









University : National Chin-Yi University of Technology

Country : Taiwan

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#### [SDG7] Affordable and Clean Energy 可負擔能源

[SDG7.4.2] Does your university as a body promote a pledge toward 100% renewable energy (petitions, meetings, discussions, events)?

Taiwan is stepping up its commitment to global net-zero goals through various sustainable and clean energy strategies, with "hydrogen energy" taking a prominent role. Under this initiative, **National Chin-Yi University of Technology (NCUT)** is actively contributing to the hydrogen energy movement by hosting major events in 2024, including the **19th National Hydrogen Energy and Fuel Cell Academic Symposium**, the **16th National Student Cup Hydrogen Energy Vehicle Competition**, and the **2024 Hydrogen Energy and Fuel Cell Technology Forum**.

#### **Key Events**

1. National Student Cup Hydrogen Energy Vehicle Competition (September 14, 2024):

Hosted by NCUT's Department of Refrigeration, Air Conditioning, and Energy, this competition brought together six teams nationwide, including NCUT's own **CHIN-YI Hydrogen Wing 2** and **H2O Racing Team**. Participants competed in various categories such as dynamic track racing, vehicle design, and system integration. NCUT's H2O Racing Team and Hydrogen Wing 2 won multiple awards, highlighting the university's advancing hydrogen vehicle technology and talent development.

2. 2024 Hydrogen Energy and Fuel Cell Technology Forum (September 20, 2024):

Held at NCUT, the forum featured industry leaders such as **Delta Electronics**, **Hephas Energy Corporation**, and **Linde LienHwa Group**, who shared insights on hydrogen energy's role in achieving net-zero carbon emissions and its industrial applications. The forum addressed topics including hydrogen power generation, fuel cell technologies, and hydrogen energy's future in transportation, drawing considerable attention and praise.

3. 19th National Hydrogen Energy and Fuel Cell Academic Symposium (September 21, 2024):

This event, also at NCUT, gathered domestic and international experts, including Prof. **Jon Clipsham** (University of Strathclyde, U.K.) and Dr. **Lina Troskialina** (POLITEKNIK NEGERI BANDUNG, Indonesia). Topics covered ranged from hydrogen production technologies and fuel cell development to system integration. The symposium facilitated international knowledge exchange and showcased Taiwan's advances in hydrogen energy research and its academic influence globally.







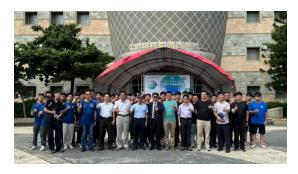




## **NCUT's Role in Hydrogen Energy Development**

NCUT, a leader in **hydrogen energy and fuel cell** research, collaborates with academia, government, and industry to advance Taiwan's sustainability goals. These events further demonstrate the university's commitment to talent cultivation, technological innovation, and international cooperation in the clean energy sector.

Through the symposium and competitions, NCUT fosters the next generation of researchers and engineers while contributing to Taiwan's leadership in the **hydrogen economy**, net-zero transformation, and **sustainable environmental development**.



The 16th National Student Cup Hydrogen Car Competition



The 16th National Student Cup Hydrogen Car Competition is ready to go



**Energy Saving Racing Competition** 



Group photo of the 16th National Student Cup
Hydrogen Car Competition



The 16th National Student Cup Hydrogen Car Competition starts with the gunshot



The energy-saving racing process combines the dual energy sources of on-site wind power generation with green energy and green electricity.















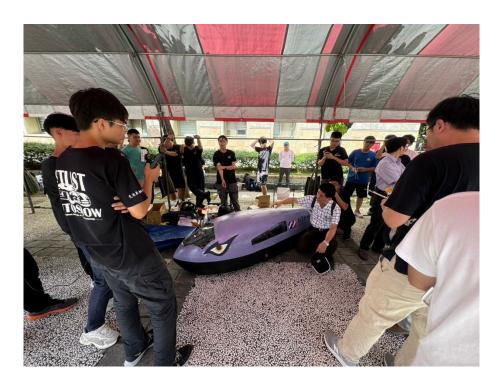
H2O Racing team won the dynamic second place and the static second place in the conference competition





CHIN-YI Hydrogen Wing 2 Team

Dynamic masterpiece, static masterpiece, dynamic best spirit award













# 2024 Conference on Green Technology Engineering and Application

The 21st century faces increasing challenges of energy scarcity, making the balance between economic development and environmental sustainability an essential global concern. In response, National Chin-Yi University of Technology (NCUT) hosted the "2024 Green Technology Engineering and Application Seminar" to explore innovative solutions that align with both economic growth and environmental preservation.

# **Purpose of the Seminar**

The seminar aimed to address the pressing need for sustainable practices by emphasizing the role of green technology in modern industries. By combining cutting-edge green engineering solutions and industrial applications, the event sought to provide a platform for experts, academics, and industry leaders to discuss practical strategies that support long-term sustainability goals.

## **Key Focus Areas**

# 1. Green Technology Integration:

The seminar highlighted the importance of integrating **green technologies** into various industrial sectors to minimize environmental impact while maintaining economic productivity. This included discussions on renewable energy, energy-efficient systems, and eco-friendly manufacturing practices.

### 2. Sustainable Industrial Applications:

By exploring case studies and innovations in **green engineering**, participants gained insights into how industries can adopt environmentally sustainable practices without sacrificing growth. Technologies such as waste reduction, resource recycling, and clean energy solutions were presented as essential tools for the future of industrial development.

### 3. Balancing Economy and Environment:

One of the core themes was the challenge of sustaining **economic development** while protecting the environment. Presentations and discussions at the seminar aimed to provide a reference for achieving this balance through thoughtful policy-making, technological advancements, and collaborative efforts across industries.

### **Impact and Future Goals**

Through the **2024 Green Technology Engineering and Application Seminar**, NCUT reinforced its role as a leader in fostering dialogue and innovation around **sustainable development**. The event not only promoted the integration of green technologies into the industrial sector but also served as a catalyst for ongoing research and development in **environmentally responsible engineering**.











As the world continues to face the dual challenges of energy scarcity and climate change, NCUT's initiative is a vital step toward creating a sustainable future where economic growth and environmental health go hand in hand.

