



Net Zero Tech

International Contest @ Taiwan
2025 淨零排放科技國際競賽



國立臺灣大學
National Taiwan University



財團法人東元科技文教基金會
TECO Technology Foundation

Event Background

National Taiwan University and **TECO Technology Foundation**, driven by the goal of Net Zero Emissions, jointly organize the “Net Zero Tech International Contest” to fulfill their social responsibility of cultivating talent.

Designed with a dual-track structure comprising the International Contest and the Taiwan Contest, the contest aims to promote global university students and faculty engagement in zero-carbon technology research and innovation. Through this high-profile international contest and platform, Taiwan aspires to establish itself as a hub for net zero technology exchange, talent development, and industrial advancement on the global stage.



Objectives

The “**Net Zero Tech International Contest**” initiative aims to cultivate talent, enhance industry-academia collaboration, promote global exchanges in net zero technologies, and improve the dissemination of net zero knowledge. It plans to establish professional prestige and international influence through the following measures:



Objectives

1. Provide substantial competition prizes to support university professors' research in net zero and negative emission technologies, encouraging young scholars to engage in research and technology development.
2. Establish a "Net Zero" platform to facilitate technical exchanges and knowledge sharing among industry, government, academia, and research sectors.
3. Disseminate net zero knowledge to foster societal consensus and encourage concrete actions in energy conservation and environmental protection.
4. Implement the four key transformation strategies—energy, industry, lifestyle, and society—to advance toward the vision of sustainable development.



Organizers

National Taiwan University

TECO Technology Foundation



Chairman

**Dr. Wen-Chang Chen
(President of National Taiwan University)**



Advisory Committee

Ministry of Education

Ministry of Environment

Ministry of Economic Affairs



Co-organizers

Association of Pacific Rim Universities (APRU)

Taiwan University Alliance for Sustainable Governance

National Taiwan University System, NTU System



Sponsors

Main Sponsor

Paujar Charity Foundation

Sponsors

Fubon Financial Holding Co., Ltd.

CHEN-YUNG Foundation

LITE-ON Technology Corporation

CPC Corporation, Taiwan

Shiny Chemical Industrial Co., Ltd.

NTU Industry & Academia Development Association

Hua Nan Bank

Nan Pao Resins Chemical Co., Ltd.

NTU Advanced Research Center of Green Materials Science and Technology



**Advisory
committee**



教育部
MINISTRY OF EDUCATION



環境部
Ministry of Environment



經濟部
Ministry of Economic Affairs

**Main
Sponsor**



**財團
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Sponsors



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勇源基金會
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光寶科技



台灣中油股份有限公司
CPC Corporation, Taiwan



勝一化工
Shiny Chemical



台大產協會
AIAD
Association for Industry-Academia Development



華南銀行
HUA NAN BANK



NTU ARC-GMST
前瞻綠色材料高值化研究中心
Advanced Research Center for Green Materials Science and Technology

Co-organizers



APRU



**臺灣永續治理
大學聯盟**
Taiwan University Alliance for
Sustainable Governance



國立臺灣大學系統

Award Mechanism

International Contest			Taiwan Contest		
Awards	Prize (USD)	Sponsors	Awards	NTD	Sponsors
Champion LITEON Bright Future Award	30,300	LITE-ON Technology Corporation	Champion Fubon Net Zero Tech Award	1,000,000	Fubon Financial Holding Co., Ltd.
First Runner-Up Paujar Net-Zero Technology Award	18,200	Paujar Charity Foundation	First Runner-Up CHEN-YUNG Net-Zero Technology Award	600,000	CHEN-YUNG Foundation
Second Runner-Up Paujar Green Innovation Award	12,100	Paujar Charity Foundation	Second Runner-Up CHEN-YUNG Sustainable Development Award	400,000	CHEN-YUNG Foundation
CPC Corporation, Taiwan Smart Energy Award	6,100	CPC Corporation, Taiwan	CPC Corporation, Taiwan Smart Energy Award	200,000	CPC Corporation, Taiwan
NTU-AIAD, Advanced Net Zero Emission Technology Award	6,100	NTU AIAD	Shiny Chemical Energy Saving Innovation Award	200,000	Shiny Chemical Industrial Co., Ltd.
Advanced Green Energy Award	3,000	NTU ARC-GMST	Paujar Green Energy Award	100,000	Paujar Charity Foundation
Nan Pao Resins Zero Carbon Vanguard Award	3,000	NAN PAO Resins Chemical Factory Co., Ltd.	Hua Nan Bank Net-Zero Hope Award	100,000	Hua Nan Bank
Excellence (13 teams)	1,500 / team	Paujar Charity Foundation	Excellence (13 teams)	50,000 / team	Paujar Charity Foundation
	98,600		3,250,000		

Note : The prize for the International Contest matches that of the Taiwan Contest, with the exchange rate based on the remittance date in September 2025.

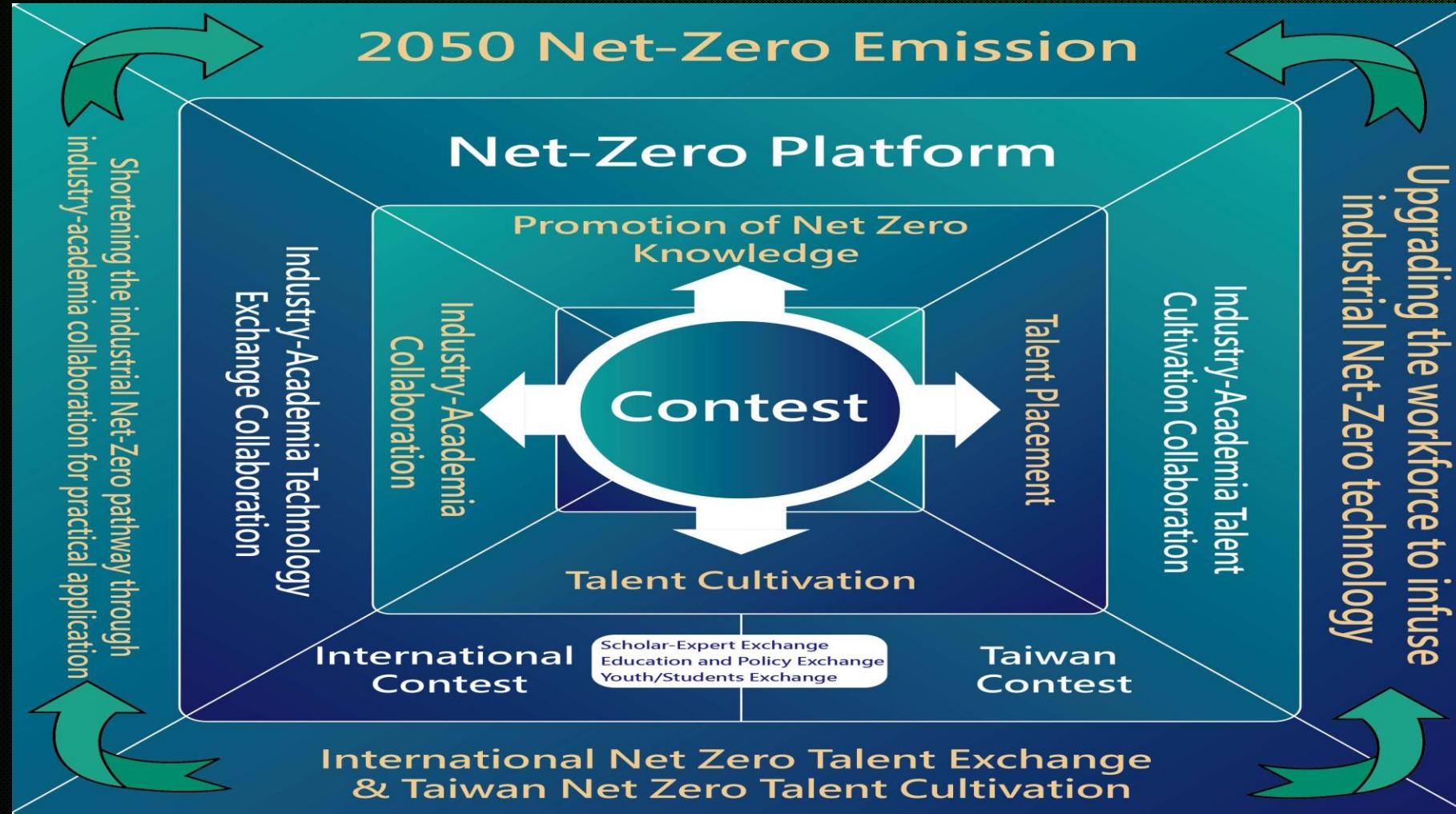


Notes

- 1. To uphold the contest's standards, the organizers reserve the right to withhold awards if deemed necessary.**
- 2. In accordance with Article 14, Paragraph 1, Subparagraph 8 of the Republic of China Income Tax Act, awards or grants from competitions are classified under "competition, contest, and winning opportunities" income and are subject to a tax deduction of 10% for nationals and 20% for non-nationals.**



Schematic diagram of Net Zero Tech International Contest



Contest Theme

Net Zero Tech covering the following technological domains:

1. Renewable Energy

(Wind Power, Solar Power, Marine Energy, Geothermal
Hydrogen Energy, Forward-looking Energy...)

2. Advanced Energy Storage Systems, High Efficiency, Low Energy Consumption, Low Carbon Emissions

3. Negative Carbon, Carbon Capture, Storage, and Reutilization Technologies



Contest Theme

4. Electric Vehicles, Energy-saving Motors, Green Transportation
5. Waste Treatment and Purification Technologies, Resource Circulation and Zero Waste, Green Building
6. Energy-saving Technologies
(Production, Manufacturing, Residential and Commercial Buildings, Green Building Design, Life...)



Eligibility

International Contest

Open to undergraduate and graduate students from universities worldwide, including Taiwan.

Taiwan Contest

Open to undergraduate and graduate students from universities in Taiwan.

Important Notice :

- Each team should consist of at least 3 students and 1 advisor.
- Participants can be from different departments or universities.
- Each person is limited to joining one team(advisors are not subject to this restriction).



Contest Requirements (Submission)

1. Project title, names of team members, student identification, and other personal information
2. Motivation and process of creation
3. Research objectives
4. Brief project introduction
5. Problem-solving and technical value
6. Technical creativity
7. Technical content and feasibility
8. Expected benefits
9. Project proposal and attachments submitted in PDF format
10. Summary Table of Project Descriptions
11. Project Introduction Video(Please prepare a video in MPEG-4 format with a maximum duration of 5 minutes.)



Registration

<https://www.tecofound.org.tw/nz/2025/login.php>



Notes

- 1. Participants are required to specify the technological field of their project within the registration portal on the website.**
 - International Contest: utilizing only the English language for submission.
 - Taiwan Contest: utilizing only the Chinese language for submission.
- 2. After the registration deadline, the following changes are prohibited: team members, project title, and the contents of the project proposal with attachments, except for special reasons approved through an application submitted by the team's professor.**
- 3. Entries that encompass products already commercially available to the public are ineligible for consideration.**
- 4. All submissions must respect intellectual property laws and ensure no infringement on the rights of third parties. Should any violation occur, the implicated parties will bear full responsibility; the contest organizers will not be implicated.**
- 5. Upon thorough verification of team details and project information for completeness and accuracy, the organizers will send a “Registration Successful” notification via email.**

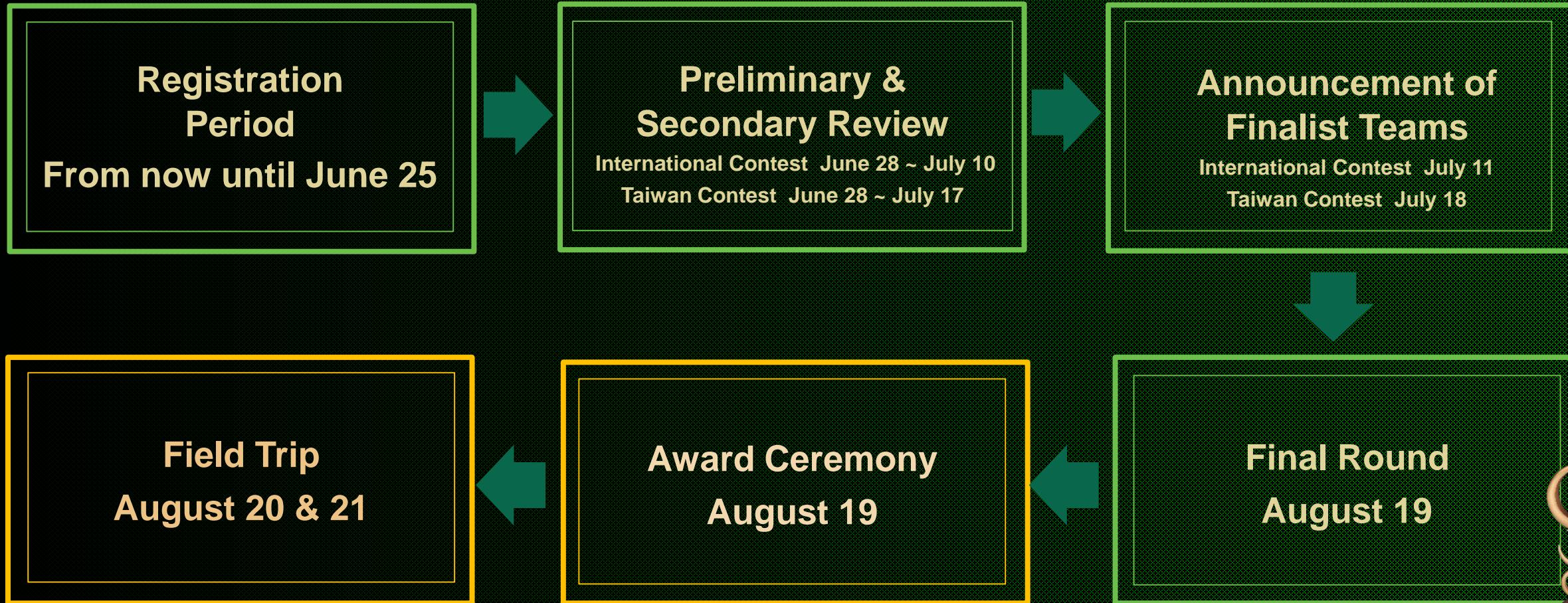


Evaluation Method

1. Problem-solving and Technical Value 40%
2. Creativity 25%
3. Technical Content and Feasibility 25%
4. Completeness of the Project 10%



Contest Schedules



Final Round Agenda

Timetable	Events
07:40-08:50	Registration
08:50-09:05	Announcement
09:05-14:40	Presentation & Demonstration
14:40-15:00	Viewing of Works & Interaction
15:00-15:20	Opening
15:20-15:40	Net Zero Keynote Speech
15:40-16:40	Awards Ceremony
16:40-16:50	Address by VIPs
16:50-16:55	Photo shoot / Interview
16:55-17:00	Lottery / Interview
17:00-17:20	Press / Interview



Information for Foreign Finalist Teams

- 1. All finalist teams must attend the final competition in Taiwan. The attending members must include at least 2 students and 1 advisor.**
- 2. Teams that attend the final competition will receive the following financial support:**
 - (1) Travel subsidy of approximately USD 1,500.**
 - (2) Minimum prize money of USD 1,500.**
- 3. The organizing committee provides the following services:**
 - (1) Consultation on accommodation, meals, and transportation.**
 - (2) Full insurance coverage throughout the event.**
 - (3) Arranged visits to Taiwan's leading net-zero technology institutions or enterprises.**



Subsidy Program for Foreign Finalist Teams

1. Subsidies to: The foreign teams that qualify for the finals of the "International Contest."
2. Subsidy Amount : approximately USD 1,500
3. Disbursement Method: Cash will be distributed on-site at the final round on Tuesday, August 19
4. Claiming Methods:

Option A: Based on receipts / invoice in August, 2025

(such as : flight documents, accommodation, meal invoices, etc.)

Note :

- Flight Documents including – Boarding Pass、Invoice Application & Certificate of Entry and Exit Date)
- The flight time must be between 8/12 & 8/26

Option B: Based on a receipt form (format will be provided by the organizer).

Note:

Those which is based on receipt forms, according to the Income Tax Act of the Republic of China, individuals with R.O.C. nationality are subject to a 10% tax (exempt for amounts under NT\$20,000).

Non-R.O.C. nationals are subject to a 20% tax.



Estimated expenses for the overseas teams to come to Taiwan (08/18-08/22)

Item	Area and fee calculation (USD)				Illustrate
Area	South-east Asia	North-east Asia	America	Europe	
Air Ticket	1,092	1,365	2,729	4,367	<ul style="list-style-type: none"> 1. Air ticket reference is based on <ul style="list-style-type: none"> a. South-east Asia : Jakarta↔Taipei b. North-east : Tokyo↔Taipei c. America : Los Angeles↔Taipei d. Europe : Munich↔Taipei 2. The airfare is for a round trip for 3 people.
Accommodation	Two single bed room 76 USD* 2Rooms* 3Days=456 USD				<ul style="list-style-type: none"> 1. Accommodation dates 8/18 ~ 8/21 2. Accommodation during the visit activities 8/20 is provided by the organizer. 3. Twin room
Food	(Lunch 5 USD + Dinner 5 USD)* 7meals* 3people =210 USD				<ul style="list-style-type: none"> 1. Breakfast is provided by the hotel 2. Estimation of catering expenses include: <ul style="list-style-type: none"> (1) 8/18 Lunch + Dinner (2) 8/19 Dinner (3) Lunch + dinner on 8/21-22 3. Lunch on the day of the finals on 8/19 will be provided by the organizer. 4. Meals for the 8/20 "Field Trip" will be provided by the organizer.
Transportation	120 USD				<ul style="list-style-type: none"> 1. TPE Airport↔Taipei City by Taxi 36 USD*2round= 72 USD 2. others 48 USD
Total Cost (3 people)	1,878	2,151	3,515	5,153	

Lottery



Net Zero Tech | International Contest @ Taiwan 2025淨零排放科技國際競賽

VOTE for your favorite teams and get a chance to
WIN a 65-inch TECO TV!!

We welcome you to join this tremendous
contest and see how to reach net-zero emissions.

TIME: 8/19/2025, 10:00-15:00

VENUE: National Taiwan University Sports Center
(1F, No. 29, Section 2, Xinhai Road, Daan District, Taipei City)



國立臺灣大學
National Taiwan University



財團法人東元科技文教基金會
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Field Trip

After the finals and award ceremony,
plan a two-day visit for international teams to visit Taiwan's net-zero enterprises and cultural tours!

Date	Time	Schedule
August 20 (Wed.)	Morning	Visit Taiwan's net-zero enterprises
	Interactive communication / Meals	
	Afternoon	Travel to Taiwan's northern / northeast coast
	Interactive communication / Meals	
August 21 (Thu.)	Morning	Travel to Yilan County Visit /National Taiwan University-related net-zero institutions
	Afternoon	End of Field Trip

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Intelligent Service

<https://lin.ee/FbSaezX>



Registration

<https://www.tecofound.org.tw/nz/2025/login.php>



Official Website

<http://teco.tecofound.org.tw/zh-tw/pages/41>



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教育部
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環境部
Ministry of Environment

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Ministry of Economic Affairs

Co-organizers



臺灣永續治理
大學聯盟
Taiwan University Alliance for
Sustainable Governance



Main Sponsor



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Sponsors



富邦金控
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勇源基金會
CHEN-YUNG FOUNDATION



LITEON
光寶科技



台灣中油股份有限公司
CPC Corporation, Taiwan



勝一化工
Shiny Chemical



台大產協會
AIAD
Association for Industry-Academia Development



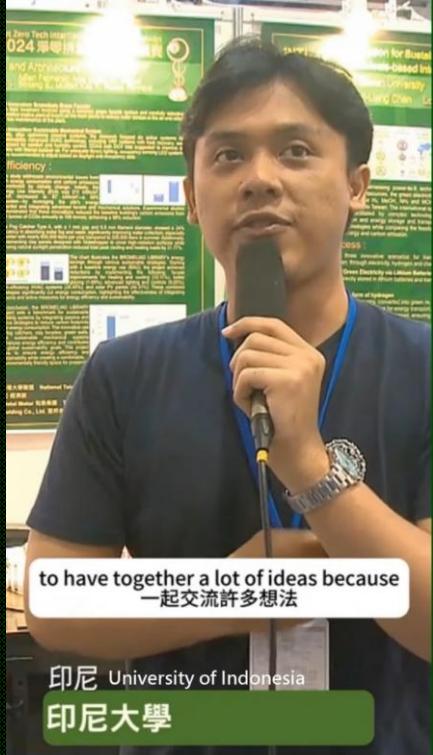
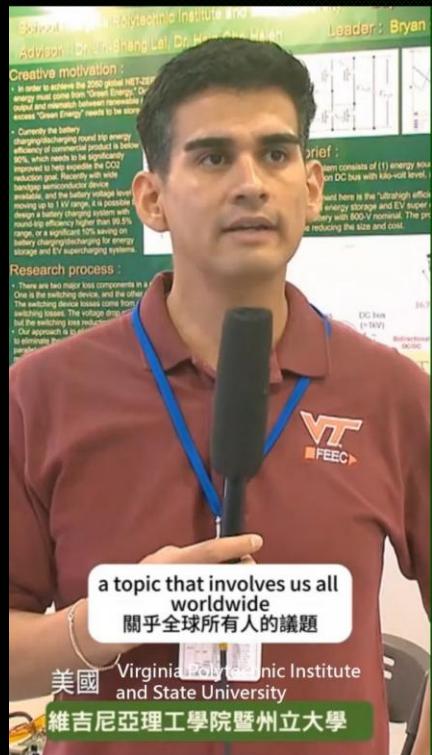
NTU ARC-GMST
前瞻綠色材料高值化研究中心
Advanced Research Center for Green Materials Science and Technology

Highlights :

2024 Net Zero Tech International Contest @Taiwan



Testimonials of the Contest



Video



Contest Registration and Finals Summary of 2024

Registration Details:

240 teams from 13 countries

International Contest : 99 teams

Main Contest : 141 teams

Total Participants: 998 international net-zero elite students and teachers

Finals Details:

Number of Teams: 20 teams selected for each category,
total: 40 teams

Attendance at Finals: 114 for the International Contest,
120 for the Main Contest



Net Zero Tech | International Contest @ Taiwan

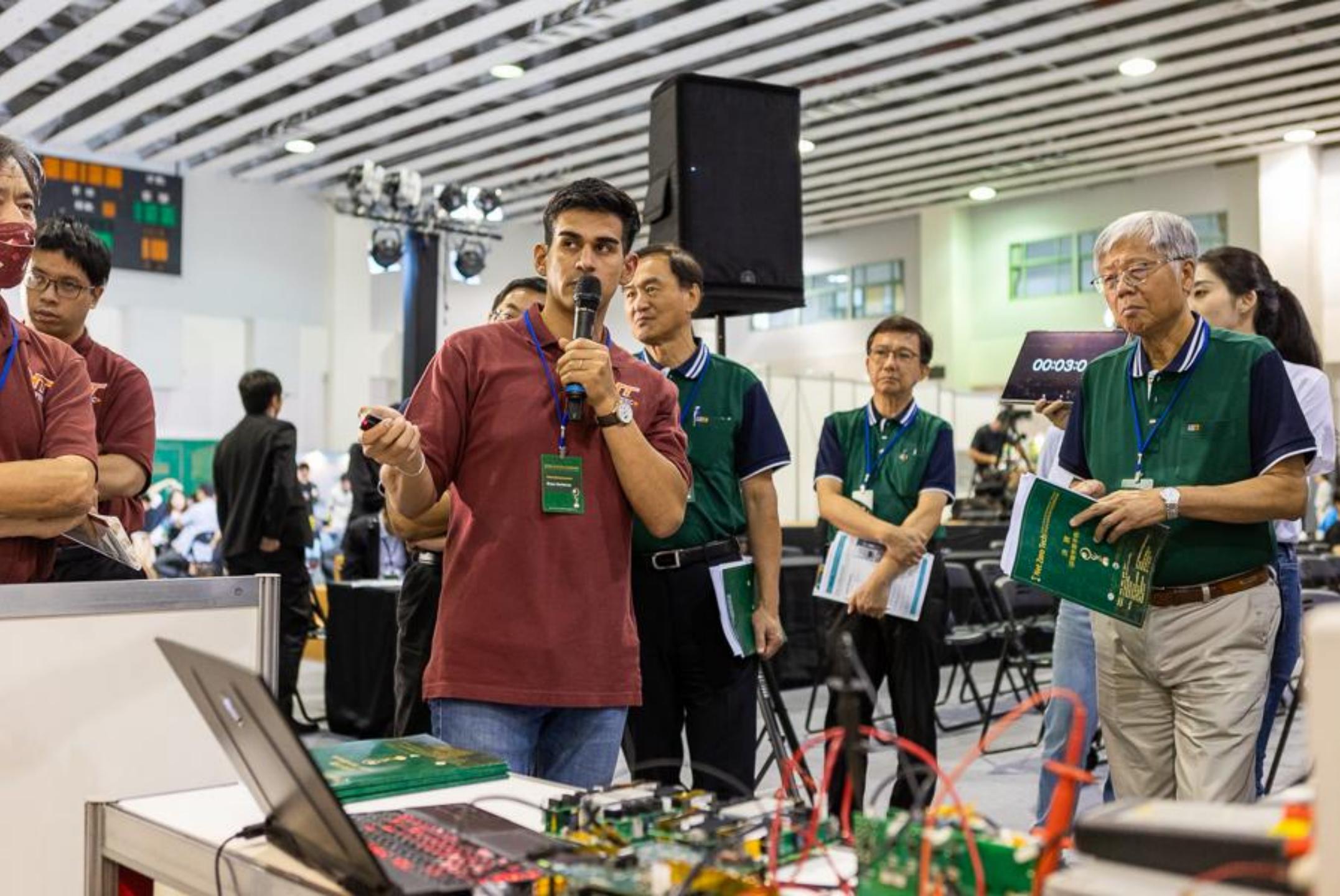
2024 淨零排放科技國際競賽





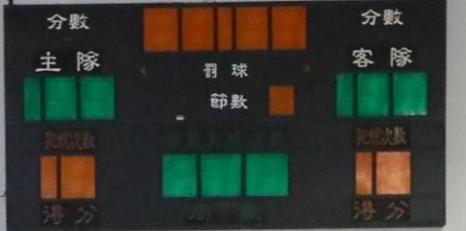


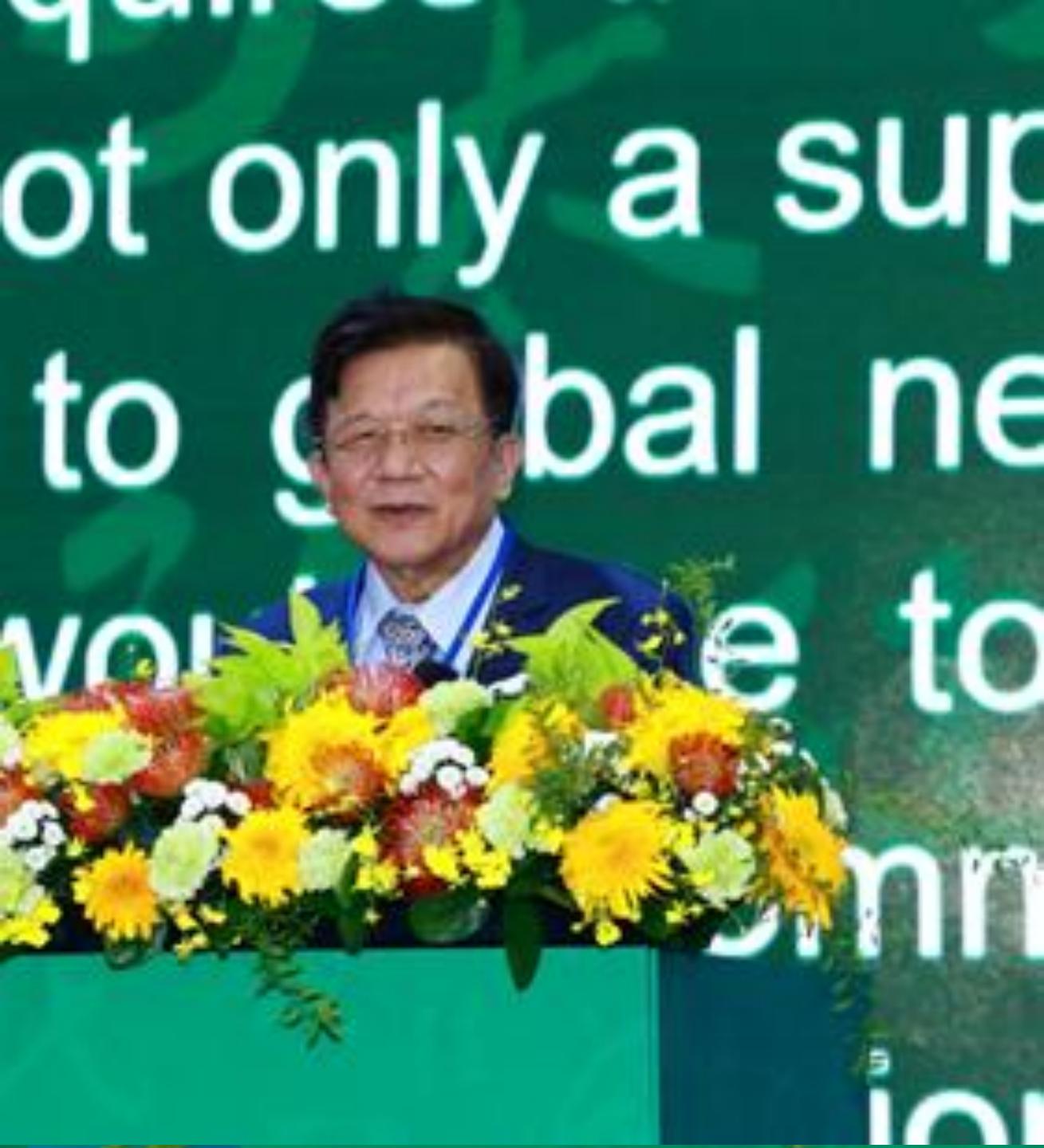












2024淨零排放科技國際競賽得獎名單(主競賽)

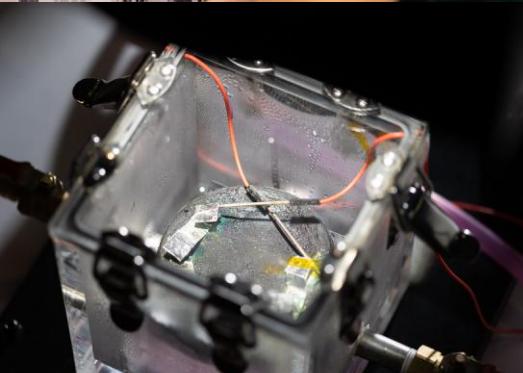
獎項		獎金	決賽編號	作品名稱	職稱	姓名	學校	科系
1	冠軍 富邦淨零科技獎	100 萬元	MAIN 10	稀有磁理 - 創新低碳回收 純化技術	指導教授	賴志煌	國立清華大學	材料科學工程學系
					隊長	羅韶奇		
					隊員	林淨因		
					隊員	邱廷煥		
2	亞軍 勇源淨零科技獎	60 萬元	MAIN 07	有害廢棄物之高值化再利 用	指導教授	吳威德	國立中興大學	材料科學與工程學系
					指導教授	林啓明		工業與智慧科技學位學程
					指導教授	劉凡瑋		半導體與綠色科技學位學程
					指導教授	林家吟		循環經濟研究學院半導體與 綠色科技學程
					隊長	羅紹峰		
					隊員	沈峻名		材料科學與工程學系
					隊員	蔡啓春		
					隊員	洪右任		工業與智慧科技學位學程
					隊員	陳鈺澤		循環經濟研究學院半導體與 綠色科技學程
					隊員	莊尉程		半導體與綠色科技學位學程
3	季軍 勇源永續發展獎	40 萬元	MAIN 17	電驅動酸鹼震盪碳捕捉再 利用	指導教授	潘述元	國立台灣大學	生物環境系統工程學系
					指導教授	曾渤之		
					隊長	林育誼		
					隊員	鄭又綺		
					隊員	陳心儀		
					隊員	葉晉豪		

獎項		獎金	決賽編號	作品名稱	職稱	姓名	學校	科系
4	台灣中油 智慧能源獎	20 萬	MAIN 02	高產率硝酸鹽產綠氨之可產業化膜電極模組-邁向綠氨經濟與碳捕捉之路	指導教授	郭東昊	國立臺灣科技大學	材料科學與工程系暨能源永續科技研究所
					隊長	HaQuoc Nam		
					隊員	詹育展		能源永續科技研究所
					隊員	劉冠甫		
5	勝一節能創新獎	20 萬	MAIN 15	多元製程開發高效產氫整合一體化系統	指導教授	王冠文	國立中央大學	材料科學與工程研究所
					指導教授	洪緯璿		
					指導教授	李勝偉		
					隊長	張家語		
					隊員	邱玟溢		
					隊員	邱奕嘉		
					隊員	許育達		
					指導教授	童國倫	國立臺灣大學	化學工程學所
6	和泰前瞻綠能獎	10 萬	MAIN 09	綠色材料應用於能源技術 開發:光熱海綿達成綠電淨水的生產	隊長	葉俊叡		
					隊員	陳劭宇		
					隊員	林佳宏		
					指導教授	吳哲宏	國立成功大學	環境工程學系
7	華南銀行 零碳希望獎	10 萬	MAIN 11	實現淨零碳排：打造生物廢水處理技術革新突破	隊長	林宜庭		
					隊員	馮禮君		
					隊員	邵勇先		
					隊員	莊函音		
					隊員	陳杉樺		
					指導教授	黃志宏		

2024 Net Zero Tech International Contest @Taiwan(International Teams) Final Results

Awards		No.	Work Title	Position	Name		School	Department
1 Champion	INTL 15		Ultrahigh Efficiency Bidirectional DC-DC Converter for Energy Storage and Super Charger Applications	Advisor	Jih-Sheng	Lai	Virginia Polytechnic Institute and State University	Electrical and Computer Engineering
				Advisor	Hsin-Che	Hsieh		Mechanical Engineering
				Leader	Bryan	Gutierrez		Electrical and Computer Engineering
				Student	Ching-Yao	Liu		
				Student	Ganesh	Rai		
2 First Runner-Up	INTL 10		A novel up-scaling process of a photoelectrochemical system with H ₂ generation for real saline sewage treatment: taking pioneering steps towards net zero wastewater treatment technology	Advisor	Irene Man Chi	Lo	The Hong Kong University of Science and Technology	Department of Civil and Environmental Engineering
				Advisor	Zexiao	Zheng		
				Leader	Taoran	Dong		
				Student	Hoi Kit Justin	Man		
				Student	Cheuk Wai	Lung		
3 Second Runner-Up	INTL 08		Novel process design and validation for decreasing CO ₂ emission from cement production decarbonization	Advisor	吳	輝	National Cheng Kung University	化學工程學系
				Advisor	賴	啟銘		
				Leader	吳	紀昀		
				Student	張	宸語		
				Student	Mazumdar	Debayan		
4 CPC Corporation, Taiwan Smart Energy Award	INTL 03		Advanced Carbon Capture and Elimination Process Technology using Membrane Engineering (ACCEPT-ME)	Student	曾	慶豪	National Taiwan University	化學工程學系 (Department of Chemical Engineering)
				Advisor	康	敦彥		
				Leader	吳	柏均		
				Student	李	雪菱		
				Student	游	元禎		
				Student	張	守豐		

Awards		No.	Work Title	Position	Name		School	Department
5 NTU-AIAD, Advanced Net Zero Emission Technology Award	INTL 04	Low-Cost Energy-Efficient Atmospheric-Pressure Plasma Jet Processed NiCo- Metalorganic Framework Electrocatalyst in Anion Exchange Membrane Water Electrolysis Module	Advisor	陳建彰	陳建彰	National Taiwan University	應用力學研究所	
			Advisor	陳奕君	陳奕君	National Taiwan University	光電工程學研究所	
			Advisor	王孟菊	王孟菊	National Taiwan University	國立台灣科技大學	
			Leader	普智暉	普智暉	National Taiwan University	應用力學研究所	
			Student	余碩恩	余碩恩	National Taiwan University	重點科技研究學院	
			Student	鬱振宸	鬱振宸	National Taiwan University	奈米工程與科學	
			Student	陳奇松	陳奇松	National Taiwan University	應用力學研究所	
			Student	洪柏彥	洪柏彥	National Taiwan University	應用力學研究所	
			Student	吳幸真	吳幸真	National Taiwan University	國立台灣科技大學	
			Student	謝尚霖	謝尚霖	National Taiwan University	化學工程學系	
6 Advanced Green Energy Award	INTL 09	Next-Generation Redox- Mediated Bipolar Membrane Electrodialysis: Simultaneous Seawater Desalination and Carbon Capture	Student	董芮妤	董芮妤	National Taiwan University	化學工程學系	
			Advisor	侯嘉洪	侯嘉洪	National Taiwan University	環境工程學研究所	
			Leader	吳曼臻	吳曼臻	National Taiwan University	環境工程學研究所	
			Student	張睿耀	張睿耀	National Taiwan University	環境工程學研究所	
			Student	高毓彗	高毓彗	National Taiwan University	環境工程學研究所	
			Student	王柏硯	王柏硯	National Taiwan University	環境工程學研究所	
7 Nan Pao Resins Zero Carbon Vanguard Award	INTL 20	Nanomaterial-driven 'green-heat' generation for CO ₂ -free space-heating and water-desalination	Student	陳怡瑋	陳怡瑋	National Taiwan University	環境工程學研究所	
			Advisor	Sandip Kumar Saha	Sandip Kumar Saha	Indian Institute of Technology Bombay	Mechanical Engineering	
			Advisor	Chandramouli Subramaniam	Chandramouli Subramaniam	Indian Institute of Technology Bombay	Chemistry	
			Leader	Anuj Bangad	Anuj Bangad	Indian Institute of Technology Bombay	Energy Science and Engineering	
			Student	Nikita Vasudev Chitre	Nikita Vasudev Chitre	Indian Institute of Technology Bombay	Chemistry	
			Student	Dipin Thacharakkal	Dipin Thacharakkal	Indian Institute of Technology Bombay	Chemistry	

















Net Zero Tech
International Contest

Champion
冠軍



First Runner-Up

亞軍



Second Runner-Up

季軍







Net Zero Tech | International Contest to Taiwan
2024

International
Contest

Champion

冠軍















Intelligence Service Consultations in Over 50 Languages



Intelligent Service

<https://lin.ee/FbSaezX>



Registration

<https://www.tecofound.org.tw/nz/2025/login.php>



Official Website

<http://teco.tecofound.org.tw/zh-tw/pages/41>



Net Zero Tech

International Contest @ Taiwan
2025 淨零排放科技國際競賽



國立臺灣大學
National Taiwan University



財團法人東元科技文教基金會
TECO Technology Foundation

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