

## 2024 Net Zero Tech International Contest @Taiwan

# International Contest-**The Finalist**

< Serial No. in order of application >

No.	Work Title	Position	Name	School	Department
INTL01	<b>Superhydrophobic Metal-Organic Framework (MOF) Sponge Composite for Oil-Water Separation</b>	Advisor	林嘉和	National Taiwan Normal University (Taiwan, R.O.C.)	Department of Chemistry
		Student	陳佳樂		
		Student	王昱順		
		Student	劉鴻恩		
INTL02	<b>Application of a New High-Gain Power Converter in Next-Generation Renewable Energy Systems</b>	Advisor	Liu Hwa-Dong	National Taiwan Normal University / National Taiwan University of Science and Technology (Taiwan, R.O.C.)	Undergraduate Program of Vehicle and Energy Engineering / Department of Electrical Engineering
		Advisor	Lin Chang-Hua		
		Student	Ul Munieeb Mosaib		
		Student	Sahito Ahmed Tauseeqe		
		Student	Shih Jyun-Wei		
		Student	Chen Wei-Yu		
INTL03	<b>Advanced Carbon Capture and Elimination Process Technology using Membrane Engineering (ACCEPT-ME)</b>	Advisor	Kang Dun Yen	National Taiwan University (Taiwan, R.O.C.)	Department of Chemical Engineering
		Student	Wu Po Chun		
		Student	Lee Sher Ling		
		Student	Yu Yuan Chen		
		Student	Chang Shou Feng		

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INTL04	<b>Low-Cost Energy-Efficient Atmospheric-Pressure Plasma Jet Processed NiCo-Metalorganic Framework Electrocatalyst in Anion Exchange Membrane Water Electrolysis Module</b>	Advisor	陳建彰	National Taiwan University / National Taiwan University of Science and Technology (Taiwan, R.O.C.)	Institute of Applied Mechanics / Graduate Institute of Photonics and Optoelectronics / Department of Chemical Engineering / Graduate School of Advanced Technology, Program for Nanoengineering and Nanoscience
		Advisor	陳奕君		
		Advisor	王孟菊		
		Student	普智暉		
		Student	余碩恩		
		Student	闕振宸		
		Student	陳奇松		
		Student	洪柏彥		
		Student	吳幸真		
		Student	謝尚霖		
INTL05	<b>Integrating a novel Coastal Wave Energy Converter and Carbon Negative Cement for Net Zero</b>	Advisor	Ou Ting-Chia	National Cheng Kung University (Taiwan, R.O.C.) / Leiden University & Delft University of Technology / National Tsing	Program on Smart and Sustainable Manufacturing / Industrial Ecology Master's Program / Bachelor of Science / Department of Civil Engineering
		Student	Ju Zhi-Chin		
		Student	Chen Yu-Tung		
		Student	Chen Shu-Er		

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				Hua University (Taiwan, R.O.C.)	
INTL06	<b>Green and Advanced Magnesium-based Hydrogen Storage Alloy</b>	<b>Advisor</b>	顏鴻威	National Taiwan University (Taiwan, R.O.C.)	Department of Materials Science and Engineering / Graduate School of Advanced Technology, Program for Semiconductor Devices, Materials, and Hetero-integration
<b>Advisor</b>		謝宗霖			
<b>Student</b>		Lin Ting-Si			
<b>Student</b>		Hung Hao-Chun			
<b>Student</b>		Chen Bo Xian			
<b>Student</b>		Hou Yu Ching			
<b>Student</b>		Wang Yu Hsiang			
INTL07	<b>EcoSphere: A Model for Sustainable and Effective Learning Environment</b>	<b>Advisor</b>	Kok Sum Ng	Sunway University (Malaysia)	School of Engineering and Technology / Department of Art, Design and Media, School of Arts
<b>Advisor</b>		Angela Siew Hoong Lee			
<b>Advisor</b>		Chew Xiang Fu			
<b>Advisor</b>		Hock Kuen Foong			
<b>Student</b>		Jen Looi Tee			
<b>Student</b>		Deaberniswarar Sharmaa			
<b>Student</b>		May Mun Yi Yeap			
<b>Student</b>		Jonathan Jared Ignacio			
<b>Student</b>		Chiao Pin Tan			
<b>Student</b>		Willion Wei Yen Yap			

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		Student	Jason Kow		
INTL08	<b>Novel process design and validation for decreasing CO2 emission from cement production decarbonization</b>	Advisor	吳 煒	National Cheng Kung University (Taiwan, R.O.C.)	Department of Chemical Engineering / Department of Civil Engineering
		Advisor	賴啟銘		
		Student	吳紀昀		
		Student	張宸語		
		Student	Mazumdar Debayan		
		Student	曾慶豪		
INTL09	<b>Next-Generation Redox-Mediated Bipolar Membrane Electrodialysis: Simultaneous Seawater Desalination and Carbon Capture</b>	Advisor	侯嘉洪	National Taiwan University (Taiwan, R.O.C.)	Graduate Institute of Environmental Engineering
		Student	吳旻臻		
		Student	張睿耀		
		Student	高毓慧		
		Student	王柏硯		
		Student	陳怡瑋		
INTL10	<b>A novel up-scaling process of a photoelectrochemical system with H2 generation for real saline sewage treatment: taking pioneering steps towards</b>	Advisor	Irene Man Chi Lo	The Hong Kong University of Science and Technology (Hong Kong)	Department of Civil and Environmental Engineering
		Advisor	Zexiao Zheng		
		Student	Taoran Dong		
		Student	Hoi Kit Justin Man		

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	<b>net zero wastewater treatment technology</b>	<b>Student</b>	Cheuk Wai Lung		
INTL11	<b>E-Sense Power</b>	<b>Advisor</b>	Wang Huai	Aalborg University (Denmark)	AAU Energy
		<b>Student</b>	Wei Xing		
		<b>Student</b>	Zhang Yichi		
		<b>Student</b>	Liu Yongjie		
		<b>Student</b>	Yao Bo		
		<b>Student</b>	Liu Jiahong		
INTL12	<b>A rechargeable zinc-air battery enabled by a solid hydrogel electrolyte in both atmospheric and low-temperature conditions</b>	<b>Advisor</b>	劉大中	National Yang Ming Chiao Tung University (Taiwan, R.O.C.)	Department of Biomedical Engineering
		<b>Student</b>	楊融昊		
		<b>Student</b>	徐晨軒		
		<b>Student</b>	翁永承		
		<b>Student</b>	林泓証		
		<b>Student</b>	何紹圻		
INTL13	<b>The Decarbonizer: A Comprehensive Solution for Waste Reduction and Hydrogen Production</b>	<b>Advisor</b>	Wei Cheng Wang	National Cheng Kung University / National Sun Yat Sen University (Taiwan, R.O.C.)	Department of Aeronautics and Astronautics / Mechanical and Electro-Mechanical Engineering / International Degree
		<b>Student</b>	Rusdan Aditya Aji Nugroho		
		<b>Student</b>	林明叡		

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		Student	Muhammad Azmi		Program on Energy Engineering
		Student	鄭宇		
INTL14	<b>Seaweed Afforestation: Unlocking the Ocean's Potential for Carbon Sequestration</b>	Advisor	任昊佳	National Taiwan University / Academia Sinica / National Taiwan Ocean University (Taiwan, R.O.C.)	Department of Geosciences / Research Center for Environmental Changes / Center of Excellence for the Oceans / Institute of Oceanography
		Advisor	何東垣		
		Advisor	張睿昇		
		Advisor	Stephens Brandon		
		Student	Tan Carel		
		Student	蔡李人誼		
INTL15	<b>Ultrahigh Efficiency Bidirectional DC-DC Converter for Energy Storage and Super Charger Applications</b>	Advisor	Jih-Sheng Lai	Virginia Polytechnic Institute and State University (US)	Electrical and Computer Engineering / Mechanical Engineering
		Advisor	Hsin-Che Hsieh		
		Student	Bryan Gutierrez		
		Student	Ching-Yao Liu		
		Student	Ganesh Rai		
INTL16	<b>EcoAlgae</b>	Advisor	Tharushi Prabha Keerthisinghe	University of Moratuwa (Sri Lanka)	Department of Chemical and Process Engineering
		Student	Isumi De Silva		
		Student	Januth Liyanage		

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		Student	Janitha Dissanayake		
		Student	Gavin Senaratne		
INTL17	<b>Sao Paulo Net Zero Design and Net Zero Emission Sustainable Public Library</b>	Advisor	Ardiyansyah Yatim	University of Indonesia (Indonesia)	Mechanical Engineering / Architecture
		Advisor	Ova Candra Dewi		
		Student	Leonardo Dillon		
		Student	Alexander Ganesh Aji Dewanto		
		Student	Heidy Sekardini		
		Student	Amar Falah Riyanto		
		Student	Farras Hafizh Al Farisi		
INTL18	<b>Bromeliad Library: Achieving Net Zero Operation in São Paulo through Energy-Efficient Library with Clay Facades, Fog Catchers, and Sustainable Mechanical Systems</b>	Advisor	Ardiansyah Yatim	University of Indonesia (Indonesia)	Mechanical Engineering / Architecture
		Advisor	Mikhta Farid Alkadri		
		Student	Bimantyo Ganggas Fadhil Ihsani		
		Student	Miguel Bintang Samuel		
		Student	Alfian Febrianto		
		Student	Muflikh Kas Yudamaulana		

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		Student	Alya Widha Aurellia		
		Student	Risma Fitriyanti		
INTL19	<b>A Solution for Sustainable Future: Design and Feasibility Analysis of Chemicals-based International Renewable Energy Supply Chain</b>	Advisor	Chen Cheng-Liang	National Taiwan University (Taiwan, R.O.C.)	Chemical Engineering
		Student	Ong Chong Wei		
		Student	Lien Sheng-Chi		
		Student	Chang Hao-Chu		
		Student	Wang Wei-Te		
INTL20	<b>Nanomaterial-driven 'green-heat' generation for CO2-free space-heating and water-desalination</b>	Advisor	Sandip Kumar Saha	Indian Institute of Technology Bombay (India)	Mechanical Engineering / Chemistry / Energy Science and Engineering
		Advisor	Chandramouli Subramaniam		
		Student	Anuj Bangad		
		Student	Nikita Vasudev Chitre		
		Student	Dipin Thacharakkal		



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