

# 第十七届全国大学生节能减排社会实践与科技竞赛

## 港澳台及国际赛道获奖名单

经 2024 年 8 月 6 日全国大学生节能减排社会实践与科技竞赛委员会评审表决通过，第十七届全国大学生节能减排社会实践与科技竞赛港澳台及国际赛道共有 8 件作品被评为金奖、12 件作品被评为银奖、25 件作品被评为铜奖。

获奖名单公示如下（排名不分先后）：

作品编号	作品名称	参赛高校	团队成员	奖项
17-14	"Purely Electric Smart Motion, Benefiting Future Generations"—High-Efficiency "Flow Control + Thermal Management +Flexibility" Pumping Device Based on EHD Principle	Saint-Petersburg State University	Fangyuan Zhou、Jingyu Li、Shilin Yang、Yuqiao Cheng、Yun Qiao	金奖
17-25	A multi-functional device for high-efficiency hydrogen production based on long-term solar desalination	Moscow Aviation Institute	Juncheng Shen、Jiaqi Wei、Tong Wu、Kaiyan Liu、Nan Yang	金奖
17-33	Sharing "light" with "alcohol" - based on semi-artificial photosynthetic system of carbon fixation and alcohol production device Design specification	University of Cincinnati	Qianle Yang、Siyi Zhang、Yuwei Song、Lei Zhang、Xuejie Yan、Shiwen Zheng	金奖
17-85	Lubrication Manage—Online Lubricant Monitoring System for Marine Diesel Engine	University of Southampton	Chengtai Ge、Chengjin Ding、Wenzhuo Liu、Heru Wang、Guang Sun、Xiaojian Nie、Ran Zhao	金奖
17-86	Carbon Cycle Regeneration, Green Lungs of Industry-The Intelligent Retreatment System of Industrial Waste Gas Based on Artificial Photosynthesis	The Hong Kong Polytechnic University	Chuncheng Zhou、Shenghong Xie、Wenxiao Zhu、Xinyu Pan、Yuran Dai、Zheng Yan、Xin Liu	金奖
17-108	Ripples of crystal clear water—An integrated hydrophilic-hydrophobic bilayer Janus vertical microchannel structure solar evaporator based on 3D printing	Nanyang Technological University	Pinshu Wang、Tingting Men、Xiaoting Wen、Guifu Hu、Jin Su	金奖
17-110	Blue Carbon Pioneer— Integrated Offshore Carbon Capture and Conversion Unit	Bauman Moscow State Technical University	Ruitong Liu、Liting Wang、Zikang Xu、Xiang Yao、Hangyu Li、Yuanyuan Feng、Qingyue Qi	金奖
17-142	Bona Surplus Micro Thermal Escape—Efficient Thermal Management Solution for Concentrating Photovoltaic Panels	University of London	Zitong Guo、Ye Liu、Ke Wang、Chenglin Wang、Yihe Zhang、Zijian Xu、Yukun Liu	金奖

17-11	“Hydrogen” for the future - Design for a portable hydrogen storage device based on high capacity borohydride	Brunel University	Chutian Hu、Yijian Liu、Bingbing Huang、Yongyi Liu、Liang Wang、Shuai Liu、Fengan Guo	银奖
17-24	Vitality Trail- Solar Based Coupled Treading Power Generation Floor	The Chinese University of Hong Kong	Jinru Tian、Ziyan Xiao、Xiangrui Zeng、Hang Meng、Zihan Qi、Hongshen Xia	银奖
17-44	Dongrui Clean water - rural brackish water resource utilization pilot design specification	Bauman Moscow State Technical University	Xuze Han、Liting Wang、Yueyang Yang、Kai Hu、Sizhu Zhang、Yijia Yang、Ruitong Liu	银奖
17-51	Hazard Hunter- Smart waste sorting trolley solution	Heriot-Watt University	YuXin Dong、Yuxin Dong、Wenchuan Zhang、Dapeng Mo、Yirui Fu、Zhuoyu Wu、Hao Yin	银奖
17-55	S-WAVE Technology-Navigator in Wave-Absorbing Coatings for Wind Farm	Queen Mary University of London	Zhaoxiaohan Shi、Yiming Liu、Liu Yang、Yishan Yao、Zhihao Wang、Haozhe Liang	银奖
17-75	A New design of ammonia-hydrogen engine based on the modification of ammonia thermal cracking and low temperature combustion of exhaust gas	University of Southampton	Xiaojian Nie、Wenzhuo Liu、Jiayi Du、Heru Wang、Yifan Xiong、Xinyang Wang、Yilong Ma	银奖
17-84	Solid waste rebirth ——exterior wall insulation and decorative integrated board based on yellow gypsum intelligent treatment	Western University	Chen Wang、Chenrui Hong、Yanan Chen、Bingchen Liu、Yibo Hu、Xinming Wang、Xin Yu	银奖
17-96	Manifold integrated loop heat pipe chip heat sink	Swinburne University of Technology	Jun Ma、Huajie Li、Rui Hou、Zhuxiang Wang、Huayang Gao、Lianhao Feng、Ke Tang	银奖
17-109	Continuous flow system for solid acid catalysed hydrolysis of lignocellulosic biomasses	University of Cincinnati	Ruihan Zhao、Jiayi Fu、Chuyuan Wang、Jiwei Du、Xiang Li、Shihuang Hu、Maolin Wang	银奖
17-122	Fresh future: Intelligent green energy comprehensive optimization scheme design manual	Nanyang Technological University	Xiyuan Chen、Xueqian Shen、Xinlei Gao、Baige Du、Zhongxiang Wang	银奖
17-123	Wizard in the Water - A Leader in Carbon Sequestration and Pollution Reduction Based on Biological Synergy Design Statement	Auckland University of Technology	Xuebao Xiong、Zhengyi Hou、XinLi、Yuru Zheng、Jiani Su、Hangqing Li、Jianhong Pan	银奖
17-149	Hydro energiser--saving water and electricity for a more sustainable lifestyle	University College Dublin	Tianxin Cao、Eoin Sadlier、Aoife Duffy、Charles. Titus、Salem N S A Alajmi、Jacob Walsh	银奖
17-05	“Sun Harvester”——A new type of self-driven intelligent kale harvesting device	University of Detroit Mercy	Youwei Wang、Yanbo Zhu、Yuda Kong、Zhifei Cui、Jiangtao Wang、Ziqi Gao、Jiahao Peng	铜奖
17-06	"3E Green Source" - Intelligent Energy-Efficient Industrial Park System Design Specification	The Chinese University of Hong Kong	Youjing Su、Guanfu Zhong、Jingnan Lv、Ruolin Xu、Yixuan Zhao、Junqi Cheng、Siyu Li	铜奖

17-07	A Biomimetic Octopus Cleaning Robot Powered by Ocean Motion and MFCs — Ocean Energy Sampler	Hongik University	Rouna Jin, Xinyue Li, Xingzhe Ma, Yufei Wang, Weipeng Liang, Siyuan Cao, Shixuan Yang	铜奖
17-12	Wave energy harvesting device based on a unidirectional turntable triboelectric nanogenerator	Keuka college	Dayi Cai, Qianyu Chen, Keyu Chen, Yuhan Chen, Yingxian Wang, Suxuan Zhou, Yuqiang Lei	铜奖
17-23	Optical Fiber Based Intelligent Solar Lighting and Photovoltaic Power Generation System	University of Manitoba	Jinhao Kang, Hongyang Zhou, Jianhao Geng, Youkang Jin, Chenhui He, Ruiting Meng, Jinchao Guo	铜奖
17-31	Intelligent Floating Island: Automated Sea, Land, and Air Cleaning	The University of British Columbia	Meiqi Chang, Xinyue Liu, Qinyin Gao, Yanfeng Zeng	铜奖
17-32	Raft-based TENG and solar-powered OPEN mv-type garbage sorting and salvage vessel	University of Macau	Minxing Huang, Qianyi Xiong, Yangfei Sun, Liu Yi, Jingyi Huang, Benyu Huang, Qiwen Chen	铜奖
17-36	Photovoltaic Guard - PV Power Panel Cleaning and Maintenance Robot System Design Specification	Maynooth University	Rui Li, Jing Ren, Zhixin Gao, Yusen Zhao, Guigui Cui, Zhiyuan Zhang, Kaiqiang Liu	铜奖
17-45	Residual heat warms the winter - Design of battery thermal management system and thermostatic heated seat based on phase change energy storage and mini-channel cooling design specification	National University of Singapore	Yan Ding, Yingna Chen, Mengwei He, Qingzhao Zheng, Jianbin Qiu, Jiacheng Deng, Zhenting Pan	铜奖
17-48	Turning Waste into Valuable—A Small Multifunctional Intelligent Recycling Device for Disposing Takeaway Plastic Waste	Durham University	Yubo Xu, Kaili Li, Zhengen Wang, Tingting Lin, Yinrong Xie, Jiaqi Ye, Haojie Jin	铜奖
17-70	A visual hydrogen leak alarm system that promotes hydrogen energy use and reduces carbon emissions	Imperial College of Science	Xun Liu, Xin Ye, Yizhan Wu, Mingyu Lin, Ziyu Zhang, Yuang Chen, Shutao Huang	铜奖
17-74	iCooling——Battery heat sink based on copper foam-hydrogel and thermoelectric cooler	The Hong Kong Polytechnic University	Zexin Li, Yongqiang Yu, Lianbo Xu, Chenhao Guo, Luchen Liu, Yiling Liu	铜奖
17-76	"Building Dreams in the Blue Sky" ---- Instruction Manual for Modular Small Civil Cooking Fume Purification System	Tomsk Polytechnic University	Pengze Song, Jinbo Zhao, Jiahang Li, Zhiyi Liu, Zhezhe Ran, Runing Wang, Huaqun Zhao	铜奖
17-82	Precision pesticide application system for strawberry planting	University of Exeter	C Liu, Tianyi Xia, Zhijie Xiong, Qiancheng Zhang, Yuhang Chen, Yue Wang, Jingjing Hou	铜奖
17-90	"Laboratory Assistant"—An Intelligent Control device for Environmental samples based on IOT	Federation University Australia	Hanzhi Cui, Jiazi Lv, Yutong Dong, Shaoyang Fan, Jingze Sun, Xiaoyue Zhang	铜奖
17-101	Advanced bio-based separator leader with a high safety for lithium-ion batteries	University of waikato	Chenxiao Li, Yihang Zhang, Jiahe Xu, Jiaai Hu, Manman Li, Yiqing Zhang, Mengfan He	铜奖

17-105	Synthesis of covalent organic skeleton materials based on precise calculation achieve energy conversion and pollutant degradation	Bauman Moscow State Technical University	Meihui Chen, Yuhan Xiong, Rui Su, Shiran Liu, Yang Zhou	铜奖
17-106	Technology and equipment for efficient treatment of rural sewage based on anaerobic ammonia oxidation and sulfur autotrophic denitrification process	University College Dublin Belfield	Mengqing Liu, Qingqing Ji, Haoran Liang, Jiaxin Ma, Jiahui Wang, Yiping Gao, Chenxin Wang	铜奖
17-116	A Resin-wafer Electrodeionization (RW-EDI) and Membrane Contactor Hybrid System for Simultaneous Ammonia Recovery and Carbon Reduction from Organic Solid Waste	University of Seoul	Subeen Jang, Le Tang, Jiaqi Yin, Yali Luo, Ting Yan, Jaeduck Jung, Haeun Oh	铜奖
17-121	Controlled Energy Technology - The Enabler of Controllable Electronic Controls for Engine Fuel Systems	University of Southampton	Wenzhuo Liu, Heru Wang, Wanpeng Xu, Xiaojian Nie, Zikun Zhou, Chengze Li, Qiao Gao	铜奖
17-124	Emergency Freeze Therapy ——a Solar-Powered Warming Sleeping Bag Designed for Injured Personnel in Severe Cold Conditions	The University of Tokyo	Yan Ji, Zhikai Wang, Haoqi Li, Zhongyuan Zhang, Yibing Gai, Ziyi Bai	铜奖
17-132	Industrial low-grade complex slurry waste heat recovery based on flash evaporation technology	Moscow Aviation Academy	Yuzhu Meng, Heqiu Huang, Xiuzhuo Chen, Tianyang Wei, Xinyu Gao, Shenghao Liu	铜奖
17-137	Exploration of the Implementation Mechanism for Low-carbon Price Window Period CCER Project Methodology	Xiamen University Malaysia	Zhejia Cheng, Chuying Fang, Wanyun Ai, Fan Fang, Zhiyi Jiang, Shuren Wang, Bodi Kou	铜奖
17-140	Carbon Thermal Synergy, Turning Waste into Treasure - Flue Gas and Wastewater Treatment as well as Resource Recovery System in Breweries	University of Cincinnati	Zidi Zhu, Hongxia Peng, Linghao Diao, Chengjing Huang, Ruixuan Yang	铜奖
17-145	A solar - driven integrated system with functions of desalination, power generation and crop irrigation	Bauman Moscow State Technical University	Han Liu, Meng Wang, Silin Guo, Shuailin Qiu, Huanbin Yang, Xuanduo Ning, VLADIMIR BUROV	铜奖

公示时间：2024年8月8日-2024年8月14日（含）。

全国大学生节能减排社会实践与科技竞赛委员会秘书处  
中国石油大学（华东）新能源学院

2024年8月8日

