



# Net Zero Tech

International Contest @ Taiwan  
2024 淨零排放科技國際競賽



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



國立臺灣大學  
National Taiwan University

# Objectives

The “Net Zero Tech International Contest” is designed to cultivate talent development, strengthen industry-academic partnerships, facilitate global technological exchanges, and promote widespread understanding of net zero principles. This initiative aims to secure professional acclaim and establish a significant worldwide impact by:

1. Award significant financial incentives to distinguished professors worldwide for research in net zero and negative emissions technologies, and support educators in guiding future experts in these critical fields.

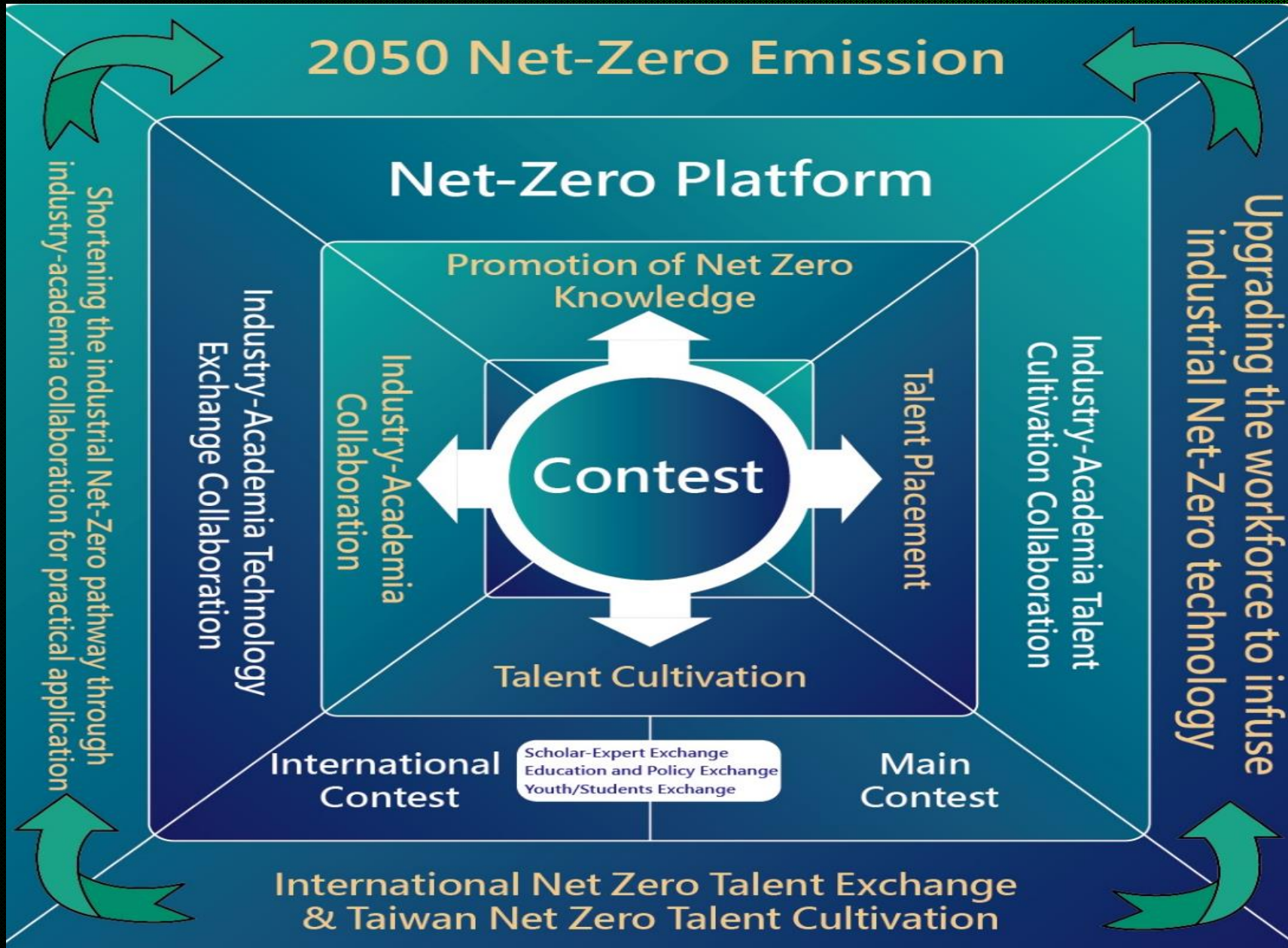


# Objectives

2. Establish a “Net Zero” platform to facilitate technical exchange and networking across industry, government, academia, and research sectors.
3. Disseminate net zero knowledge to foster societal consensus and action on energy conservation and environmental protection.
4. Support the four key transformation strategies in energy, industry, lifestyle, and society, driving progress towards a sustainable future.



# Net Zero International Contest Ideology Chart



# Organizers

National Taiwan University

TECO Technology Foundation



# Advisory Committee

Ministry of Education, R.O.C

Ministry of Environment, R.O.C

National Science and Technology Council , R.O.C

Ministry of Economic Affairs, R.O.C



# Co-organizers

Association of Pacific Rim Universities (APRU)

Taiwan University Alliance for Sustainable Governance

National Taiwan University System



# Sponsors

CPC Corporation

NTU Advanced Research Center of Green Materials Science and Technology

NTU Industry & Academia Development Association

HOTAI Motor

TECO Electric & Machinery Co., Ltd.

Nan Pao Resins Chemical Co., Ltd.

Chen-Yung Foundation

Fubon Financial Holding Co., Ltd.

Hua Nan Commercial Bank Ltd.

Shiny Chemical Industrial Co., Ltd.





Advisory



教育部  
MINISTRY OF EDUCATION



環境部  
Ministry of Environment



NSTC 國家科學及技術委員會  
National Science and Technology Council



經濟部  
Ministry of Economic Affairs

Co-organizers



APRU



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



NTU SYSTEM  
國立臺灣大學系統

Sponsor



台灣中油股份有限公司  
CPC Corporation, Taiwan



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



Association for Industry-Academia Development

TECO 東元電機



勇源基金會  
CHEN-YUNG FOUNDATION

NANPAO 南寶樹脂

華南銀行  
HUA NAN BANK

富邦金控



勝一化五  
Shiny Chemical



和泰汽車

Convener

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



# 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...)



# Contest Categories

## Main Contest

1. Open to students and faculty from various universities in Taiwan.
2. Participants include undergraduate and graduate students from various universities in Taiwan and their respective advisors.
3. Each team should consist of four members or more (including advisors).
4. Participants can be from different departments or universities.
5. Each person is limited to register in one team (no restrictions on advisors).



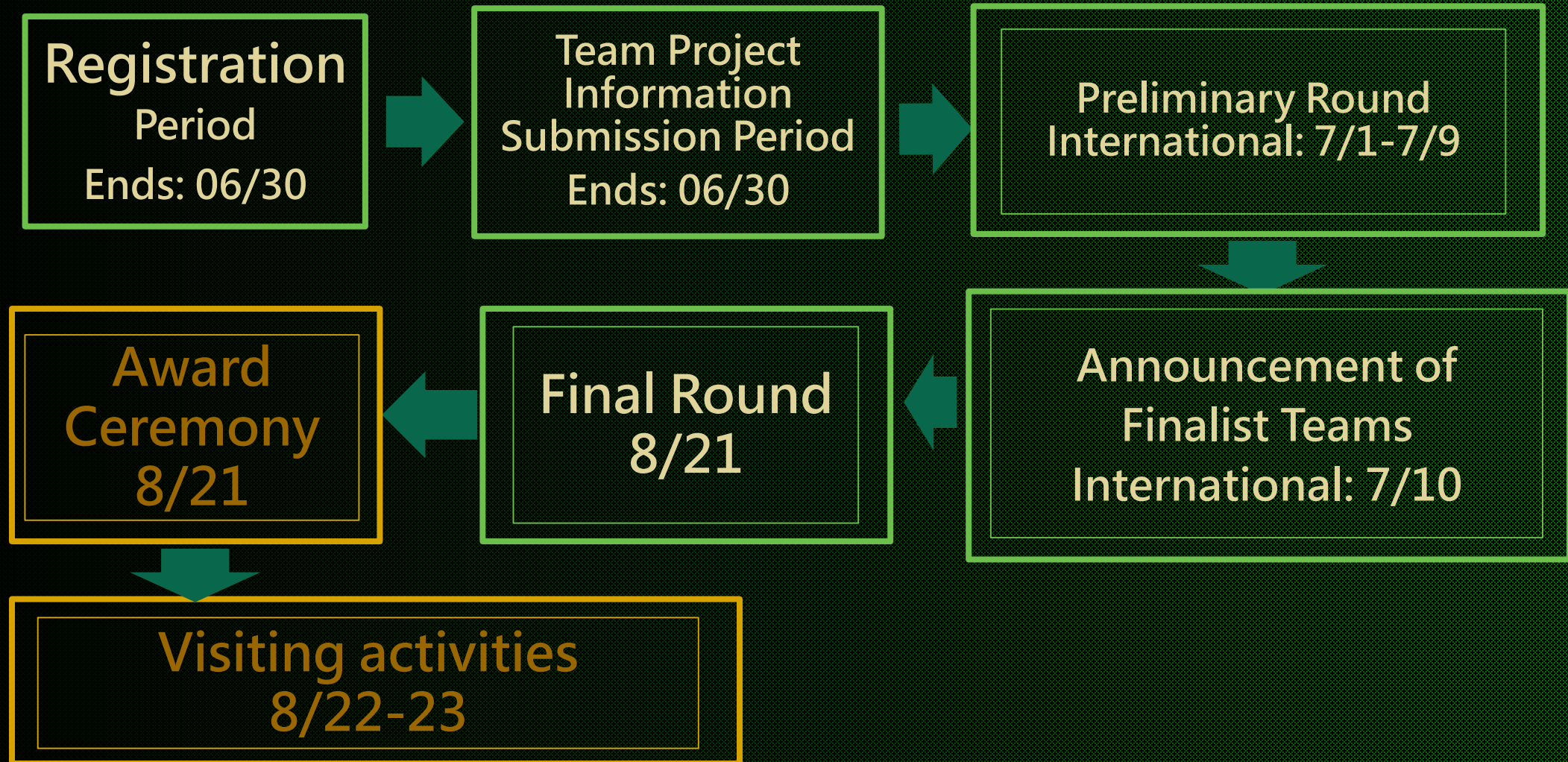
# Contest Categories

## International Contest

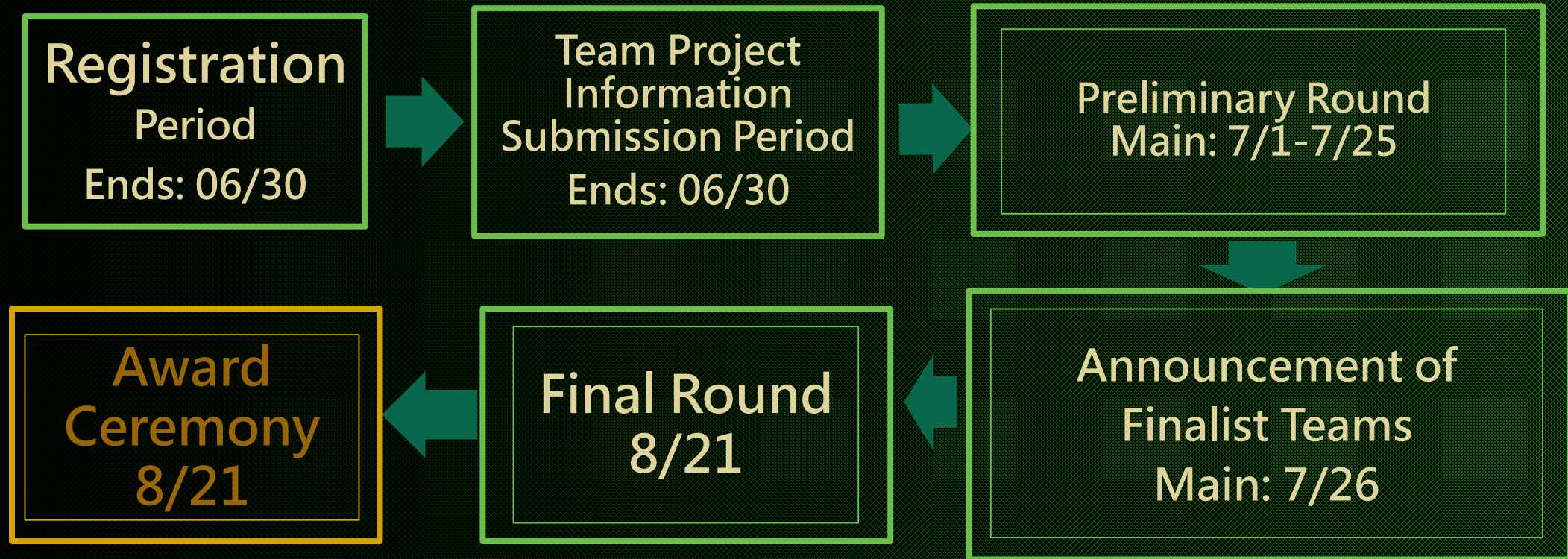
1. Open to students and faculty from universities worldwide.
2. Participants include undergraduate and graduate students from universities worldwide, including Taiwan, and their respective advisors.
3. Each team should consist of four members or more (including the advisors).
4. Participants can be from different departments or universities.
5. Each person is limited to register in one team (no restrictions on advisors).



# Key Dates (International Contest)



# Key Dates (Main Contest)





# Contest Procedures

**I Registration: From March 1, 2024, to June 30, 2024**

**II Registration Method: Visit**

**<http://www.tecofound.org.tw/greentech-contest/2024>**

- 1. Apply for a contest account in the event registration section.**
- 2. Click the verification link in the confirmation email to activate the account.**
- 3. Log in with contest account and complete the registration information (“Team Information”), which includes:**
  - (1) Project title, names of team members with student identification and other personal information**



# Contest Procedures

**(2) Motivation and process of creation**

**(3) Research objectives**

**(4) Brief project introduction emphasizing:**

**a. Problem-solving and technical value**

**b. Technical creativity**

**c. Technical content and feasibility**

**(5) Project proposal and attachments submitted with PDF format (each file within 10MB, maximum 6 files)**

## **4. Notes:**

**(1) Participants are required to specify the technological field of their project within the registration portal on the website.**

# Contest Procedures

- a. Main Contest: utilizing only the Chinese language for submission.**
  - b. International Contest: utilizing only the English language for submission.**
- (2) After the registration deadline, the following changes are prohibited: team members, project title, and the contents of project proposal with attachments.**
- (3) Entries that encompass products already commercially available to the public are ineligible for consideration.**

# Contest Procedures

- (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) Please upload your data anonymously, except for the “Team Information” section. This means that all other information, including school names, participant names, or advisor information, must not be disclosed in the project proposal. Violators may have their participation eligibility revoked through a decision by the juries.**

# Contest Procedures

**(6) Upon thorough verification of team details and project information for completeness and accuracy, the organizers will send a “Registration Successful” notification via email.**

## **III Preliminary and Secondary Review:**

**Main Contest: July 1-25, 2024**

**International Contest: July 1-9, 2024**

**IV Announcement of Review results: Results will be published on the foundation’s and National Taiwan University’s websites and official Facebook page.**



# Contest Procedures

- a. Main Contest: July 26, 2024, 17:00
- b. International Contest: July 10, 2024, 17:00
- V Final Round: August 21, 2024 (Wednesday)
- VI Visiting activities: Arrange the visit schedule after the contest, participate freely.
- VII Please join the official WhatsApp group when registering to receive the latest information and real-time announcements.  
WhatsApp Group :  
<https://chat.whatsapp.com/HcrAq4mh9WBJn7tZzZ46x8>



# Contest Procedures

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# Final Round Procedures draft plan

1. Final Round Date: August 21, 2024 (Wednesday)
2. Final Round Venue: National Taiwan University Sports Center  
(No. 29, Section 2, XinHai Rd., Da'an District, Taipei City  
<https://maps.app.goo.gl/vui3Uy17HqQP>)

## 3. Contest Format:

### Briefing and Demonstration

- (1) Teams that qualify for the Final Round should provide a 5 minutes project overview and operational demonstration video for the juries from July 26 to August 2. Video files should be in MPEG-4 format and uploaded to a cloud drive for organizers to download.





# Final Round Procedures draft plan

- (2) There will be 12 mins per team (6 mins for briefing + 6 mins for demonstration). Advisors may provide assistance.
  - (3) The presentation order will be determined by serial number.
  - (4) Operational Demonstration: Teams will be provided with a space of 250cm × 200cm (width \* length) to showcase their entries, and the poster is 230cm x 150cm.
4. Dress Code: Participants should wear clothing that reflects the school or department's identification system to highlight each team's characteristics.



# Final Round Procedures

- 5. Awards Presentation:** An award ceremony will be held on the day of the Final Round, and information about winning teams will be provided to the media.
- 6. Notes:** The organizer will provide all participants with lunch, comprehensive participant manuals, and official badge of participation. It is imperative that teams adhere to the guidelines for wearing their official badge visibly and comply with the dress code as stipulated by the organizer. Non-compliance, even subsequent to reminders, may result in disqualification from the event.



# Number of Teams and Participants (2023 & 2024)

Category	Items	Number of Sign-up		Number of Entering the Review			
	Year	2023	2024		2023	2024	
			Main	Int'l		Main	Int'l
University	98	105	99	57	56	64	
University of Technology	48	36		29	26		
Institute of technology	0	0		0	0		
Total	146	141	99	86	82	64	
		240			146		
Advisors	131	141	139	114	129	108	
Participants	406	361	357	352	348	281	
Subtotal	537	502	496	466	477	389	
Total	537	998		466	866		

# Visiting activities

Schedule		Group A	Group B
Time			
8/22	07:30	Start from Howard Civil Service International House	
	07:30-09:00	to TSMC Museum of Innovation	to ITRI
	09:00-10:20	Visit TSMC Museum of Innovation	Visit ITRI
	10:30-11:50	Visit ITRI	Visit TSMC Museum of Innovation
	11:50-14:00	Lunch (Lakeshore Hotel Hsinchu)	
	14:00-15:30	To the Highway Rest Area	
	15:30-18:00	To Howard Resort Xitou	
	18:30-20:30	Dinner (Howard Resort Xitou)	
8/23	06:00-14:00	Free time activities (Xitou)	
	14:00	Back to Taipei	

# Evaluation Method

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

# Award Mechanism

Place		Main Contest		International Contest	
		Teams	Prize Money (NTD)	Teams	Prize Money(NTD/USD)
1	Champion	1	1,000,000	1	1,000,000 30,793
2	First Runner-up	1	600,000	1	600,000 18,476
3	Second Runner-up	1	400,000	1	400,000 12,317
4	CPC Smart Energy Award	1	200,000	1	200,000 6,159
5	Energy-Saving Motor System Award	1	200,000	1	200,000 6,159
6	Advanced of Green Energy Award	1	100,000	1	100,000 3,079
7	Net Zero Promising Award	1	100,000	1	100,000 3,079
8-20	Honorable Mention	13	50,000	13	50,000 1,540
	<b>Total</b>	<b>20</b>	<b>3,250,000</b>	<b>20</b>	<b>3,250,000</b> <b>100,177</b>

Quoted Date of Cash Rate: 2024/05/30 Bank of Taiwan 1USD=32.475NTD

# 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.**
- 3. The organizers will issue the official badges of participation to teams advancing to the Final Round. Non-compliance with the mandatory display of participant badges or adherence to the prescribed dress code, despite reminders, may lead to disqualification.**

# Special Instructions



1. All foreign finalist teams of 「International Teams」 will receive at least NT\$100,000 in award mechanism and travel subsidies:
  - (1) Award Mechanism ranging from NT\$50,000 to NT\$1,000,000.
  - (2) Subsidy Program of NT\$50,000.
2. Dedicated consultation and services for accommodation and transportation.
3. A two days visiting activities to go to TSMC, ITRI, and natural reserves.
4. Providing insurance throughout the journey to ensure safety during their stay in Taiwan.
5. The finalist teams which is from American and Europe, at least two members are required to attend the contest in person(Other team members can participate online).



# Subsidy Program for International Teams



## **Subsidies to:**

The teams that qualify for the finals of the "International Contest."

## **Subsidy Amount:**

NT\$50,000.

## **Disbursement Method:**

Cash will be distributed on-site at the final contest on Wednesday, August 21.

## **Claiming Methods:**

**Option A:** Based on receipts/invoice August (such as airfare, accommodation, meal invoices, etc.).

**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.(08/20-08/24)

Item	Area and fee calculation (NTD)				Illustrate
Area	South-east Asia	North-east Asia	America	Europe	
Air Ticket	24,000	30,000	74,000	90,000	<ol style="list-style-type: none"> <li>Air ticket reference is based on               <ol style="list-style-type: none"> <li>South-east Asia - Jakarta←→Taipei</li> <li>North-east - Tokyo←→Taipei</li> <li>America - Los Angeles←→Taipei</li> <li>Europe - Munich←→Taipei</li> </ol> </li> <li>The airfare is for a round trip for two people.</li> </ol>
Accommodation	Two single bed room 3500NTD*3DAYS=10,500NTD				<ol style="list-style-type: none"> <li>Accommodation dates 8/20、8/21、8/23</li> <li>Accommodation during the visit activities 8/22 is provided by the organizer.</li> <li>Two single bed room</li> </ol>
Food	(Lunch 150NTD+Dinner150NTD)*7meals*2people =4,200NTD				<ol style="list-style-type: none"> <li>Breakfast is provided by the hotel</li> <li>Estimation of catering expenses included:               <ol style="list-style-type: none"> <li>8/20 Lunch + Dinner</li> <li>8/21 Dinner</li> <li>Lunch + dinner on 8/23-24.</li> </ol> </li> <li>Lunch on the day of the finals on 8/21 will be provided by the organizer.</li> <li>Meals for the 8/22 visit activities will be provided by the organizer.</li> </ol>
Transportation	4,000NTD				<ol style="list-style-type: none"> <li>TPE Airport←→Taipei City by Taxi 1,200NTD*2round=2,400NTD</li> <li>others 1,600NTD</li> </ol>
Total Cost (2 people)	42,700	48,700	92,700	108,700	

# Appendix

1. Photo from  
2023 Net Zero Tech International Contest
2. Contact Us



# 2023 淨零碳排科技國際競賽

Net Zero Tech International Contest @ Taiwan



2023 淨零碳排科技國際競賽  
Net Zero Tech International Contest @ Taiwan  
複審作業手冊

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Net Zero Tech International Contest @ Taiwan  
複審作業手冊



主隊	罰球	客隊
■ ■ ■ ■	■	■ ■ ■ ■
完成次數	節數	完成次數
■ ■	■ ■ ■ ■	■ ■
得分	罰款	得分

2023 淨零排放科技國際競賽  
Net Zero Tech International Contest @ Taiwan

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

冠軍  
Champion

季軍  
Second Runner-up

00 13:00



中華民國

蔡英文總統

Tsai Ing-wen,

President, Republic of China (R.O.C.)

2023  
淨零排放科技國際競賽

...initial rounds. ...  
...actions will infuse  
...tribute to a better w





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2023  
淨零排放科技國際競賽  
Net Zero Tech International Contest

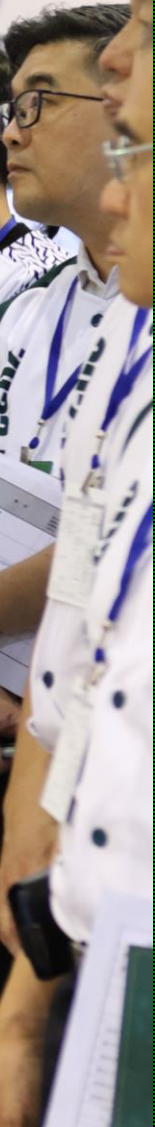


公司

台泥企業團

Ω

2023













# 2023 淨零排放科技國際競賽

Net Zero Tech International Contest @ Taiwan



2023 淨零排放科技國際競賽  
**亞軍**  
台灣中油科技獎  
First Runner-up  
CPC Technology Award

2023 淨零排放科技國際競賽  
**季軍**  
Second Runner-up  
NTU

**冠軍**

2023 淨零排放科技國際競賽  
**菱光科技獎**  
Image Sensor Technology Award

2023 淨零排放科技國際競賽  
**勝一創意獎**  
Shiny Chemical Creativity Award

2023 淨零排放科技國際競賽  
**東友科技獎**  
Image Systems Technology Award





## **Project Contacts**

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**[yaling.lau@teco.com.tw](mailto:yaling.lau@teco.com.tw)**



# Link



## Registration

End in 2024.06.30

<http://www.tecofound.org.tw/greentech-contest/2024/login.php>





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2024 淨零排放科技國際競賽



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