



University : National Chin-Yi University of Technology
Country : Taiwan
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[SDGs 7] Affordable and Clean Energy 可負擔能源

[7.4.1] Does your university as a body provide programmes for local community to learn about importance of energy efficiency and clean energy?

To align with national energy policies and support the development of the green energy industry, the **Department of Electrical Engineering at National Chin-Yi University of Technology (NCUT)** is deeply committed to advancing education in **power systems, power electronics, and renewable energy**. This focus on energy education is designed to cultivate technical talents capable of contributing to Taiwan's sustainable energy future.

Laboratory Facilities

The department has established a comprehensive array of **laboratories** to support hands-on learning and research. These include:

- **Electrical Machinery Laboratory**
- **Power Electronics Laboratory**
- **Power Monitoring Laboratory**
- **Motor Design Laboratory**
- **Motor Equipment Protection Laboratory**
- **Power Technology CAD Laboratory**
- **Wind Power Generation Laboratory**

In addition to these labs, NCUT has also set up specialized facilities to support **renewable energy** education, including:

- **A Solar Photovoltaic Skills Certification Test Site**
- **A Wind Power Generation System Test Site**
- **A Renewable Energy Experimental Classroom**

Promoting Green Energy and Bridging Gaps

In response to the government's push for the **green energy industry**, the department works to bridge the gap between students and the workforce by providing hands-on training in these areas. By doing so, NCUT aims to ensure that students are well-prepared for the demands of the renewable energy sector.



Core Focus Areas



The core of NCUT's electrical energy application technology research includes:

- **Electrical Machinery**
- **Monitoring Technology**
- **Power Electronics**

The department has been at the forefront of research in these fields for many years, with a particular emphasis on applying **artificial intelligence (AI)** technology to electrical energy systems. To enhance skill development, the university has also established a **field of electrical machinery practice** where students can apply AI and other technologies in real-world settings.

Industry-Academia Cooperation

In support of industry-academia collaboration, the department is dedicated to the research and promotion of **green renewable energy technologies**, focusing on areas such as:

- **Advanced industrial motor technologies**
- **Partial discharge technologies** suited to renewable energy systems
- **Integrated power generation and monitoring technologies**

Cultivating Talent for the Future

Through the establishment of an **integrated power generation and monitoring laboratory**, the department aims to:

- **Incorporate research findings** into teaching and education
- **Cultivate technical manpower** for the renewable energy industry
- **Support research and development (R&D)** in practical technologies
- **Train industrial and technical talents** needed for the region's growing green energy market

NCUT's efforts not only educate its students but also contribute significantly to the development of the **local community and businesses**. By developing and integrating renewable energy technologies, the university is paving the way for a more sustainable future while simultaneously supporting Taiwan's goals for energy conservation and green innovation.



NCUT jointly promotes the country's first "New Taipei Green Collar Talent Cultivation Program" in three major areas to build a net-zero future

The New Taipei City Education Bureau recently held a press conference to introduce the nation's pioneering "New Taipei City Green Collar Talent Cultivation Program." This initiative is a collaborative effort involving the Environmental Protection Bureau, the Economic Development Bureau, the [National Chin-Yi University of Technology](#), St. John's University, the Green Energy Industry Alliance, and other industry, government, and academic organizations. Together, they aim to pool resources and foster green-collar talent, driving New Taipei City towards its goal of becoming a net-zero city.

Vice Mayor Liu, He-Ran announced that the program, slated to run from 2024 to 2030, will receive an investment of NT\$30 million. This funding will be allocated to the phased implementation of talent cultivation in three key areas: "green literacy, green science, and green skills." The overarching objective is to establish a conducive learning environment that nurtures green-collar professionals capable of supporting New Taipei City's net-zero ambitions. **Through this initiative, the city aspires to create a sustainable and environmentally conscious society for future generations.**

During the press conference, Vice Mayor Liu Heran awarded certificates to the first six technical and vocational green-collar seed teachers in the country, recognizing their significant contributions and leadership in the field of green education. These seed teachers are entrusted with the important task of integrating green-collar literacy into school curricula and nurturing the next generation of green professionals. Their efforts will play a pivotal role in advancing environmental education and fostering sustainability.

The event also featured a carbon-reduction cooking demonstration by catering students Shi Quanfeng and Zhuang Junwei from Ku Pao Economics & Commercial High School. This demonstration not only promotes sustainable living practices but also symbolizes New Taipei City's commitment to innovation and progress in cultivating green-collar talents.

Chen, Hao-Ran, principal of Jhangshu International Creative Technical High School, highlighted the school's collaboration with the [NCUT Carbon Neutrality Center](#). Together, they have conducted the country's first carbon inventory for a technical high school. Additionally, the school has partnered with St. John's University and Taiwan Normal University to develop specialized green-collar literacy lesson plans. These initiatives, encompassing practical and theoretical aspects, aim to deepen students' understanding of green energy and sustainable development. Through diverse learning channels such as special projects, industrial internships, and international exchanges, the school endeavors to create a comprehensive green-collar ecosystem, nurturing students to become environmentally conscious and skilled professionals.

[NCUT](#) President Chen, Wen-Yuan expressed his conviction that the school and the New Taipei City Government share a firm commitment to cultivating green-collar talents. In line with this vision, the university pledges to support high-tech students by organizing summer camps, arranging expert lectures for teachers, and assisting in the review of high-tech green-collar material lesson plans. Through these initiatives, NCUT aims to comprehensively promote the fundamental principles of green sustainability, using innovative approaches such as hen raising chicks as educational tools. Additionally, the university hopes that this



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collaboration will provide high-tech teachers and students with valuable insights into future employment trends, enhancing their preparedness for the evolving job market.

