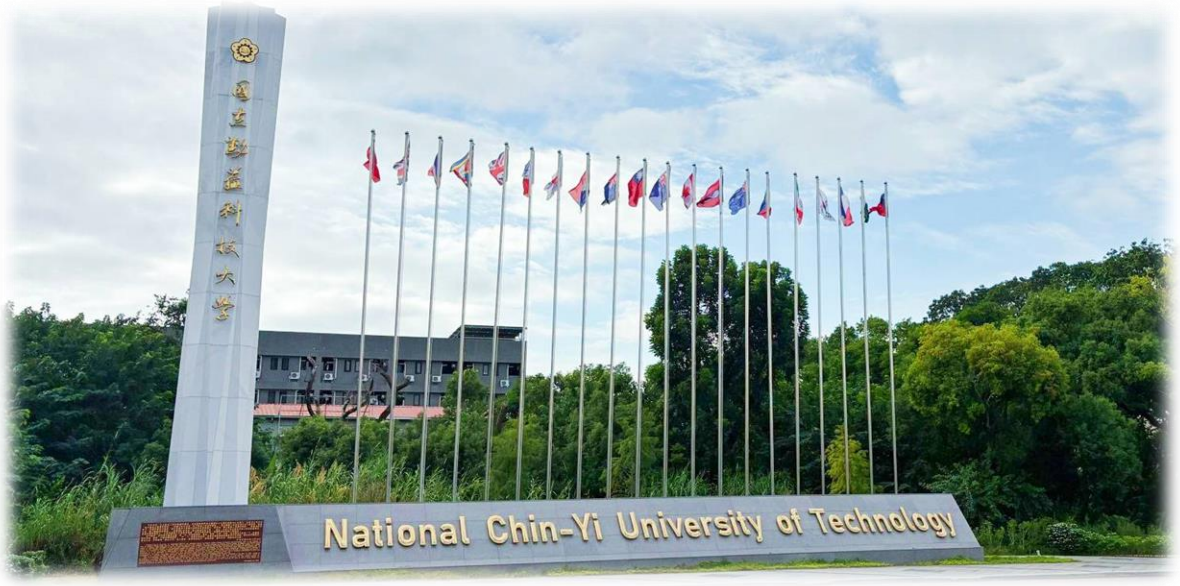
國立勤益科技大學
National Chin-Yi University of Technology

Campus Sustainability Report

2025



Center for Sustainability Development and Institutional Research

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CONTENT

Message from the President

Message from the President

Guided by Our Motto, Advancing Sustainable Developmen

With organizational effectiveness, dynamic industry–academia collaboration, and the creation of a sustainable campus integrating local engagement with global perspectives as the core pillars of university governance, **National Chin-Yi University of Technology is steadily advancing toward its vision of becoming an internationally recognized, high-quality green industrial technology university.** Through strengthening international research collaboration, enhancing faculty internationalization, and actively promoting overseas exchange programs for students, NCUT continues to align itself with global academic and industrial trends while fostering sustainable institutional growth.

Forward-Looking Strategies for Sustainability in the AI Era

To equip students with the competencies required in an era of intelligent and smart manufacturing, NCUT has systematically introduced foundational courses in artificial intelligence and big data analytics, including Python, R, and C programming. Faculty members are encouraged to lead students in industry–academia collaborative projects and innovative research initiatives, leveraging AI tools to address real-world challenges. In addition, NCUT regularly organizes programming and AI innovation competitions to inspire student engagement in intelligent technologies and to further strengthen their professional expertise and practical capabilities.

Talent Cultivation Through Integrated Educational Strategies

Guided by the principle of "Threefold Success in Education"—encompassing *student recruitment, student development, and student well-being*—NCUT is committed to providing high-quality learning spaces, supportive educational environments, and dedicated faculty members.
In parallel, the "Threefold Achievement in Talent Development" initiative—*talent recruitment, talent cultivation, and talent empowerment*—focuses on attracting outstanding faculty and deepening collaboration with industry partners. Beyond traditional academic curricula, NCUT offers interdisciplinary micro-programs aligned with industrial needs, enabling enterprises to identify and nurture promising talent while students gain industry-relevant skills.
Through practice-oriented and innovation-driven technical and vocational education, NCUT cultivates professionals who play a central role in organizational development, industrial advancement, and community engagement, thereby enhancing industrial competitiveness and promoting social integration.

Upholding NCUT motto—"Diligence in Duty, Innovation for Advancement, Integrity in Conduct, and Professionalism with Humility"—National Chin-Yi University of Technology remains steadfast in its commitment to sustainable development and continuous improvement.

▲Chen, Kuen-Sheng
The 9th President, National Chin-Yi University of Technology

About NCUT

About NCUT

I. University Overview

Founded in 1971, National Chin-Yi University of Technology was originally established as a private junior college and was upgraded to a national institution in 1992. NCUT occupies an area of 32.79 hectares and comprises five colleges: Engineering, Electrical Engineering and Computer Science, Management, Humanities and Creative Design, and General Education.

Located in a rapidly developing satellite city, NCUT is in close proximity to the Taiping, Dali, Taichung, and Tanzi Industrial Parks, the Precision Machinery Innovation Park, and the Central Taiwan Science Park. This strategic location provides a strong foundation for industry–academia collaboration and applied research.

Technical and vocational education has long played a critical role in cultivating highly skilled professionals to meet the needs of diverse industries. In response to globalization, NCUT is committed to enhancing students' international mobility while actively attracting global professional talent, thereby strengthening its international engagement and long-term institutional development.

II. University Development

(I) Development Vision: An International High-Quality Green Industrial Technology University

Upholding NCUT motto of "Diligence, Perseverance, Integrity, and Simplicity," which emphasizes diligence as the foundation of achievement, rejects idleness as unproductive, and values honesty and humility, NCUT unites the collective efforts of faculty, staff, and students. With the vision of becoming an International High-Quality Green Industrial Technology University, NCUT adopts innovative strategies to address challenges and to promote sustainable institutional operation and development.

(II) Development Objectives: A Cradle for Industrial Talent and a Base for Technological Research and Development

In alignment with national policies and industrial workforce needs, and grounded in NCUT's development vision, NCUT is committed to cultivating professional and technical talent to serve society. By positioning itself as a trusted partner to both industry and the community, NCUT strives to achieve its goal of becoming a cradle for industrial talent and a base for technological research and development.

(III) Educational Objectives: Cultivating High-Quality Talent with Professional Competence, Humanistic Literacy, Social Responsibility, and an International Perspective

In addition to providing solid and comprehensive professional and technical education, NCUT fosters well-rounded personal development and independent thinking through general education. NCUT aims to cultivate graduates who possess the professional competence required to succeed in industry, humanistic literacy that supports self-cultivation and personal growth, a strong sense of social responsibility and altruism, and a global outlook with an international perspective.

III. World University Rankings

- **QS World University Rankings**

1. 2026 QS World University Rankings: Ranked 1201–1400
2. 2026 QS Asia University Rankings: Ranked 309
3. 2026 QS Sustainability Rankings: Ranked 1081–1090

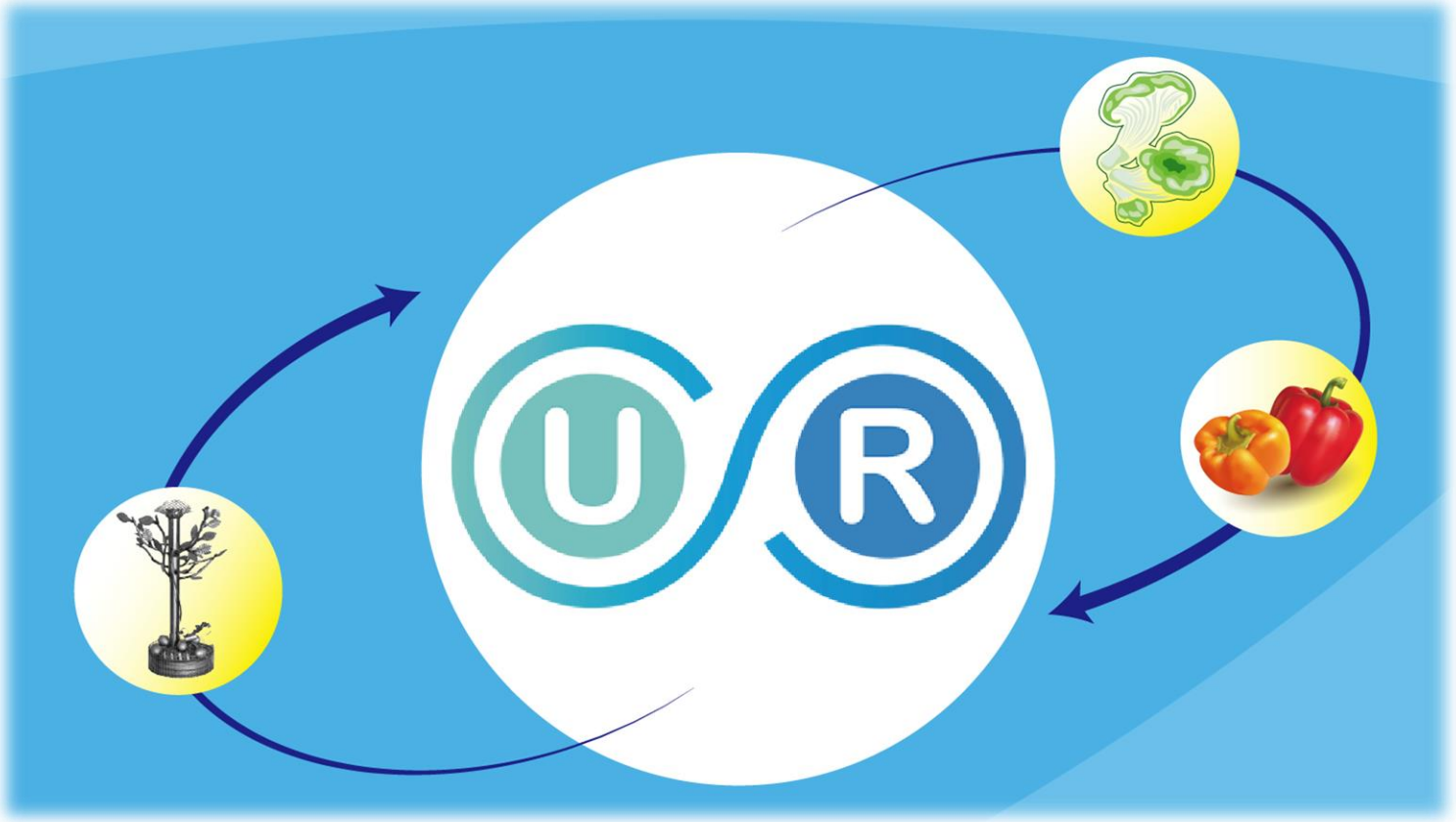
- **Times Higher Education (THE)**
  THE World University Rankings

1. 2026 THE World University Rankings: Ranked 1501+
2. 2026 THE Interdisciplinary Science Rankings: Ranked 251-300
3. 2025 THE Impact Rankings: Ranked 801–1000

- **UI GreenMetric World University Rankings**

1. 2025 UI GreenMetric World University Rankings: Ranked 70th worldwide and 8th in Taiwan

University Social Responsibility, USR



University Social Responsibility, USR

09

Mushroom industry creation and sustainable management improvement plan in central Taiwan

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Renovating Ironwork Art in Taichung

I. Mushroom industry creation and sustainable management improvement plan in central Taiwan

(I) Mushroom Talent Cultivation Base

Transforming traditional mushroom houses into environmentally controlled facilities requires substantial financial investment and advanced technological integration, making immediate improvement difficult to achieve. After multiple rounds of discussion with local farmers, the project team reached a consensus to continue adopting micro-environmental factor monitoring as the core approach. Based on different mushroom species and cultivation environments, data are systematically collected and digitized. Intelligent climate monitoring stations and cloud-based smart data platforms have been established in the Xinshe area, integrated with online platforms to enable data notifications. This allows mushroom farmers to remotely access environmental data and respond in real time, thereby improving productivity.

Building upon the previously established sites, the project further monitors detailed environmental data at the mushroom substrate level. These data are transmitted to the cloud and linked with climate information for differential analysis and improvement. An industry–academia twin intelligent mushroom laboratory has been established on campus, integrating virtual and physical systems to provide students with hands-on training in environmental control. This initiative enhances students' knowledge of the mushroom industry and, through joint discussions with farmers and faculty members, cultivates students' problem-solving abilities while strengthening industry–academia collaboration.

embers, cultivates students' problem-solving abilities while strengthening industry–academia collaboration.

Continuing the environmental data monitoring of the spawn incubation rooms used in shelf cultivation from earlier phases, the current phase assists mushroom farmers in improving cultivation environments. Additional environmental data monitoring has been introduced in cultivation rooms to calculate yield and production efficiency, providing farmers with standardized data references.

▲traditional mushroom houses

▲shiitake mushroom cultivation in on-campus laboratories

▲the installation of sensors and cameras

(II) Optimization and On-Site Implementation of Automated Mushroom Equipment

Based on the promotion of smart automated equipment, and following continuous communication with farmers and repeated machine testing in earlier phases, this phase will further optimize and improve the automatic shiitake mushroom stem-cutting machine. The focus will be placed on enhancing machine stability, improving yield rates, and expanding regional adoption, with the goal of better meeting the practical needs of farmers.

A long-term collaboration mechanism with farmers and related industries will be established. Through repeated on-site testing and adjustment of equipment, the project ensures effective solutions to real-world operational needs and gradually advances the development of smart agriculture. Addressing the highest level of automation challenges in the mushroom industry, a mushroom image-based inventory system will be newly developed. Through course-based activities, students and farmers will jointly participate in ideation and system design, encouraging collective problem-solving while cultivating students' practical experience in applying image recognition technologies to real-world applications.

▲semi-automatic shiitake mushroom stem-cutting machine

▲Micro-Credential Program in Unmanned Aerial Vehicles (UAVs)

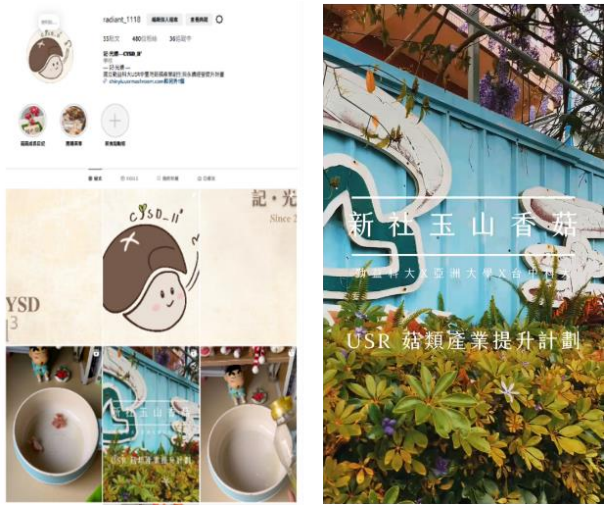
▲on-site exchange

(III) Digital Marketing and Brand Integration for the Mushroom Industry

Building on the earlier strategy of enhancing product added value, the project further promotes local brand marketing and integrates both online and offline marketing channels to comprehensively increase brand and project visibility, as well as overall product sales performance.

Digital marketing strategies are strengthened to enhance overall brand exposure and expand brand influence. Through the establishment and optimization of online platforms, the project reinforces promotion activities, product presentation, and consumer engagement, improves user experience, and enhances online marketing effectiveness.

In addition, integrated product design initiatives are implemented through the launch of limited-edition featured gift boxes. By combining local culture, brand storytelling, and high-quality products, the project creates attractive gift options that further expand new markets and increase product sales.



▲Project Instagram Platform Management

▲Podcast Recording

▲Participation in Local Markets

(IV) Community Revitalization and Tour Guide Talent Cultivation

Building on the foundation of promoting local distinctive itineraries, the project is committed to promoting local distinctive attractions and leisure agriculture marketing. Emphasis is placed on cultivating professional tour guide talent through systematic guide training courses that integrate distinctive teaching approaches with practical guide training. Based on different thematic modules, trainees learn about local culture, adaptive reuse of idle spaces, route planning, and group-leading skills, enabling in-depth understanding and promotion of local communities and fostering tour guides as unique local city storytellers and facilitators.

Through student participation in itinerary planning and promotional activities, the project not only strengthens students' practical experience but also enhances their understanding and transmission of local culture, making local cultural characteristics more distinctive. In addition, for local attractions, the project conducts site surveys, planning and design, maintenance, organization, and revitalization to create and enhance historical and cultural landmarks. These efforts are further linked with local industries and neighboring elementary, junior high, and senior high schools to promote creative industry exploration activities, thereby strengthening industry awareness and local identity.

▲Tour Guide Talent Development Program

▲Thematic Itinerary Experiences

▲On-Site Visits

(V) Establishing a Circular Economy for the Mushroom Industry

Based on the principle of sustainable development, the project adopts a total solution approach and continues to guide students in addressing the disposal challenges of waste mushroom substrate bags. Research and promotion of related equipment and recycling methods are carried out to facilitate the implementation of a circular economy, while continuously exploring sustainable operation models for the mushroom industry.

In collaboration with faculty members and students from Chienkuo Technology University, technological and quantitative data management approaches are introduced to manage waste generated by the mushroom industry. The project focuses on the optimization, improvement, and promotion of drying systems to advance the goals of circular economy development and sustainable cultivation. Waste mushroom substrate bags are continuously converted into other recycled products, promoting the comprehensive development of the mushroom industry. At the same time, emphasis is placed on innovative applications of mushroom cultivation substrates, using them as fuel for gasification systems. Through pyrolysis, syngas is produced and applied to gas turbine combined heat and power (CHP) cycle systems.

▲Professional Courses

▲On-Site Deployment of Drying Equipment

▲International Conference

(VI) Development of Distinctive Mushroom Products and Promotion of Food and Agriculture Education

With a continued focus on the promotion of food and agriculture education, the project maintains collaboration with Asia University to guide students in developing food and agriculture education lesson plans and teaching materials related to the mushroom industry. By integrating industry-related knowledge with distinctive local cultural elements, the project promotes knowledge dissemination and practical applications within the mushroom industry. Through courses, activities, and community engagement, the initiative enhances students' and the public's understanding of and identification with the mushroom industry.

In addition, the project emphasizes the innovative development of distinctive mushroom-based products, expanding the application of mushrooms into more diverse fields and further enhancing their market value.

▲Innovative Distinctive Products

▲Field Surveys and Site Exploration

II. Renovating Ironwork Art in Taichung

To integrate craftsmanship into everyday life, this project combines ironwork art with folk beliefs, drawing creative inspiration from the rich narratives of popular religious traditions. At the same time, it leverages belief communities and public spaces associated with folk religion to expand distribution channels for ironwork art and to enhance the visibility of artworks. The core objectives of the project focus on cultural preservation, talent cultivation, and marketing and promotion.

【Talent Cultivation】

The project places strong emphasis on talent development and professional skills training. Target groups include both enrolled students and practicing ironwork artisans.
Three major local temples in Taiping District, Taichung City, serve as collaborative sites for ironwork art. Through field research, distinctive features and stories of the temples are documented to stimulate creative ideation among ironwork artisans. AI technologies are further applied as supportive tools in the design and development of ironwork artworks.

【Cultural Preservation】

This component focuses on the documentation and preservation of industrial and cultural heritage. Three important ironwork techniques unique to Taiping are preserved to enhance the cultural depth of Taiping ironwork art and to further elevate its position within the history of Taiwanese crafts.

【Marketing and Promotion】

Efforts are centered on the promotion of ironwork art, enabling its presentation across diverse spatial scales, settings, and formats so that art becomes integrated into daily life and increases overall visibility. Marketing channels within belief communities are expanded through temple-related products, while ironwork artworks are promoted in conjunction with temple landscapes and events. Talent cultivation is also integrated with marketing strategies, creating cross-sector and cross-level outreach—from industry to universities, and from universities to senior high schools—to reach broader audiences and strengthen grassroots engagement.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勤益科大與臺中市太平區公所主辦2025太平鐵工藝術巡迴展綻彩首展7日開幕

提要

在鐵質地裡開出屬於太平的花 展現產官學推廣地方產業文化與藝術創新豐碩成果

太平區公所區長陳柏宏(左四起)、臺中市文化局副局長曾能汀、勤益科大文創學院院長陳媛珊與貴賓合影。勤益科大／提供

(I) Strengthening Ironwork Art Product Design and Curriculum Instruction

【Development of Ironwork Cultural and Creative Products】

Through curriculum design, students collaborate with ironwork artisans to learn ironworking techniques. Using local temples as thematic inspiration and cultural exploration data as creative sources, students and artisans jointly design and produce cultural and creative ironwork products that reflect the humanistic characteristics of temples. These products integrate ironwork with composite materials, enhancing their marketability and circulation.

The Qilin, regarded since ancient times as an auspicious mythical creature, symbolizes benevolence, peace, and prosperity of descendants. This pair of chopstick rests features a red and a blue Qilin representing the female and male forms. In addition to its practical use on the dining table, the design brings a sense of auspiciousness to the home and conveys the blessing of fertility and family harmony, making it a meaningful gift for wishes of childbirth and family fulfillment.

Designer: Student Su Yi-Hsun

The Tiger Lord symbolizes protection against evil and the safeguarding of children, while the dragon represents wealth and good fortune. By combining these two symbols and designing them in a cute style as a doorstop, the product not only protects the household and wards off negative influences but also creates a friendly connection with children. It conveys blessings of safety and peace while fostering a warm and secure environment for growth.

Designer: Student Peng Pei-Wen

Chusheng Niangniang is an important guardian deity of childbirth. This tea bag holder design is inspired by a rare temple statue depicting Zhusheng Niangniang carrying a child on her back. The child figure is transformed into a cup-hanging tea bag ornament, quietly accompanying expectant mothers during moments of tea drinking. The design symbolizes a safe delivery and maternal–child well-being, adding a sense of blessing and ritual to pregnancy.

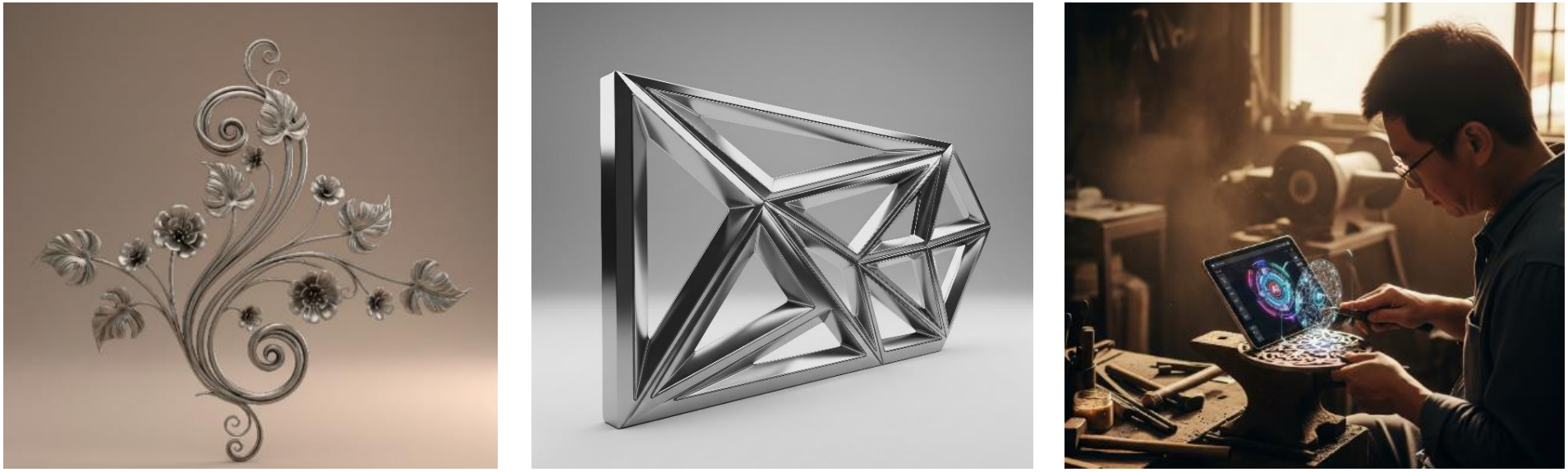
Designer: Student Su Yi-Hsun

▲Development of Ironwork Cultural and Creative Products

【Enhancing Ironwork Creation Capabilities through AI Technologies】

This initiative focuses on the application of AI-related software through the establishment of an AI Design Workshop for Ironwork Artisans. Centered on AI-assisted design and simulation, the workshop applies machine learning–based image recognition and generative models in combination with cutting techniques to support the design of ironwork patterns and structures. AI is further utilized to optimize ironwork production processes, integrating casting techniques with 3D printing technologies to manufacture complex ironwork components. In addition, AI-generated digital files are combined with fitting techniques to preserve 3D models and design documentation as digitized data.

Ironwork artisans are guided to become proficient in AI image generation tools and to apply prompt engineering to rapidly produce diverse design sketches across multiple styles and concepts. The program also introduces 3D modeling and simulation software, enabling artisans to convert AI-generated 2D sketches into operable 3D models. Through simulations of materials, structures, and lighting, participants can preview visual and physical properties under different environments, allowing potential design issues to be identified and resolved at an early stage.



▲Enhancing Ironwork Creation Capabilities through AI Technologies

(II) In-Depth Documentation of Ironwork Techniques for Cultural Heritage Preservatio

【Preservation of Ironwork Cultural Heritage】

Students are organized into an ironwork cultural heritage preservation team to systematically document the learning processes, craftsmanship techniques, production procedures, and completed works of ironwork artisans through written records and audiovisual materials. This initiative comprehensively preserves both the tangible and intangible cultural heritage of Taiping ironwork. The documented ironwork pieces reflect the distinctive personal techniques and creative expressions of individual artisans.

▲Cultural Heritage Preservation Training Program

▲Oral History Interview Documentation with Ironwork Artisan Chou Chia-Hsu

(III) Presenting Ironwork Artworks Across Diverse Settings

【Enhancing Community Landscapes through Ironwork Art】

Centered on the theme of community folk deities, ironwork artworks conceived and created by community ironwork artisans are integrated into landscape aesthetics and presented within sites of popular religious practice, transforming these spaces into venues for the display of ironwork art.

Project-Based Learning (PBL) courses are planned to guide students in investigating target sites and surrounding environmental resources, formulating and designing environmental layout plans for ironwork installations. Students work in groups to prepare landscape materia

▲Design Creativity Showcasing Community Artisans' Integration of Local Culture

▲Faculty, Students, and Residents Co-Creating Community Environmental Enhancement

▲Training Programs and Outcome Exhibitions Stimulating Community Engagement and Self-Governance

【Integrated Marketing of the Ironwork Art Festival】

Through ironwork factory open house events, practitioners from different technical disciplines—such as cutting (subtractive processes), welding (additive processes), and bending (integrated processes)—are invited to participate. Workshop-based learning and creative production are conducted concurrently with documentary video recording, generating strong synergies between online and offline integrated marketing.

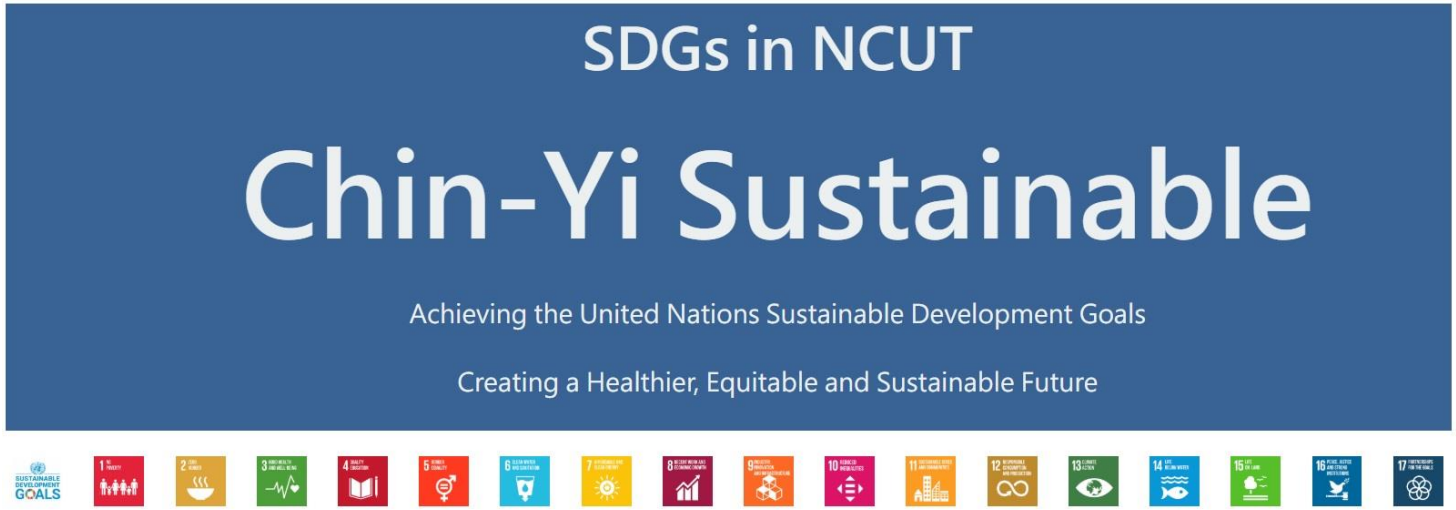
In coordination with the Taiping District Office, the project actively supports the organization of the Taiping Ironwork Art Festival and the promotion of traveling outcome exhibitions. Cross-site touring exhibitions and marketing activities are implemented, during which integrated live-stream marketing and media promotion as well as open to the public for visits and interaction are conducted to enhance public engagement and visibility.

▲Ironwork Factory Open House – Introducing students to professional metal fabrication processes.

▲Interdisciplinary Creative Workshops – Engaging university and vocational high school students in hands-on creation with designers and artisans.

▲Traveling Ironwork Art Exhibition – Showcasing ironwork artworks from the Taichung Tun District Art Center to Taihe Temple, promoting public engagement and cultural preservation.

Sustainable Development Goals



Sustainable Development Goals

Goal 1

No Poverty

End poverty in all its forms everywhere.

I. Supporting Access to Higher Education

(I) Subsidies for Transportation and Accommodation

On the interview days of the four-year technical program admissions selection, NCUT provides shuttle transportation services for students requiring assistance, offering free transportation from Jingwu Railway Station to the campus for interviews. Senior students are arranged to guide applicants in becoming familiar with the campus environment and to assist candidates in reaching interview venues.

Upon completion of the interviews, meal boxes are provided to candidates as part of applicant-friendly examination services. In addition, transportation and accommodation subsidies are offered to disadvantaged applicants who apply to NCUT.

▲Applicant Shuttle Bus Service

(II) Subsidies for Entrance Examination Application Fees for Disadvantaged Students

Students who meet the eligibility criteria for economically disadvantaged status are provided with subsidies based on the verified list of application fees for each admission pathway in the relevant academic year, as issued by the Office of Admissions. The implementation outcomes of full subsidies for entrance examination application fees for disadvantaged students over the past three academic years are presented in Table 1.

Table 1. Statistics on the Subsidy for Economically Disadvantaged Students

Academic year	Number of Beneficiaries	Subsidy funds (NTD)
AY 2022-2023	14 人	6,328
AY 2023-2024	12 人	7,310
AY 2024-2025	10 人	5,658

II. University Anti-Poverty Initiatives

(I) Living Allowance

To support economically disadvantaged students in pursuing their studies with peace of mind, NCUT provides a monthly living allowance to cover basic living expenses. In order to cultivate independence and strengthen students' employability or further study capabilities after graduation, recipients of the living allowance are required to participate in life service learning activities arranged by NCUT. Participation records are used as a reference for the disbursement of the living allowance.

The implementation outcomes of the living allowance over the past three academic years are shown in Table 2.

Table 2. Implementation Outcomes of the Living Allowance

Academic year	Number of Beneficiaries	Subsidy funds (NTD)
AY 2022–2023	30	2,160,000
AY 2023–2024	30	1,948,200
AY 2024–2025	34	2,404,490

(II) Financial Aid Program for Disadvantaged Students in Higher Education

To expand support for disadvantaged students and ensure smooth access to higher education, students from households with annual incomes approximately within the bottom 40% are eligible to receive government or institutional financial assistance. Since Academic Year 2007–2008, the Financial Aid Program for Disadvantaged Students in Higher Education, administered by the Ministry of Education, has been expanded nationwide.

The implementation outcomes of financial aid disbursements under this program over the past three academic years are presented in Table 3.

Table 3. Implementation Outcomes of Financial Aid under the Program for Disadvantaged Students in Higher Education

Academic Year	Day Division		Continuing Education Division	
	Number of Beneficiaries	Total Amount (NTD)	Number of Beneficiaries	Total Amount (NTD)
AY 2022–2023	246	3,415,000	96	1,225,250
AY 2023-2024	245	4,736,500	101	1,985,000
AY 2024-2025	297	5,692,750	128	2,477,500

(III) Tuition and Fees Exemption

A tuition and fees exemption mechanism has been implemented to alleviate the financial burden, enabling students to pursue their education with peace of mind and complete their studies.Statistics on tuition and fee exemption subsidies from the past three years are presented in Table 4 and Table 5.

Table 4. Tuition and Fees Exemption for Day Division

Academic Year	Semester	Subsidy	Military & Civil Service Survivors	Indigenous Students	Children of Active-Duty Military Personnel	Students with Disabilities and Children of Persons with Disabilities	Low-Income Household Students	Middle-to-Low-Income Household Students	Children from Families in Special Circumstances	Total Beneficiaries	Total Amount
AY 2022-2023	2022-1	Number	6	78	1	291	163	184	45	768	14,420,670
		Amount	100,981	1,713,107	4,946	4,827,277	4,226,586	2,848,510	699,263		
	2022-2	Number	6	78	1	290	145	164	39	723	13,571,843
		Amount	100,981	1,710,629	4,946	4,835,228	3,775,087	2,533,369	611,603		
AY 2023-2024	2023-1	Number	6	75	0	296	176	187	31	771	14,523,535
		Amount	106,704	1,647,126	0	4,772,020	4,619,064	2,886,229	492,392		
	2023-2	Number	6	71	0	293	136	158	31	695	12,892,148
		Amount	106,704	1,552,934	0	4,728,191	3,583,736	2,428,191	492,392		
AY 2024-2025	2024-1	Number	6	87	0	273	154	179	128	728	13,734,322
		Amount	106,552	1,913,617	0	4,438,045	4,051,217	2,767,180	457,711		
	2024-2	Number	6	82	0	272	135	164	26	684	12,758,482
		Amount	106,552	1,801,400	0	4,386,703	3,514,355	2,538,165	411,307		

Table 5. Tuition and Fees Exemption for Continuing Education Division

Academic Year	Semester	Subsidy	Military & Civil Service Survivors	Indigenous Students	Children of Active-Duty Military Personnel	Students with Disabilities and Children of Persons with Disabilities	Low-Income Household Students	Middle-to-Low-Income Household Students	Children from Families in Special Circumstances	Total Beneficiaries	Total Amount
AY 2022-2023	2022-1	Number	0	33	0	150	79	130	22	414	6,368,166
		Amount	0	639,101	0	2,010,706	1,731,018	1,708,722	278,619		
	2022-2	Number	0	28	0	149	45	125	16	363	5,493,491
		Amount	0	562,921	0	2058,438	976,390	1,698,702	197,040		
AY 2023-2024	2023-1	Number	0	34	0	166	68	128	17	413	6,425,852
		Amount	0	669,874	0	234,7970	1,490,035	1,708,134	209,839		
	2023-2	Number	0	33	0	148	39	87	17	324	4,880,308
		Amount	0	634,098	0	2,034,845	862166	1136608	212,591		
AY 2024-2025	2024-1	Number	1	41	0	146	63	109	16	376	5,699,844
		Amount	11,078	796,993	0	1,883,174	1,348,893	1,458,906	200,800		
	2024-2	Number	1	37	0	150	41	76	19	324	4,675,920
		Amount	11,078	2,5470	0	1,824,304	88,1472	98,6096	24,7500		

III. Learning Incentives for Economically Disadvantaged Students

(I) Academic Learning Support – MOOC Learning Incentive Measures

1. Completion of two or more courses on the Ministry of Education MOOCs Platform, including:One elective course, and At least one course related to AI or industry trends, with industry trends referring to the Five Trusted Industries identified by the Executive Yuan.
2. Courses must include assessments, which must be passed, and the total learning hours must reach at least 12 hours.
3. Incentive principle: Students who complete 12 certified MOOC learning hours and obtain course completion certificates may apply for a subsidy of NTD 7,500 per application.
4. lindsThe implementation outcomes over the past three years are shown in Table 6

Table 6. Implementation Outcomes of MOOC Learning Incentive Measures

Year	Students Eligible for Tuition and Fee Reduction	Indigenous Students	Students Receiving Financial Aid under the Program for Disadvantaged Students in Higher Education	Total (Person-Times)
2022	280	52	167	499
2023	304	40	152	496
2024	752	98	258	1,108

(II) Professional Skills Development – Professional Certification Guidance and Subsidy Program

1. Students must provide proof of at least 80% attendance in certification-related professional courses, or proof of passing grades in relevant University courses.
2. Incentive principle: Application fees and certificate issuance fees for professional certifications are reimbursed based on actual expenses. An additional NTD 2,000 foreign language certification learning incentive is provided for foreign language certifications.
3. The implementation outcomes in recent years are shown in Table 7.

Table 7. Implementation Outcomes of the Professional Certification Guidance and Subsidy Program

Year	Students Eligible for Tuition and Fee Reduction	Indigenous Students	Students Receiving Financial Aid under the Program for Disadvantaged Students in Higher Education	Total (Person-Times)
2022	15	1	11	27
2023	17	1	7	25
2024	9	0	3	12

(III) Self-Directed Learning – Mingxiu Academy Self-Directed Learning Program

【Becoming a Mingxiu Academy Student】

1. Students apply to become residential college students in their first year. Upon approval, they are required to submit a learning reflection for the first year in the second year of course participation.
2. Incentive principle: After joining the college, students receive a subsidy of NTD 3,000 during their period of study.

【Enrolling in Mingxiu Academy Courses】

1. Students are required to complete at least two compulsory courses and two elective (craft-related) courses per month. If only one course is offered in a given month, completion of that course shall be deemed sufficient, subject to review and approval.
2. Incentive principle: A monthly subsidy of NTD 3,000 is provided.

▲Woodworking Course

▲Woodworking Course

▲Traditional Chinese Painting Cours

▲Wood Carving Course

(IV) Career Guidance – Life Bridge Program

1. Students are required to complete 36 hours of pre-employment preparation courses, including industry mentor consultations and experience-sharing sessions.
2. Incentive principle: A subsidy of NTD 9,000 is provided upon completion of 9 hours of coursework, disbursed on a monthly basis. The total subsidy amounts to NTD 36,000. (If the required learning progress is not completed in a given month, the subsidy for that month will not be issued.)
3. The implementation outcomes over the past three years are presented in Table 8.

Table 8. Implementation Outcomes of the Life Bridge Program

Year	Students Eligible for Tuition and Fee Reductions	Indigenous Students	Students Receiving Financial Aid under the Program for Disadvantaged Students in Higher Education	Total (Person-Times)
2022	21	1	11	37
2023	20	2	9	31
2024	22	0	9	31

▲Group Discussions During Classes

▲End-of-Term Project Presentation

(V) Diverse Pathways to Dream Fulfillment – "Meeting Your Mentor" Program

1. Project proposals are solicited based on the designated fields and expected outcomes specified by assigned mentors. Mentors provide direct guidance to students, either personally or in collaboration with University faculty members, to conduct project-based research.
2. Incentive principle:
   Upon completion of monthly mentoring sessions, students are required to submit mentoring records for evaluation by the mentor. Students who pass the evaluation receive a subsidy of NTD 18,000 per month, disbursed on a monthly basis, for up to five months.
3. After completing the mentoring program, students must submit a final outcome report and participate in related project completion activities. Students who pass the mentor's evaluation receive an additional subsidy of NTD 30,000, aimed at enhancing the practical application value of academic and industrial outcomes.
4. The total subsidy amounts to NTD 120,000. (If the required learning progress is not completed or the evaluation is not passed in a given month, the subsidy for that month will not be issued.)
5. The implementation outcomes in recent years are presented in Table 9.

Table 9. Implementation Outcomes of the "Meeting Your Mentor" Program

Year	Students Eligible for Tuition and Fee Reductions	Indigenous Students	Students Receiving Financial Aid under the Program for Disadvantaged Students in Higher Education	Total (Person-Times)
2024	11	2	2	15

▲Mentors Providing Direct Guidance to Students

(VI) Entrepreneurship Competitions – Incentive Program for Innovation, Entrepreneurship, and Technology Competitions

【Maker Training Courses】

1. Students participate in innovation and entrepreneurship training courses or activities (in-person) offered in the respective month by NCUT's Research and Development Office. Accumulation of six hours of learning constitutes one application.
2. Incentive principle: Applicants must submit a training certificate issued by the organizing unit (with 100% attendance). Upon approval, a subsidy of NTD 6,000 per course per month is provided for each application.
3. The implementation outcomes over the past three years are presented in Table 10.

Table 10. Implementation Outcomes of Maker Training Course Incentives

Year	Students Eligible for Tuition and Fee Reductions	Indigenous Students	Students Receiving Financial Aid under the Program for Disadvantaged Students in Higher Education	Total (Person-Times)
2022	70	1	32	103
2023	57	2	27	86
2024	103	1	28	132

▲Maker Training Courses

【Competition Activity Incentives】

1. Students participate in innovation, entrepreneurship, and technology competitions organized both on and off campus during the academic year, and must also complete training activities organized by the Maker Space for at least four hours.
2. Incentive principle: Applicants must submit training certificates, competition participation certificates, a final outcome report, and certificates of finalist selection or awards. Upon approval, a subsidy of NTD 10,000 per application is provided.
3. The implementation outcomes over the past three years are presented in Table 11.

Table 11. Implementation Outcomes of Competition Activity Incentives

Year	Students Eligible for Tuition and Fee Reductions	Indigenous Students	Students Receiving Financial Aid under the Program for Disadvantaged Students in Higher Education	Total (Person-Times)
2022	34	0	18	52
2023	18	0	13	31
2024	8	4	2	14

▲Participation in the 2025 Technical and Vocational Hackathon Competition, receiving the *Best Popularity Award* and an *Honorable Mention*

1.1

ERADICATE EXTREME POVERTY

1.2

REDUCE POVERTY BY AT LEAST 50%

1.3

IMPLEMENT SOCIAL PROTECTION SYSTEMS

1.4

EQUAL RIGHTS TO OWNERSHIP, BASIC SERVICES, TECHNOLOGY AND ECONOMIC RESOURCES

1.5

BUILD RESILIENCE TO ENVIRONMENTAL, ECONOMIC AND SOCIAL DISASTERS

1.A

MOBILIZE RESOURCES TO IMPLEMENT POLICIES TO END POVERTY

1.B

CREATE PRO-POOR AND GENDER-SENSITIVE POLICY FRAMEWORKS

Goal 2

Zero Hunger

End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

I. Food and Agriculture Education Workshops

(I) “From Farm to Table” Mushroom Journey

Through food and agriculture education workshops, participating students were guided to **Sanyue Farm** to embark on a “mushroom journey” from production to the dining table.

Through on-site exploration and hands-on experiential learning, students gained knowledge of mushroom cultivation, including the growing conditions of shiitake mushrooms and the origin of the term “mushroom substrate bags.” Students also developed a deeper understanding of the daily work of mushroom farmers, such as trimming shiitake stems, discovering that the mushrooms commonly seen on dining tables are accompanied by many interesting stories behind the scenes.

This “mushroom journey” enabled students to better understand the sources of food and to appreciate the hard work and wisdom of farmers.

▲“From Farm to Table” Mushroom Journey

(II) Mushroom Good: Redefining the Palate through Culinary Innovation

In the “Redefining the Palate through Plant-Based Cuisine” workshop, students visited Wo Xing Wo Su Studio, where dried and fresh shiitake mushrooms served as the core ingredients. Combined with spices, chickpeas, purple cabbage, turmeric, and Makauy (Taiwanese prickly ash), students created light dishes with layered and diverse flavors.

Throughout the process, students learned how mushrooms release natural umami and transform flavors under different heat treatments. They experienced that plant-based cooking and dishes can be rich and diverse, and through hands-on practice, gained a deeper understanding of ingredient characteristics and pairing techniques, thereby enhancing their awareness of healthy diets and sustainable dining practices.

▲Mushroom Good: Redefining the Palate through Culinary Innovation

(III) A Green Symphony of Mushrooms and Cocoa

In the “Green Symphony of Mushrooms and Cocoa” workshop, students visited Taiwan Fine Cocoa to experience a cross-disciplinary integration of golden slippery mushrooms and cocoa. Dried golden slippery mushrooms were added to crushed cocoa beans to brew cocoa bean tea, while mushroom purée was incorporated into chocolate production, resulting in products that combine mushroom aroma with cocoa fragrance and delay the softening of chocolate.

Through hands-on practice, students learned about the processing of Taiwan-native cocoa beans and gained an understanding of the value enhancement and innovative applications achieved by integrating mushrooms with cocoa.

▲A Green Symphony of Mushrooms and Cocoa

II. Food and Beverage Hygiene Management

(I) On-Campus Food and Beverage Hygiene Inspections

To strengthen food and beverage hygiene management and prevent gastrointestinal illness or food poisoning caused by improper food handling, NCUT implements comprehensive inspection measures to safeguard the health of faculty and students.

The maintenance and management of food service personnel and facilities include health management, personal hygiene, hygiene education, environmental sanitation, food and beverage hygiene, waste disposal, and water sanitation. In addition, one food sample from each meal served by campus dining facilities is retained for inspection, in accordance with the Food and Beverage Hygiene Management Regulations of National Chin-Yi University of Technology.

The Hygiene and Dining Committee conducts regular spot checks on food and beverage hygiene and completes dining supervision inspection forms. The Health Services Section of the Office of Student Affairs conducts inspections at least once per week and carries out additional random checks as needed, completing campus dining hygiene management inspection forms. External health authorities are also invited periodically to conduct on-site inspections and food testing at campus dining facilities.

Statistics on the number of food and beverage hygiene inspections conducted in Academic Year 2024-2025 are shown in Table 12.

Table 12. Statistics on the Number of Food and Beverage Hygiene Inspections (Academic Year 2024–2025)

Academic Year	Health Services Section	Hygiene and Dining Committee	External Dietitians	Total
AY 2024-2025	36	24	35	95

▲Kitchen Food Hygiene Audit

▲Refrigerator Food Hygiene Audit

▲Raw Materials Area Hygiene Audit

▲Beverage Area Hygiene Audit

2.1

UNIVERSAL ACCESS TO SAFE AND NUTRITIOUS FOOD

2.2

END ALL FORMS OF MALNUTRITION

2.3

DOUBLE THE PRODUCTIVITY AND INCOMES OF SMALL-SCALE FOOD PRODUCERS

2.4

SUSTAINABLE FOOD PRODUCTION AND RESILIENT AGRICULTURAL PRACTICES

2.5

MAINTAIN THE GENETIC DIVERSITY IN FOOD PRODUCTION

2.A

INVEST IN RURAL INFRASTRUCTURE, AGRICULTURAL RESEARCH, TECHNOLOGY AND GENE BANKS

2.B

PREVENT AGRICULTURAL TRADE RESTRICTIONS, MARKET DISTORTIONS AND EXPORT SUBSIDIES

2.C

ENSURE STABLE FOOD COMMODITY MARKETS AND TIMELY ACCESS TO INFORMATION

Goal 3

Good Health and Well-Being

Ensure healthy lives and promote well-being for all at all ages.

I. Drug-Free Campus

(I) Anti-Drug Awareness Seedling Camp

For three consecutive years (Academic Years 2022–2024), NCUT has organized a two-day “Anti-Drug Awareness Seedling: Hand-in-Hand Drug Prevention Junior Guardian Camp” each May at Longquan Elementary School in Longjing District, Taichung City. The camp is planned and implemented by NCUT’s Purple Coneflower Volunteer Service Club and National Defense and Combat Skills Club. Through vivid and engaging activity design, the program aims to create a drug-free, clean, and healthy learning environment, demonstrating the downward extension of educational outreach.

For three consecutive years (Academic Years 2022–2024), NCUT has organized a two-day “Anti-Drug Awareness Seedling: Hand-in-Hand Drug Prevention Junior Guardian Camp” each May at Longquan Elementary School in Longjing District, Taichung City. The camp is planned and implemented by NCUT’s Purple Coneflower Volunteer Service Club and National Defense and Combat Skills Club. Through vivid and engaging activity design, the program aims to create a drug-free, clean, and healthy learning environment, demonstrating the downward extension of educational outreach.

Centered on the prevention of student substance abuse, the camp program includes anti-drug dance performances, anti-drug fitness routines, drug-refusal challenge games, substance abuse prevention courses, outdoor team-based activities, and an immersive experiential course titled “Elite Little Seedlings.” The program has attracted more than 120 students in total.

By leading elementary school students through participatory activities and learning through play, the camp enables children to acquire drug prevention knowledge in a relaxed atmosphere, thereby strengthening their awareness and skills in refusing drugs.

Through the anti-drug camp activities, elementary school students gain a deeper understanding of the harms of drug abuse, while NCUT’s students learn through service, further cultivating public concern and social responsibility. Together, these efforts contribute to the development of a healthy and drug-free campus environment.

▲Hand-in-Hand Anti-Drug Awareness Seedling Camp

II. Campus Emergency Medical Services

(I) Emergency Medical Services Week Activities by the Fire Department

At the beginning of the academic term, the Taichung City Fire Department – Third Disaster Rescue and Emergency Medical Services Brigade visited National Chin-Yi University of Technology to conduct Campus Emergency Medical Services Week awareness activities. Approximately 600 students participated. Emergency medical personnel shared real-life special rescue cases, supported by video explanations, to help students understand the importance of first aid in a vivid and engaging manner. The program also promoted the “Hear AED” mobile application, which enables the public to locate Automated External Defibrillators (AEDs) in real time using mobile devices, while reinforcing proper awareness of yielding to ambulances and valuing emergency medical resources.

In the practical training sessions, students were divided into groups to practice essential lifesaving skills, including wound bandaging and bleeding control, CPR with AED, and the Heimlich maneuver. Instructors provided hands-on guidance, allowing participants to gain firsthand experience. Through practical drills rather than observation alone, students enhanced their first-aid knowledge and developed situational response capabilities, achieving the goal of “learning effectively and applying skills in real situations.”

▲ Campus Emergency Medical Services Week Awareness Activities Organized by the Taichung City Fire Department

▲ Students Practicing CPR in Groups

Students actively participated in the activities, with interactive Q&A sessions and scenario-based competitions creating a dynamic and engaging learning environment. Through hands-on participation in a supportive and approachable setting, students effectively mastered essential first-aid skills, while further strengthening collaboration and mutual understanding between NCUT and emergency response agencies.

The Fire Department emphasized that emergency medical services are not solely the responsibility of firefighters, but require the concern and active participation of the general public. Through the awareness and educational initiatives of Emergency Medical Services Week, more individuals are encouraged to move from passive observation to proactive action, to courageously offer assistance when emergencies occur, and to jointly create a safer campus and living environment.

▲ Students Practicing Essential Lifesaving Skills, Including CPR and the Heimlich Maneuver

▲ Enhancing First-Aid Knowledge through Hands-On Practical Training

III. Safeguarding the Health of Faculty and Students

(I) Freshman Health Examinations

To understand and promote student health, and in accordance with NCUT's Student Health Examination Implementation Plan, all freshmen are required to undergo health examinations. This measure aims to ensure campus safety and to strengthen campus health management and infectious disease prevention.

For Academic Year 2025–2026, NCUT commissioned the Health Examination Center of Taichung Armed Forces General Hospital to conduct on-campus health examinations for students.

▲ Freshman Health Examination

(II) Freshman Group Assessments and Orientation-Based Class Counseling

To better understand the adjustment of first-year students and to identify those requiring priority support at an early stage, NCUT conducts freshman group assessments and provides orientation-based class counseling, enabling the timely provision of appropriate follow-up counseling measures.




▲ Freshman Group Assessments and Orientation-Based Class Counseling

(III) Health Services for Faculty and Staff

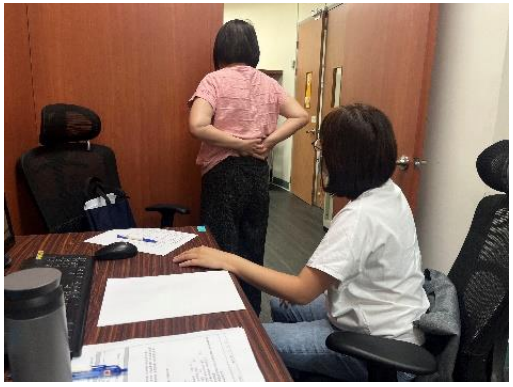
To enhance the physical and mental well-being of faculty and staff, NCUT implements comprehensive health services, including annual health examinations, health lectures, and health risk assessments. Based on examination results, health management measures are carried out and health promotion initiatives are adopted to establish a safe and healthy workplace environment.

▲ Faculty and Staff Health Examinations

(IV) Occupational Health Consultations by Specialized Physicians

In accordance with Article 2 of the Occupational Safety and Health Management Regulations and Article 3 of the Labor Health Protection Rules, NCUT employs or contracts physicians specializing in occupational health services to provide **on-site health services once every two months**. These services include employee health examinations and health management, assessment of working environments, and the promotion of occupational disease prevention.

Through professional consultations, health education, and guidance, the program supports the establishment of a safe and healthy working environment. In addition, occupational health physicians assist with mechanisms related to **job placement, work assignment, and return-to-work arrangements**, further promoting workplace safety and employee well-being.



▲ Occupational Health Consultations by Specialized Physicians

(V) On-Site Mental Health Consultations by Psychiatric Physicians

Specialist physicians in psychiatry are invited to provide on-site consultations every two weeks on Tuesday afternoons, offering professional advice on issues related to insomnia, emotional well-being, stress management, memory concerns, adjustment disorders, psychosomatic symptoms, and medication-related matters.

▲ On-Site Mental Health Consultations by Specialist Physicians

(VI) Health and Nutrition Consultations

A former registered dietitian from the Taichung Armed Forces General Hospital is specially invited to the campus to provide individual health and nutrition consultations for faculty and students. Services include professional guidance on healthy eating, weight management (weight loss and weight gain), disease-related nutrition, and wellness-oriented dietary planning.

▲ Health and Nutrition Consultations

3.1

REDUCE MATERNAL MORTALITY

3.2

END ALL PREVENTABLE DEATHS UNDER 5 YEARS OF AGE

3.3

FIGHT COMMUNICABLE DISEASES

3.4

REDUCE MORTALITY FROM NON-COMMUNICABLE DISEASES AND PROMOTE MENTAL HEALTH

3.5

PREVENT AND TREAT SUBSTANCE ABUSE

3.6

REDUCE ROAD INJURIES AND DEATHS

3.7

UNIVERSAL ACCESS TO SEXUAL AND REPRODUCTIVE CARE, FAMILY PLANNING AND EDUCATION

3.8

ACHIEVE UNIVERSAL HEALTH COVERAGE

3.9

REDUCE ILLNESSES AND DEATH FROM HAZARDOUS CHEMICALS AND POLLUTION

3.A

IMPLEMENT THE WHO FRAMEWORK CONVENTION ON TOBACCO CONTROL

3.B

SUPPORT RESEARCH, DEVELOPMENT AND UNIVERSAL ACCESS TO AFFORDABLE VACCINES AND MEDICINES

3.C

INCREASE HEALTH FINANCING AND SUPPORT HEALTH WORKFORCE IN DEVELOPING COUNTRIES

3.D

IMPROVE EARLY WARNING SYSTEMS FOR GLOBAL HEALTH RISKS

Goal 4

Quality Education

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

I. Student Support Mechanisms

(I) Freshman Support Office

NCUT has launched an online virtual platform, the Freshman Support Office, to provide first-year students with one-stop services. The platform offers comprehensive information related to freshman enrollment, including registration guidelines, parent–student orientation meetings, freshman orientation programs, health examinations, student housing, course planning, tuition and fee reductions, student loans, scholarships and grants, and financial aid programs for disadvantaged students. In addition, campus maps, transportation information, and academic calendars are also available.

Through timely and efficient online support services, NCUT aims to assist incoming students in quickly adapting to the new learning environment, enabling them to focus on building a fulfilling and enriching university experience.

(II) Support for Indigenous Students

NCUT has established the Indigenous Student Resource Center to integrate and coordinate on-campus resources for Indigenous students. The Center provides comprehensive information and support services related to academic studies, extracurricular activities, emotional support, career planning, and daily life needs. Through experience accumulated from the implementation of various programs, NCUT has progressively strengthened its capacity to support Indigenous students, actively promoting financial assistance measures and fostering a positive learning environment. These efforts enable Indigenous students to pursue their studies with peace of mind and to develop in ways that are suited to their individual strengths and aptitudes.

▲ Indigenous Student Resource Center

(III) International Student Mentorship Program

To assist international students in alleviating challenges arising from language and cultural barriers, and to promote multicultural interaction between international students, faculty, and domestic students, NCUT has established an International Student Mentorship Program to foster a welcoming and inclusive campus environment.

The responsibilities of international student mentors include the following:

1. To gain a comprehensive understanding of international students' personalities, interests, strengths, learning attitudes, and family backgrounds, assess their language proficiency and adjustment status, and assist them in integrating into campus life.
2. To appropriately arrange time to guide international students in participating in group activities for international students, and to accurately document mentoring activities and outcomes.
3. To assist international students in resolving difficulties, and, based on individual needs, provide referrals or guidance related to student organizations, daily life, academic studies, and career development.
4. To support international students in adapting to life in Taiwan, monitor on- and off-campus situations as well as entry and exit matters, and, in cases of poor adjustment, behavioral concerns, or other special circumstances, communicate with parents or legal guardians. When necessary, relevant units—including the Counseling Center, Office of International Affairs, Office of Student Affairs, and Office of Academic Affairs—may be engaged to provide coordinated support.

▲ International Students Participating in the Class of 2025 Graduation Ceremony

▲ Traffic Safety Awareness Session for International Students

II. Chinese Language Education

(I) Chinese Speech Contest for International Students

To encourage international students to actively and continuously learn Chinese, enhance their Chinese language proficiency, and strengthen their social adaptation as well as academic and workplace competitiveness, the Chinese Language Teaching Section of the Language Center organizes a tiered Chinese Speech Contest for international students.

The contest adopts a prize-based incentive mechanism to recognize outstanding participants and is supported by dedicated guidance from course instructors. Through this initiative, NCUT aims to enhance international students' motivation to learn Chinese and to cultivate a positive atmosphere for self-directed Chinese language learning on campus.

▲ 2025 Chinese Speech Contest for International Students

(II) Short-Term Chinese Language Programs

NCUT's Language Center collaborates with the International College, Chiang Mai Rajabhat University and the Nakhon Pathom Rajabhat University to offer short-term Chinese language programs. Through these courses, students from partner institutions enhance their understanding of Taiwanese culture. In addition to classroom instruction, participants have opportunities to engage in in-depth cultural experiences, including cultural and corporate visits in Taiwan.

▲ Short-Term Chinese Language Program

(III) Overseas Youth Chinese Language Training Program

In coordination with the 2025 Overseas Youth Chinese Language Training Program organized by the Overseas Community Affairs Council, NCUT hosted more than 100 overseas Chinese students from Indonesia for campus visits and language learning activities. The program aims to enhance participants' Chinese language proficiency in listening, speaking, reading, writing, and input method applications, support their preparation for further study in Taiwan during Academic Year 2025–2026, and strengthen their adaptability to academic and daily life in Taiwan. The program also enables participants to gain a deeper understanding of Taiwan's cultural diversity.

▲ 2025 Overseas Youth Chinese Language Training Program

III. Self-Directed Learning

(I) Stress-Resilience Self-Directed Learning

Students participate in three hours of certified stress-resilience self-directed learning courses, aimed at developing their ability to adapt to workplace environments, enhance communication and coordination skills, and build fundamental stress management and resilience competencies. The implementation outcomes of stress-resilience self-directed learning over the past three academic years are shown in Table 13.

Table 13. Implementation Outcomes of Stress-Resilience Self-Directed Learning

Academic Year	Number of Courses Offered	Number of Participants (Person-Times)	Total Instructional Hours
AY 2022-2023	9	353	25
AY 2023-2024	20	1272	45
AY 2024-2025	27	2,468	72

▲ Stress-Resilience Self-Directed Learning Course

(II) Advanced Self-Directed Learning

Students participate in three hours of online training courses on electronic resources offered by NCUT Library. Through these courses, students gain an understanding of the types of electronic resources available, access pathways, and practical usage methods, thereby enhancing information literacy, strengthening independent research capabilities, and further cultivating self-directed learning and problem-solving skills. The implementation outcomes of advanced self-directed learning over the past two academic years are presented in Table 14.

Table 14. Implementation Outcomes of Advanced Self-Directed Learning

Academic Year	Number of Courses Offered	Number of Participants (Person-Times)
AY 2022-2023	10	366
AY 2023-2024	10	738
AY 2024-2025	10	2,841

▲ Poster for Electronic Resource Training – Fall of Academic Year 2024

▲ Poster for Electronic Resource Training – Spring of Academic Year 2024

(III) Social Engagement–Based Self-Directed Learning

Students voluntarily participate in service activities, applying their knowledge and strengths to contribute to society. Activities, service camps, and support tasks related to teaching, administrative operations, and institutional initiatives planned by various University units are supported by students who serve on an unpaid basis and of their own free will, providing assistance through the skills and competencies they have acquired.

Prior to graduation, students are required to complete a total of 24 hours of self-directed service or activity-based learning, with hours accumulated and certified through an online registration and verification system managed by the respective requesting units. The implementation outcomes of social engagement–based self-directed learning over the past two academic years are presented in Table 15.

Table 15. Implementation Outcomes of Social Engagement–Based Self-Directed Learning

Academic Year	Certified Participants (Person-Times)	Certified Hours
AY 2022–2023	1,500	24
AY 2023-2024	2,500	24
AY 2024-2025	5,827	24

▲ During severe flooding in the Guangfu area of Hualien County, NCUT's International Volunteer Service Club entered the disaster-affected communities to assist residents in rebuilding their lives, embodying the spirit of service and action. Students voluntarily stepped forward to provide support where society needed it most, putting social responsibility into practice and demonstrating a sincere commitment to "serving through action and growing through responsibility."

(IV) Professional Certification–Based Self-Directed Learning

Each department establishes its own list of professional certifications under the self-directed learning framework, with Level B Technician certificates or equivalent core professional certifications as the guiding principle. Students are required to sit for one designated certification examination under the departmental self-directed learning scheme and may apply for one subsidy only. The subsidy covers 50% of the examination and certificate issuance fees, with a maximum amount of NTD 2,000.

Table 16. Implementation Outcomes of Professional Certification

Academic Year	Total Applications (Person-Times)	Subsidized Participants (Person-Times)	Total Subsidy Amount(NTD)
AY 2022-2023	25	16	8,550
AY 2023-2024	266	235	179,075

By encouraging students to obtain professional certifications through self-directed learning, the program enhances students' practical technical competencies and workplace readiness. The implementation outcomes of professional certification–based self-directed learning over the past three academic years are shown in Table 16.

Graduates of technical and vocational education are widely recognized for their strong curiosity and outstanding problem-solving abilities—core competencies that are indispensable in today's rapidly changing world. Cultivating talent that meets future demands has become a critical challenge for education in Taiwan. Technical and vocational education serves as a key talent incubator, demonstrating to the world the unlimited potential of vocational education.

The student from the Department of Mechanical Engineering, Hou Yuan-Cheng, was awarded the "Outstanding Vocational Education Award – Certification Excellence" under the 20th "Light of Vocational Education" Awards by the Ministry of Education, in recognition of achieving five Level B Technician certificates and five Level C Technician certificates.

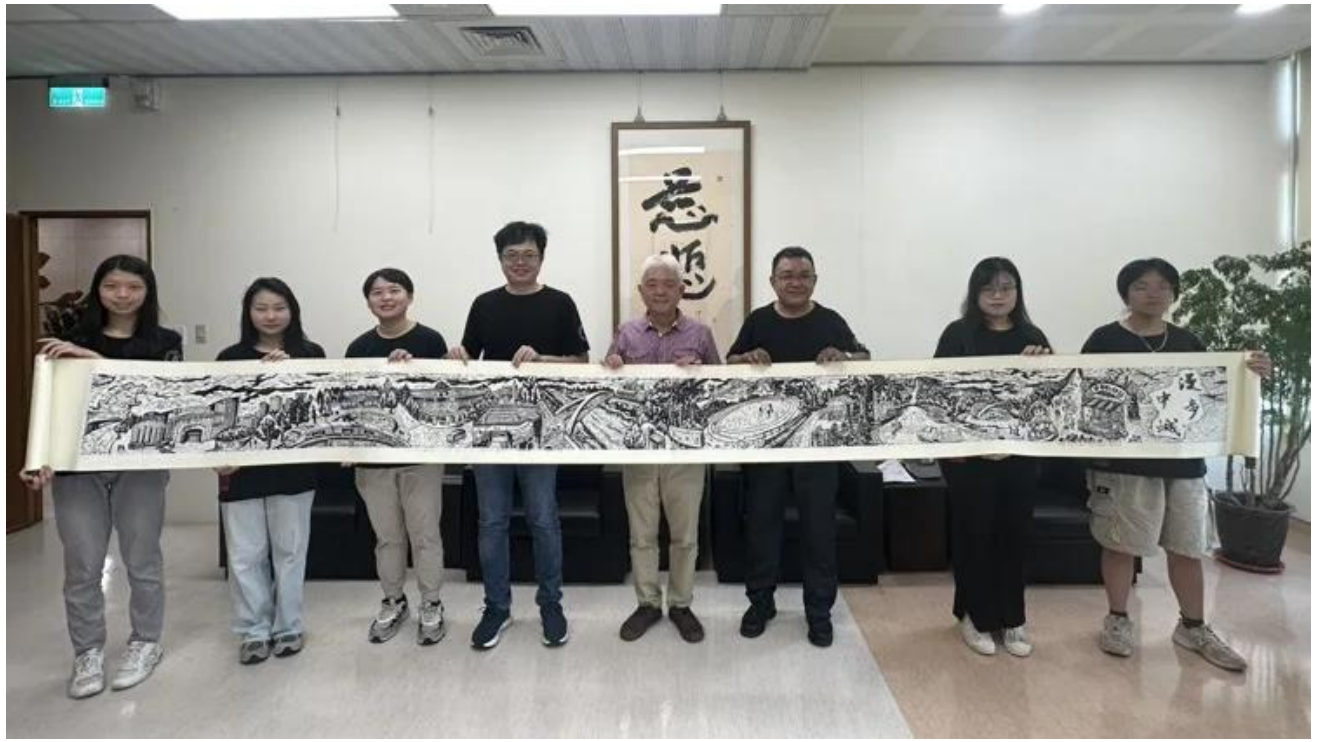
Hou Yuan-Cheng, Department of Mechanical Engineering, recipient of the "Outstanding Vocational Education Award – Certification Excellence"

IV. Humanities Education

(I) Strolling Through the Central City

At Mingxiu Academy of the College of General Education, five female students spent three and a half years completing a five-meter-long print artwork titled *Strolling Through the Central City*. Inspired by the compositional style of *Along the River During the Qingming Festival*, the work vividly depicts the landscape and everyday scenes of the Chin-Yi University Town. The artwork reflects the students' appreciation of campus beauty and their concern for the local community.

The students donated the artwork to NCUT for permanent collection, and it will be exhibited on campus in the future. Through this creative process and public exhibition, the initiative seeks to cultivate engineering students with strong humanistic literacy and a commitment to social engagement.



▲ **Five-Meter-Long Print Artwork: *Strolling Through the Central City***

(II) Classical Literature × Creative Design

Under the theme "Classical Literature × Creative Design," the Department of Cultural and Creative Industries organized the 14th Classical Cultural and Creative Design Exhibition. The exhibition integrates traditional classical texts—including *Journey to the West*, *Classic of Mountains and Seas*, *Dream of the Red Chamber*, and *Compendium of Materia Medica*—and transforms them into diverse creative works through students' ingenuity.

These works not only embody the literary meanings of the classics, but also incorporate engaging interactivity and practical value for everyday life, offering audiences a cultural and creative experience where classical heritage and contemporary creativity intersect across time and space.

▲ 14th Classical Cultural and Creative Design Exhibition

V. Strengthening Competency-Based Education for Senior High and Vocational Schools

(I) Micro-Credit Course: "TRIZ Principles for Energy Saving and Carbon Reduction—Design and Practice of a Non-Powered Material Handling System"

During the summer break, the Department of Industrial Engineering organized a three-day micro-credit course titled "TRIZ Principles for Energy Saving and Carbon Reduction—Design and Practice of a Non-Powered Material Handling System." A total of 45 students from the Automotive Department of Chiao Tai High School and the senior high division of Mingde Senior High School participated. Through innovative theory learning and hands-on challenges, students gained in-depth exposure to the essence of university-level coursework and practical technological applications.

The course was structured into three core modules, progressively guiding students to build innovative engineering concepts. First, based on the 40 Inventive Principles of TRIZ, the course fostered students' understanding of innovative design thinking and the logic behind patented products. Second, drawing on the principles of "karakuri" mechanical devices from Japan's Edo period—such as tea-serving dolls, calligraphy dolls, and archery dolls—the course explored their operational logic and extended these concepts to factory facility planning, guiding students to design electricity-free material handling systems. Third, through the assembly and testing of a "track-based marble roller coaster," students practically applied the concept of converting gravitational potential energy into kinetic energy, thereby implementing the principles of non-powered material handling.

▲Micro-Credit Course: "TRIZ Principles for Energy Saving and Carbon Reduction—Design and Practice of a Non-Powered Material Handling System"

(II) Practical Artificial Intelligence Technologies and Innovative Applications Workshop

The Department of Artificial Intelligence and Computer Engineering, National Chin-Yi University of Technology (NCUT) organized the “Practical Artificial Intelligence Technologies and Innovative Applications Workshop,” a training camp specifically designed for senior high and vocational school students. The program offered a series of hands-on AI learning experiences, guiding participants to explore the field of artificial intelligence from the ground up.

The curriculum included analysis of AI industry trends, an introduction to artificial intelligence, and introductory Python programming, and was further extended to topics such as practical AI applications, principles of autonomous vehicles, AI cybersecurity, and YOLO-based image recognition. The courses integrated the Google Colab cloud platform, enabling students with no prior AI background to engage in programming and hands-on projects with ease, thereby cultivating problem-solving abilities and innovative thinking skills.

▲ Practical Artificial Intelligence Technologies and Innovative Applications Workshop

VI. Lifelong Learning

(A) Senior University Program

Through the implementation of the Senior University Program, NCUT designs innovative learning courses for older adults and develops diversified learning models, allowing senior learners to enjoy campus-based learning experiences. The program aims to support healthy living and self-realization among older adults. The curriculum includes courses related to aging and an aging society, health and leisure, programs highlighting NCUT's distinctive features, and new knowledge and skills for daily life.




▲ Senior University Program

(B) Chin-Yi Community Learning Academy

By integrating on-campus educational and training resources and promoting the localization of education, NCUT established the Chin-Yi Community Learning Academy. In collaboration with local resources and community characteristics, the Academy provides inclusive lifelong learning opportunities for community residents, serves as a learning hub for the public, and builds a community-based lifelong learning network.

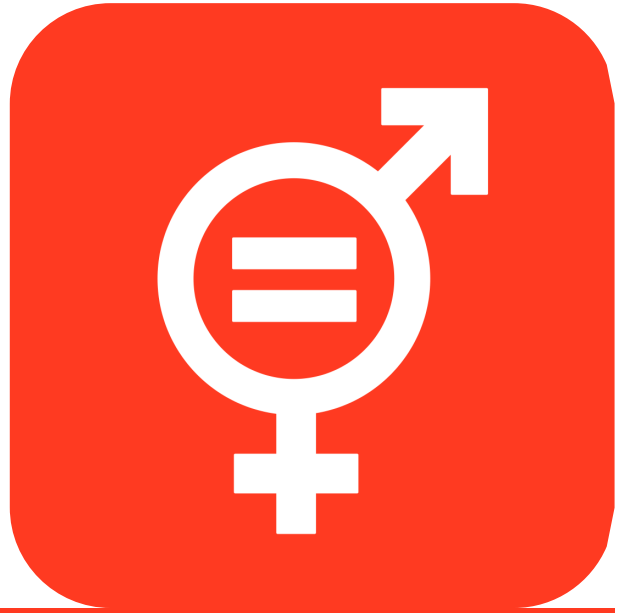



▲ Chin-Yi Community Learning Academy

4.1	FREE PRIMARY AND SECONDARY EDUCATION	4.6	UNIVERSAL LITERACY AND NUMERACY
4.2	EQUAL ACCESS TO QUALITY PRE-PRIMARY EDUCATION	4.7	EDUCATION FOR SUSTAINABLE DEVELOPMENT AND GLOBAL CITIZENSHIP
4.3	EQUAL ACCESS TO AFFORDABLE TECHNICAL, VOCATIONAL AND HIGHER EDUCATION	4.A	BUILD AND UPGRADE INCLUSIVE AND SAFE SCHOOLS
4.4	INCREASE THE NUMBER OF PEOPLE WITH RELEVANT SKILLS FOR FINANCIAL SUCCESS	4.B	EXPAND HIGHER EDUCATION SCHOLARSHIPS FOR DEVELOPING COUNTRIES
4.5	ELIMINATE ALL DISCRIMINATION IN EDUCATION	4.C	INCREASE THE SUPPLY OF QUALIFIED TEACHERS IN DEVELOPING COUNTRIES

Goal 5

Gender Equality



Achieve gender equality and empower all women and girls.

I. Gender Equality Education

(I) Gender Equality Education Website

NCUT has established a dedicated Gender Equality Education Website to provide timely announcements of the latest gender equality information, enhance students' awareness of gender equality, and promote gender-related counseling as well as the reporting and handling of individual cases. The website also provides access to relevant laws, regulations, and implementation guidelines related to gender equality education.

Gender Equality Education Website： https://osca.ncut.edu.tw/p/403-1010-842.php?Lang=zh-tw

NCUT性別平等教育網

(II) Gender Equality Courses

Gender equality–related courses are offered by the Center for General Education (Liberal Arts Education Center) to help students understand the importance, substance, and implications of gender equality awareness. Statistics on course offerings are presented in Table 17.

Table 17. Statistics on Gender Equality–Related Courses Offered

Academic Year	Number of Courses Offered	umber of Enrolled Students
AY 2022-2023	6	238
AY 2023-2024	5	243
AY 2024-2025	6	202

▲ Gender Equality Courses

II. Cross-Gender Enrollment in Academic Programs

(I) Gender-Friendly Interdisciplinary Learning Environment

In response to the Ministry of Education's initiative to foster a gender-friendly interdisciplinary learning environment, NCUT seeks to address gender segregation in traditional academic fields and encourage students to break gender stereotypes when enrolling in programs across different disciplines. The incentive measures for interdisciplinary program completion are adjusted as follows:

1. Encouragement for Female Students:

Female students majoring in humanities- or management-oriented fields (e.g., the College of Management, College of Cultural and Creative Industries) are encouraged to complete academic programs in fields with a higher proportion of male students (e.g., the College of Engineering, College of Electrical Engineering and Computer Science).

2. Encouragement for Male Students:

Male students majoring in engineering- or technology-oriented fields (e.g., the College of Engineering, College of Electrical Engineering and Computer Science) are encouraged to complete academic programs in fields with a higher proportion of female students (e.g., the College of Management, College of Cultural and Creative Industries).

Students who meet the above criteria for completing interdisciplinary programs across gender-dominated fields will receive an additional incentive of NTD 1,000 per completed program.

(II) Incentives for Female Students Applying to Engineering or Electrical and Computer Engineering Colleges

Female undergraduate students who apply to departments under the College of Engineering or the College of Electrical Engineering and Computer Science and are admitted will receive a one-time academic excellence scholarship of NTD 10,000 upon enrollment. Each eligible student may receive this incentive once only.

Statistics on the number of female students applying to the College of Engineering and the College of Electrical Engineering and Computer Science are presented in Table 18.

Table 18. Statistics on Incentives for Female Students Applying to the College of Engineering or the College of Electrical Engineering and Computer Science

Academic Year	Female Applicants to the College of Engineering	Female Applicants to the College of Electrical Engineering and Computer Science
AY 2023-2024	12	5
AY 2024-2025	13	4

III. Friendly Campus Environment

(I) All Gender Restroom

In accordance with the Ministry of Education's Guidelines for the Installation of Gender-Friendly Restrooms and Dormitories on Campus, NCUT seeks to move beyond the traditional binary division of male and female restrooms.

To provide a safe, respectful, and gender-friendly campus environment, NCUT has planned to install at least one All Gender Restroom in each campus building. These facilities are open to users of all genders and are designed to ensure safety, privacy, and accessibility, thereby promoting gender diversity, equality, and mutual respect on campus.

▲All Gender Restroom on Campus

(II) Period-Friendly Restroom

NCUT has established the Period-Friendly Restroom, located on the second floor of the Management Building's women's restroom. This facility provides feminine hygiene products and disposable underwear for individuals in urgent need, helping to address unexpected situations.

Through this initiative, NCUT aims to create a menstruation-friendly campus environment, enabling female students to manage their needs with dignity and confidence.

(III) Free Menstrual Product Access Points

To support students in need, NCUT has established designated access points for free menstrual products, which can be obtained by presenting a student ID card. Details of these access locations are provided in Table 19.

Table 19. Free Menstrual Product Access Points

Location	Responsible Unit
1F, Guoxiu Building	Health Center (Student Affairs Office – Health Services Section)
2F, Guoxiu Building	Division of Student Affairs, Continuing Education Division

▲ Period-Friendly Restroom

IV. Family- and Child-Friendly Policies

(I) Maternity Health Protection Program

NCUT has established a Maternity Health Protection Program to safeguard the health of pregnant employees. For job duties that may pose potential maternity-related health risks, NCUTimplements comprehensive measures, including risk assessment, occupational physician consultations, referral for abnormalities, hazard control, and tiered health management.

Regular workplace environmental hazard assessments are conducted for pregnant faculty and staff to ensure that the working environment does not pose risks to the health of the mother, fetus, or infant. The implementation results of workplace environmental hazard assessments for pregnant employees over the past three years are summarized in Table 20.

Table 20. Workplace Environmental Hazard Assessments for Pregnant Faculty and Staff

Year	Risk Level	Number of Employees	Remarks
2023	Level I	6	Assessed by an occupational physician as posing no risk to the health of the mother, fetus, or infant; employees were permitted to continue their original duties.
2024	Level I	10	Assessed by an occupational physician as posing no risk to the health of the mother, fetus, or infant; employees were permitted to continue their original duties.
Jan–Jul 2025	Level I	8	Assessed by an occupational physician as posing no risk to the health of the mother, fetus, or infant; employees were permitted to continue their original duties.

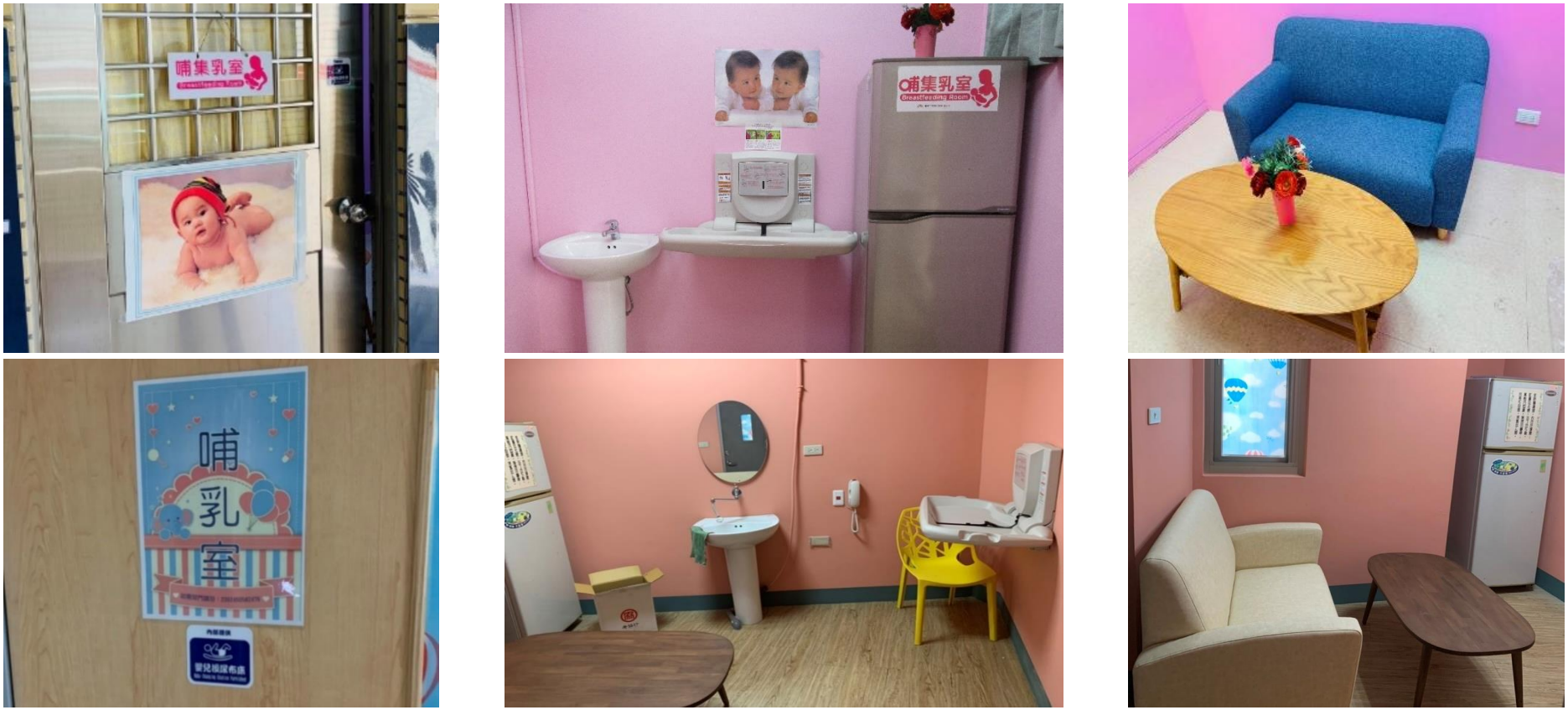
▲ Workplace Environmental Hazard Assessment

▲ Maternity Health Protection Personnel

(II) Lactation Rooms

In accordance with labor regulations, employees with children under the age of one who need to breastfeed in person are entitled to 60 minutes of breastfeeding time per day, which is counted as paid working time.

NCUT has established three dedicated lactation rooms, located in the Guoxiu Building, the Machine Tool Institute Building, and the Qinyi Dormitory. Eligible employees are provided with designated breastfeeding or milk-expression time, which is likewise recognized as working time. These facilities support a family- and child-friendly workplace environment and promote maternal and infant well-being.



▲ Lactation Room

(III) Childcare Support Program

NCUT has entered into partnership agreements with government-licensed childcare service providers that have passed the official public and private preschool accreditation. Through these partnerships, NCUT provides faculty and staff with childcare information and preferential benefits, enabling employees with young children to balance work and family responsibilities with peace of mind.

By reducing childcare-related concerns, the program supports workforce stability, enhances employee well-being, and promotes gender equality in the workplace. A list of partner childcare institutions and corresponding benefits is provided in Table 21.

Table 21. Partner Childcare Institutions and Benefits for NCUT Faculty and Staff

Institution	Benefits (Applicable Period: AY 2024 Semester 1 – AY 2025 Semester 2)
Taiping Haoermei Preschool, Taichung City	1. Tuition discount of NTD 800 for siblings or cousins enrolled together. 2. Extended childcare hours available to accommodate special work schedules or overtime, with fees charged according to the preschool's overtime policy. 3. Faculty and staff may participate in parent education activities organized by the preschool and receive parenting information. 4. A set of illustrated storybooks provided upon enrollment.
Jiruifu Private Preschool, Taichung City	1. Tuition and miscellaneous fee discount of NTD 2,000. 2. No late pickup fee charged between 5:00–6:00 PM.
Forest Art Private Preschool, Taichung City	1. Complimentary school bag, meal bag, and tableware set upon enrollment.
York Private Infant Care Center, Taichung City	1. Fees charged in accordance with the quasi-public preschool standard. 2. One complimentary facility tour and administrative briefing. 3. Co-organization of parenting seminars or childcare briefings. 4. Birthday gift provided for enrolled children.
Baby Love Private Infant Care Center, Taichung City	1. Fees charged in accordance with the quasi-public preschool standard. 2. One complimentary facility tour and administrative briefing. 3. Co-organization of parenting seminars or childcare briefings. 4. 4. Birthday gift provided for enrolled children.

5.1

END DISCRIMINATION AGAINST WOMEN AND GIRLS

5.2

END ALL VIOLENCE AGAINST AND EXPLOITATION OF WOMEN AND GIRLS

5.3

ELIMINATE FORCED MARRIAGES AND GENITAL MUTILATION

5.4

VALUE UNPAID CARE AND PROMOTE SHARED DOMESTIC RESPONSIBILITIES

5.5

ENSURE FULL PARTICIPATION IN LEADERSHIP AND DECISION-MAKING

5.6

UNIVERSAL ACCESS TO REPRODUCTIVE HEALTH AND RIGHTS

5.A

EQUAL RIGHTS TO ECONOMIC RESOURCES, PROPERTY OWNERSHIP AND FINANCIAL SERVICES

5.B

PROMOTE EMPOWERMENT OF WOMEN THROUGH TECHNOLOGY

5.C

ADOPT AND STRENGTHEN POLICIES AND ENFORCEABLE LEGISLATION FOR GENDER EQUALITY

Goal 6

Clean Water and Sanitation

Ensure availability and sustainable management of water and sanitation for all.

I. Ensuring Safe Drinking Water

(I) Drinking Water Dispenser Management

NCUT operates a total of 152 drinking water dispensers located in public areas across the campus. To ensure effective maintenance and management, NCUT has established Regulations for the Maintenance and Management of Drinking Water Facilities, ensuring that drinking water quality meets regulatory standards and safeguards the health and safety of faculty, staff, and students.

1. Maintenance Responsibilities

General Affairs Office (Administrative Services Division):

Water storage tanks and reservoirs are cleaned at least once every six months.

Environmental Safety and Health Center:

Drinking water dispensers in public areas are maintained on a monthly basis by contracted service providers. Maintenance includes cleaning, disinfection, equipment inspection, and regular filter replacement in accordance with prescribed schedules.

2. Water Quality Testing

Drinking water dispensers in public areas undergo quarterly water quality testing (in February, May, August, and November). Testing is conducted by laboratories accredited by the Ministry of Environment to ensure compliance with drinking water safety standards.

3. Maintenance and Inspection Records

For each drinking water dispenser, maintenance and water quality inspection results are accurately documented by the responsible maintenance and management units using standardized record forms. These records are retained for a minimum of two years and are displayed adjacent to each dispenser for inspection by relevant authorities.

▲ Monthly Drinking Water Dispenser Maintenance Records

▲ Scheduled Filter Replacement (March, June, September, December)

興亞環保科技股份有限公司

飲用水水質檢測報告

▲ Water Quality Test Results: Passed

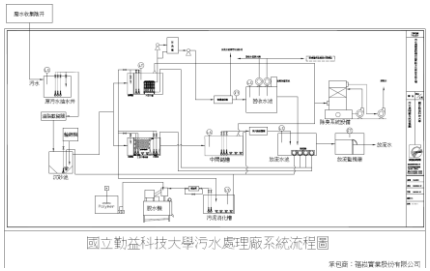
II. Integrated Water Resource Management

(I) Wastewater Management

In accordance with the Water Pollution Control Act, NCUT has established a wastewater treatment plant to collect and treat domestic wastewater and laboratory effluent generated across the campus. After proper treatment, the reclaimed water undergoes semiannual water quality testing, with all test results meeting the regulatory standards for effluent discharge.

Approximately 40% of the treated effluent is reused for irrigation of campus vegetation and as a supplementary water source for Mingxiu Lake, thereby improving water use efficiency and promoting sustainable water management.

▲ Wastewater Treatment Plant



▲ Wastewater Treatment System Flow Diagram

▲ PLC Control Panel of the Wastewater Treatment Plant

(II) Rainwater Harvesting and Reuse System

NCUT has installed rainwater harvesting and reuse systems in multiple buildings, including the Guoxiu Building, Library and Information Center, Machine Tool Institute Building, Chin-Yi Dormitory, and Yanghao Dormitory. Collected rainwater is treated and disinfected before being reused for toilet flushing, irrigation of campus trees, and as an additional water source for Mingxiu Lake.

Through these measures, NCUT enhances water conservation, reduces reliance on potable water, and advances sustainable campus water management.

▲ Rainwater Harvesting and Reuse System

6.1

SAFE AND AFFORDABLE DRINKING WATER

6.2

END OPEN DEFECATION AND PROVIDE ACCESS TO SANITATION AND HYGIENE

6.3

IMPROVE WATER QUALITY, WASTEWATER TREATMENT AND SAFE REUSE

6.4

INCREASE WATER-USE EFFICIENCY AND ENSURE FRESHWATER SUPPLIES

6.5

IMPLEMENT INTEGRATED WATER RESOURCES MANAGEMENT

6.6

PROTECT AND RESTORE WATER-RELATED ECOSYSTEMS

6.A

EXPAND WATER AND SANITATION SUPPORT TO DEVELOPING COUNTRIES

6.B

SUPPORT LOCAL ENGAGEMENT IN WATER AND SANITATION MANAGEMENT

Goal 7

Affordable and Clean Energy

Ensure access to affordable, reliable, sustainable and modern energy for all.

I. Reducing Energy Consumption

(I) Replacement of Aging Air Conditioning Systems

To improve energy efficiency and reduce electricity consumption, NCUT has implemented a comprehensive program to replace aging air conditioning equipment and enhance energy management:

Replacement of aging units:

Air conditioning units that have been in operation for more than nine years are systematically replaced with energy-efficient models.

User-pay electricity management systems:

Electricity metering and billing systems have been installed for general classrooms and student dormitories, promoting responsible energy use.

Energy monitoring system:

All window-type and split-type air conditioners across the campus have been integrated into the Energy Management System (EMS), enabling real-time monitoring of energy consumption by space.

The implementation results for replacing air conditioning equipment older than nine years over the past three years are shown in Table 22

Table 22. Replacement of Air Conditioning Equipment Older Than Nine Years

Year	Number of Units Replaced
2022	50
2023	122
2024	48

(II) Replacement of Fluorescent Lighting with LED Lighting

In the previous year (Academic Year 2024), NCUT applied for the Energy-Efficient Equipment Replacement Subsidy Program provided by the Ministry of Economic Affairs. Following an inventory of T5 fluorescent lighting fixtures in the Machine Tool Institute Building, a total budget of NTD 710,000 (including subsidies) was allocated to replace 851 fluorescent lamps with LED lighting, and the replacement has been fully completed.

The implementation results of replacing fluorescent lighting with LED lighting over the past three years are summarized in Table 23.

Table 23. Replacement of Fluorescent Lighting with LED Lighting

Year	Total Number of Fixtures	Number Replaced	Remaining Fixtures	Implementatio Rate
2023	15,449	143	1,174	92.40%
2024	15.449	851	323	97.91%
2025	15,449	323	0	100%

II. Solar Energy Systems

(I) Solar Power Generation

In 2020, solar power generation systems were installed at the Chin-Yi Dormitory and the Machine Tool Institute Building, with a total installed capacity of 423.36 kWp.

In 2024, solar power generation systems were installed at Parking Lot No. 3 (motorcycle parking area), Luming Terrace, and Yanghao Dormitory, with a total installed capacity of 923.025 kWp.

To date, the cumulative installed capacity has reached 1,346.39 kWp, and the cumulative feedback revenue has exceeded NTD 4.03 million. Statistics on solar power generation and cumulative feedback revenue are presented in Table 24.

Table 24. Solar Power Generation and Cumulative Feedback Revenue Statistics

Location	Contract Date	Installed Capacity (kWp)	Subtotal (kWp)	Feed-in Tariff	Feedback Rate (%)	Feedback Amount (NTD)
Machine Tool Building	2020.01.16	332.64	423.36	4.4896	15	2,019,412
Chin-Yi Dormitory	2020.01.16	90.72		4.7788	15	
Parking Lot No. 3 (Motorcycle Parking Area)	2024.06.14	446.4	923.025	4.2996	19.6	2,013,696
Luming Terrace	2024.06.14	192.045		4.2571	19.6	
Yanghao Dormitory	2024.06.14	284.58		4.2571	19.6	
Total	**/**	**/**	**1,346.39**	**/**	**/**	**4,033,108**

▲ Parking Lot No. 3 (Motorcycle Parking Area)

▲ Luming Terrace

▲ Machine Tool Institute Building

▲ Yanghao Dormitory

▲ Chin-Yi Dormitory

▲ Solar Panel Installation Works

III. Taiwan Energy—Sustainable Energy Creative Practice Competition

(I) Hydrogen Energy Showdown

The short film “Hydrogen Energy Showdown,” jointly produced by NCUT and Chaoyang University of Technology, won the Gold Award in NCUT Short Film Creation Category. The work conveys the future vision of hydrogen energy applications through creative visual storytelling.

Guided by the global trend toward net-zero emissions, Taiwan is accelerating its energy transition. In this context, fostering young generations’ awareness of energy issues and their capacity for innovation has become increasingly important. Through exploring the future of energy, students grow and aspire to become drivers of innovation in green technology, contributing to the development of a sustainable society.

▲ Taiwan Energy—Sustainable Energy Creative Practice Competition:Gold Award, University Short Film Creation Category

7.1

UNIVERSAL ACCESS TO MODERN ENERGY

7.2

INCREASE GLOBAL PERCENTAGE OF RENEWABLE ENERGY

7.3

DOUBLE THE IMPROVEMENT IN ENERGY EFFICIENCY
Share

7.A

PROMOTE ACCESS TO RESEARCH, TECHNOLOGY AND INVESTMENTS IN CLEAN ENERGY

7.B

EXPAND AND UPGRADE ENERGY SERVICES FOR DEVELOPING COUNTRIES

Goal 8

Decent Work and Economic Growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

I. Technology R&D and Talent Cultivation

(I) Refrigeration and Air Conditioning Technology R&D

NCUT warmly welcomed Chairman Cheng-Cheng Huang of Panasonic, who led a senior management delegation to visit the campus. Both parties engaged in in-depth discussions on refrigeration and air conditioning (RAC) technology research and development as well as talent cultivation, and further explored potential follow-up collaboration plans.

The exchange meeting focused on five key topics:

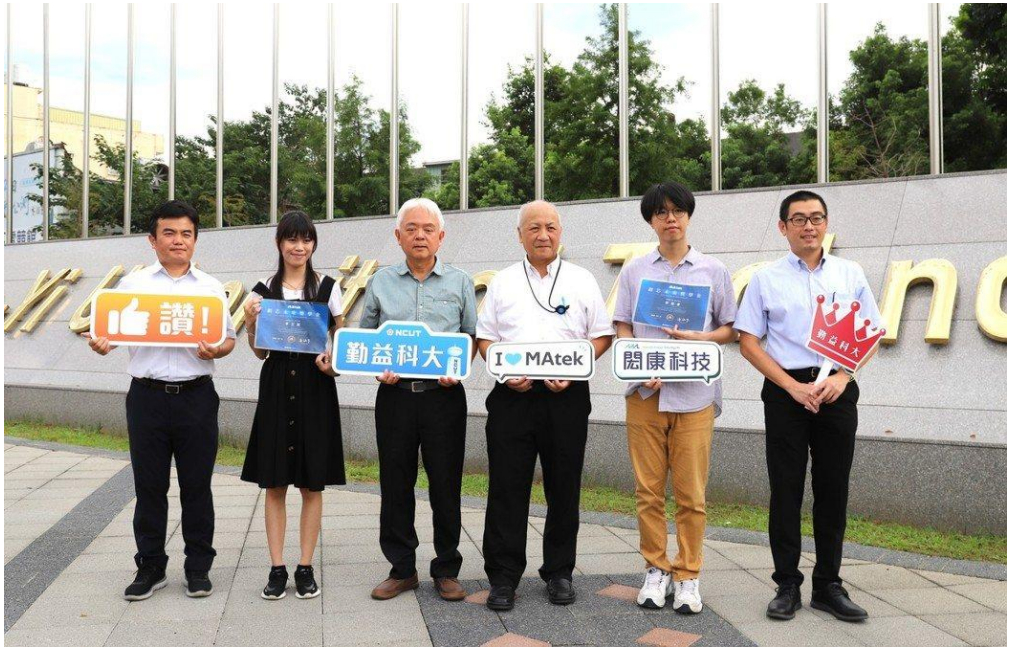
1. The establishment and technical collaboration of a Magnetic Levitation Centrifugal Chiller Research and Experimental Center;
2. Sponsorship and promotion of a national training base for refrigeration and air conditioning competitors;
3. Joint development of a Panasonic large-scale air conditioning training center;
4. Industry–academia co-teaching initiatives to jointly cultivate practice-oriented professional talent; and
5. The provision of student internship opportunities to strengthen industry linkage and enhance employability and workplace readiness.

Notably, the Panasonic Group plans to establish three internship centers across northern, central, and southern Taiwan, and has selected NCUT as the training base in central Taiwan. As NCUT is one of the few institutions nationwide offering specialized programs in refrigeration, air conditioning, and energy, its academic strengths closely align with Panasonic's talent needs in the RAC field, making it a preferred partner.

(II) Refrigeration and Air Conditioning Technology R&D

Li Chirou, a student from the Department of Electronic Engineering, and Chang Tingrui, a student from the Department of Computer Science and Information Engineering, were awarded the 2025 Materials Analysis Technology Inc “Future Core Innovation Scholarship” in recognition of their outstanding achievements in academic research and professional performance. Established by Hongsam Technology, this scholarship is granted each year to outstanding students from only five universities of science and technology nationwide, highlighting NCUT’s students’ exceptional capabilities in the fields of semiconductors and materials science.

The Materials Analysis Technology “Future Core Innovation Scholarship” aims to cultivate professional talent in semiconductors and materials science. In 2025, a total of NTD 1.5 million was allocated for the program, with recipients selected from National Taiwan University of Science and Technology, Ming Chi University of Technology, National Yunlin University of Science and Technology, National Chin-Yi University of Technology, and Minghsin University of Science and Technology. In addition to receiving a scholarship of NTD 60,000 per student, awardees are provided with diverse opportunities, including corporate visits, priority access to internships and employment opportunities, and participation in technical forums, helping them broaden their international perspectives and accumulate practical experience.



II. Promoting Education and Training

(I) Industry Expert Co-Teaching

To effectively enhance teaching quality and students' practical competencies, NCUT actively incorporates industry resources into professional practice–oriented courses. Course instructors invite industry experts with extensive practical experience to jointly participate in course planning, development of practical teaching materials, co-teaching, and student practice supervision, ensuring that course content remains aligned with current industry trends.

▲ Department of Electrical Engineering – Automatic Control Course

▲ Department of Refrigeration, Air Conditioning, and Energy – Energy-Saving Technologies and Practical Training in Refrigeration and Air Conditioning

▲ Department of Cultural and Creative Industries – Introduction to Performance and Exhibition Course

(II) Off-Campus Internships

To enhance students' practical skills, NCUT encourages academic departments to offer off-campus internship courses. Through participation in internship programs, students gain an understanding of workplace environments, acquire hands-on experience, develop industry-relevant skills, and strengthen the linkage between theory and practice, thereby enhancing their employability and workplace competitiveness.

The number of students participating in off-campus internships over the past three academic years is shown in Table 25.

Table 25. Number of Students Participating in Off-Campus Internships

Academic year	Semester 1	Winter Break Internship	Semester 2	Summer Break Internship	Total
AY 2022-2023	237	17	278	184	716
AY 2023-2024	155	0	178	151	484
AY 2024-2025	190	0	224	151	565

Each semester, NCUT regularly convenes a University-level Off-Campus Internship Committee, inviting external legal experts, representatives of internship organizations, parent representatives, student representatives, and administrators from academic and administrative units to participate. Through this mechanism, NCUT establishes a structured off-campus internship system to effectively implement the integration of learning and practice.

NCUT also organized an internship briefing session hosted by TSMC, during which company representatives visited the campus to introduce the personal attributes, professional background, and English proficiency required to enter TSMC. Through on-site interaction, students gained insights into potential challenges in internship workplaces, enabling them to better understand workplace expectations in advance and further enhance their professional competencies.

The faculty members conduct site visits to internship students to understand their practical work assignments and workplace regulations, and to provide guidance related to both learning and daily life.

(III) R&D Outcomes and Technology Transfer

To encourage innovation, enhance research quality, and effectively manage and utilize research and development outcomes, NCUT provides subsidies for faculty patent applications and facilitates technology transfer projects and industry–academia collaboration projects. The results of technology transfer and patent achievements over the past three years are presented in Table 26 and Table 27.

Table 26. Technology Transfer Outcomes Over the Past Three Years

Year	Number of Cases
2022	126
2023	162
2024	140

Table 27. Patent Achievements Over the Past Three Years

Year	Number of Approved Patents
2022	92
2023	102
2024	86

(IV) Professional Certifications

NCUT encourages students to obtain professional certifications and has established the “Guidelines for Student Certification Incentives.” Students who obtain certifications recognized in the List of Certifications Approved by Central Government Competent Authorities are eligible to receive incentive awards ranging from NTD 750 to NTD 5,000, depending on the certification level. For department-designated core professional certifications, incentive awards range from NTD 500 to NTD 1,000.

The outcomes of students obtaining professional certifications over the past three years are shown in Table 28.

Table 28. Outcomes of Professional Certifications Obtained Over the Past Three Years

Academic Year	Certification Semester	Number of Professional Certifications	Number of Core Certifications	Total Incentive Amount(NTD)
AY 2022	110-1	143	512	467,000
	110-2	134	582	520,750
AY 2023	111-1	109	487	382,000
	111-2	203	509	552,750
AY 2024	112-1	115	496	386,250
	112-2	203	556	573,750

III. Industry–Academia 2.0

(I) Industry–Academia Collaborative Program Classes

Integrating pathways for further education and employment within technical and vocational education, NCUT encourages students to participate in industry–academia collaborative program classes through incentives provided to partner enterprises. These incentives include resource support from collaborating companies, financial subsidies, and additional student scholarships and grants. Students are encouraged to progress through vertical advancement pathways from technical senior high schools to technical colleges and universities, and to work hand in hand with industry partners as formal employees.

This model establishes an educational framework that balances both “education” and “employment” for students, thereby achieving the shared goal of joint talent cultivation by enterprises and NCUT.

The implementation outcomes of the industry–academia collaborative program classes over the past three academic years are shown in Table 29.

Table 29. Implementation Outcomes of Industry–Academia Collaborative Program Classes

Academic Year	Number of Departments	Number of Classes	Enrollment Quota	Number of Graduates
AY 2022	8	11	436	183
AY 2023	10	18	780	152
AY 2024	10	17	865	216

▲ Faculty members visiting students and company supervisors at internship companies

▲ Faculty members visiting students at internship companies

▲ Tripartite coordination meeting for industry–academia collaborative program classes

(II) Industry–Academia–Training Collaborative Program Classes

By integrating resources from industry, academia, and training institutions, this program combines technical and vocational education with occupational training. In addition, students are guided to obtain the Class B Technician Certification during the second semester of their first academic year.

Program structure:

First year: Full-time daytime employment-oriented professional training at the Taichung–Changhua–Nantou Branch.

Second to fourth years: Daytime placement in industry internships, while completing university coursework during evening hours.

▲ Industry–Academia–Training Collaborative Program Classes

(III) Dual-Track Training Flagship Program Classes

The Dual-Track Training Flagship Program integrates resources from enterprises and the technical and vocational education system. Students receive theoretical instruction while gaining practical experience, thereby reducing the gap between school-based education and workplace skill requirements.

Program structure: Each week consists of two days of coursework, three to four days of enterprise internships, and one rest day, implemented through a dual-track training approach.

▲ Dual-Track Training Flagship Program Classes

IV. International Programs

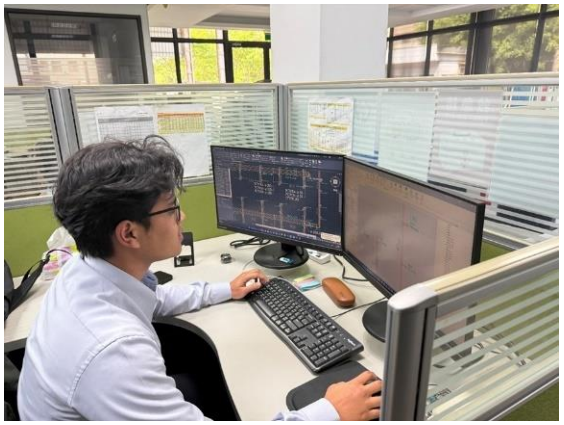
(I) Industry–Academia Collaborative International Programs

Since Academic Year 2017, NCUT has offered industry–academia collaborative international programs. In response to the talent needs of Taiwan's industrial development, NCUT has adjusted course offerings and instructional content to align with national long-term talent cultivation policies.

The implementation outcomes of the industry–academia collaborative international programs are shown in Table 30.

Table 30. Implementation Outcomes of Industry–Academia Collaborative International Programs (AY 2024)

Program Category	Program Title	Number of Classes	Number of Students	Students' Country of Origin
Four-Year Industry - Academia Collaborative International Program	Department of Electrical Engineering – International Industry–Academia Collaborative Program	1	40	Vietnam
	Department of Mechanical Engineering – International Industry–Academia Collaborative Program	1	40	Vietnam
	Department of Chemical and Materials Engineering – International Industry–Academia Collaborative Program	1	40	Vietnam
	Department of Computer Science and Information Engineering – International Industry–Academia Collaborative Program	1	40	Vietnam
Indonesian 2+i Industry - Academia Collaborative International Program	Department of Refrigeration, Air Conditioning, and Energy – Mechanical Engineering Program	1	8	Indonesia
Two-Year System - Academia Collaborative International Program	Department of Refrigeration, Air Conditioning, and Energy – Mechanical Engineering Program	1	22	Vietnam



▲ Indonesian students operating pipeline drafting software

▲ Vietnamese students operating machining equipment

▲ Vietnamese students participating in internship visits

NCUT's dragon boat team, "Chin-Yi United Nations: Dragons from All Seas and Clouds from All Directions," participated in the "Lukang Dragon Boat Festival (Lukang Qing Duan Yang)" held at the Fulu River in Changhua County and achieved seventh place in the international division. International students noted that the Dragon Boat Festival is a distinctive Taiwanese cultural tradition. In addition to eating zongzi and making fragrant sachets, experiencing dragon boat racing was particularly memorable and left them with cherished memories.

▲ International students participating in the 2025 Lukang International Dragon Boat Championships

V. Promoting Employment

(I) Campus Job Fair

To foster the formation of industrial clusters between NCUT and enterprises, attract graduates to return to their hometowns for employment, and thereby stimulate regional economic development, NCUT organizes a Campus Job Fair each academic year to support recruitment in central Taiwan and assist students with employment.

Through large-scale, university-wide job fairs and company information sessions, NCUT facilitates employment matching, including on-site recruitment, company briefings by well-known enterprises, resume consultations, and related career support activities. These initiatives help students better understand corporate characteristics at an early stage, promote interaction and exchange between industry and students, expand employment opportunities for students, and enhance their employment competitiveness.

The outcomes of the Campus Job Fair over the past three academic years are shown in Table 31.

Table 31. Outcomes of the Campus Job Fair

Academic Year	Participating Companies	Job Opportunities Provided
AY 2022	90	2,255
AY 2023	90	2,759
AY 2024	90	2,689

▲ Campus Job and Recruitment Fair

(II) 2026 TSMC Pre-Employment Program – Pre-Hire and R&D Substitute Service Recruitment Briefing

To strengthen students' linkage with industry and enhance their understanding of workplace trends, the Talent Recruitment Division of the Human Resources Operations Department of Taiwan Semiconductor Manufacturing Company (TSMC) held the "2026 TSMC Pre-Employment Program – Pre-Hire and R&D Substitute Service Recruitment Briefing" at NCUT.

The event was co-organized by the Internship and Employment Section of the Office of Research and Development. TSMC dispatched a mobile recruitment vehicle to the campus to host a technology industry briefing, introducing students to its R&D substitute service program and pre-employment system, as well as sharing information on job responsibilities, training mechanisms, and future career development pathways.

In addition, TSMC invited alumni of NCUT to participate in on-site exchanges (pre-talks), helping students gain insights into corporate culture and real workplace environments, and better prepare for future careers in the semiconductor industry.

▲ 2026 TSMC Pre-Employment Program – Pre-Hire and R&D Substitute Service Recruitment Briefing

(III) Graduate Employment Rate

In accordance with the standardized graduate destination survey questionnaire of the Ministry of Education, NCUT conducts follow-up surveys one, three, and five years after graduation to understand alumni employment status and graduate career pathways. Through these surveys, NCUT analyzes graduates' employment conditions and the extent to which their studies are applied in the workplace, assessing alignment with labor market needs.

Survey results are fed back to academic departments, which are required to complete a "Curriculum Improvement Feedback Form" as a basis for continuous improvement in teaching quality, student academic guidance, and departmental efforts to promote high-quality instruction and improve the learning environment. These measures aim to ensure that graduates cultivated by NCUT meet the needs of the employment market.

The employment rate and number of employed graduates three years after graduation are shown in Table 32.

Table 32. Employment Rate and Number of Employed Graduates Three Years After Graduation

Survey Academic Year	Three Years After Graduation (Graduation AY)	Program	Number of Graduates	Number Surveyed	Survey Rate (%)	Number Employed	Employment Rate
2022	2019	Bachelor's Program	2579	2350	91.12	2125	90.43
		Master's Program	343	341	91.55	296	94.27
2023	2020	Bachelor's Program	2550	2331	91.41	2081	89.27
		Master's Program	317	276	87.07	250	90.58
2024	2021	Bachelor's Program	2531	2199	86.88	1965	89.36
		Master's Program	349	294	84.24	275	93.54

Note: Reasons for not being employed include further study, military service or pending military service, preparation for examinations, job seeking, or other reasons.

8.1

SUSTAINABLE ECONOMIC GROWTH

8.2

DIVERSIFY, INNOVATE AND UPGRADE FOR ECONOMIC PRODUCTIVITY

8.3

PROMOTE POLICIES TO SUPPORT JOB CREATION AND GROWING ENTERPRISES

8.4

IMPROVE RESOURCE EFFICIENCY IN CONSUMPTION AND PRODUCTION

8.5

FULL EMPLOYMENT AND DECENT WORK WITH EQUAL PAY

8.6

PROMOTE YOUTH EMPLOYMENT, EDUCATION AND TRAINING

8.7

END MODERN SLAVERY, TRAFFICKING AND CHILD LABOUR

8.8

PROTECT LABOUR RIGHTS AND PROMOTE SAFE WORKING ENVIRONMENTS

8.9

PROMOTE BENEFICIAL AND SUSTAINABLE TOURISM

8.10

UNIVERSAL ACCESS TO BANKING, INSURANCE AND FINANCIAL SERVICES

8.A

INCREASE AID FOR TRADE SUPPORT

8.B

DEVELOP A GLOBAL YOUTH EMPLOYMENT STRATEGY

Goal 9

Industry, Innovation and Infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

I. Intelligent Robot Contest

(I) 2025 19th Taiwan Intelligent Robot Contest (2025TIRC)

Through competition-based activities, students are encouraged to design and build robots, which not only enhances their abilities in design implementation and innovative research and development, but also achieves educational objectives such as learning through enjoyment, active learning, and creative thinking.

At the same time, by organizing national competitions and hosting international invitational contests, the event increases opportunities for domestic and international learning, exchange, and observation. The competition adopts international competition rules and invites internationally recognized teams with outstanding past achievements, enabling research in intelligent robotics in Taiwan to actively align with international standards and developments.

▲2025 19th Taiwan Intelligent Robot Contest (2025TIRC)

II. Smart Talent Development

(I) Smart Manufacturing Talent Development and Technology R&D Base

To strengthen smart manufacturing capabilities in central Taiwan, NCUT has partnered with Siemens Digital Industries Software Taiwan Ltd., a global technology leader, and Chien-Chiang Technology Co., Ltd., to jointly establish the Smart Manufacturing Talent Development and Technology Research and Development Base.

Siemens Digital Industries Software Taiwan Ltd. is one of the most important companies advancing Germany's Industry 4.0 technologies. In this collaboration, Siemens generously donated 100 sets of advanced software, with a total value of NTD 500 million, including Simcenter simulation software and NX manufacturing software, for use by the Department of Mechanical Engineering and the Department of Intelligent Automation Engineering. These tools will serve as key resources for future teaching and research, significantly enhancing faculty and students' capabilities in multi-axis machining, engineering design, automation simulation, and digital twin technologies.

This collaboration effectively integrates NCUT's strengths in design, manufacturing, simulation, and innovative technologies, comprehensively upgrading teaching quality and strengthening students' international competitiveness in the field of smart manufacturing.

As Taiwan actively promotes industrial digitalization and smart manufacturing transformation, talent remains the critical driving force behind this transition. This donation not only reflects the company's commitment to corporate social responsibility, but also represents a long-term investment in technical and vocational education. Through continued collaboration with NCUT and Chien-Chiang Technology, the partnership aims to inject new momentum into Taiwan's industries and jointly create a more competitive future for Taiwan's industrial development.

▲ Smart Manufacturing Talent Development and Technology R&D Base

(II) Smart Innovation Grand Award

The 2025 Smart Innovation Grand Award, hosted by the Ministry of Economic Affairs, was launched for the first time to encourage schools and enterprises to promote diverse AI-driven innovative applications, create industrial value, and cultivate industry-ready talent.

In this inaugural competition, NCUT achieved outstanding results, winning one Gold Award and two Honorable Mentions.

The International Division Gold Award was earned by a team of international master's students—Chen Hong-Rong (Thad Jacob Tiong), An Ming-Wen (Aaron Benjamin Alcuitas), and Shi Shi-Hong (Vence Jumar Sasing)—under the guidance of Dr. Aaron Raymond See, a faculty member from the Philippines. Their project, "AI-driven TOUCH System – Digitizing Touch," demonstrated the application value of artificial intelligence in perceptual interaction through an innovative touch digitization system. The work received high recognition from the judging panel and was awarded the International Division Gold Award in the AI Application category, along with a prize of NTD 1 million.

In response to the trends of smart manufacturing and digital transformation, NCUT actively promotes the development of AI education through the following initiatives:

- Offering courses in artificial intelligence and big data analytics to strengthen programming competencies in Python, R, and C;
- Encouraging faculty and students to participate in industry–academia research and development, applying AI technologies to solve real-world industrial challenges;
- Establishing smart teaching environments and integrating cloud computing and digital learning systems to enhance overall teaching quality.

Looking ahead, NCUT will continue to deepen international collaboration and industry–academia linkages, expanding both the depth and breadth of AI applications and talent cultivation, with the goal of building a world-class model for technical and vocational education in Taiwan.

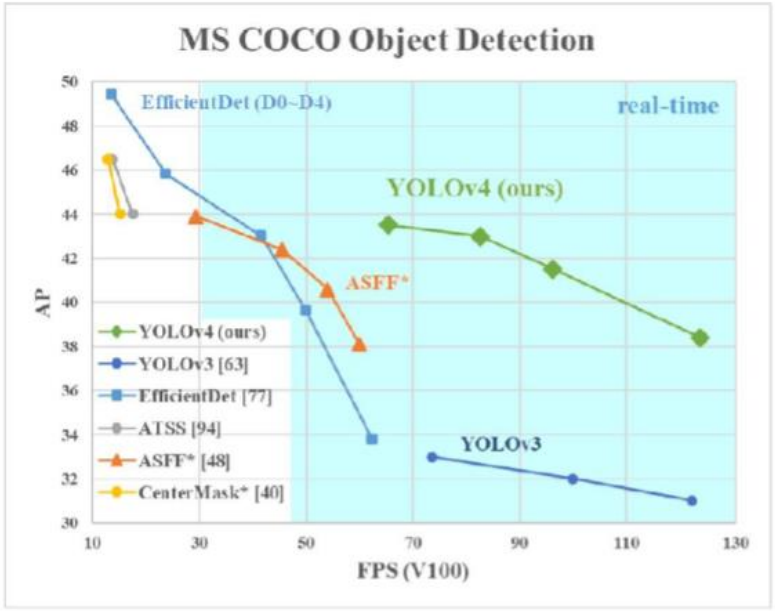
(III) Object Detection and Pet Action Recognition Models

Professor Yeh Cheng-Yu from the Department of Electrical Engineering has developed an AI technology capable of automatically identifying specific pet-related imagery. The system operates in two main stages.

In the first stage, object detection is used to determine whether pets appear in the video content. In the second stage, action recognition is applied to identify specific pet behaviors, which are then selectively saved. This process effectively automates the task of content curation for pet owners, significantly reducing the time required for repeated footage review and video editing, while also lowering the technical barrier to pet video production.

The core of this technology lies in the convolutional neural network (CNN) model. In simple terms, CNNs function similarly to the human frontal lobe by specializing in the processing of visual information, though with visual recognition capabilities far surpassing those of humans.

During development, the system primarily employed the YOLOv4 action recognition model, utilizing the Python programming language in combination with multiple datasets to construct and train the CNN model.



▲ Object Detection and Pet Action Recognition Models

III. Intelligent Living Technology Conference

(I) 2025 Intelligent Living Technology Conference (ILT 2025)

The Intelligent Living Technologies (ILT) Conference aims to enhance quality of life through the integration of intelligent living technologies, promoting high-quality digital services and sustainable development. Since its inaugural edition in 2006, the conference has entered its 19th year, serving as an important platform for academic teams to conduct research, present outcomes, and foster collaboration in the field of intelligent living technologies.

In response to emerging challenges related to future residential environments—such as home care, safety monitoring, building energy self-sufficiency, and energy conservation—the conference emphasizes the integration of technologies from electrical engineering, electronics, information science, communications, and automation. By combining technological innovation with human-centered care, the conference seeks to create living environments that are safe, healthy, convenient, and comfortable.

ILT 2025 features keynote speeches and peer-reviewed paper presentations, with accepted papers published in conference proceedings bearing an ISBN. To encourage academic excellence, a Best Paper Award is presented to outstanding contributions. Scholars and industry experts from both domestic and international communities are warmly invited to participate and engage in this academic exchange.

▲ ILT 2025 Conference on Intelligent Living Technologies

(II) The 5th Advanced Materials Manufacturing Technology Forum 2025

The 5th Advanced Materials Manufacturing Technology Forum 2025 was jointly organized by the Department of Mechanical Engineering of NCUT, the Difficult-to-Machine Materials Processing Industry–Academia Alliance, National Chung Hsing University, the Advanced Intelligent Manufacturing Technology Alliance, the Taiwan Abrasive Processing Society, Joint Creation Micro International Co., Ltd., the Chinese Society of Manufacturing Engineers (CSME), and the Taiwan Planarization Application Technology Society. The forum brought together experts and scholars from the fields of semiconductors, materials manufacturing, and advanced processing technologies.

The forum opened with welcoming remarks by Chair Professor Ming-Yi Tsai of NCUT, who also serves as President of the Taiwan Abrasive Processing Society. The morning session was moderated by Associate Dean Chih-Cheng Tsai of the College of Engineering at National Chung Hsing University and Distinguished Professor Chao-Chang Chen of the Department of Mechanical Engineering at National Taiwan University of Science and Technology. Discussions focused on applications of semiconductor grinding and cutting equipment, challenges in next-generation semiconductor material fabrication, innovations in silicon carbide (SiC) crystal growth technologies, precision machining of semiconductor materials, and the development of composite material wafers.

The afternoon session was introduced by Chair Professor Hao-Chung Kuo of National Yang Ming Chiao Tung University and Chief Strategy Officer Hsi-Hsun Yeh of Joint Creation Micro International Co., Ltd. Key topics included the evolution of advanced packaging technologies, applications of planarization processes, laser challenges in silicon photonics manufacturing, panel-level packaging (PLP) development, high-volume through-glass via (TGV) technologies, and warpage control in panel-level packaging.

The forum concluded with a roundtable discussion chaired by Chief Strategy Officer Hsi-Hsun Yeh, featuring industry representatives from Suruga Seiki (Japan), Jinghua Technology, and Tongtai Machine & Tool. The exchange of cutting-edge technological insights successfully strengthened collaboration among industry, academia, and research sectors, injecting new momentum into the development of advanced materials and manufacturing technologies in Taiwan.

▲ 2025 Advanced Materials Manufacturing Technology Forum

9.1

DEVELOP SUSTAINABLE, RESILIENT AND INCLUSIVE INFRASTRUCTURES

9.2

PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION

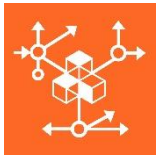
9.3

INCREASE ACCESS TO FINANCIAL SERVICES AND MARKETS

9.4

UPGRADE ALL INDUSTRIES AND INFRASTRUCTURES FOR SUSTAINABILITY

9.5



ENHANCE RESEARCH AND UPGRADE INDUSTRIAL TECHNOLOGIES

9.A

FACILITATE SUSTAINABLE INFRASTRUCTURE DEVELOPMENT FOR DEVELOPING COUNTRIES

9.B

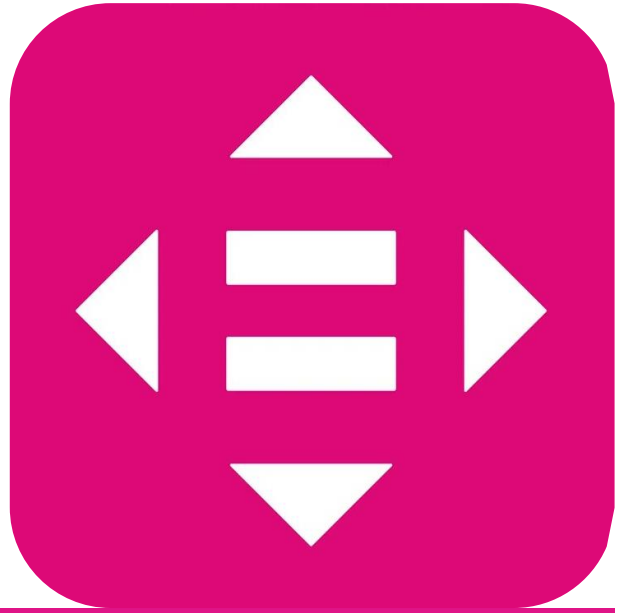
SUPPORT DOMESTIC TECHNOLOGY DEVELOPMENT AND INDUSTRIAL DIVERSIFICATION

9.C

UNIVERSAL ACCESS TO INFORMATION AND COMMUNICATIONS TECHNOLOGY

Goal 10

Reduced Inequalities



Reduce inequality within and among countries.

I. Reducing Employment Inequality

(I) On-Campus Work Opportunities for Students with Disabilities

NCUT actively encourages the enrollment of students with disabilities, including those with visual impairments, hearing impairments, cerebral palsy, autism spectrum disorders, learning disabilities, physical disabilities, and other recognized disabilities. Multiple admission pathways are provided to ensure equal access to higher education, and students with disabilities are given priority consideration for on-campus part-time employment opportunities.

Each year, NCUT allocates a fixed number of on-campus work-study positions specifically for students with disabilities. This initiative ensures that students with disabilities have access to employment opportunities on an equal basis with other students, demonstrating NCUT's commitment to employment equity and stability for students with disabilities.

The outcomes of on-campus work-study opportunities provided to students with disabilities over the past three academic years are shown in Table 33.

Table 33. On-Campus Work-Study Opportunities for Students with Disabilities

Academic Year	Number of Students with Disabilities Employed
AY 2022	19
AY 2023	19
AY 2024	17

(II) Maintaining the Employment Ratio of Employees with Disabilities

In compliance with amendments to the Act to Protect the Rights and Interests of Persons with Disabilities, NCUT actively employs persons with disabilities within the legally prescribed ratio. As a public institution, NCUT fulfills its statutory responsibility to safeguard employment opportunities for persons with disabilities.

The employment outcomes for employees with disabilities over the past three years are presented in Table 34.

Table 34. The employment outcomes for employees with disabilities over the past three years are presented

Year	Number of Employees with Disabilities	Percentage of Total Staff
2022	39	3.1%
2023	41	3.2%
2024	43	3.5%

II. Reducing the Urban–Rural Education Gap

(I) Digital Learning Companion Program

NCUT implements the Digital Learning Companion Program to reduce educational disparities between urban and rural areas. The program trains students to integrate information and communication technologies (ICT) into teaching and learning activities. Through real-time online learning companionship and academic support, the initiative enhances learning motivation and engagement among elementary and junior high school students in remote and underserved regions.

At the same time, participating students gain valuable experience in social service, educational support, and community engagement. The implementation outcomes of the Digital Learning Companion Program over the past three academic years are summarized in Table 35

Table 35. Implementation of the Ministry of Education's Digital Learning Companion Program

Academic Year	Semester	MOE-Approved Partner Schools (Elementary & Junior High)	Number of Students Supported	Number of University Student Mentors
AY 2022	2022-1	5	68	94
	2022-2	4	63	95
AY 2023	2023-1	4	63	95
	2023-2	5	70	112
AY 2024	2024-1	5	70	111
	2024-2	5	74	104

▲ Digital Learning Companion Program

(II) Bilingual Learning Companion Program

To advance the Digital Learning Enhancement Program for primary and secondary education, NCUT implements the Bilingual Learning Companion Program, which delivers scheduled, group-based online bilingual learning sessions twice a week through digital platforms and online learning systems. Various thematic topics are integrated into bilingual instruction, creating a more diverse and inclusive digital learning environment for participating students.

Through this program, a dynamic platform for cultural exchange is established, enabling students to enhance language proficiency while deepening their understanding of cultural diversity. The initiative further cultivates cross-cultural competencies and supports the achievement of the Sustainable Development Goals (SDGs).

The implementation outcomes of the Bilingual Learning Companion Program over the past three years are presented in Table 36.

Table 36. Implementation Outcomes of the Bilingual Learning Companion Program

Year	Number of Students Supported	Number of University Student Mentors
2022	150	54
2023	150	63
2024	144	59

▲ Indigenous Education Outreach Activities

▲ Exchange and Welcome Event with Guandu Elementary School, Taipei City

▲ Exchange and Welcome Events with Wenshan Elementary School and Zhenbei Elementary School, Kaohsiung City

▲ Career Development Education Activities

(III) University–School Club Partnership Program for Supporting Primary and Secondary School Club Development

Under the theme “Hand in Hand, Growing Together”, NCUT encourages student clubs to actively engage in supporting the development of clubs in primary and secondary schools. Through structured club-based activities, NCUT’s students introduce diverse learning experiences to younger pupils, helping them explore personal interests while fostering positive learning attitudes such as attentive listening, careful observation, and active thinking.

Through a wide range of club-led activities, participating children are exposed to different values and learning experiences. Program activities include dynamic exploration sessions, challenge-based tasks, creative development workshops, as well as reflective components focusing on character education, interpersonal skills, and teamwork. These carefully designed activities aim to inspire students to learn through experience and to discover interests that align with their individual strengths and passions.

▲ University–School Club Partnership Program for Supporting Primary and Secondary School Club Development

(IV) Promoting the Education Priority Areas Program

NCUT encourages students to engage in service activities in remote and underserved areas. Through student clubs, participants are guided to develop teamwork and activity-planning skills, and to organize educational and recreational programs, academic tutoring, and enrichment camps during after-school hours as well as winter and summer vacations.

The program aims to help children in rural areas experience social care and support, while gaining practical life knowledge that extends beyond textbooks. Through instructional activities, group-based recreational programs, and hands-on experiences, participating students learn the importance of peer interaction and effective communication. At the same time, these activities foster independent thinking and creativity, allowing children to explore and express their limitless imagination.

▲ Promoting the Education Priority Areas Program

III. Supporting Education for Disadvantaged Children and Advancing Social Welfare

(I) "Sing with Kiwanis, Let Love Soar II" Charity Concert

NCUT co-hosted the *"Sing with Kiwanis, Let Love Soar II" Charity Concert* in collaboration with Kiwanis International Taiwan, District B (51st Term), together with 36 affiliated chapters. The event brought together well-known singers, alumni bands, and socially responsible enterprises to raise public awareness of charitable causes through the power of music.

More than a musical performance, the concert served as a platform for compassion and hope. The funds raised were dedicated to supporting educational resources for disadvantaged children and advancing broader social welfare initiatives. In addition, a *Firefighting Public Service Vehicle Donation Ceremony* was specially arranged, ensuring that charitable contributions were translated into tangible support for communities in need.

▲ "Sing with Kiwanis, Let Love Soar II" Charity Concert

10.1

REDUCE INCOME INEQUALITIES

10.2

PROMOTE UNIVERSAL SOCIAL, ECONOMIC AND POLITICAL INCLUSION

10.3

ENSURE EQUAL OPPORTUNITIES AND END DISCRIMINATION

10.4

ADOPT FISCAL AND SOCIAL POLICIES THAT PROMOTES EQUALITY

10.5

IMPROVED REGULATION OF GLOBAL FINANCIAL MARKETS AND INSTITUTIONS

10.6

ENHANCED REPRESENTATION FOR DEVELOPING COUNTRIES IN FINANCIAL INSTITUTIONS

10.7

RESPONSIBLE AND WELL-MANAGED MIGRATION POLICIES

10.A

SPECIAL AND DIFFERENTIAL TREATMENT FOR DEVELOPING COUNTRIES

10.B

ENCOURAGE DEVELOPMENT ASSISTANCE AND INVESTMENT IN LEAST DEVELOPED COUNTRIES

10.C

REDUCE TRANSACTION COSTS FOR MIGRANT REMITTANCES

Goal 11

Sustainable Cities and Communities

Make cities and human settlements inclusive, safe, resilient and sustainable.

I. Inclusive and Accessible Public Spaces on Campus

(I) Barrier-Free Campus Environment

NCUT has implemented barrier-free ramps at building entrances and pedestrian connections to ensure accessibility for all users. In addition, green-striped pedestrian crossings have been installed on campus roads to enhance intersection visibility and improve pedestrian safety.

To further promote awareness of accessibility and inclusion, NCUT organizes campus-wide barrier-free environment awareness activities. These initiatives are conducted in collaboration with the Central Taiwan Office of the Hui Kuang Guide Dog Foundation, together with students from the Resource Classroom and counseling staff. Through experiential learning and interactive activities, students gain a deeper understanding of the daily challenges faced by persons with disabilities, learn how to support individuals with visual impairments and students with special educational needs, and contribute to the creation of a more inclusive and friendly campus environment.

▲ Campus accessibility awareness activities

▲ Barrier-free ramps and accessible parking spaces

▲ Green-striped pedestrian crossings

II. Disaster Prevention and Resilience Education

(I) Disaster Preparedness Training for Freshmen

Each September, in conjunction with freshman orientation programs, NCUT conducts disaster preparedness training for first-year students. The training includes earthquake safety techniques and hands-on fire extinguisher operation, with the aim of strengthening students' disaster awareness and emergency response capabilities.

(II) National Disaster Prevention Day – Integrated Disaster Response Drills

On September 21 each year, NCUT President personally presides over National Disaster Prevention Day activities. All faculty, staff, and students participate in a three-minute earthquake evacuation drill, practicing the internationally recognized safety procedure of "Drop, Cover, and Hold On."

In addition, building-by-building evacuation and integrated disaster response drills are conducted annually. These drills include smoke evacuation simulations, fire extinguisher operation, fire hydrant use, CPR and AED training, and disaster prevention education booths. From Academic Years 2022 to 2024, participation totaled approximately 1,050 person-times, demonstrating strong campus-wide engagement in disaster preparedness.

▲ National Disaster Prevention Day Drill (AY 2024)

(III) Disaster Preparedness Instructor and Seed Training Programs

To further enhance campus safety and emergency response readiness, NCUT organizes Disaster Preparedness Instructor and Seed Training Programs. These programs aim to equip faculty, staff, and students with correct disaster prevention concepts, evacuation procedures, and emergency response skills.

Through systematic training, participants strengthen their disaster awareness and preparedness competencies, expand campus safety capacity, and improve their ability to respond effectively during emergencies. The programs also help cultivate a knowledgeable foundation for disaster prevention education across the campus community, thereby reinforcing overall campus resilience.

▲ Disaster Preparedness Instructor and Seed Training Program (AY 2024)

III. Regional Characteristic Development Planning

(I) CHin-Chuang Innovation Hub

A former ammunition depot was renovated and repurposed into an experimental hub for innovation, creativity, and entrepreneurship, known as the Chin-Chuang Innovation Hub.

N101 Creative Workshop

This space showcases high-quality printmaking artworks. Faculty members and students interested in printmaking techniques may also seek consultation on the creative and production process.

N102 Visual Media Workshop

The workshop is being developed as a live-streaming and digital media platform. Equipped with professional photography and video recording tools, it trains students to use visual media for self-branding and marketing. The space also functions as a professional classroom for media-related courses.

N103 Design Workshop

Outfitted with professional equipment—including photography tables, heat transfer printers, UV printers, and silk-screen printing machines—this workshop enables students to produce a wide range of creative products and develop cultural and creative goods with their own distinctive styles.

N104 Marketing Workshop

This space regularly hosts cultural and artistic exhibitions and provides an evening performance stage for student musicians and performers. It also sells NCUT-branded cultural and creative products, offering meaningful gift options for faculty, staff, and visitors.

N105 Handcraft Workshop

The workshop offers themed, eight-week courses such as ceramics, packaging design, seal carving, chibi-style figurine design, and makeup artistry. It functions as a practical training base, ensuring that instruction is closely aligned with hands-on practice and real-world application.

Through the Chin-Chuang Innovation Hub, NCUT promotes experiential learning, nurtures creative talent, and strengthens the integration of campus innovation with local cultural and economic development.

▲ Creative Workshop

▲ Media Workshop

▲ Design Workshop

▲ Marketing Workshop

▲ Handcraft Workshop

(II) "Rooted Locally, Advancing Together: 2025 USR Practice Exchange Forum"

NCUT hosted the "Rooted Locally, Advancing Together: 2025 USR Practice Exchange Forum," bringing together USR (University Social Responsibility) teams from multiple universities to share achievements and practical experiences in local revitalization, industrial innovation, and social engagement. The forum provided a platform to jointly showcase and reflect on the diverse efforts and accomplishments of participating institutions across various industries and community development initiatives.

This event not only highlighted NCUT's sustained commitment and concrete outcomes in the field of University Social Responsibility, but also strengthened inter-university dialogue and collaboration, injecting new momentum into local revitalization, social innovation, and industrial upgrading through shared knowledge and collective learning.

11.1	SAFE AND AFFORDABLE HOUSING	11.6	REDUCE THE ENVIRONMENTAL IMPACT OF CITIES
11.2	AFFORDABLE AND SUSTAINABLE TRANSPORT SYSTEMS	11.7	PROVIDE ACCESS TO SAFE AND INCLUSIVE GREEN AND PUBLIC SPACES
11.3	INCLUSIVE AND SUSTAINABLE URBANIZATION	11.A	STRONG NATIONAL AND REGIONAL DEVELOPMENT PLANNING
11.4	PROTECT THE WORLD'S CULTURAL AND NATURAL HERITAGE	11.B	IMPLEMENT POLICIES FOR INCLUSION, RESOURCE EFFICIENCY AND DISASTER RISK REDUCTION
11.5	REDUCE THE ADVERSE EFFECTS OF NATURAL DISASTERS	11.C	SUPPORT LEAST DEVELOPED COUNTRIES IN SUSTAINABLE AND RESILIENT BUILDING

Goal 12

Responsible Consumption and Production

Ensure sustainable consumption and production patterns.

I. Sustainable Public Procurement

(I) Green Procurement

According to the Environmental Protection Administration's criteria for the 2025 Green Procurement Performance Assessment, institutions achieving a green procurement score of 90 points or above are rated as *Excellent*.

In 2024, NCUT achieved a score of 100 points and has been officially recognized by the Ministry of Education as an Outstanding Green Procurement Institution for 16 consecutive years (from 2009 to 2024).

NCUT's green procurement performance over the past three years is summarized in Table 37.

Table 37. Green Procurement Performance

Year	Green Procurement Score	Rating
2022	100	Excellent
2023	100	Excellent
2024	100	Excellent

(II) Procurement from Sheltered Workshops and Social Welfare Organizations

According to the Environmental Protection Administration's criteria for the 2025 Green Procurement Performance Assessment, institutions achieving a green procurement score of 90 points or above are rated as *Excellent*.

In 2024, NCUT achieved a score of 100 points and has been officially recognized by the Ministry of Education as an Outstanding Green Procurement Institution for 16 consecutive years (from 2009 to 2024).

NCUT's green procurement performance over the past three years is summarized in Table 38.

Table 38. Procurement from Sheltered Workshops

Year	Procurement Amount (NTD)
2022	1,919,224
2023	2,577,868
2024	1,455,120

II. Reducing Waste Generation

(I) Reducing the Use of Single-Use Tableware and Bottled Drinking Water

Since November 2022, NCUT has implemented a policy stipulating that no single-use meal boxes or packaged (bottled or cup) drinking water may be provided at meetings, training sessions, or events organized by all first-level administrative units.

【Implementation Measures】

》Use of Reusable Meal Containers by University Units 》 Administrative units are required to prepare reusable, washable meal containers. Meals are ordered in advance from partner vendors, and the reusable containers are delivered to the restaurant one day prior to the meeting. On the event day, units collect the meals using these containers.

》Ordering from Vendors Providing Reusable Metal Lunch Boxes 》 NCUT has established a list of catering vendors that provide reusable metal lunch boxes for selection by administrative units. Participants are encouraged to dine during meetings; if this is not possible, they are required to bring their own reusable containers.

》Catering Services 》 Meals were served in a self-service format. No disposable tableware was provided on site; instead, the vendor supplied reusable tableware.

》Snack and Bakery Orders 》 Meal options beyond boxed lunches were offered, and all food items were packaged using non-plastic materials.

▲ Reusable lunch containers used at university-level meetings

▲ Meals served in reusable containers at university-level meetings

▲ First-tier administrative units using self-provided reusable lunch containers

(II) Hazardous Industrial Waste Management

In accordance with Taiwan's Waste Disposal Act, all waste generated by enterprises and institutions—including hazardous industrial waste—must be properly stored, collected, and treated in compliance with relevant regulations.

Hazardous waste generated in laboratories is first collected by individual laboratories and then transferred to departmental waste liquid storage rooms for temporary storage. Once a sufficient volume has accumulated, the waste is handed over to government-licensed professional waste disposal contractors for transportation and treatment. All collection and disposal information is reported through the Environmental Protection Bureau's online reporting system to ensure full regulatory compliance and traceability.

A rigorous management and disposal process is implemented for hazardous industrial waste to ensure that all waste is handled safely, legally, and in strict accordance with environmental protection regulations.

▲ Hazardous industrial waste

▲ Temporary storage area for hazardous industrial waste

▲ Transportation and disposal of hazardous industrial waste

▲ Recycling bins on campus

(III) Waste Reduction and Resource Recycling

In response to national environmental protection policies, NCUT has established and implemented regulations on waste reduction and resource recycling. Through comprehensive planning and systematic management, NCUT strengthens the recycling and reuse of recyclable waste materials while actively promoting waste reduction through education and awareness campaigns. These efforts aim to support sustainable resource utilization, protect the ecological environment, and create a healthy, safe, and comfortable campus.

Resource recycling bins are installed in all academic and administrative buildings. Recyclable materials—such as paper, plastics, glass, metals (iron and aluminum), and batteries—are collected separately by category. Collected recyclables are then transported to designated recycling stations and subsequently handled by certified recycling contractors.

Through clear waste classification, designated collection points, centralized transportation, and incentive-based recycling initiatives, NCUT continues to advance waste reduction and resource recycling in pursuit of environmental sustainability.

III. Building a Digitalized Campus Environment

(I) Paperless Campus Initiative

To reduce paper consumption, NCUT has actively promoted a paperless campus environment, transitioning teaching materials, meeting documents, instructional activities, and examinations to fully digital formats. Key measures include the establishment of paperless conference rooms, the adoption of distance video conferencing for teaching and meetings, the use of digital learning platforms, and the implementation of an electronic document management system. Through these initiatives, NCUT significantly minimizes paper use while enhancing operational efficiency and environmental sustainability.

▲ Video Conferencing Room, 1st Floor, College of Machine Tools Building (VA102)

(II) Electronic Document Management System

NCUT actively advances administrative digitalization through the Electronic Document Management System, promoting paperless official correspondence and workflow optimization. This system supports network-based services, strengthened information security, intelligent electronic approvals, streamlined administrative procedures, and fully paperless document processing, thereby facilitating the comprehensive digital transformation of administrative operations across the campus.

The implementation outcomes of the electronic document system over the past three years are summarized in Table 39.

Table 39. Implementation Performance of the Electronic Document Management System

Year	Total Documents Received	Percentage of Electronic Incoming Documents (%)	Percentage of Electronic Outgoing Documents (%)	Percentage of Documents Approved via Online Workflow (%)
2023	22,032	18,523	84.07%	2,787
2024	22,595	19,314	85.48%	2,975
Jan–Jul 2025	13,107	11,558	88.18%	1,950

12.1

IMPLEMENT THE 10-YEAR SUSTAINABLE CONSUMPTION AND PRODUCTION FRAMEWORK

12.2

SUSTAINABLE MANAGEMENT AND USE OF NATURAL RESOURCES

12.3

HALVE GLOBAL PER CAPITA FOOD WASTE

12.4

RESPONSIBLE MANAGEMENT OF CHEMICALS AND WASTE

12.5

SUBSTANTIALLY REDUCE WASTE GENERATION

12.6

ENCOURAGE COMPANIES TO ADOPT SUSTAINABLE PRACTICES AND SUSTAINABILITY REPORTING

12.7

PROMOTE SUSTAINABLE PUBLIC PROCUREMENT PRACTICES

12.8

PROMOTE UNIVERSAL UNDERSTANDING OF SUSTAINABLE LIFESTYLES

12.A

SUPPORT DEVELOPING COUNTRIES' SCIENTIFIC AND TECHNOLOGICAL CAPACITY FOR SUSTAINABLE CONSUMPTION AND PRODUCTION

12.B

DEVELOP AND IMPLEMENT TOOLS TO MONITOR SUSTAINABLE TOURISM

12.C

REMOVE MARKET DISTORTIONS THAT ENCOURAGE WASTEFUL CONSUMPTION

Goal 13

Climate Action

Take urgent action to combat climate change and its impacts.

I. Earth Restoration Actions

(I) Arbor Day

Taiwan's Arbor Day is observed annually on March 12. NCUT organized tree-planting activities on campus, guiding young children to plant saplings while learning about the environmental benefits of trees. Through this experience, children are encouraged to grow strong and resilient, just like the newly planted trees.

By engaging in hands-on tree planting, the activity conveys the dual concepts of coexistence and mutual sustainability between humanity and nature. Moreover, through the practical theme of "Lowering the Earth's Temperature by X°C," the initiative instills environmental awareness from an early age, emphasizing energy conservation, carbon reduction, and a shared responsibility to protect the planet.

▲Arbor Day

(II) April 22 Gaia Day – "Lowering the Earth's Temperature by X°C"

In response to the United Nations Sustainable Development Goal (SDG) 13: Climate Action, and in celebration of the 55th anniversary of Earth Day, NCUT's Center for Energy and Environmental Technology collaborated with the Taiwan Energy and Environment Development Association, the Taichung City Government, and Whips Technology Co., Ltd. to host the 5th World Gaia Day – "Lowering the Earth's Temperature by X°C" series of events on April 22 at the Heart Valley Sustainable Education Park in Taichung.

The event was structured around three major themes: Technology-Driven Tree Planting Innovation Awards, Art for Public Good, and Carbon Reduction Action Pledges. It attracted nearly one thousand participants from industry, academia, and the general public, collectively contributing diverse momentum toward climate mitigation and the shared goal of cooling the planet.

▲The 5th World Gaia Day – "Lowering the Earth's Temperature by X°C"

(III) "Have You Planted a Tree Today?" Green Jiquan Zero-Carbon Tourism Initiative

Green Hope Spring Social Enterprise, which has been promoting the "Plant Trees to Restore the Earth" initiative in Taiwan for nearly a decade, has partnered with the Hualien County Government to develop an innovative low-carbon tourism model that integrates ecological restoration and climate action.

Under this zero-carbon tourism framework, each participating visitor plants a high-economic-value native tree in the local area as part of the travel experience. Visitors then photograph the tree and upload its geolocation to a tree-tracking system, enabling long-term monitoring and public transparency. Any remaining carbon emissions generated during the trip are subsequently offset through the purchase of internationally certified carbon credits (Gold Standard, GS).

This model ensures that each journey places no net burden on the environment, while actively encouraging public participation in multiple United Nations Sustainable Development Goals, including Climate Action (SDG 13), Life on Land (SDG 15), and Responsible Consumption and Production (SDG 12).

The initiative has recently gained strong support from Taiwan's tourism sector and successfully attracted its first group of international corporate employees. The Yunus Social Business Centre at NCUT became one of the first universities in Taiwan to respond, providing tree-planting sites as part of its commitment as an international green university.

NCUT's hillside planting area, covering approximately two hectares, holds historical significance as a key site during NCUT's transition to national status. The land is maintained through manual, chemical-free weed management, reinforcing environmentally responsible land stewardship.

Tree saplings cultivated and planted in 2019, originally measuring around 15 centimeters, have now grown to heights ranging from 2 to over 5 meters, each developing unique forms and vitality. Planting trees here represents a meaningful investment in the future and once again demonstrates the remarkable effectiveness of Green Hope Spring Social Enterprise natural tree-planting methodology.

▲ Have You Planted a Tree Today?

13.1

STRENGTHEN RESILIENCE AND ADAPTIVE CAPACITY TO CLIMATE RELATED DISASTERS

13.2

INTEGRATE CLIMATE CHANGE MEASURES INTO POLICIES AND PLANNING

13.3

BUILD KNOWLEDGE AND CAPACITY TO MEET CLIMATE CHANGE

13.A

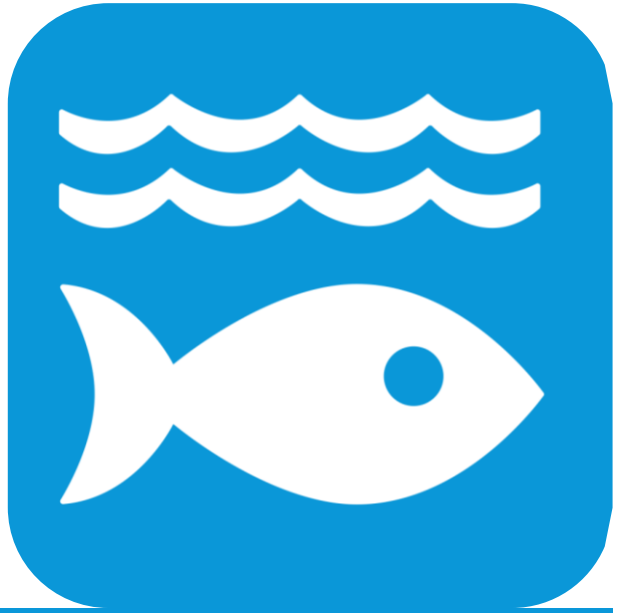
IMPLEMENT THE UN FRAMEWORK CONVENTION ON CLIMATE CHANGE

13.B

PROMOTE MECHANISMS TO RAISE CAPACITY FOR PLANNING AND MANAGEMENT

Goal 14

Life Below Water



Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

I. Ocean Conservation

(I) "Plastic-Free Living" Coastal Cleanup Campaign

NCUT's International Volunteer Service Team organized a public beach cleanup activity at Songbai Port, taking concrete action to protect the surrounding marine environment. Through hands-on participation, the activity encouraged discussion on environmental protection issues and demonstrated how collective efforts can contribute to safeguarding the planet.

The campaign also called attention to the ecological sustainability of Taiwan's coastal areas and promoted the core values of "planetary sustainability and environmental protection as a priority."

▲ Coastal Cleanup Activity at Songbai Port

Beach cleanups are not the final solution to stopping marine pollution. Through active participation in coastal cleanup efforts, NCUT contributes to the protection of the marine environment while also raising public awareness of ocean pollution issues. The initiative calls on more people to take collective action to preserve clean coastlines and protect the natural beauty of beaches for future generations.

▲ Coastal Cleanup Activity at Yuguang Island, Tainan

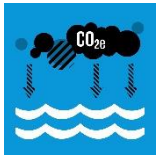
14.1

REDUCE MARINE POLLUTION

14.2

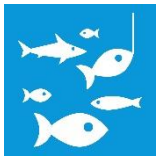
PROTECT AND RESTORE ECOSYSTEMS

14.3



REDUCE OCEAN ACIDIFICATION

14.4



SUSTAINABLE FISHING

14.5

CONSERVE COASTAL AND MARINE AREAS

14.6

END SUBSIDIES CONTRIBUTING TO OVERFISHING

14.7

INCREASE THE ECONOMIC BENEFITS FROM SUSTAINABLE USE OF MARINE RESOURCES

14.A

INCREASE SCIENTIFIC KNOWLEDGE, RESEARCH AND TECHNOLOGY FOR OCEAN HEALTH

14.B

SUPPORT SMALL SCALE FISHERS

14.C

IMPLEMENT AND ENFORCE INTERNATIONAL SEA LAW

Goal 15

Life On Land

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

I. Plant Aesthetics Education

(I) Lectire on Tree Pruning Methods According to EU Standards

The Department of Landscape Architecture at NCUT organized a Lectire on Tree Pruning Methods According to EU Standards, inviting Mr. Michal Zelenak, President of the European Arboricultural Council (EAC), along with six internationally renowned senior arborists from Italy, Norway, Slovakia, and other European countries. The seminar focused on sharing the latest EU tree-pruning standards and their practical applications.

The first session, titled “Lectire on Tree Pruning Methods According to EU Standards” emphasized pruning principles that respect natural growth patterns and the physiological characteristics of trees.

The second session explored “The Application of EU Pruning Standards in Ecology, Aesthetics, and Safety,” highlighting best practices for balancing urban landscape design with public safety requirements across diverse environments.

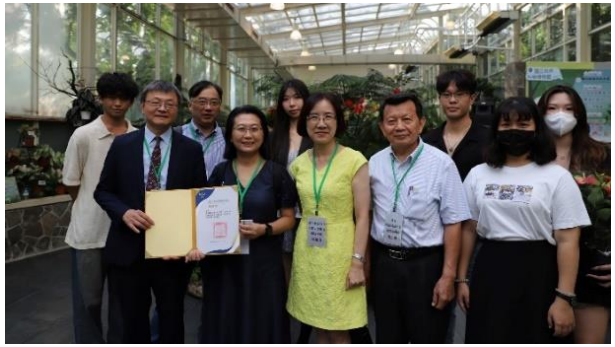
In response to increasing challenges posed by extreme climate conditions and growing demands for urban greening, scientifically grounded and proper tree-pruning techniques have become essential to maintaining healthy green spaces and ensuring public safety. NCUT will continue to align with the United Nations Sustainable Development Goals (SDGs) and remain committed to promoting a sustainable campus environment.

▲ Lectire on Tree Pruning Methods According to EU Standards

(II) Whispers of the Crimson Spirits — Anthurium Exhibition

The National Museum of Natural Science collaborated with the Department of Landscape Architecture of NCUT to present *"Whispers of the Crimson Spirits: Anthurium Exhibition."* The exhibition combines vibrant colors with natural materials to create an immersive atmosphere reminiscent of forest spirits softly whispering, inviting visitors into a dreamlike summer landscape interwoven with the symbolic language of flowers.

The exhibition space was designed and curated by a faculty–student team, in close collaboration with the botanical garden staff. Through joint planning and on-site installation, the project provided students with a professional, practice-oriented learning platform to showcase their academic outcomes. The exhibition highlights the value of cross-disciplinary collaboration in advancing horticultural aesthetics and science-based environmental education.



▲ *Whispers of the Crimson Spirits* — Anthurium Exhibition

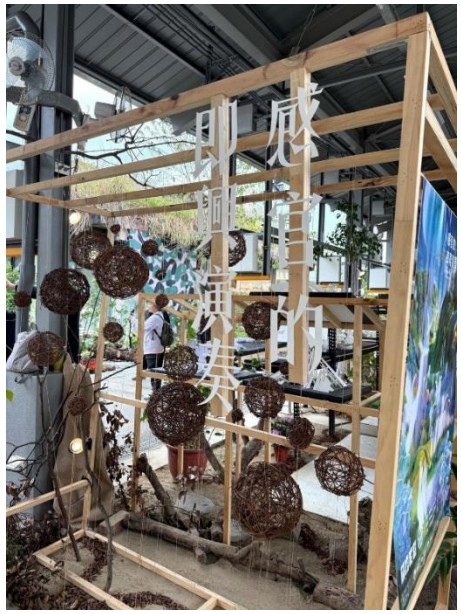
(III) Plant Party — Landscape Architecture Student Exhibition

The Department of Landscape Architecture organized a student exhibition themed *"Plant Party,"* jointly presented by first- to third-year undergraduate students and first-year continuing education students. Using plants as the primary medium, the exhibition transformed the venue into a vibrant, party-like space filled with energy and creativity.

The exhibition showcased students' solid professional competencies in foundational design, garden planning, and environmental analysis, while also reflecting their passion for plants and nature, as well as their imaginative visions for the future of landscape design. Attending guests expressed strong appreciation for the students' creativity and professional capabilities, highlighting the vital role of landscape architecture in enhancing urban environments and improving quality of life.

A major highlight of the exhibition was the newly established Level B Landscaping Technician Skills Certification Examination Site. As the most comprehensively equipped examination venue of its kind in Taiwan, it marks a significant milestone for the region. Previously, candidates were required to travel to Yilan to take the certification exam; with the opening of this facility, NCUT now serves as a key certification hub for landscaping and horticultural skills in western Taiwan.

This year's exhibition also incorporated hands-on tasks aligned with Level C and Level B Landscaping Technician certification standards, allowing students to strengthen practical skills while preparing for future professional certification. NCUT will continue to enhance teaching resources and deepen industry collaboration, cultivating highly skilled landscape architecture professionals and advancing landscape aesthetics alongside environmental sustainability.



▲ "Plant Party" — Department of Landscape Architecture Student Exhibition

II. Biodiversity and Ecological Diversity on Campus

(I) Diverse Plant Species on Campus

NCUT has designated approximately 6 hectares of ecological conservation areas within the campus. These areas are home to more than 1,800 plant specimens, representing a high level of botanical diversity. The rich plant ecosystem provides suitable habitats for a wide range of species, including insects, mammals, and birds, thereby supporting a balanced and resilient campus ecosystem.

▲ Campus Plant Diversity Series

(II) Mingxiu Lake Ecological Pond

Mingxiu Lake is a multifunctional detention and ecological pond with a surface area of approximately 5,000 square meters. The lake is designed to enhance flood mitigation while serving as a recreational and educational space. Surrounding the lake is a 340-meter circular walking trail, and a 36-square-meter waterside platform is located at the center of the lake to encourage close interaction with the aquatic environment.

The lake and its surroundings support a diverse range of aquatic and terrestrial flora and fauna. Various aquatic plants grow within and along the lake, while flowering plants and grasses line the walking trail. In addition to multiple fish species, wildlife such as turtles, little grebes, and egrets are frequently observed, making Mingxiu Lake one of the most ecologically rich areas on campus.

▲ Mingxiu Lake

15.1

CONSERVE AND RESTORE TERRESTRIAL AND FRESHWATER ECOSYSTEMS

15.2

END DEFORESTATION AND RESTORE DEGRADED FORESTS

15.3

END DESERTIFICATION AND RESTORE DEGRADED LAND

15.4

ENSURE CONSERVATION OF MOUNTAIN ECOSYSTEMS

15.5

PROTECT BIODIVERSITY AND NATURAL HABITATS

15.6

PROMOTE ACCESS TO GENETIC RESOURCES AND FAIR SHARING OF THE BENEFITS

15.7

ELIMINATE POACHING AND TRAFFICKING OF PROTECTED SPECIES

15.8

PREVENT INVASIVE ALIEN SPECIES ON LAND AND IN WATER ECOSYSTEMS

15.9

INTEGRATE ECOSYSTEM AND BIODIVERSITY IN GOVERNMENTAL PLANNING

15.A

INCREASE FINANCIAL RESOURCES TO CONSERVE AND SUSTAINABLY USE ECOSYSTEM AND BIODIVERSITY

15.B

FINANCE AND INCENTIVIZE SUSTAINABLE FOREST MANAGEMENT

15.C

COMBAT GLOBAL POACHING AND TRAFFICKING

Goal 16

Peace, Justice and Strong Institutions

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

I. Transparent University Governance

(I) Participation of Faculty, Staff, and Students in University Governance and Administrative Meetings

In accordance with NCUT Act, NCUT has established a comprehensive governance structure that includes NCUT Council, Administrative Council, Academic Affairs Council, Student Affairs Council, College Councils, Department/Graduate Program Councils, Faculty Evaluation Committee, Faculty Grievance Review Committee, Student Grievance Review Committee, University Development Committee, Gender Equity Education Committee, General Education Advisory Committee, and University Endowment Fund Management Committee.

All major administrative and academic decisions are implemented based on resolutions adopted by these bodies, and meeting minutes are publicly available online to ensure transparency. NCUT places strong emphasis on the active participation of faculty members, staff, and students in key decision-making processes. Representatives from all three groups are entitled to attend meetings and exercise rights of proposal and voting, fostering open, fair, and transparent deliberation while continuously enhancing institutional development.

(II) Faculty–Student University Affairs Forums

NCUT regularly convenes faculty–student forums, along with meetings of the Student Rewards and Disciplinary Committee, Teaching Feedback Review Panels, and Student Dormitory Management Committees. These platforms facilitate dialogue, feedback, and shared problem-solving between faculty, staff, and students.

Participation statistics for faculty–student forums over the past three academic years are summarized in Table 40.

▲ Faculty–Student University Affairs Forum (Day Program)

▲ Faculty–Student University Affairs Forum (Continuing Education Program)

Table 40. Participation in Faculty–Student University Affairs Forums

Academic Year	Semester	Day Program Participants	Continuing Education Program Participants
AY 2022-2023	111-1	237	104
	111-2	234	82
AY 2023-2024	112-1	234	70
	112-2	202	65
AY 2024-2025	113-1	218	103
	113-2	194	81

II. Fairness, Justice, and the Promotion of the Rule of Law

(I) Student Grievance Review Committee

NCUT has established the *Student Grievance Regulations of National Chin-Yi University of Technology* to safeguard students', the student union's, and other student self-governing organizations' rights related to learning, campus life, and education, while fostering campus harmony. Students may submit grievances through fair, transparent, and lawful procedures. Statistics on cases handled are shown in Table 41

Table 41. Statistics of Cases Handled by the Student Grievance Review Committee

Academic Year	Semester	Grievance Cases Accepted	Grievance-Related Meetings Convened
AY 2024-2025	2024-1	1	2
	2024-2	4	5

(II) Faculty Grievance Review Committee

NCUT has promulgated the *Organization and Review Guidelines for the Faculty Grievance Review Committee of National Chin-Yi University of Technology* to protect faculty rights and promote campus harmony. Faculty members who consider measures taken by NCUT to be unlawful or inappropriate and detrimental to their rights may file a grievance. Case statistics are provided in Table 42

Table 42. Statistics of Cases Handled by the Faculty Grievance Review Committee

Academic Year	Semester	Grievance Cases Accepted	Grievance-Related Meetings Convened
AY 2024-2025	2024-1	1	Faculty Grievance Review Committee
	2024-2	1	Faculty Grievance Review Committee

(III) Legal Consultation Services

NCUT appoints two professional legal advisors to provide legal consultation services for faculty, staff, and students, supporting university operations and strengthening legal awareness and campus harmony. The list of legal advisors is shown in Table 43.

Table 43. Legal Advisors Appointed by the University

Name	Contact Number	Address
Attorney Jin-Cheng Kao	04-22601657	No. 52, Ln. 154, Xinhe St., South District, Taichung City 402
Attorney Chih-Yang Ho	04-22632433	No. 158, Hechang St., South District, Taichung City 402

16.1

REDUCE VIOLENCE EVERYWHERE

16.2

PROTECT CHILDREN FROM ABUSE, EXPLOITATION, TRAFFICKING AND VIOLENCE

16.3

PROMOTE THE RULE OF LAW AND ENSURE EQUAL ACCESS TO JUSTICE

16.4

COMBAT ORGANIZED CRIME AND ILLICIT FINANCIAL AND ARMS FLOWS

16.5

SUBSTANTIALLY REDUCE CORRUPTION AND BRIBERY

16.6

DEVELOP EFFECTIVE, ACCOUNTABLE AND TRANSPARENT INSTITUTIONS

16.7

ENSURE RESPONSIVE, INCLUSIVE AND REPRESENTATIVE DECISION-MAKING

16.8

STRENGTHEN THE PARTICIPATION IN GLOBAL GOVERNANCE

16.9

PROVIDE UNIVERSAL LEGAL IDENTITY

16.10

ENSURE PUBLIC ACCESS TO INFORMATION AND PROTECT FUNDAMENTAL FREEDOMS

16.A

STRENGTHEN NATIONAL INSTITUTIONS TO PREVENT VIOLENCE AND COMBAT TERRORISM AND CRIME

16.B

PROMOTE AND ENFORCE NON-DISCRIMINATORY LAWS AND POLICIES

Goal 17

Partnership for the Goals

Strengthen the means of implementation and revitalize the global partnership for sustainable development.

I. Global Partnerships

(I) World's Top 2% Scientists

Several faculty members of NCUT have been listed in the *World's Top 2% Scientists* and the *Career-Long Scientific Impact Rankings*, demonstrating that NCUT's research achievements and cumulative scholarly contributions have received international recognition.

(II) Taiwan–Germany University of Applied Sciences Alliance

The *TAItech–HAWtech Alliance* (Taiwan–Germany University of Applied Sciences Alliance), facilitated by the Ministry of Education, has achieved further milestones. A delegation led by President Christof T. Wolfmaier and Senior Advisor Julia Feldman from Esslingen University of Applied Sciences, Germany, visited NCUT. The delegation was received by Vice President Prof. Kuei-Hsiang Chao, with the participation of Prof. Mei-Ling Huang, Dean of Research and Development, and Prof. Chih-Chia Hu, Director of International Affairs.

During the visit, President Wolfmaier expressed strong interest in NCUT's achievements in artificial intelligence, semiconductor manufacturing, refrigeration and air-conditioning training, and hydrogen fuel cell technologies, and looked forward to exploring expanded opportunities for future collaboration.

(III) Memorandum of Understanding with SINKO Industries Ltd., a Leading Japanese HVAC Manufacturer, on Student Internship Collaboration

NCUT has signed a Memorandum of Understanding (MOU) with SINKO Industries Ltd., a leading refrigeration and air-conditioning manufacturer in Japan, to establish a student internship collaboration. Under this partnership, both parties will jointly promote Japan-based internship programs that integrate academic learning with hands-on practice, cultivating HVAC professionals with strong technical expertise and an international outlook.

According to the MOU, SINKO Industries will offer annual internship placements in Japan for NCUT students and provide stipends, accommodation, and related benefits in accordance with company regulations. The two parties will also co-develop internship curricula and outcome evaluation mechanisms, thereby establishing a comprehensive and sustainable international internship framework.

This collaboration enables students to further enhance their professional competencies while strengthening awareness of energy efficiency, carbon reduction, and environmental protection in response to global net-zero challenges. Looking ahead, SINKO Industries and NCUT will continue to deepen industry–academia linkages to jointly cultivate HVAC professionals who balance advanced technical skills with environmental sustainability, contributing to industrial upgrading and global sustainable development.

(IV) Memorandum of Understanding with the University of Hyogo, Japan, to Advance the Internationalization of Landscape Education

The Department of Landscape Architecture of NCUT has formally signed a Memorandum of Understanding (MOU) with the Awaji Landscape Planning and Horticulture Academy of the University of Hyogo. Through this partnership, both institutions will jointly promote cross-border education and research exchange in the field of landscape architecture, with the aim of cultivating professionals equipped with international perspectives and strong practical competencies.

The signing of this MOU enables the introduction of Japan's advanced landscape technologies and educational expertise, while also fostering close collaboration between faculty members and students through joint research and teaching practices. This collaboration is expected to inject new momentum into landscape education in Taiwan and further strengthen international academic exchange and professional training.

▲ The Department of Landscape Architecture signs an Academic Cooperation MOU with the Awaji Landscape Planning and Horticulture Academy, University of Hyogo, Japan

(V) Suwa University of Science, Japan: Launch of a Taiwan–Japan Industry–Academia Collaborative Practice Program

NCUT has long cultivated strong linkages with the central Taiwan industrial ecosystem and has maintained close collaboration with industry partners to advance projects in smart manufacturing and precision machining, nurturing a large number of highly skilled professionals. In parallel, the University has sustained long-term academic exchange with the Suwa University of Science, including student exchanges and joint research initiatives. Building on these solid foundations, the two sides jointly launched a meaningful International Industry–Academia Collaborative Practice Program.

The three-day program was held at an industrial production facility and brought together 32 students (including five from Japan) and four faculty members from the Department of Intelligent Automation Engineering. Distinct from conventional laboratory-based coursework, participating students were required to work in a real factory environment to design and implement an operational flexible automation production line. Project tasks covered the full industrial workflow, including gripper design, production line layout, PLC control, electrical wiring and installation, robotic system integration, and robot teaching and commissioning. Through hands-on engagement in authentic industrial settings, the program significantly strengthened students' practical competencies and deepened Taiwan–Japan collaboration in applied engineering education.

(VI) Strengthening Smart Manufacturing and Educational Collaboration with Leading Universities in the Philippines

NCUT welcomed delegations from two leading Philippine institutions—De La Salle University–Manila and University of Southeastern Philippines—for in-depth exchanges on higher education and smart technologies.

As one of the Philippines' top research-intensive universities, De La Salle University–Manila focused its visit on Taiwan's central-region smart manufacturing ecosystem. The delegation conducted site visits to key enterprises and innovation hubs, gaining first-hand insights into core technologies such as ball screws, linear guideways, industrial robots, machine tools, and CNC controllers, and experiencing the high quality and innovative capacity of Taiwan's precision manufacturing sector.

The delegation from the University of Southeastern Philippines, composed of faculty members and students from the Graduate Institute of Mathematics Education, aimed to integrate theoretical knowledge with international practice by observing how mathematics education is implemented and developed across different cultural and educational systems. The program also featured forums and short talks centered on mathematics and STEM education, providing an important platform for exchanging pedagogical perspectives and discussing emerging educational trends.

The delegation from the University of Southeastern Philippines, comprising faculty members and students from the Graduate Institute of Mathematics Education, aimed to integrate theoretical knowledge with international practice by examining the implementation and development of mathematics education across different cultural and educational systems. The program also included forums and short talks focused on mathematics and STEM education, serving as an important platform for the exchange of pedagogical approaches and discussions on emerging educational trends.

(VII) Study Guidance Counselors Delegation from Vietnam, Cambodia, the Philippines, and Malaysia Visiting Taiwan

To enhance the visibility of Taiwan's technical and vocational education in Southeast Asia and to deepen local study guidance counselors' understanding of Taiwan's overseas Chinese student admission policies and educational strengths, the Overseas Community Affairs Council organized the *2025 Delegation of Study Guidance Counselors from Vietnam, Cambodia, the Philippines, and Malaysia to Taiwan*.

During the exchange sessions, both sides engaged in in-depth discussions on international student recruitment strategies, diversified student development models, and the sharing of educational resources. Concrete recommendations were also proposed on strengthening long-term partnerships between Southeast Asian study guidance institutions and Taiwan's technical and vocational universities.

The on-site visit by overseas study guidance partners provided a valuable opportunity for NCUT to showcase the core strengths of its technical and vocational education. It also laid a solid foundation for future collaboration in promoting New Southbound Policy recruitment initiatives and cultivating internationally oriented talent.

Guided by its vision of becoming an *International High-Quality Industry-Oriented University*, NCUT continues to actively expand its cooperation networks with educational institutions and industries across Southeast Asia. Through such exchange visits, NCUT aims to further strengthen international student recruitment momentum and nurture a new generation of technical professionals with a global perspective.

II. International Conferences

(I) 2025 International Symposium on Computer, Consumer and Control (IS3C 2025)

The IS3C International Symposium was jointly organized by IEEE and NCUT's Institute of Advanced Electrical and Information Technologies. Serving as a key international platform for showcasing Taiwan's strengths in smart technologies, IS3C 2025 was held at the Library and Information Building of NCUT.

Delegations from Nakhon Pathom Rajabhat University (NPRU/DSNPRU) and the Council of Deans for IT Education (CODITE), Philippines, participated in the symposium for technical exchange and discussions on inter-university collaboration. The conference also featured research and poster exhibition areas covering fields such as the Internet of Things (IoT), artificial intelligence, intelligent control, and energy technologies, highlighting Taiwan's R&D capabilities in smart applications.

The symposium invited renowned German robotics expert Hansjoerg Baltes as the opening keynote speaker. He shared cutting-edge developments in "intelligent robotic athletes," presenting his breakthrough research and practical experience from international humanoid robot competitions. In addition, Min-Chun Hu, Professor at National Tsing Hua University, delivered a keynote titled "New Scenarios for Sports Training Integrating Sensors, AI, and Virtual Reality," demonstrating the potential of smart sports technologies in training, health, and everyday applications.

Looking ahead, NCUT will continue to leverage the IS3C platform in collaboration with IEEE and partners from academia, industry, and research institutes to deepen educational exchange (SDG 4), promote smart innovation (SDG 9), and strengthen partnerships (SDG 17). Through these efforts, the University aims to expand international collaboration networks and enhance Taiwan's global contribution and social impact in the field of smart technologies.

▲2025 International Symposium on Computer, Consumer and Control (IS3C 2025)

(II) 2025 GETA Conference On Green Technology Engineering Application

In response to growing energy scarcity and the challenges of global climate change in the 21st century, NCUT hosted the 2025 GTEA Conference on Green Technology Engineering and Applications. Centered on *green technology*, the conference integrated engineering applications with industrial practice to explore solutions that balance economic development and environmental sustainability.

The conference brought together experts and scholars from Taiwan and abroad and attracted wide participation from industry, academia, and government agencies, demonstrating NCUT's strong R&D capacity in green technologies and its firm commitment to advancing sustainable development.

Keynote speakers included Petr Sittner, Professor at the Institute of Physics of the Czech Academy of Sciences, who presented his research on *fatigue deformation mechanisms in shape memory alloys*. Another keynote was delivered by Wen-Cheng Tsai, General Manager of the Hydrogen Energy Application Business Division at Delta Electronics, who discussed development trends in Taiwan's hydrogen energy industry. Both keynote sessions offered forward-looking international perspectives and strong practical relevance to industry.

As green technology has become a critical pillar of global sustainability, the conference aimed to foster industry–academia exchange, stimulate innovative thinking, and collectively move toward a greener future—advancing environmental responsibility in parallel with technological progress.

▲2025 GETA Conference On Green Technology Engineering Application

III. International Invention Exhibitions

(I) 2025 International Exhibition of Ideas, Inventions and New Products (iENA 2025), Nuremberg, Germany

The 77th International Exhibition of Ideas, Inventions and New Products (iENA 2025) attracted more than 540 inventions from over 30 countries. According to the Taiwan delegation's official release, Taiwan presented 29 inventions and won a total of 26 awards—12 Gold, 7 Silver, 7 Bronze, and a German Special Award—demonstrating the nation's strong innovation and R&D capabilities.

Faculty–student teams from NCUT achieved outstanding results, receiving two Gold Medals, two Silver Medals, one Bronze Medal, and one Special Award. The award-winning projects are listed in Table 44.

Table 44. NCUT Awards at iENA 2025

Award	Title
Gold Medal + Special Award	Precision Sensing System for Feed Platforms
Gold Medal	Remote-Control Rapid Cooling System for Rail Carriages
Silver Medal	Fingertip Training Device and Training Method
Silver Medal	Multi-Output Buck Converter
Bronze Medal	Thermoplastic Composite Materials with Biomass Flame Retardants

The Gold Medal and Special Award–winning invention, Precision Sensing System for Feed Platforms, was developed by Prof. Shao-Hsien Chen (Department of Mechanical Engineering). By integrating multiple sensors with intelligent algorithms, the system enables real-time measurement and prediction of frictional variations, significantly enhancing precision performance.

The Gold Medal–winning Remote-Control Rapid Cooling System for Rail Carriages, developed by Prof. Kuo-Yi Li (Department of Industrial Engineering and Management), effectively improves carriage temperature management while achieving energy efficiency and enhanced safety.

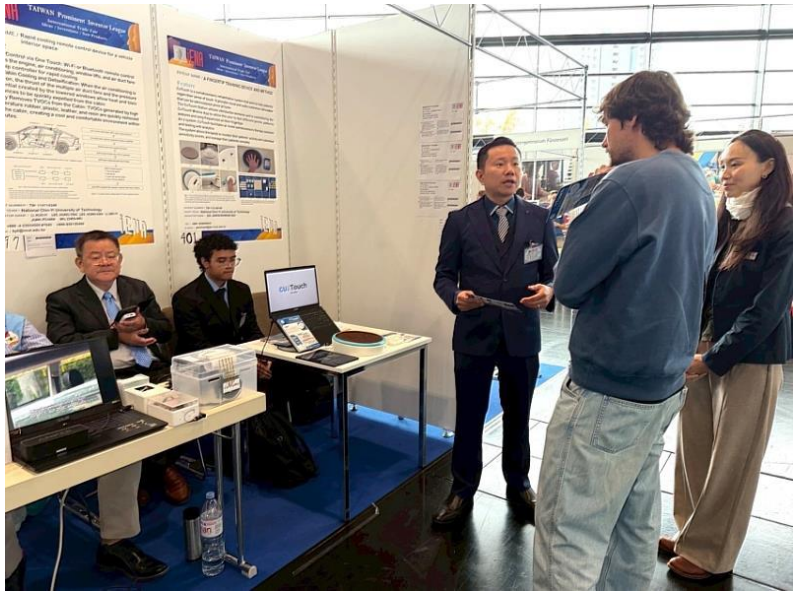
Prof. Aaron Raymond See (Department of Electronic Engineering) received a Silver Medal for Fingertip Training Device and Training Method. The "CuTouch" system integrates visual, auditory, and tactile stimuli to support home-based sensorimotor rehabilitation for stroke patients, advancing innovative models of home healthcare.

Another Silver Medal was awarded to Multi-Output Buck Converter, developed by Prof. Yeu-Torng Yau (Institute of Advanced Electrical and Information Technologies), featuring a high-efficiency single-stage power conversion architecture with advantages in conversion efficiency and compact design.

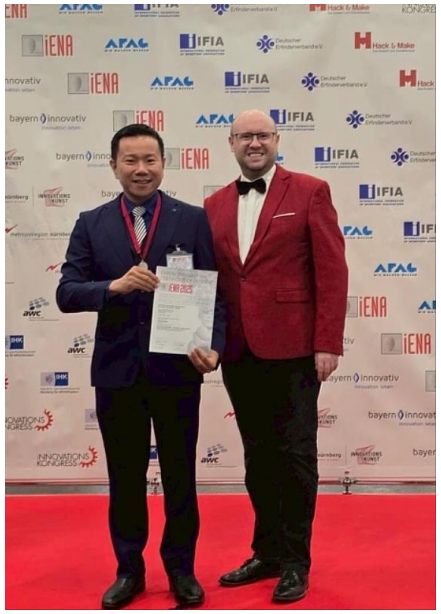
The Bronze Medal–winning Thermoplastic Composite Materials with Biomass Flame Retardants, jointly developed by Prof. Chen-Feng Kuan and Prof. Chene-Yuan Yang (Department of Chemical and Materials Engineering), utilizes rice husk as a biomass-based flame retardant, highlighting sustainable materials innovation.

These achievements underscore the University's strengths in applied research, interdisciplinary innovation, and international competitiveness in engineering and technology.


WIR WACHSEN ZUSAMMEN




cu:Touch
FEEL AGAIN
DEUTSCHER ERFINDER VERBAND e.V.
HIER BEGINNT ZUKUNFT.
ERFINDER BERATEN UND MOTIVIEREN
FOLGE UNS AUF INSTRAGAM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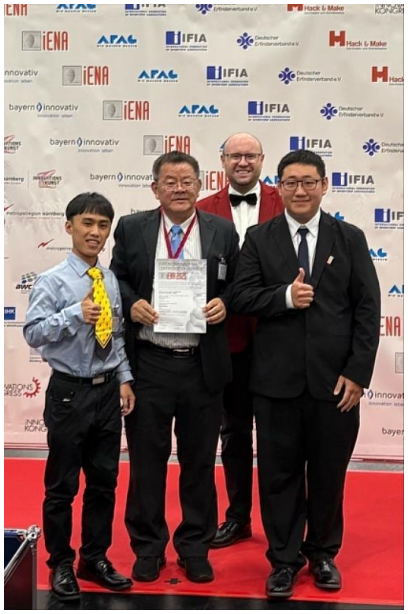
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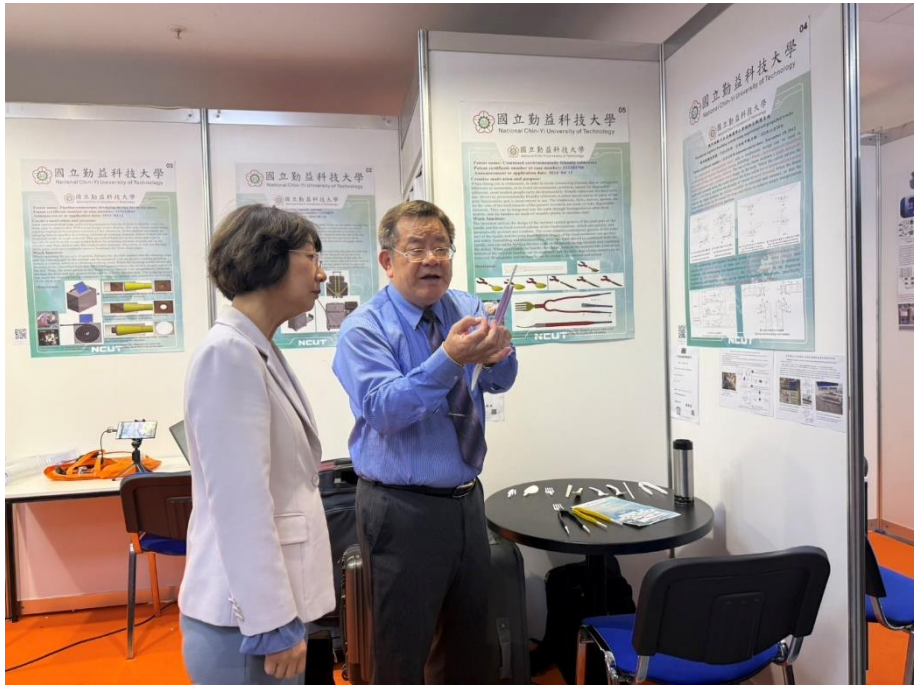
(II) 2025 Moscow International Salon of Inventions and Innovative Technologies ARCHIMEDES

The 28th International Invention Exhibition of Archimedes was held in Moscow, Russia, from March 18 to 20, 2025, attracting more than 500 inventions from 26 countries worldwide.

At this prestigious event, the Taiwan delegation delivered an outstanding performance, winning a total of 16 Gold Medals and 2 Grand Prix (Special Awards). Among them, NCUT achieved remarkable results, earning 5 Gold Medals, 1 Silver Medal, and 2 Special Awards, once again demonstrating its strong innovative capacity on the international stage. The award-winning projects are listed in Table 45.

Table 45. NCUT Awards at the 2025 International Invention Exhibition of Archimedes (Moscow)

Award	Title
Gold Medal	Portable Regenerative Fuel Cell Power Generation Module
Gold Medal	High-Load Capacity Luggage
Gold Medal	Endoscopic Catheter-Type Drainpipe Dredging Device
Gold Medal	Energy Reuse Protection Device
Gold Medal	Warehouse Logistics Handling System Using Non-Powered Autonomous Transport Carts
Silver Medal	Modular Eco-Friendly Tableware
Special Award (Grand Prix)	Portable Regenerative Fuel Cell Power Generation Module
Special Award (Grand Prix)	High-Load Capacity Luggage



2025第28屆 俄羅斯阿基米德 國際發明展

賀

【金牌】管衍德教師-可攜式再生燃料電池發電模組
李國義教師-高搬運量行李箱
李國義教師-內視鏡導管式之排水管疏通裝置
陳聰嘉教師-能源再利用之保護裝置
何境峰教師-應用無動力自走搬運車之倉儲物流搬運系統
【銀牌】李國義教師-組合式環保餐具
【大會特別獎】管衍德教師-可攜式再生燃料電池發電模組
李國義教師-高搬運量行李箱

IV. Overseas Internship Program and Camps

(I) Overseas Internship Program in Thailand

In collaboration with Chiang Mai Rajabhat University, the University selected nine students from the Department of Business Administration to participate in an overseas corporate internship program in Thailand from July to August 2025. The students were placed at three hotels in Chiang Mai—Smile Lanna Hotel, At Pingnakorn Hotel, and 51 Hometel—for a two-month internship.

Through this overseas placement, students enhanced their understanding of and respect for local cultures in both countries while gaining first-hand exposure to the international workplace. The program helped students build global perspectives and career planning skills, experience internationalized education in practice, and strengthen sustainable cooperation between Taiwan and Thailand.

▲ Department of Business Administration students undertaking internships in Thailand

(II) Overseas Volunteer Service – Northern Thailand Team

The team engaged in Mandarin language education and sustainability and environmental education services.

The service period ran from June 27 to July 11, 2025, totaling 15 days.

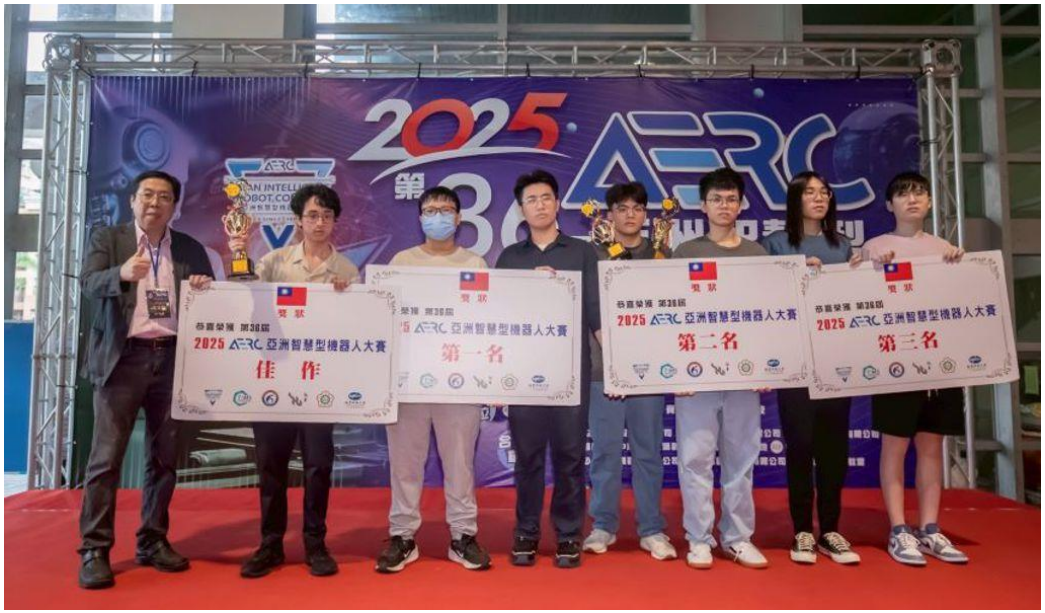
▲ Overseas Volunteer Service – Northern Thailand Team

V. International Competitions

(I) The 36th AERC Asian Robotics Competition 2025

To promote maker education and cultivate innovative technical talent, NCUT proudly hosted the 36th AERC Asian Robotics Competition 2025. The event attracted 461 teams from 130 schools across Taiwan, creating a highly competitive atmosphere and showcasing the vibrant growth of intelligent robotics education.

Notably, The Hong Kong University of Science and Technology sent a delegation of 30 students, forming 12 teams to compete in Taiwan. Their participation fostered international technical exchange and academic interaction, further enhancing the global dimension of the competition.

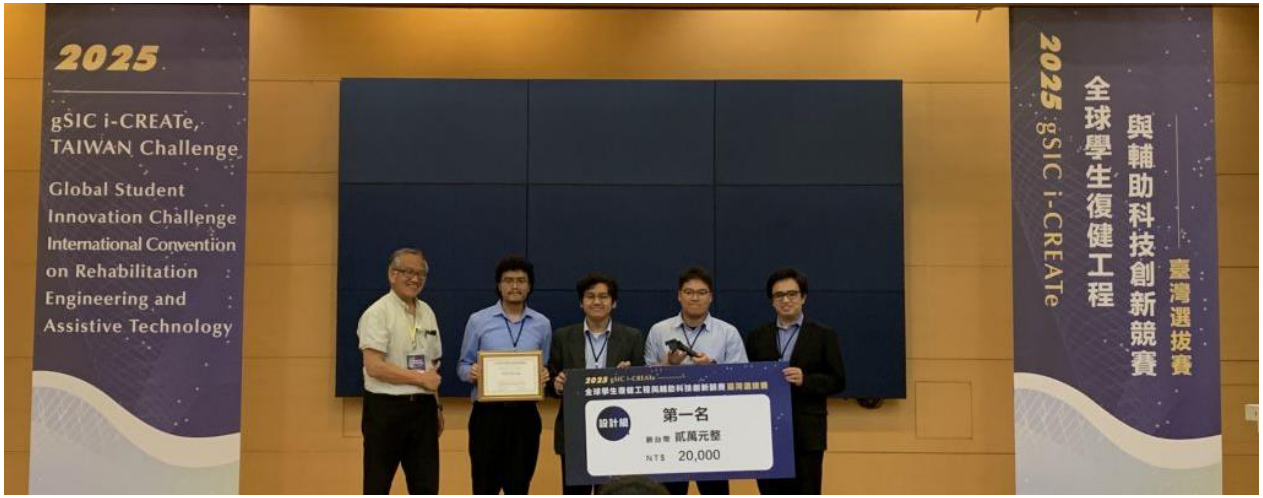


▲ The 36th AERC Asian Robotics Competition 2025

(II) 2025 gSIC Global Student Innovation Competition on Rehabilitation Engineering and Assistive Technology

Dr. Aaron Raymond See, guided a team of international master's students—Vence Jumar Sasing, Thad Jacob Tiong, Aaron Benjamin Alcuitas, and Joshua Mataranas (TEEP)—to participate in the 2025 gSIC Global Student Innovation Challenge on Rehabilitation Engineering and Assistive Technology (Taiwan Selection).

Their project, *"ConTact: Controller for Tactile and Motor Rehabilitation,"* was awarded First Place in the Design Category, receiving a prize of NTD 20,000.



▲2025 gSIC i-CCREATe

17.1

MOBILIZE RESOURCES TO IMPROVE DOMESTIC REVENUE COLLECTION

17.2

IMPLEMENT ALL DEVELOPMENT ASSISTANCE COMMITMENTS

17.3

MOBILIZE FINANCIAL RESOURCES FOR DEVELOPING COUNTRIES

17.4

ASSIST DEVELOPING COUNTRIES IN ATTAINING DEBT SUSTAINABILITY

17.5

INVEST IN LEAST DEVELOPED COUNTRIES

17.6

KNOWLEDGE SHARING AND COOPERATION FOR ACCESS TO SCIENCE, TECHNOLOGY AND INNOVATION

17.7

PROMOTE SUSTAINABLE TECHNOLOGIES TO DEVELOPING COUNTRIES

17.8

STRENGTHEN THE SCIENCE, TECHNOLOGY AND INNOVATION CAPACITY FOR LEAST DEVELOPED COUNTRIES

17.9

ENHANCE SDG CAPACITY IN DEVELOPING COUNTRIES

17.10

PROMOTE A UNIVERSAL TRADING SYSTEM UNDER THE WTO

17.11

INCREASE THE EXPORTS OF DEVELOPING COUNTRIES

17.12

REMOVE TRADE BARRIERS FOR LEAST DEVELOPED COUNTRIES

17.13

ENHANCE GLOBAL MACROECONOMIC STABILITY

17.14

ENHANCE POLICY COHERENCE FOR SUSTAINABLE DEVELOPMENT

17.15

RESPECT NATIONAL LEADERSHIP TO IMPLEMENT POLICIES FOR THE SUSTAINABLE DEVELOPMENT GOALS

17.16

ENHANCE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

17.17

ENCOURAGE EFFECTIVE PARTNERSHIPS

17.18

ENHANCE AVAILABILITY OF RELIABLE DATA

17.19

FURTHER DEVELOP MEASUREMENTS OF PROGRESS

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