



University : National Chin-Yi University of Technology
Country : Taiwan
Web Address : www.ncut.edu.tw

[SDGs 6] Clean Water and Sanitation 淨水與衛生

[6.5.7] Does your university as a body actively promote conscious water usage in the wider community?

NCUT Water Resources Education

In response to the pressing global challenges of climate change, extreme weather, and environmental disasters, National Chin-Yi University of Technology (NCUT) has been dedicated to innovative solutions aimed at balancing ecological preservation and sustainable energy use. The core question we address is: **How can we harmonize ecological protection with significant benefits to enterprises when utilizing energy resources?**

Our solution lies in "**Implementing Local Energy Balance**", a method that focuses on leveraging water as a key energy source. Through the construction of **closed reservoirs** and energy storage using water, we are pioneering a **water resource energy conversion system**. This system aligns with the Earth's natural energy cycles and allows businesses to dramatically reduce operational costs while maintaining environmental balance.

By integrating the natural principles of water management into energy systems, NCUT is leading the way toward sustainable energy practices that not only support business efficiency but also prioritize ecological health. This approach fosters long-term resilience and sustainability in the face of climate challenges.

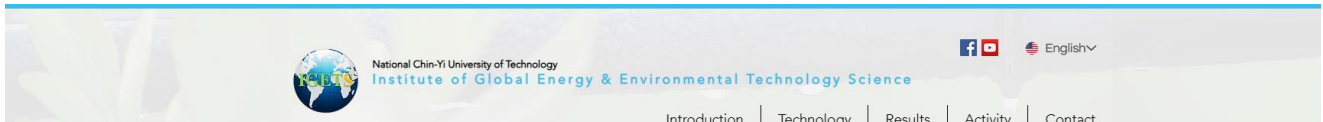
The "**Water Resources Energy Conversion System**" at National Chin-Yi University of Technology (NCUT) represents a groundbreaking integration of cutting-edge technologies aimed at revolutionizing sustainable energy use. By combining **Smart Energy Management Technology, Smart Energy Conversion Technology, Smart Energy Supply and Transmission Technology, and Smart Energy Storage Technology**, this system is designed to harness water as a vital energy resource.

NCUT envisions this innovation as the foundation of "**Green Energy Investment**" and the central pillar of a new global "**Green Energy New Deal.**" As a pioneer of this first-of-its-kind system, NCUT is committed to establishing the necessary infrastructure to support its global adoption, including:

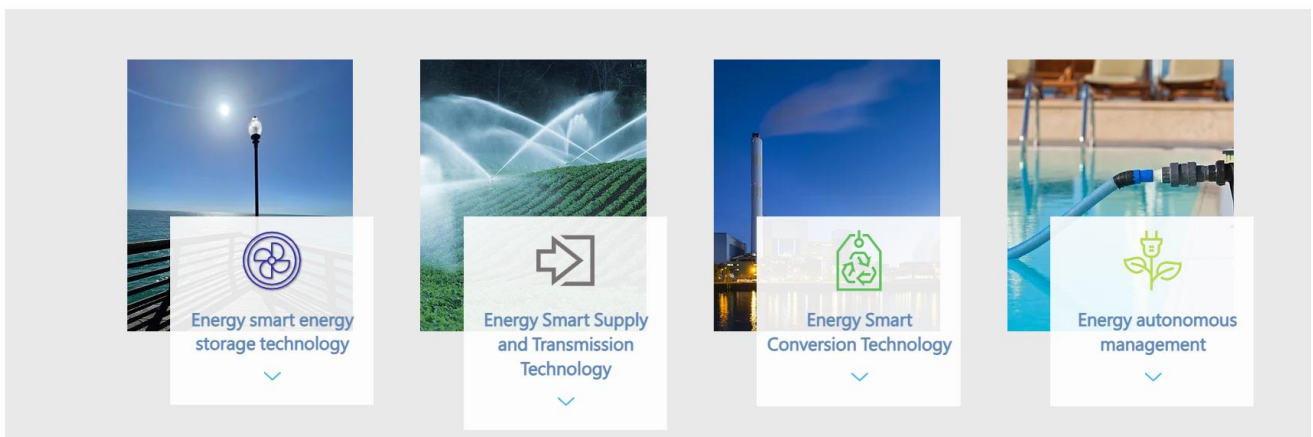
1. **Formulating Regulations:** Developing comprehensive policies and frameworks that guide the efficient implementation of water-based energy solutions.
2. **Establishing Standards:** Setting international benchmarks for the design, operation, and management of the Water Resources Energy Conversion System.

3. Training Technical Personnel: Educating and certifying experts through the **"Water Resources Energy Conversion System Professional Technical Personnel Training and Certification Program."** This initiative will ensure that a skilled workforce is equipped to implement and manage this green energy technology worldwide.

Through this approach, NCUT is leading the global transition to sustainable energy, positioning itself as a beacon of innovation and environmental responsibility.



service items



Energy autonomous management process



The core work of energy self-management

What can water energy systems do for the planet?

Let the temperature of the earth drop by X°C

解決環境問題：

1. 建築物熱排放
2. 空氣污染

解決企業問題：

1. 企業電力需求與營運費用
2. 提升建築物能源管理效益



解決水利問題：

1. 缺水
2. 急暴雨淹水

解決電力問題：

1. 缺電
2. 台電電力備載容量