

2025 Net Zero Tech International Contest @Taiwan

International Contest **Winners**

獎 項	獎金(USD)	編號	作品名稱	學 校	科 系	成員姓名					
Champion LITEON Bright Future Award	33,300 (NTD 1,000,000)	INTL 13	Development of an Integrated System for Catalysts and Electrolysis Equipment	National Central University (Taiwan)	Graduate Institute of Materials Science & Engineering	Advisor Leader	洪緯璿 邱奕嘉				
					Graduate College of Sustainability and Green Energy	Member	黃柏叡 李昀霖 黃宇祐 陳佳謙				
First Runner-Up Paujar Net-Zero Technology Award	20,000 (NTD 600,000)	INTL 07	Toward Carbon Neutral Energy Storage: Green Modification of VRFB Electrodes via Atmospheric Pressure Plasma Jet Deposited Bimetallic Oxides	National Taiwan University of Science and Technology (Taiwan)	Mechanical Engineering	Advisor	Yu-Lin Kuo				
					Materials Engineering		Chen-Hao Wang				
				Yuan Ze University (Taiwan)	Mechanical Engineering		Song-Yu Chen				
				Ming Chi University of Technology (Taiwan)	Materials Engineering		Ting-Yu Liu				
				National Taiwan University of Science and Technology (Taiwan)	Mechanical Engineering / Materials Engineering	Leader	Ahmad Nur Riza				
					Mechanical Engineering	Member	Melky Natanael				
				Ming Chi University of Technology (Taiwan)	Materials Engineering		Ni Putu Devi Kristina				
				Second Runner-Up Paujar Green Innovation Award	13,300 (NTD 400,000)	INTL 04	LiMn a Colorful commuNity	National Tsing Hua University (Taiwan)	Department of Materials Science and Engineering	Advisor Leader	Han-Yi Chen Hsin-Fang Chang
									Interdisciplinary Program of Engineering International Intercollegiate Ph.D. Program	Member	Yu-Ming Pan Quang Luan Le Min-Hua Chang Jin-Luh Mou

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CPC Corporation, Taiwan Smart Energy Award	6,600 (NTD 200,000)	INTL 06	Using Trapa Natans Husks, coffee-Waste and bamboo chopsticks Derived Activated Carbon as Electrode Materials to Enhance the Power Output of Microbial and Plant Microbial Fuel Cells	National Tsing Hua University (Taiwan)	Department of Materials Science and Engineering	Advisor	陳翰儀
					Interdisciplinary Program of Life Sciences and Medicine	Leader	蘇姮俊
						Member	林軒岑
							胡琇婷
NTU-AIAD, Advanced Net Zero Emission Technology Award	6,600 (NTD 200,000)	INTL 18	From Greenhouse Gases to Green Fuels: Plasma-Catalytic DRM for Closed-Carbon-Cycle Liquid Production	National Central University (Taiwan)	Graduate Institute of Environmental Engineering	Advisor	Moo Been Chang
						Leader	Amir Machmud
						Member	Jo Chen Hsu
						Member	Heng-Wei Huang
Advanced Green Energy Award	3,300 (NTD 100,000)	INTL 11	Multifunctional Porous Water Purification Device Based on Vapor Deposition Technology	National Taiwan University (Taiwan)	Chemical Engineering	Advisor	陳賢燁
						Leader	Ramli Theresia Cecylia
						Member	胡書嫻
							李沁芸
							張育銘
Nan Pao Resins Zero Carbon Vanguard Award	3,300 (NTD 100,000)	INTL 09	Elementrailer	University of Washington (USA)	Materials Science & Engineering	Advisor	Jun Liu
					Foster School of Business	Leader	Hongjiang Lin
					Environmental Science	Member	Julisa Cruz
					Electrical Engineering		Lillian Mitchell
					William E Boeing Department of Aeronautics and Astronautics		Bernardo Lin
							Gaurav Joshi

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International Contest Excellence

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Excellence	1,600 (NTD 50,000)	INTL 01	Transforming Waste to Worth: Carbon Capture and Utilization to produce Eco-friendly Bio-lubricant	National Cheng Kung University (Taiwan)	Biomedical Engineering	Advisor	Yeau-Ren Jeng
					Chemical Engineering		Grace, I-Son Ng
					Engineering Science		Chi-Hua Yu
					Biomedical Engineering	Leader	Sai Bhavani Sravan Metla
					Chemical Engineering	Member	Priskila Adjani Diankristanti
					Engineering Science		Muhammad Firman Friyadi
Excellence	1,600 (NTD 50,000)	INTL 02	Hybrid pathways for next generation of sustainable aviation fuels in Taiwan	National Cheng Kung University (Taiwan)	Department of Chemical Engineering	Advisor	吳 煒
					Department of Aeronautics and Astronautics		王偉成
				National Sun Yat-sen University (Taiwan)	Department of Mechanical and Electromechanical Engineering	Leader	Nugroho Rusdan Aditya Aji
				National Cheng Kung University (Taiwan)	Department of Chemical Engineering	Member	Mazumdar Debayan
							劉諒宇
					Department of Aeronautics and Astronautics		林柏龍
Excellence	1,600 (NTD 50,000)	INTL 03	Development of a smart mini-grid system for renewable energy storage and utilization	The Hong Kong Polytechnic University (Hong Kong)	Department of Mechanical Engineering	Advisor	AN LIANG
							HUO XIAOYU
						Member	BAI YURAN
							FU ENKANG
							LONG XIN
Excellence	1,600 (NTD 50,000)	INTL 05	The Flux: Sustainable Shearing Layer and Pisé Block onstruction Method	Universitas Indonesia (Indonesia)	Architecture	Advisor	Miktha Farid Alkadri
					Mechanical Engineering		Ova Candra Dewi
							Ardiyansyah
					Architecture	Leader	Arnas Lubis
						Member	Vine Novia Pakpahan
					Metallurgical & Materials Engineering		Syahlaisa Afra Amani
							Luqman Kamaludin
					Civil Engineering		Tabita Essela Pebriana
							Simanjuntak
							Juan Valensi Ridwan Ramadhan

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Excellence	1,600 (NTD 50,000)	INTL 08	An omni-directional augmented cross-axis wind turbine	University of Malaya (Malaysia)	Department of Mechanical Engineering	Advisor	Wen Tong Chong Keen Kuan Kong Hanna Sofia SalehHudin
						Leader	Christopher Clement Rusli
						Member	Flora Shuh Ching Ngu Izdihar Zahirah Ibrahim
Excellence	1,600 (NTD 50,000)	INTL 10	Lithium, From Trash to Treasure: Integrated Flow System for Scrap Battery Upcycling and Carbon Dioxide to Lithium Carbonate Conversion.	National Taiwan University of Science and Technology (Taiwan)	Graduate Institute of Applied Science and Technology	Advisor	Fu-Ming Wang
						Leader	Michelle Elaine
						Member	Cai-Fang Wu Jayaraman Divyavalli Ulya Qonita
Excellence	1,600 (NTD 50,000)	INTL 12	Smart Pressure Control for Desalination: Adaptive Modeling and Wave Energy Boost for Net-Zero Water Systems	National Chung Hsing University (Taiwan)	Bio-Industrial Mechatronics Engineering	Advisor	Sean Wu-Yang
						Leader	Mukhammad Jamaludin
						Member	Isnaeni Nurjanah Yulian Fatkur Rohman Akhmad Azhar Firdaus Muhammad Bilhaq Ashlah Anisa Fitri Santosa
Excellence	1,600 (NTD 50,000)	INTL 14	Green Butadiene: A Breakthrough in Bioethanol Conversion Technology	National Cheng Kung University (Taiwan)	Department of Engineering Science	Advisor	黃朝偉
						Leader	林鏐軒
			Feng Chia University (Taiwan)	Department of Materials Science and Engineering		劉羿群 黃煒倫	
						Member	黃鈺庭
Excellence	1,600 (NTD 50,000)	INTL 15	Backwind Rider	Lomonosov MSU (Russia)	Institute of Mechanics	Advisor	Andrei Holub Marat Dosaev Yuri Seliutskiy Liubov Klimina Mironyuk Olga
						IRLC MSU	
					Mechanic and Mathematics Faculty	Leader	Mikhail Garbuz
					Faculty of Space Research		
					Faculty of Economic	Member	Valerii Zudov Daniil Dosaev Marta Kruchinkina
					MSU Faculty of Computational Mathematics and Cybernetics		Lina Seliutskaia
					Mechanic and Mathematics Faculty		Ivan Alpatov

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Excellence	1,600 (NTD 50,000)	INTL 16	Self-Powered Peptide Sensor for Ethinylestradiol (EE2) detection: A Sustainable Platform for Water Quality Monitoring	National Taiwan University (Taiwan)	Department of Biomedical Engineering	Advisor	Zong-Hong Lin				
						Leader	Salini Ramesh				
						Member	Uday Singh				
							Jaba Roy Chowdhury				
							Bishal Kumar Nahak				
Excellence	1,600 (NTD 50,000)	INTL 17	Development and Application of Inorganic Aqueous Radiative Cooling Coatings: A Sustainable Strategy Toward Net-Zero Carbon Emissions	National Cheng Kung University (Taiwan)	Department of Engineering Science	Advisor	黃朝偉				
						Leader	王鐸諭				
						Member	陳明瑋				
				National Ilan Univerty (Taiwan)	Department of Chemical and Materials Engineering	Member	范心瑀				
						Member	姚秀美				
Excellence	1,600 (NTD 50,000)	INTL 19	Upcycling coal fly ash waste into 3D-printed ceramic membranes for wastewater treatment and power generation.	King Mongkut' s University of Technology Thonburi (KMUTT) (Thailand)	Department of Chemical Engineering	Advisor	Hong-Ming Ku				
				National Taipei University of Technology (Taiwan)			Institute of Environmental Engineering and Management	Nonsee Nimitsiriwat			
								Shiao Shing Chen			
					Environmental Engineering & Management		Bhanupriya Das				
				King Mongkut' s University of Technology Thonburi (KMUTT) (Thailand)		Department of Chemical Engineering	Leader	MITHILESH PASAWAN			
					Member		YA-TING CHAN				
							Ya-Ling Chiang				
							Chanakan Sukmongkolwongs				
							Chinatip Suwantri				
							Nittiya Ornwarn				
				Excellence	1,600 (NTD 50,000)	INTL 20	Integration of Innovative Coastal Wave Energy and Carbon-Negative Cement Materials with a Supercapacitor Energy Storage System to Achieve Net-Zero Goals	National Cheng Kung University (Taiwan)	Program on Smart and Sustainable Manufacturing	Advisor	歐庭嘉
									Department Electrical Engineering	Leader	黃景政
Environmental Engineering	Member	戴安荻									
Department of Aeronautics and Astronautics		劉迎逸									
Program on Smart and Sustainable Manufacturing		蘇暉哲									
						羅昇宇					