University of Illinois Urbana-Champaign	Chen Si (司宸), Xin Ma (马鑫), Ning Zhao (赵宁), Zixiang Su (苏子翔), Qianrong Wang (王芊蓉), Hong Zhong (钟红), Guifu Su (苏贵福)
Silver Award	A new building envelope system based on synergistic solar and phase change materials for temperature regulation	HONG KONG BAPTIST UNIVERSITY	Tsz Mei Lam (林芷薇), Guoqiang Tang (唐国强), Minghao Liu (刘铭浩), Zheng Wang (王正), Wenyuan Qiao (乔文远)
Silver Award	"A trickle of residual heat that converges into a source" ——Removable phase change heat storage system based on waste heat recovery from multiple heat sources	Monash University	Ruixiong Xin (辛睿雄), Jiahang Liu (刘佳杭), Kun Zhang (张坤)
Silver Award	A Carbon Dioxide (CO <sub>2</sub> ) cycle energy storage system based on High-pressure Heat transfer tank with Ejector and Jet devices	Monash University	Hengbing Ye (叶恒冰), Wenlong Yang (杨文龙), Gege Dong (董格格), Cheng Chen (陈澄)
Silver Award	Carbon-Negative Hydrogen Production from Biomass Combined with Wind Energy	Monash University	Yue Xu (徐越), Song Wang (王崧), Qingwen Wu (吴庆文), Xinglong Li (李星龙), Tong Wang (王通), Ruian Liu (刘芮安)

Silver Award	Green Sound: A Solar-Driven Thermoacoustic Power Generator	The University of Auckland	Wenpeng Sun, Shancheng Tao (陶山城), Yupei Jian, Jiawei Liu, Zhenhua Wang, Mingrui Wang, Ruiqi Liang (梁睿奇)
Silver Award	Fully passive zero-carbon rural single-family housing system	University of Minnesota	Yiheng Gao (高一恒), Siming Qi (齐思铭), Wenjun Wang (王文浚), Yuxiang Wang (王玉祥), Yichen Wang (王怡晨)
Silver Award	Design and Development of a Detection Device for Boiler Dry Slag Flowrate Based on Binocular Stereoscopic Vision	Monash University	Shiqiang Li (李世强), Taian Chen (陈泰安), Yufan Chen (陈雨梵), Yuyang Chai (柴雨阳)
Silver Award	Wanderer knows no boundaries	University of Manitoba	Xin Wang (王欣), Shuang Li (李双), Rongyao Zhou (周荣耀), Jinchao Guo (郭金潮), Ruiting Meng (孟睿婷), Ruifeng Sun (孙瑞丰), Xi Chen (陈曦)
Silver Award	Guardian of Green Harbor—AC-DC integrated intelligent shore power pile	The University of Manchester	Ruiran Wang (王瑞然), Mengqin Yu (余孟芹), Bingyan Miao (苗冰艳), Xiansheng Lai (赖县生), Xue Zhang (张雪), Xiaoyan Han (韩晓燕), Jialin Tang (唐佳林)
Silver Award	Soaring High with Hydrogen — Hydrogen Fuel Cell System Based on Coupled Photothermal Power	Moscow Aviation Institute	Jin Wen (文近), Dapeng Wang (王大鹏), Zheng Xu (许峥), Yinuo Jia (贾依诺), Xinyue Liu (刘心悦), Yuxuan Wan (万雨轩), Zhongchi Liu (刘仲驰)
Silver Award	Design Specification for the Preparation of New Adsorption Materials Using Abandoned Pine Cones	University of Macau	Timothy Tong, Guangze Pan (潘光泽), Nan Sun (孙楠), Xiaolong Zhao (赵小龙)
Silver Award	A high mixing degree - low energy consumption anaerobic corn stalk fermentation mixing scheme design	City University of Hong Kong	Jiazheng Sun (孙佳正), Yuyingnan Liu (刘昱英男), Xuguang Wang (王旭光), Youpei Qu (瞿优培), Tianqi Liu (刘天齐), Xiaoyi Lyu (吕孝毅), Kejia Zhang (张珂嘉)
Silver Award	Carbon Reduction Future, Green New Life—Efficient combustion of low concentration gas and carbon de-alkalization of high alkali coal	Peter the Great St.Petersburg Polytechnic University	Kaiyue Zhang (张凯越), Yaqi Zhang (张雅琪), Kunxi Tang (唐琨玺), Yaguang Yan (闫亚光), Bo An (安博)
Silver Award	Thermoelectric Power Generation - Design Specification of Waste Heat Recovery and Energy Storage Device for Gas Cooker Based on Temperature Difference Generating Power	Macao Institution for tourism studies	Yuhao Li (李宇豪), Xiaoling He (贺小玲), Shuqin Chen (陈书琴), Xiao Peng (彭筱), Yuting Li (李玉婷), Kun Zeng (曾坤), Xiaoyan Zheng (郑晓妍)
Copper Award	Methanol fuel mixture injection - AI high-precision injection control system that provides clean and energy-saving power for commercial vehicles	Cranfield University	Peining Wang (王佩莹), Yang Song (宋扬), Jialong Zhu (朱佳隆), Liang Zhang (张亮), Quan Hu (胡全), Feifan Liu (刘非凡), Dahai Yang (杨大海)
Copper Award	Photothermal harvesting, conversion and storage with a multi-functional phase change material/bio-carbon based coating for greenhouse temperature management	Ibn Tofail university	Abdellah Assili, Jingxuan Xue (薛景宣), Tianhui Fu (傅天惠), Cheng Shi (施承), Fan Yang (杨幡)
Copper Award	"Smart Sunshine" A full-spectrum dynamic adjustable roof solar energy comprehensive	Arizona State University	Zixuan Peng (彭子轩), Gaohe Jin (金高禾), Hongxia Zhang (张红霞), Haofei Chen

	energy supply device		(陈浩飞), liang Xiao (肖亮), Zonghan Wu (吴宗翰),
Copper Award	Active-passive integrated zero-energy air conditioning system based on photovoltaic-thermoelectric-radiative cooling	The University of Hong Kong	Yirong Deng (邓毅戎), Zexu Zhang (张泽徐), Zhiyu Duan (段知予), Junwei Tian (田俊未), Yuchen Yang (杨宇辰), Tingting Wang (王婷婷), Siwen Yang (杨斯雯)
Copper Award	Active-passive integrated zero-energy air conditioning system based on photovoltaic - thermoelectric - radiative cooling	Monash University	Ziyu Jin (金紫玉), Xinda Zhou (周歆达), Yuhan Zhu (朱羽涵)
Copper Award	High flow zero carbon fuel injection device based on high energy ignition	University of southampton	Zhiqian Feng (冯志千), Xinsong Zou (邹鑫松), Yuanqi Mai (买元麒), Qiuyu Jin (金秋玉), Yucheng Sun (孙榆承), Anlin Wang (王安林)
Copper Award	Solar Interfacial Evaporation for Seawater Desalination and High Efficiency Water Harvesting System	University of Twente	Yiran Zhao (赵一然), Dongxu Wu (吴东旭), Minghao Cheng (程明浩)
Copper Award	iSTEM Compact Box for waste heat recovery using supercritical carbon dioxide	Monash University	Yifan Chen (陈祎幡), Ranjing Chen (陈然璟), Bo Li (李博), Boqing Jia (贾博清), Yongkang Fan (范永康), Xuguang Chai (柴旭光)
Copper Award	Tracing the source, Travel the future — Xi'an river beach research and the "three horizontal and one vertical" governance model	University of South Australia	Junchi Ma (马骏驰), Yuang Xiao(肖宇昂), Jiahao Li (李嘉豪), Fulin Zhao (赵富霖), Yuqing Wang (王宇青), Xin Jing (荆欣), Jiawen He (何嘉文)
Copper Award	Chlorine Inhibitor-Synergistic emission reduction of multiple organic pollutants in flue gas desulfurization process	Auckland University of Technology	Zhengyi Hou(侯正一), Yi Kang (康毅), Shuyi Liu (刘舒怡), Boxuan Shi (石博轩), Fan Mo (莫凡), Tongmu Tian (田童木), Pengming Yin (尹鹏鸣)
Copper Award	A new type of water-saving toilet suitable for rural areas	Technological University Dublin	Jiayi Wang (王嘉怡), Hao Chen(陈昊), Yujie Guan (关宇洁), Zheng Liu (刘铮), Zonghan Wu (吴宗翰), Yujie Yan (严宇杰)
Copper Award	Design manual for a vacuum cryogenic drying system based on solar frequency separation type combined electric heating technology	California State University	Hongfei Lu (陆鸿飞), Liuming Wu (吴柳明), Xubin Xu (徐旭彬), Longhai Wang (王龙海), Yuzhen He (何雨真), Rongjue Chen (陈荣催), Yiming Yang(杨一鸣)
Copper Award	High-performance zero-carbon thermal switch	University of California, Berkeley (UCB)	Lei Tang (唐磊), Meng Zhuo (卓蒙), Xiaohan Shen (申晓涵), Qing Gao (高庆), Jingxia Zhang (张靖霞), Jiali Fei (费佳莉)
Copper Award	Rational design of alloy-based nanoarray for high-performance sodium-ion batteries	National University of Singapore	Junhui Wang, Xinyan Li (李欣研), Xingyang Wang, Ying Zhu (朱莹), Yamei Wang (王亚美)
Copper Award	The "Green" Voyage - UVMS System for Ship Attachment Cleaning	Australian National University /ShanDong University (weihai)	Rui Cao (曹睿), Tong Chen(陈瞳), Lingxuan Fan (范令瑄), Pengyuan Ji (姬鹏远), Yifan Xu (许艺帆), Wenxin Mu (穆文欣), Junhua Wang (王骏骅)
Copper	Elastic ecosystem - sea, land, air smart	University of Sydne	Yuxi Zhuo (卓雨西), Xinyue Liu (刘欣悦),

Award	association on floating island purification	y	Binshen Lan (蓝彬珅), Ning Wang (王宁), Ziyu Liu (刘子瑜)
Copper Award	Smell Sight—Air Quality Detection System	Palacky University in Olomouc	Xinlu Li, Xingdong Sun (孙兴栋), Xiancheng Wang (王先成), Haocheng Du (杜浩程), Zhanming Gao (高展铭)
Copper Award	Smart solar moisture collection and power generation device for intelligent flower maintenance	University of Macau	Jin-xian Feng (冯锦先), Rong Zhao (赵嵘), Xueke Wang (王学科), Qiang Wu (吴强), Hongyao Luo (罗洪耀), Jia-wang Zhao (赵加旺), Yi Chen (陈翼)
Copper Award	Energy-saving and environmentally friendly intelligent sorting garbage bins	North South University	Tanvir Anjum Neon, Tao Wu (吴涛), Yuxuan Guo (郭宇轩), Xingyue Chen (陈星月), Suyang Yao (姚苏洋), Weijie Ding (丁伟杰), Alfi Shariar (孟杉)
Copper Award	Energy recovery device for automobile speed bump	University of Detroit Mercy	Yanyan Xu (徐妍彦), Siqi Wang(王思祺), Meizi Li (李梅子), Peiyao Wang (王沛晓), Zida Li (李姿达), Yunuo Li (李雨诺)
Copper Award	Pioneer of snail control 2.0--Eco-friendly intelligent snail control device	Soongsil University	Suyang Gong (官苏洋), Hongdong Ma (马洪东), Xiaoyi Shen (沈小杙), Kehan Cao (曹可涵), Xingchi Li (李星驰)
Copper Award	Hydrogen is loaded into the array—A mobile power supply equipment integrated with a lithium borohydride-based hydrogen source system and fuel cell	Brandeis University	Junqi Zhang (张浚祈), Kun Zeng (曾坤), Xiaoyan Zheng (郑晓妍), Xiuliang Mao (毛修良), Daoming Xu (许道明), Xiaoling He (贺小玲), Shuqin Chen (陈书琴)
Copper Award	A Sustainable Self-Charging Environmental Protection Mask System	University of Macau	Jiacheng Li (李嘉诚), Beiqiu Li (李亭秋), Dan An (安丹), Zhimin Xiang (向志敏), Xiaoping Wang (王潇平), Hangrui Dai (代航瑞)
Copper Award	HydroShield — A Low-Temperature Plasma Discharge-Based Hydrophobic Modification Device	University of Cincinnati	Boyue Zheng (郑博禹), Zhiwen Hou (侯智文), Ling Liao (廖玲), Haoran Pei (裴浩然), Xiaoyu Wen (温晓雨), Danlin Qi (齐丹霖), Xiao Wang (王啸)
Outstanding Award	Mobile power router electric vehicle charging station	University of Wisconsin-Madison	Jiaqi Zhang, Xiang Xiao, Wentao Yang, Ziyi Zhao, Haoran Zhang, Yuan Chen, Junwei Chen
Outstanding Award	Dynamic Energy Efficiency Optimization of Photovoltaic/Thermal Integrated Heat Pump Systems	Monash University	Qianyue Yu (余潜跃), Deman Zhai (翟德曼), Mengdan Wu (吴梦丹), Peibo Gao (高培博), Jiahua Han (韩嘉华)
Outstanding Award	Rechargeable Zinc-ion Battery Based on Water System	City University of Hong Kong	Junhong Chen, XinYao Yang (杨欣尧), YingYang Zhao (赵英杨), ZhenYan Jiang (蒋桢言), JiaYuJiang (蒋佳余), JiaMing Yao (姚嘉明), QuanSheng Cai (蔡全胜)
Outstanding Award	A dazzling and energy-saving full heat recovery fresh air window	Monash University	Yiao Jiang (蒋翼翱), Guifu Su (苏贵福), Hong Zhong (钟红)
Outstanding Award	Photosynthetic microbial fuel cell system based on bionic giant clam	The University of New South Wales	Zixu He, Wenge Zhao, Chunxin Xin, Haoyang Zhang, Minxuan Peng, Wanzhen Liu



Outstanding Award	Design manual for electronically controlled fuel system for open type diesel engines	University of Southampton UK	Wenzhuo Liu (刘文卓), Xiaojian Nie (聂骁健), Jin Wang (王进), Meihui Jin (金美慧), Ruiqing Su (苏瑞卿), Xinyu Zhang (张鑫宇), Tianhang Zhao (赵天航)
Outstanding Award	FertilizerLEAP– Green Ammonia Production Platform	The University of New South Wales, Australia/The University of Sydney	Jing Sun (孙静), Yuting Gao (高钰婷), Haoxuan Jiang (蒋昊轩), Tianyu Li (李天宇), Qiang Song (宋强), Binbin Xia (夏彬彬)
Outstanding Award	Speed bump for green travel-Self-powered carbon cleaning device based on efficient potential energy recovery	Belarusian State University of Physical Education	Shihao Hou, Mengyun Zhao, Minghan Wang, Mengxiao Wang, Yihang Li, Jiahao Lu, Yuhao Xie
Outstanding Award	Research on Green Campus Construction under the "Dual Carbon" Goal: Based on a survey of 7 universities in China and Southeast Asia	Arizona State University	Junjie Li (李俊杰), Xinran Zhang (张欣然), Jiajun Pu (蒲佳俊), Zixin Li (李紫昕), Tongyao Liao (廖桐瑶), Jiaoyu Chen (陈姣羽), Rongye Kang (康荣烨)
Outstanding Award	A trip to explore potential –a survey of carbon reduction potential for students	University of Bologna	Zhixuan Wen, Bo Wang, Xinjie Chen, Yuling Chen, Jinzhao Han, Mingkun Zhao, Peiqian Wang
Outstanding Award	Green Intelligent Manufacturing - Five-axis CNC monitoring and evaluation system based on digital twin	Newcastle University	Longyuan Feng, Senmiao Chen, Xiaolong Xiao, Wenhan Fan, Siyuna Wang, Yunhong Ping, Mengyang Cui
Outstanding Award	"Three birds with one stone"—a portable battery based on nitrate reduction	The University of Hong Kong	Yue Xia, Guobin Xi, Feng Chen, Zichen Lin, Jialin Fan, Yuhan Chen
Outstanding Award	Nanometer magnetron sputtering photocatalytic new car film	Dublin University of Technology	Zirui Zhu (朱子睿), Jingtian Deng (邓景天), Nianwen Wang (王念文), Yiling Liu (刘苡灵), Yunzhu Zhou (周芸竹), Qingshu Lin (林倾舒), Yinqiao Song (宋胤峤)
Outstanding Award	Design of light guide based on GPRS control system to replace tunnel bulb	University of Calgary	Gwen Karleen, Yunqi Liu (刘蕴琪), Jingxin Wang (王婧鑫), Silin Chen (陈嗣霖), Xueying Dong (董雪莹), Haoqian Chen (陈浩乾), Xiang Li (李响)
Outstanding Award	"Solar Sandwalker" — —Design manual of desertsand control robot based on solar air water intelligent irrigation	The university of Debrecen	Lexu Li (李乐谖), Wenting Nan (南文婷), Yunhao Sun (孙云昊), Yifei Zhu (朱依菲)
Outstanding Award	New Energy Smart Street Lamp Design Declaration Based on Internet of Things	Inner Mongolia University of Science and Technology	Di Gao (高迪), Jianye Gu (古建业), Yuze Han (韩雨泽)
Outstanding Award	Tree based passive multi-coupling condensing water extraction device	Georg-August-University Goettingen	Zining Zeng (曾子宁), Xinyi Zhu (祝昕怡), Qixun Tian (田淇勋), Xiongqian Yi (熊倩怡), Wenjie Yu (于雯洁), Shengyao Tian (田晟瑶), Fei Chen (陈菲)
Outstanding Award	"Tiny current ably concerned"— design specification of self-powered smart insole for health monitoring	University of Macau	Lulu Qiao (乔璐璐), Yi Chen (陈翼), Rong Zhao (赵嵘), Xueke Wang (王学科), Xueming Geng (耿学敏), Yingfei Hu (胡英)

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Outstanding Award	Gold Diggers: Microfluidics-Based Microbial Recovery of Precious Metals	University of Macau	Xuanwei Dai (代軒維), Xueke Wang (王学科), Rong Zhao (赵嵘), Jiawang Zhao (赵加旺), Xuemin Geng (耿学敏), Yi Chen (陈翼), Qiang Wu (吴强)
Outstanding Award	A new type of marine garbage recycling and transformation platform	City University of Macau	Zhuoxun Chen (陈卓勋 Junhua Cao (曹俊华), Qiujie Tan (谭秋杰), Qiu Li (李秋), Zengji Ge (戈增绩)
Outstanding Award	Intelligent Cooling Cushion Based on Semiconductor Refrigeration and Micro-channel Circulation	University of Macau	Yongyi Lai (赖咏怡), Yongqi Zhang (张永琦), Shucheng Teng (滕舒丞), Aodu Zheng (郑傲督), Hui An (安徽), Runnan Huang (黄润楠), Yingjie Wu (吴迎杰)
Outstanding Award	Red transport without "line" — A new remote wireless charging technology based on infrared ray	University college London	Bingzhuo Li (李冰卓), Xinge He (何欣格), Junrong Wu (吴俊蓉), Pengming Peng (彭鹏铭), Gang Huang (黄刚), Shiming Guo (郭士铭), Jiawei Xie (谢嘉伟)
Outstanding Award	Cyanophyta Bloom to Carbon Material-Instruction Manual for a Ship-integrated Hydrothermal Carbonization System to Simultaneously Produce Carbon Quantum Dots and Carbon Dioxide Adsorbents	Northern Arizona University	Ruihua Shi (施睿骅), Han Xu (徐涵), Yingdong Xu (徐英东), Xiao Liu (刘晓), Jincheng Shen (沈金城), Longhai Wang (王龙海), Yixiang Lu (卢翊翔)
Outstanding Award	A scroll hydrogen engine coupled with organic hydrogen storage system using multi-stage waste heat recovery	Northumbria University	Apostolos Sardellis, Shijia Qi, Wenheng Qiu
Outstanding Award	Fresh and cold chain first — Intelligent Guardian of Fresh Scattered Delivery	The University of Manchester	Tongjie Lin, Yuhao Yang, Qifang Wang, Jingwei Wang, Liangliang Zhao, Xiaohui Li, Xinting Liu
Outstanding Award	One road generation "electricity" - intelligent lifting speed belt power generation device for deep utilization of road residual energy	University of Illinois Chicago	Xun Wu (吴荀), Jiahui Cao (曹家辉), Rui Xu (许瑞), Chao Jiang (蒋超), Xiao Huo (霍霄), Hongying Guo (郭红莹), Lina Yu (于李娜)
Outstanding Award	Offshore integrated energy generation system	Arts et Métiers ParisTech	Yongqiang Tu (涂勇强), Tian Zhang (张田), Fangkai Xue (薛方凯)
Outstanding Award	Born towards the sun — a smart street lamp system based on cloud-edge collaboration	The University of Manchester	Yiran Sun, Yanhui Liu, Shiyv Huang, Yiran Jin, Zixin Chu, Jingjie Liu, Jiale Qv
Outstanding Award	A new design of blowdown water recycling in circulating cooling water system based on energy saving and emission reduction	Yonsei University	Yan Yan, Jia Liu, Qixin Zhang, Wen Li, Xinqing Zhang, Mengmeng Xu, Yi Yang
Outstanding Award	The Design for A Vehicle-Mounted Methanol Steam Reforming System for Hydrogen Production Based on Waste Heat Cascade Recovery	Bangor University	Xin Yang (杨欣), Junhao Jin (金俊浩), Shuai Wan (万帅), Yingchao Ma (马英超), Xunhao Liu (刘勋豪), Jinhua Li (李金华)
Outstanding Award	Carbon chain - Blockchain facilitates carbon-neutral solutions	Heriot-Watt University	Fuyao Zhang (张富尧), Mingfeng Hong (洪铭锋), Zixiang Wei (魏子翔), Meiyi Li (李美怡), Hanbin Shen (申寒彬), Ruiyi Yuan (袁锐怡), Zhuo Yang (杨卓)
Outstanding	Hydrogen New Power - /N, S-rGO	University of	Jianya Zhao (赵建亚), Kailong Bai (白凯龙),

g Award	Bifunctional Total Water Dissolution Catalyst Development and Promotion Design Manual	Birmingham	Qichu Chai (柴启楚), Wenlong Liu (刘文龙), Yaru Chen (陈亚茹), Qiuyu Luo (罗秋雨), Jinmin Zuo (左金民)
Outstanding Award	A Miniature Robot for Pest Detection and Control Utilizing a Gel-based Piezoelectric Luminescent Actuation System	Humboldt University of Berlin	Huiyong Li (李慧勇), Yi Chen (陈翼), Dan An (安丹), Shitao Dong (董时滔), Youjie Zhang (张友杰), Beiqiu Li (李亭秋), Xiaoping Wang (王潇平)
Outstanding Award	Pre-treating high-magnesia limestone in electrolytic cells enables carbon emission reduction in cement production and green hydrogen preparation	University of Kentucky	Emmanuel Ohiomoba, Ao Xiao, Qingyun Qing, Shuai Liu, Jinlong Chen, Zhenzhen Zhang, Yang Liu
Outstanding Award	“Renewing from Waste” - A Carbon Fiber Composite Waste Reutilization Process Based on Supercritical Fluid Degradation Technology	Minsk State Linguistic University	Aliexandra Kuchuk, Zhiping Wu (吴志平), Kuan Huang (黄宽), Shuyi Liu (刘舒怡), Siwen Li (李思雯), Yuanyuan Hu (胡圆圆), Chaoning Liu (刘朝宁)
Outstanding Award	EcoGuardian: Your Portable Sterilizer and Freshener with PAW & DBD Technology	University of Liverpool, Xi'an Jiaotong-Liverpool University	Yuxiang Ji (吉雨翔), Feifei Zhu (朱菲菲), Weizhuo Guan (管炜卓), Hao Su (粟昊), Haochen Chen (陈昊辰), Siqin He (何思琴), Jiayi Zhang (张佳怡)
Outstanding Award	Intelligent cruise -solar water environment monitoring clean linkage equipment	University Of Sussex	Chenxi Lin, Ming Qi, Zhixin Gao, Minna Xu
Outstanding Award	Infinite power team – Thermosensitive starch intelligent window design specification	Technological University Dublin	Linyu Wang (王林煜), Kailong Bai (白凯龙), Wenbo Bai (白文博), Qianchi Xiong (熊乾驰), Yang Zhang (张阳), Wenlong Liu (刘文龙), Yunru Wan (万韵如)
Outstanding Award	The innovator -Novel Green Thermal Insulation Material	Technological University Dublin	Linyu Wang (王林煜), Wenlong Liu (刘文龙), Kailong Bai (白凯龙), Xianfeng Jing (井先锋), Jinmin Zuo (左金民), Zhihao Wang (王志豪), Yichen Guo (郭奕辰)
Outstanding Award	Multiple Batch Metal Ion Enrichment Devices and Their Applications	University of Freiburg	Xu Jing, Minghui Yang, Tianbao Zhang, Chengpeng Liu, Yanfei He, Yanan Liu

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