

綠色轉型 永續未來



TASS 2025

亞洲永續供應+循環經濟會展  
Sustainable Taiwan Expo

November 5 - 7

高雄展覽館  
Kaohsiung Exhibition Center

大會手冊

SHOW DIRECTORY

Green Transition for Sustainable Future

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TASS  
2025

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# 1 展覽資訊

## Exhibition Information

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2025

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Sustainable Taiwan Expo 2025

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2025

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Sustainable Taiwan Expo

## 展覽名稱 *Official Information*

亞洲永續供應+循環經濟會展  
Sustainable Taiwan Expo

<https://tassasiaexpo.com>

## 展出地點 *Venue*

高雄展覽館 南館  
高雄市前鎮區成功二路39號

South Hall, Kaohsiung Exhibition Center (KEC)  
No. 39, Chenggong 2nd Rd., Qianzhen Dist., Kaohsiung, Taiwan

## 展出日期及參觀時間 *Show dates and opening hours*

2025年11月5-6日(星期三-星期四)  
上午10時00分至下午5時00分

November 5-6, 2025 (Wednesday to Thursday)  
10:00am - 5:00pm daily

2025年11月7日(星期五)  
上午10時00分至下午4時00分

November 7, 2025 (Friday)  
10:00am - 4:00pm

歡迎業界專業 憑名片登記參觀，12歲以下謝絕入場參觀。

The show is open to trade visitors only. All visitors must register and wear a visitor badge during the show. Visitors under 12 will only be admitted exceptionally.



## 理事長歡迎詞 Welcome Remarks

社團法人台灣永續供應協會與安益集團茵康國際會議顧問共同主辦的「TASS2025第六屆亞洲永續供應+循環經濟會展」承繼過去五屆舉辦的既有成果與所有業者的期望，本屆再次承蒙中央各部會與國營事業各單位之的參與以及相關產業與企業的支持，以「綠色轉型、永續未來，建構具韌性的永續供應鏈」為此次會展探討主題，將特別聚焦於如何透過創新技術、最佳實踐成功案例與協同合作的夥伴關係，推動供應鏈的綠色轉型，為企業與供應鏈上下游之間的永續合作之未來提供最佳解決方案與搭建有效交流的平台。

今年會展由經濟部、環境部等轄屬署處與事業單位共同展出，另由金屬工業研究發展中心、國立高雄科技大學、傑出新創企業、國際採購與供應聯盟與主辦單位規劃6場專業論壇與活動，50位政府首長、專家學者與產業先進等講者分別針對「循環經濟、低零碳建築、能源轉型、地熱發電、永續供應、資源循環」等六大主題研討發表；三天的會展共聚集來自二十餘國，80家國內外業者，250個標準展位，80場一對一商機媒合會談，以「多樣化、聚焦性、具體化」方式展現，期許成為台灣及全亞洲唯一聚焦於推展淨零轉型並能提供建構永續供應鏈的倡議與行動方案。

本協會自創會以來向以「創新、永續、踏實」為期許，持續配合政府頒布之政策與關鍵戰略，協助產業與企業面對近年來面臨氣候變遷、國際地緣政治因素及永續、淨零轉型之挑戰，共同再創新的契機，並藉以提升與持續精進台灣於全球供應網絡的獨特永續競爭優勢。

TASS (Taiwan Alliance for Sustainable Supply), in collaboration with Intercon Convention Management, is co-hosting the "TASS2025 Sustainable Taiwan Expo (The Sixth Asia's Sustainable Supply and Circular Economy Conference and Exhibition)", building upon the achievements of the previous five CEs and the expectations of all stakeholders. This year's event receives support from various central government ministries and state-owned enterprises, as well as related industries and companies. The theme of the exhibition is "Green Transition for Sustainable Future: Building Resilient Sustainable Supply Chains," with a particular focus on how to promote the green transformation of supply chains through innovative technologies, best practice success stories, and collaborative partnerships. The goal is to provide optimal solutions for sustainable cooperation between businesses and their upstream and downstream supply chains, while establishing an effective platform for communication.

This year's exhibition features joint displays from the Ministry of Economic Affairs, the Ministry of Environmental, and other affiliated administrations and state owned enterprises. Additionally, MIRDC (Metal Industries Research and Development Center), NKUST (National Kaohsiung University of Science and Technology), outstanding startups, and the IFPSM (International Federation of Purchasing and Supply Management), have planned six professional forums and events. Fifty speakers, including government leaders, experts, scholars, and industry pioneers, will present on six major themes: "Circular Economy, Low-Carbon Architecture and Buildings, Energy Transition, Geothermal Power, Sustainable Supply, and Resource Circulation." Over the three-day exhibition, participants from more than twenty countries, 80 domestic and international exhibitors, and 250 standard exhibition booths will convene, along with 80 one-on-one BE (Business Exchange and Matchmaking) sessions. The event aims to showcase a "diverse, focused, and concrete" approach, aspiring to become the only initiative in Taiwan and across Asia dedicated to promoting net-zero transition and providing actionable solutions for building sustainable supply chains.

Since its establishment, the Association, TASS has adhered to the principles of "Innovation, Sustainability, and Pragmatism," continuously aligning with government policies and key strategies. It assists industries and enterprises in facing challenges posed by climate change, international geopolitical factors, and the demands of sustainability and net-zero transition, while creating new opportunities for innovation. This effort aims to enhance and continuously improve Taiwan's unique sustainable competitive advantage in the global supply chains.

社團法人台灣永續供應協會  
TASS - Taiwan Alliance for Sustainable Supply

理事長  
Chairman

賴俊吉

Jiunn-Jyi Lai

創會理事長  
Founding Chairman

賴樹鑫

Shu-Shin (Steve) Lai

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主辦單位 | Organized by



指導單位 | Advised by



協辦單位 | Co-organized by



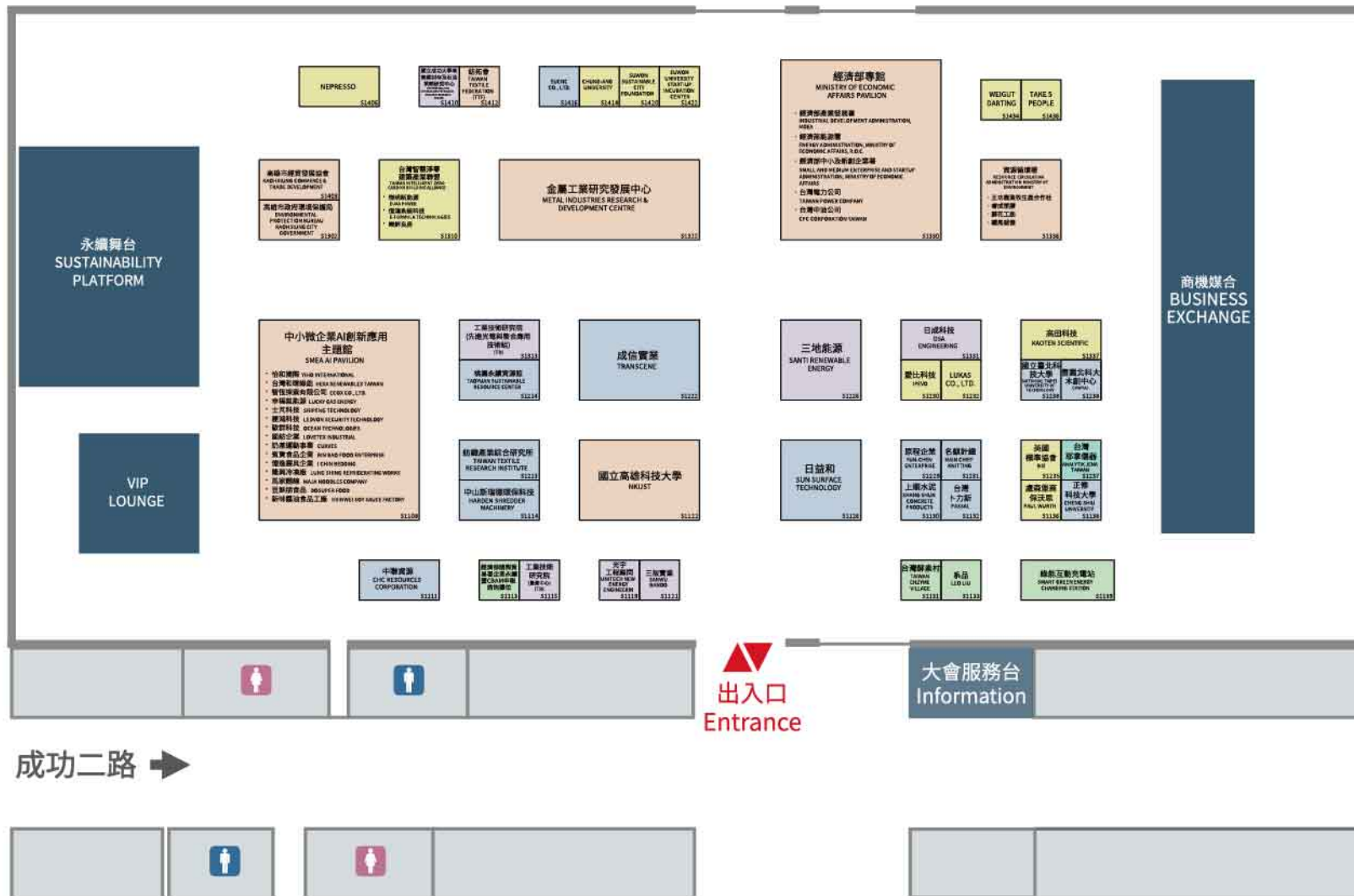
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# 展區平面圖 FLOOR PLAN



- 機構與組織  
Institutions
- 永續城市  
Sustainable City
- 資源循環  
Resource Circulation
- 綠色創新  
Green Innovation
- 能源  
New Energy
- 減碳科技  
Decarbonization Techniques

NEPRESSO  
S1415

國立交通大學  
交通大學  
S1410 S1412

SKYR  
CO., LTD.  
S1411

CHUNG-LIAN  
UNIVERSITY  
S1414

SUNNY  
REDUCTION  
S1416

CHANG  
UNIVERSITY  
S1418

WUJIAN  
UNIVERSITY  
S1420

WUJIAN  
UNIVERSITY  
S1422

**經濟部專館**  
MINISTRY OF ECONOMIC  
AFFAIRS PAVILION

經濟部商業發展署  
INDUSTRIAL DEVELOPMENT ADMINISTRATION  
IDA

經濟部能源局  
ENERGY ADMINISTRATION, MINISTRY OF  
ECONOMIC AFFAIRS, N.O.C.

經濟部中小企業發展署  
SMALL AND MEDIUM ENTERPRISE AND STARTUP  
ADMINISTRATION, MINISTRY OF ECONOMIC  
AFFAIRS

台灣電力公司  
TAIWAN POWER COMPANY  
+ 台灣中油公司  
CYC CORPORATION/TAIWAN

S1395

WEIGUT  
DARTING  
S1424

TAKE 5  
PEOPLE  
S1426

資源循環  
RESOURCE CIRCULATION  
INSTITUTE OF ECONOMIC  
RESEARCH

工業廢棄物處理合作社  
工業廢棄物處理中心  
新莊工廠  
環保協會

S1398

高雄市政府發展委員會  
KAOHSIUNG COMMISSION FOR  
TRADE DEVELOPMENT  
S1405

高雄市政府環境保護局  
KAOHSIUNG CITY  
ENVIRONMENTAL  
PROTECTION BUREAU  
S1407

台灣智慧綠城  
智慧綠城  
SUSTAINABLE CITY  
S1401

智慧綠城  
SUSTAINABLE CITY  
S1403

智慧綠城  
SUSTAINABLE CITY  
S1405

**金屬工業研究發展中心**  
METAL INDUSTRIES RESEARCH &  
DEVELOPMENT CENTRE  
S1397

**中小企業AI創新應用  
主題館**  
SMEA AI PAVILION

· 特和國際 HUB INTERNATIONAL  
· 台灣年輪集團 HUB INTERNATIONAL TAIWAN  
· 智性環流有限公司 COEX CO., LTD.  
· 幸福聚源 LUCKY 642 GROUP  
· 士元科技 SHIYUAN TECHNOLOGY  
· 康瑞科技 LEADWIN SECURITY TECHNOLOGY  
· 歐群科技 OCEAN TECHNO GROUP  
· 歐谷企業 OUYU INDUSTRIAL  
· 歐維運動事業 OUYU SPORTS  
· 聚豐食品企業 JUFENG FOOD ENTERPRISE  
· 德益興食品企業 TEH YI HING FOODS  
· 隆興冷凍廠 LONG SHING REFRIGERATING WORKS  
· 馬家麵粉 MAIJA FLOURS COMPANY  
· 亞新食品業 ASHIN FOODS  
· 新博羅食品工業 HOPPEI HOT SAUCE FACTORY

S1396

工業技術研究院  
(汽機及燃料聯合應用  
技術館)  
S1393

臺灣永續發展  
TAYWAN SUSTAINABLE  
DEVELOPMENT CENTER  
S1394

**成信實業**  
TRANSCENE  
S1392

**三地能源**  
SANTI RENEWABLE  
ENERGY  
S1398

日成科技  
IDA  
ENGINEERING  
S1391

藍比科技  
LUKAS  
CO., LTD.  
S1390

英田科技  
HAOTIAN SCIENTIFIC  
S1397

國立臺北科技  
大學  
SUSTAINABLE CITY  
S1399

國立中央  
大學  
SUSTAINABLE CITY  
S1395

紡織產業綜合研究所  
TAIWAN TEXTILE  
RESEARCH INSTITUTE  
S1395

中山新機機電科技  
HANGDEN SHREDDER  
MACHINERY  
S1394

**國立高雄科技大學**  
NKUST  
S1393

**日益和**  
SUN SURFACE  
TECHNOLOGY  
S1396

駁程企業  
HAIJICHOW  
ENTERPRISE  
S1392

名聲針織  
NAMEEPP  
KNITTING  
S1391

上順水波  
SHANG SHAN  
CONCRETE  
PRODUCTS  
S1390

台灣  
十力斯  
PRIMAL  
S1392

美國  
標準協會  
S1395

台灣  
耶家聯合  
YEH JIA HONG  
TAIWAN  
S1397

廣發信業  
廣發信業  
S1396

正華  
科技大學  
SUSTAINABLE CITY  
S1398

中環資源  
CHC RESOURCES  
CORPORATION  
S1391

經濟發展局  
SUSTAINABLE CITY  
S1393

工業技術  
SUSTAINABLE CITY  
S1395

宏宇  
工業發展  
HONG YU  
INDUSTRIAL  
S1398

三和實業  
SAN HEE  
INDUSTRIAL  
S1392

台灣綠農村  
TAIWAN GREEN  
VILLAGE  
S1393

綠島  
LULIU  
S1395

綠島五島光電站  
SUNNY GREEN ISLAND  
CHANGHUA FACTORY  
S1398

論壇議程規劃  
TASS2025 Forum Program

日期時間 TIME	11月5日 (三) Nov. 05 (Wed.)	11月6日 (四) Nov. 06 (Thu.)		11月7日 (五) Nov. 07 (Fri.)
地點 Location	永續舞台 Sustainability Platform	永續舞台 Sustainability Platform	KEC 3樓會議室 304a 3F Convention Room 304a	永續舞台 Sustainability Platform
上午 a.m.	開幕典禮 Opening Ceremony	新東向協會 日台MOU簽署 MOU Signing-moving forward with Japan		淨零轉型 解決方案(四) 資源循環講座  Net Zero Transition Solutions (Session IV: Resource Circulation)
		日月光 技術研究發表會 ASE Presentation		
下午 p.m.	淨零轉型 解決方案(一) 產業園區淨零建築智慧創 新技術應用論壇 Net Zero Transition Solutions (Session I : Net Zero Architecture and Building)	淨零轉型 解決方案(二) 能源轉型講座 Net Zero Transition Solutions (Session II :Energy Transition)	永續供應論壇 (國際採購與供應管 理聯盟亞太地區)  IFPSM AP Sustainable Supply Forum	
		淨零轉型 解決方案(三) 地熱發電論壇 Net Zero Transition Solutions (Session III: Geothermal Power)		

\*主辦單位保有最終修改、變更及取消之權利。  
\*The Organizer reserves the right to change or cancel the program.

# 2 論壇議程及講者介紹

## Conference Information

11/5

淨零轉型解決方案(一)  
產業園區淨零建築智慧創新技術應用論壇  
Net Zero Transition Solutions (Session I :  
Net Zero Architecture and Building)

11/6

新東向協會 日台MOU簽署  
MOU Signing- moving forward with Japan  
日月光技術研究發表會  
ASE Presentation  
淨零轉型解決方案(二)能源轉型講座  
Net Zero Transition Solutions (Session II :  
Energy Transition)  
淨零轉型解決方案(三)地熱發電論壇  
Net Zero Transition Solutions (Session III: Geothermal Power)  
永續供應論壇(國際採購與供應管理聯盟亞太地區)  
IFPSM AP Sustainable Supply Forum

11/7

淨零轉型解決方案(四)資源循環講座  
Net Zero Transition Solutions (Session IV: Resource Circulation)



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2025

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## 淨零轉型解決方案(一)

### 產業園區淨零建築智慧創新技術應用論壇

Net-Zero Forum (Session I)  
Net-Zero Architecture and Building

11 / 5 高雄展覽館 南館

🕒 13:30-16:30, November 5, 2025

📍 永續舞台 Sustainability Platform

TIME	TOPIC	SPEAKER
13:30-13:40	開場&論壇大合照  Opening & Group photo	內政部建築研究所 台灣智慧淨零建築產業聯盟  Architecture and Building Research Institute of the Ministry of the Interior, ROC  Taiwan Intelligent Zero Carbon Building Alliance
13:50-14:10	我國近零碳建築政策與能效評估制度說明  Explanation of Taiwan's Nearly Zero Carbon Building Policy and Energy Efficiency Assessment System	內政部建築研究所  Architecture and Building Research Institute of the Ministry of the Interior, ROC
14:10-15:10	綠能建材與儲能創新:打造永續建築的能源新生  Green Building Materials and Energy Storage Innovation: Creating a New Energy Ecosystem for Sustainable Architecture	李子耀 總經理 樂鮮良房股份有限公司 SustainWell Service Co.,Tzu-Yao Li, General Manager 勤業眾信聯合會計師事務所 Deloitte Touche Tohmatsu Limited
15:10-16:10	韌性電網與能源整合:開啟永續電力的新動能  Resilient Grids and Energy Integration: Unlocking New Momentum for Sustainable Power	Nuvve Co. CEO Gregory Poilasne  張家豪 董事長 億鴻系統科技股份有限公司 Peter Chang, Chairman, e-FORMULA Technologies, INC.
16:10-16:30	Q&A	內政部建築研究所 台灣智慧淨零建築產業聯盟  Architecture and Building Research Institute of the Ministry of the Interior, ROC  Taiwan Intelligent Zero Carbon Building Alliance

\*主辦單位保留更改或取消活動之權利。



TASS  
2025

# 亞洲永續供應+循環經濟會展

Sustainable Taiwan Expo 2025

November 5 - 7 高雄展覽館 Kaohsiung Exhibition Center

## 新東向協會 日台MOU簽署暨 日月光技術研究發表會

MOU Signing - moving forward with Japan & ASE Presentation

11 / 6 高雄展覽館 南館

🕒 10:10-11:35, November 6, 2025



永續舞台 Sustainability Platform

TIME	TOPIC	SPEAKER
10:00-10:15	新東向協會 日台MOU簽署 MOU Signing - moving forward with Japan	
10:15	日月光處長開場 ASE Presentation Opening Remarks	
10:15-10:35	結合微藻固碳及化學吸收法進行半導體產業煙道氣捕碳及後續應用之評估 Evaluation of Carbon Capture and Utilization from Semiconductor Flue Gas Using Combined Microalgae Fixation and Chemical Absorption Technologies	駱永建 執行長 東海大學智慧碳中和園區 Yung-Chien Luo, CEO, TUNGHAI UNIVERSITY, SMART CARBON NEUTRALITY PARK
10:35-10:55	運用FEEM影像與深度學習技術進行中水回收廠高風險進流水之早期篩檢 Early Screening of Risk Feed Water in Reclamation Plants Using FEEM Imaging and Deep Learning	陳毓如 教授 國立成功大學環境工程學系 Xiang-Ru Chen, Professor, National Cheng Kung University
10:55-11:15	半導體產業塑膠再製SRF焚化後環境之衝擊評估 Environmental Impact Assessment of Incineration of Semiconductor Plastic-Derived Solid Recovered Fuel	張志平 助理研究員 國立成功大學 Chih-Ping Chang, Project Assistant Research Fellow, National Cheng Kung University
11:15-11:35	從氣候數據到防災決策： 日月光高雄廠區的雨量分析與風險初步評估 From Climate Data to Disaster Mitigation Decisions: Rainfall Analysis and Preliminary Flood Risk Assessment at the ASE Kaohsiung Plant	謝宗霽 顧問 成功大學產業永續發展中心 Tsung-Pei Hsieh, Consultant, National Cheng Kung University

\*主辦單位保留更改或取消活動之權利。



講師姓名 / SPEAKER

## 駱永建 / LUO, YUNG CHIEN

東海大學智慧碳中和園區 執行長

CEO,  
TUNGHAI UNIVERSITY, SMART CARBON NEUTRALITY PARK

### 結合微藻固碳及化學吸收法進行半導體產業煙道氣捕碳及後續應用之評估 Evaluation of Carbon Capture and Utilization from Semiconductor Flue Gas Using Combined Microalgae Fixation and Chemical Absorption Technologies

#### 內容簡介 / *Speech Summary*

本計畫針對廢氣焚化爐(CO<sub>2</sub>濃度約0.1~0.6 vol%)與鍋爐燃燒的煙道氣(CO<sub>2</sub>濃度約7~10 vol%)，研發高效率微藻固碳與化學吸收等捕碳技術進行煙道氣之CO<sub>2</sub>捕捉。利用微藻固碳技術有效降低廢氣焚化爐排氣中CO<sub>2</sub>的濃度，並利用化學吸收法捕捉鍋爐燃燒煙道氣中高濃度的CO<sub>2</sub>，產生碳酸氫鹽後再應用於微藻養殖。模擬廢氣焚化爐與鍋爐燃燒的煙道氣成份，先以1公升反應器進行微藻固碳藻種篩選及操作條件測試與優化，接著再以100升之戶外型反應器進行微藻固碳系統規模放大。本計畫亦模擬CO<sub>2</sub>鹼液吸收液組成（主要含碳酸氫鹽），進行微藻養殖測試。本計畫中篩選出小球藻*Chlorella* sp. SW03在生長速率、藻體濃度及固碳效率各方面表現最佳，作為本計畫後續研究使用的藻株。

本計畫研究結論摘要如下：

- (1) 1 L 固碳培養測試：SW03在0.4% CO<sub>2</sub>條件下，0.1 vvm流速培養的固碳效果較佳，生物量為1.91 g/L。
- (2) 旋轉填充床(RPB)進行CO<sub>2</sub>鹼液吸收(化學吸收法)：以RPB吸收高濃度CO<sub>2</sub> (7%) 氣體，KHCO<sub>3</sub>濃度可達13.5 wt%。以鹼液吸收液培養藻株SW03，最終生物量為3.16 g/L，Carbon utilization efficiency為87.30 %。
- (3) 戶外100 L放大培養：使用鹼液吸收液培養藻株SW03，最終生物量為0.95 g/L，Carbon utilization efficiency為58.53 %。
- (4) 完成微藻生物質利用之實際應用案例：以收集的微藻產製化妝品、飼料添加劑及生物炭。

This project focuses on developing high-efficiency carbon capture technologies, including microalgae carbon fixation and chemical absorption, to capture CO<sub>2</sub> from flue gases of waste incinerators (CO<sub>2</sub> concentration approximately 0.1–0.6 vol%) and boiler combustion flue gases (CO<sub>2</sub> concentration approximately 7–10 vol%). Microalgae carbon fixation technology is used to effectively reduce the CO<sub>2</sub> concentration in the exhaust gas from waste incinerators, while chemical absorption is employed to capture the high-concentration CO<sub>2</sub> in boiler combustion flue gases. The resulting bicarbonate is then applied to microalgae cultivation. Simulated flue gas compositions from waste incinerators and boilers are first tested in 1-liter reactors for microalgae strain screening, operational condition testing, and optimization. Subsequently, the microalgae carbon fixation system is scaled up using a 100-liter outdoor reactor. We also simulate the composition of CO<sub>2</sub>-rich alkaline absorption solutions (mainly containing bicarbonate) for microalgae cultivation testing. Among the strains screened, the green microalga *Chlorella* sp. SW03 demonstrated the best performance in growth rate, biomass concentration, and carbon fixation efficiency, and was selected for use in the subsequent research of this project.

The summary of the research conclusions of this project is as follows:

- (1) 1 L carbon fixation culture test: SW03 had the best carbon fixation effect when cultured at a flow rate of 0.1 vvm under 0.4% CO<sub>2</sub> conditions, with a biomass concentration of 1.91 g/L.
- (2) Rotating packed bed (RPB) for CO<sub>2</sub> alkaline absorption (chemical absorption method): The RPB was used to absorb high-concentration CO<sub>2</sub> (7%) gas, and the KHCO<sub>3</sub> concentration could reach 13.5 wt%. The algae strain SW03 was cultivated in an alkaline absorption solution, achieving a final biomass concentration of 3.16 g/L and a carbon utilization efficiency of 87.30%.
- (3) Outdoor 100 L scale-up cultivation: The algae strain SW03 was cultivated in an alkaline absorption solution, achieving a final biomass concentration of 0.95 g/L and a carbon utilization efficiency of 58.53%.
- (4) Completion of practical application cases of microalgae biomass utilization: The collected microalgae were used to produce cosmetics, feed additives and biochar.

## 講師經歷 / *Speaker Experience*

現任東海大學化學工程與材料工程學系助理教授，兼任智慧永續循環經濟研究中心助理研究員及智慧碳中和園區執行長。主要研究領域涵蓋淨零碳技術開發、ESG規劃與產業鏈結、智慧淨零碳園區之規劃與建置、電解二氧化碳轉化技術與電極材料研發、高科技產業用水管理、廢水處理與回收技術、生活污水藻化循環利用、物聯網與感測技術應用，以及鋰電池與綠能儲能相關技術。多年參與科學工業園區節水與永續管理輔導計畫，具備豐富之淨零技術、節水節能及產業永續轉型之實務與研究經驗。

Dr. Luo is currently an Assistant Professor in the Department of Chemical and Materials Engineering at Tunghai University, and concurrently serves as Assistant Research Fellow at the Smart Sustainable Circular Economy Research Center and Executive Director of the Smart Carbon Neutrality Park. His research focuses on net-zero carbon technologies, ESG planning, and industrial

sustainability, including the design and implementation of smart carbon-neutral parks. He is engaged in the development of CO<sub>2</sub> electroreduction technologies and electrode materials, wastewater treatment and resource recovery, and algal-based circular utilization of domestic sewage. His work also extends to IoT and sensor applications, as well as energy storage

technologies related to lithium batteries and green energy. Dr. Luo has years of practical experience participating in sustainability management and water-saving projects in Taiwan's science parks. He possesses in-depth expertise in low-carbon technologies, energy and water conservation, and industry transition toward sustainability.



講師姓名 / SPEAKER

## 陳婉如 / Xiang-Ru Chen

國立成功大學環境工程學系 教授

Professor,  
National Cheng Kung University

### 運用FEEM影像與深度學習技術進行中水回收廠高風險進流水之早期篩檢 Early Screening of Risk Feed Water in Reclamation Plants Using FEEM Imaging and Deep Learning

#### 內容簡介 / *Speech Summary*

本研究開發一套結合螢光激發-放射矩陣(FEEM)影像與卷積式類神經網路(CNN)的人工智慧篩檢系統,用以中水回收廠之操作效能。該中水廠水源為半導體廠放流水,每日處理量 30,000 CMD,可供應 17,000 CMD 再生水,惟部分再生水偶發性未達高科技製程水質要求,推測半導體廠放流水中含有極低濃度且可穿透膜系統之微量物質。

本研究每週蒐集來自九個廠棟之放流水樣品(超過 200 件),並以實驗室規模逆滲透(RO)系統區分合格(可回收)與不合格(具風險)水樣,而後取得兩類樣品之 FEEM 影像以建立訓練集。初期以七層 CNN 模型訓練,後續將模型層數增加至十層後,準確率約 85%。

經以該模型預測九月取得之六種原料樣品,預測結果顯示兩項原料具較高 RO 膜貫穿風險,且與實際RO貫穿試驗結果一致。雖模型對 S573 原料判斷仍有不足,主要因目前訓練資料樣態有限,但本研究顯示整體方法具高度可行性,未來隨資料量累積可進一步提升預測精準度。

本研究所建立之 AI 篩檢系統可於前端快速辨識高風險水源,不合格水源直接放流不處理,避免產出不合格再生水,減少能源與藥劑浪費,並提升再生水穩定供應,降低對自然水源的依賴,研究成果可作為業界導入水質監測與管理機制之參考,進一步強化整體產業鏈的環境韌性與永續競爭力。

In this study, we developed a screening approach using fluorescence excitation–emission matrix (FEEM) imaging coupled with a convolutional neural network (CNN) to enhance the performance of a wastewater reclamation plant that receives effluent from nine semiconductor facilities. The plant treats 30,000 CMD of wastewater and supplies 17,000 CMD of reclaimed water.

It was found that even after multi-stage membrane treatment, some regenerated water fails to meet the strict quality standards required for reuse in high-tech semiconductor manufacturing. This suggests that influent water may contain trace organic substances capable of penetrating the membranes, with concentrations several magnitudes lower than compounds typically removed. The problem is compounded by the frequent process changes across semiconductor facilities in response to market demands, resulting in highly variable wastewater composition.

To address this, we established a screening system capable of recognizing the presence of these trace substances before treatment. FEEM imaging was used to characterize samples collected weekly from the nine facilities, generating over 200 datasets. A lab-scale RO system classified each sample as qualified (acceptable feed water) or unqualified (risk feed water), and FEEM images were obtained for both categories.

A ten-layer CNN was trained using 80% of the images for training and 20% for validation. After 20 epochs, model accuracy exceeded 85%.

This AI-enabled screening tool enables early recognition of feed water quality, preventing high-risk sources from entering the reclamation system. By reducing the occurrence of noncompliant reclaimed water, it minimizes unnecessary energy and chemical use while ensuring reliable water reuse for semiconductor manufacturing. The results demonstrate how AI/ML applications can improve the sustainability and efficiency of water treatment processes, supporting industrial water security and circular resource management.

## 講師經歷 / *Speaker Experience*

國立成功大學環境工程學系副教授 (2018年2月~迄今)  
國立成功大學環境工程學系助理教授 (2012年2月~2018年1月)  
國立成功大學永續環境實驗所環境研究中心主任 (2024年8月-迄今)  
國立成功大學環境安全衛生中心副主任 (2023年8月-迄今)  
科技部科學園區開發行為環境影響評估追蹤小組委員(2020年1月~迄今)  
環境部土壤及地下水污染整治基金管理會委員 (2023/05~迄今)  
環境部資源回收管理基金管理會委員 (2023/05~2024/12)  
環境部水污染防治基金管理會委員 (2023/05~2024/12)  
環境檢測標準方法審議委員(2020/11~迄今)  
密西根州立大學農作物與土壤科學系博士後研究員 (2008/07~2010/11)

Associate Professor (2018/02- present), Dept. of Environmental Engineering, NCKU  
Deputy Director (2023/08- present), Environmental Health and Safety Center, NCKU  
Division Head (2019/08)- present), Environmental Health and Safety Center, Environmental Protection Division, NCKU  
Assistant Professor, (2012/02- 2018/01) Dept. of Environmental Engineering, NCKU  
Committee Member, Resource Recycling Fund, Ministry of Environment  
Committee Member, Water Pollution Control Fund, Ministry of Environment  
Committee Member, Soil and Groundwater Pollution Remediation Fund, Ministry of Environment



講師姓名 / SPEAKER

## 張志平 / Chang, Chih-Ping

成功大學 助理研究員

Project Assistant Research Fellow,  
National Cheng Kung University

### 半導體產業塑膠再製SRF焚化後環境之衝擊評估 Environmental Impact Assessment of Incineration of Semiconductor Plastic-Derived Solid Recovered Fuel

#### 內容簡介 / *Speech Summary*

本研究針對半導體封裝製程中產生的多類塑膠廢棄物，進行再利用為固體回收燃料 (SRF, Solid Recovered Fuel) 之可行性評估。試驗選取13種日月光公司提供之代表性塑膠樣品，透過元素分析 (EA)、三成分分析、熱重分析 (TGA) 及螢光X光光譜 (XRF) 等方法，評估各樣品的可燃性、熱值穩定性與污染潛勢。經分級篩選後，剔除高氯、高灰分及燃燒不穩定樣品，優選熱值高、污染風險低之原料作為主燃料與混配料。

進一步以田口式L9混樣設計進行三因子三水準實驗，設定70/20/10之線性配比，以分析混料組合對燃燒特性之影響，並採用多準則決策 (MCDM) 方法整合能量、排放、灰分與穩定性四大指標。實爐試燒結果顯示，前三組 (T7、T4、T5) 之綜合表現最佳，均符合Cl < 1000 ppm、灰分 < 15 wt%、LHV > 15 MJ/kg之要求。

燃燒過程中，NO<sub>x</sub>與CO濃度於投料初期略有波動，但短時間內即趨於穩定，顯示現行空污防制系統之流程配置 (含二段燃燒與濕式洗滌) 能有效控制排放。整體而言，研究證實半導體塑膠經適當分選與混配後，具作為替代燃料之可行性；其燃燒特性穩定，污染物排放可控制於法規限值內，對環境衝擊輕微，並可作為高能值廢棄物再利用及產業減碳的重要技術依據。

This study evaluates the environmental impact of utilizing semiconductor packaging plastics as solid recovered fuel (SRF). Thirteen representative samples from ASE Group were analyzed through Elemental Analysis (EA), Proximate Analysis, Thermogravimetric Analysis (TGA), and X-ray Fluorescence (XRF) to determine their carbon-hydrogen composition, ash content, and chlorine concentration. Based on these results, materials with high chlorine or unstable combustion behavior were excluded, and optimal candidates with high calorific value and low pollutant potential were selected. A Taguchi L9 orthogonal design (70/20/10 mixing ratio) was adopted to optimize fuel blending and examine the combined effects on combustion performance. Four main indicators—energy potential, pollutant control, ash content, and thermal stability—were integrated using a multi-criteria decision-making (MCDM) model. The top-performing mixtures (T7, T4, and T5) achieved chlorine levels below 1000 ppm, ash below 15 wt%, and lower heating values exceeding 15 MJ/kg. During incineration trials, transient fluctuations in NO<sub>x</sub> and CO concentrations stabilized within five minutes, demonstrating the effectiveness of the existing dual-stage combustion and wet scrubbing systems. Overall, the findings confirm that semiconductor plastic waste can be feasibly transformed into SRF with stable combustion characteristics, controlled emissions, and minimal environmental impact, providing a practical pathway toward resource recovery and carbon reduction in high-tech industries.

#### 講師經歷 / *Speaker Experience*

本人畢業於國立成功大學資源工程學系博士班，專業領域涵蓋環境工程與廢棄物熱處理技術，長期致力於相關研究與實務應用。投入環境工程領域後，主要從事熱處理系統 (焚化爐與電漿熔融系統) 的操作與技術改善，並參與廢水處理效能提升及污染削減工程。累積近二十年現場經驗，對廠務系統整合、污染控制及能源回收策略具有深厚理解。近年除持續推動廢棄物再利用技術外，也積極參與環安衛教育與淨零減碳推廣，將多年實務經驗轉化為教育與研究動能，期能在技術應用與永續發展間建立更有效的連結。

Dr. Chang earned a Ph.D. in Resources Engineering from National Cheng Kung University and has devoted his career to environmental engineering and waste treatment technologies. His expertise centers on thermal treatment systems, including incineration and plasma melting, with extensive experience in system operation, performance enhancement, and emission control. Over nearly two decades of field practice, he has been deeply involved in optimizing facility integration, improving wastewater treatment efficiency, and developing energy recovery strategies. In recent years, Dr. Chang has also focused on promoting waste reutilization technologies and integrating environmental safety and sustainability education into practical applications. His current research emphasizes resource recovery and carbon management for high-tech industrial waste, aligning with Taiwan's ongoing transition toward net-zero emissions. By bridging technical expertise and practical experience, he aims to advance sustainable solutions that combine engineering performance with environmental responsibility.



講師姓名 / SPEAKER

**謝宗霖 / Hsieh Tsung Pei**

成功大學產業永續發展中心 顧問

Consultant,  
National Cheng Kung University**從氣候數據到防災決策：日月光高雄廠區的雨量分析與風險初步評估**  
**From Climate Data to Disaster Mitigation Decisions:**  
**Rainfall Analysis and Preliminary Flood Risk Assessment**  
**at the ASE Kaohsiung Plant****內容簡介 / Speech Summary**

本研究聚焦高雄市氣候變遷降雨變化及其對日月光高雄廠區淹水風險的影響。隨著全球暖化加劇，極端降雨事件頻率上升，對產業永續營運安全構成潛在威脅。本計畫結合氣候推估資料、歷史雨量分析與淹水模擬技術，旨在以科學數據為基礎，建立可支援防災與調適決策的分析架構。

先蒐集高雄市21座雨量站資料，進行5年、10年、25年重現期的48小時延時降雨頻率分析，建立現況基準。並採用國家災害防救科技中心產製之氣候變遷情境資料AR6統計降尺度日雨量資料，推估全球暖化程度攝氏1.5°C與2.0°C兩增溫情境之降雨增幅。結果顯示，各測站降雨量在1.5°C與2.0°C兩增溫情境之降雨平均增幅分別約為22.74%及26.67%，以位於日月光高雄廠區之新興測站增幅尤為顯著，顯見氣候變遷對其之影響。

本研究亦提出風險量化分析方法，以SWMM模式模擬楠梓區之淹水情形，分析不同情境下之淹水潛勢。結果顯示，於於25年重現期氣候變遷增溫2度降雨情境下，共有15處廠區位於潛在易淹水區域。未來可規劃整合即時雨量監測、氣候情境模擬與調適策略建議等三大功能，期能支援企業在極端氣候下的防災決策，提升廠區氣候韌性與永續發展能力。

This study focuses on the impact of climate change-induced rainfall variations on the flood risk of ASE Kaohsiung Plant in Kaohsiung City. With the intensification of global warming, the increasing frequency of extreme rainfall events poses a potential threat to the sustainable and safe operation of industrial facilities. This project integrates climate projection data, historical rainfall analysis, and flood simulation techniques to establish a scientific, data-driven analytical framework that supports disaster prevention and climate adaptation decision-making. Rainfall data from 21 rain gauge stations in Kaohsiung City were collected to perform 48-hour design rainfall frequency analyses for 5-, 10-, and 25-year return periods, establishing the baseline conditions. The study then utilized statistically downscaled daily rainfall data under AR6 climate change scenarios, produced by the National Science and Technology Center for Disaster Reduction (NCDR), to estimate rainfall increases under global warming scenarios of 1.5°C and 2.0°C. Results indicate that the average increase in rainfall across stations under the 1.5°C and 2.0°C warming scenarios are approximately 22.74% and 26.67%, respectively. Notably, the Xinxing Rain Gauge Station, located near the ASE Kaohsiung Plant, exhibited a particularly significant increase, highlighting the impact of climate change on the area.

The study also proposes a quantitative flood risk assessment method using the SWMM (Storm Water Management Model) to simulate flooding in the Nanzi District under different scenarios. Simulation results show that, under the 25-year return period rainfall scenario with 2°C warming, 15 plant sites fall within potential flood-prone areas. Future efforts may focus on integrating real-time rainfall monitoring, climate scenario simulations, and adaptation strategy recommendations to support enterprise-level disaster prevention decisions and enhance the plant's climate resilience and sustainable development capacity.

**講師經歷 / Speaker Experience**

2008.03~2017.06 成功大學防災研究中心助理

2023.02~迄今 成功大學產業永續發展中心 顧問

2008.03~2017.06 NCKU Disaster Prevention Research Center Engineer

2023.02~so far NCKU Industrial Sustainable Development Center Consultant



TASS  
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亞洲永續供應+循環經濟會展  
Sustainable Taiwan Expo 2025

November 5 - 7 高雄展覽館 Kaohsiung Exhibition Center

## 淨零轉型解決方案(二)

### 能源轉型講座

Net-Zero Forum (Session II) Energy Transition

11 / 6 高雄展覽館 南館

🕒 11:35-12:20, November 6, 2025



永續舞台 Sustainability Platform

TIME	TOPIC	SPEAKER
11:35-11:50	能源轉型新動能:以光電與儲能實現電力平穩化  New Momentum for Energy Transition: Achieving Power Stabilization through Solar Power and Energy Storage	姜暉先 事業總經理 聯合再生能源股份有限公司  Hao-Hsien, Chiang Business Group General Manager United Renewable Energy Co., Ltd.
11:50-12:05	AI 賦能永續:科技如何加速碳中和轉型  AI Empowering Sustainability: How Technology Accelerates the Transition to Carbon Neutrality	江怡慶 東北亞區商務經理 英國標準協會台灣分公司  Irene Chiang, Product Certification Commercial Manager, Northeast Asia. British Standards Institution, Taiwan
12:05-12:20	智慧城市與碳管理: PAS 2080 框架下的永續發展  Smart Cities & Carbon Management: Sustainable Development under the PAS 2080 Framework	Kiran Bhagat 東南亞/澳洲產品認證商務總監 英國標準協會  Kiran Bhagat, Commercial Head South East Asia / Australia PC, BSI Group Branch
12:20-12:35	可持續性(永續)於時尚科技的應用  Sustainability in Fashion Technology	黃俊豪 聯合創辦人 x Fashion.me  Augustine Wong, Co-Founder, xFashion.me.

\*主辦單位保留更改或取消活動之權利。



講師姓名 / SPEAKER

## 江怡慶 / Irene Chiang

英國標準協會台灣分公司 東北亞區商務經理

I Product Certification  
Commercial Manager, Northeast Asia.  
British Standards Institution, Taiwan

### AI賦能永續：科技如何加速碳中和轉型 AI Empowering Sustainability: How Technology Accelerates the Transition to Carbon Neutrality

#### 內容簡介 / *Speech Summary*

本演講以「AI賦能永續：科技如何加速碳中和轉型」為主題，探討人工智慧如何協助企業在碳中和與永續發展的進程中創造新價值。內容從全球氣候挑戰出發，說明企業如何依循 ISO 14067 進行產品碳足跡盤查，並以 ISO 14068-1 驗證碳中和宣告，建立國際信任與透明機制。同時介紹 歐盟CBAM（碳邊境調整機制）對出口企業的影響。演講進一步說明AI在碳資料整合、能源監控、供應鏈管理與碳報告自動化的應用，如何讓減碳行動更即時、更精準，讓智慧決策引領企業邁向真正的綠色競爭力與淨零未來。

This presentation, titled “AI Empowering Sustainability: How Technology Accelerates the Transition to Carbon Neutrality,” explores how artificial intelligence can help enterprises create new value in their journey toward carbon neutrality and sustainable development. Beginning with the global climate challenge, it explains how organizations can follow ISO 14067 to assess product carbon footprints and use ISO 14068-1 to verify carbon neutrality claims, thereby building international trust and transparency. The presentation also introduces the impact of the EU CBAM (Carbon Border Adjustment Mechanism) on exporting companies. Furthermore, it highlights the applications of AI in carbon data integration, energy monitoring, supply chain management, and automated carbon reporting—showing how these technologies enable faster, more accurate emission reduction actions. Ultimately, AI-driven decision-making empowers businesses to achieve genuine green competitiveness and move confidently toward a net-zero future.

#### 講師經歷 / *Speaker Experience*

現任英國標準協會（BSI）商務經理，擁有超過16年產業經驗，專注於協助企業了解國際標準與產品認證流程，涵蓋CE、UKCA、Kitemark及ISO 14067、ISO 14068等永續相關標準。

長期致力於推動企業永續轉型與產品合規，協助客戶從標準導入到認證申請的全流程，協助企業提升國際市場競爭力與信任度。

Irene Chiang is a Business Manager at the British Standards Institution (BSI) with over 16 years of professional experience. She specializes in helping organizations understand and apply international standards and certification processes, including CE, UKCA, Kitemark, ISO 14067, and ISO 14068. Focuses on promoting sustainability and regulatory compliance, guiding clients through the entire certification journey to enhance transparency, credibility, and global competitiveness.



講師姓名 / SPEAKER

## Kiran Bhagat

英國標準協會 東南亞/澳洲產品認證商務總監

Commercial Head South East Asia / Australia PC  
BSI Group Branch

### 智慧城市与碳管理：PAS 2080框架下的永续发展 Smart Cities & Carbon Management: Sustainable Development under the PAS 2080 Framework

#### 內容簡介 / *Speech Summary*

在智慧城市發展浪潮中，碳管理已成為城市永續轉型的核心挑戰。本次演講將深入探討如何透過PAS 2080碳管理框架，系統化推動城市建設的低碳轉型。我們將解析智慧城市建設面臨的碳管理困境及痛點，這些痛點正是PAS 2080標準的價值所在——提供完整的碳管理方法論與最佳實踐。接著，我們將分享BSI在人居環境永續發展領域的專業服務體系。BSI作為國際標準制定先驅，已協助多個亞太城市透過PAS 2080框架，成功將碳管理融入城市規劃與建設流程。我們將分享實際案例，展示如何透過系統化方法，在智慧交通、綠色建築、能源系統等領域實現具體減碳成效。

In the era of smart city development, carbon management has emerged as a critical challenge for sustainable urban transformation. This presentation explores how the PAS 2080 framework systematically enables low-carbon transition in urban infrastructure.

We begin by examining key carbon management challenges and pain points in smart city development. These challenges and pain points highlight the value of PAS 2080 in providing comprehensive carbon management methodology and best practices.

We then introduce BSI's service portfolio in Sustainability in Building Environment.

As an industry leader in standards development, BSI has supported multiple APAC cities in integrating PAS 2080 into their urban planning and construction processes. We will also demonstrate how systematic approaches deliver tangible carbon reduction outcomes through case studies.

#### 講師經歷 / *Speaker Experience*

郭心嵐 客戶經理，任職美商3M台灣子公司的商用解決方案事業部，在20+年的工作中，專職於推動3M建築隔熱節能解決方案、簡法美學的室內裝修3M Di-Noc特耐裝飾軟片、與大樓外牆翻新拉皮減廢的解決方案，幫助建築節能減碳並可以取得LEED「領先能源與環境設計」的加分。除了協助企業及總部大樓節能減碳，重要的是協助建築業主及使用者建立一個健康舒適的生活場域。

Linda Kuo, Account Manager, 3M Commercial Solutions Division, 3M Taiwan Ltd.. In 20+ years of work, Linda Kuo has been dedicated to promoting 3M building window film and energy-saving solutions, 3M Di-Noc Architecture Films for interior decoration with simple aesthetics, and solutions for building exterior wall renovation and waste reduction, helping buildings save energy and reduce carbon emissions, and can achieve LEED "Leadership in Energy and Environmental Design" points. In addition to helping enterprises and headquarters buildings save energy and reduce carbon emissions, it is important to help building owners and users to build a healthy and comfortable living environment.

## 講師經歷 / *Speaker Experience*

Kiran Bhagat—BSI SEA、ANZ 及印度區商務總監，擁有 18 年 TIC 行業經驗，尤其是在認證方面。他在指導企業遵守法規和卓越營運方面擁有豐富經驗。

專長涵蓋

- 永續性、環境與社會責任
- 健康、安全與環境管理
- 品質保證與流程改善
- 治理、風險與合規管理

他目前負責管理東南亞、澳洲紐西蘭和印度市場，協助企業面對全球挑戰，並支援 BSI 的商業成長。

Kiran Bhagat, Commercial Director SEA, ANZ and India at BSI leverages 18 years experience in the TIC industry more so in Certification. He has a track record of guiding organisations through regulatory compliance and operational excellence.

Expertise across:

- Sustainability, ESG and CSR
- Health, Safety and Environment Management
- Quality Assurance and process improvement
- Governance, Risk and Compliance Management

In his current role managing Southeast Asia, Australia New Zealand and India markets, helps businesses navigate global challenges and supports the commercial growth of BSI.



November 5 - 7 高雄展覽館 Kaohsiung Exhibition Center

## 邁向地熱發電新紀元

### 2025地熱發電產業論壇

2025 Geothermal Power Forum

11 / 6

高雄展覽館 南館

🕒 14:00-17:00, November 6, 2025



永續舞台

TIME	TOPIC	SPEAKER
14:00-14:05	開場致詞 Opening	主辦單位 Organizer
14:05-14:20	臺灣地熱發電推動現況與展望 Development Status and Prospects of Geothermal Energy in Taiwan	蔡秀芬組長 能源署 油氣發展及管理組 Hsiu-Fen Tsai, Director Energy Administration, MOEA
14:20-14:35	台灣綠色成長基金 Taiwan Green Growth Fund	吳珮瑜 副執行長 環境部 綠色戰略辦公室 Pei-Yu Wu, Deputy Executive Director Green Policy Office, Ministry of Environment
14:35-14:50	臺灣地熱資源及探勘進展 Geothermal Resources and Exploration Progress in Taiwan	陳棋炫 簡任技正 經濟部 地質調查及礦業管理中心 Chi-Hsuan Chen, Senior Technical Geological Survey and Mining Management Agency, Ministry of Economic Affairs
14:50-15:05	實現規模化地熱開發的臨門一腳 Final Push to Achieve Large-Scale Geothermal Development	王守誠 常務理事 台灣地熱資源發展協會 Shou-Cheng Wang, Executive Director Taiwan Geothermal Energy Association
15:05-15:20	台東地熱發電廠建置之觀察與經驗 Observations and experiences in Geothermal power plant construction in TaiTung, Taiwan	李長穎 執行長 日成科技股份有限公司 Dr. John Lee, Managing Director, OSA
15:20-15:35	從地熱儲集層開發工程的角度來建構地熱探勘策略 Geothermal Exploration Strategies: A Reservoir Engineering Perspective	謝秉志主任 成功大學地熱封存及石油策略研究中心 Dr. Bieng-Zih Hsieh, Director, Research Center of Geothermal, CO2 Storage and Petroleum Strategy, National Cheng Kung University
15:35-16:05	專題討論：台灣地熱發電的未來 Panel Discussion: Empowering Taiwan's Geothermal Future	
16:05-17:00	交流 Q & A	



講師姓名 / SPEAKER

**蔡秀芬 / Hsiu-Fen Tsai**

經濟部能源署 組長

Director,  
Energy Administration, MOEA**臺灣地熱發電推動現況與展望****Development Status and Prospects of Geothermal Energy in Taiwan****內容簡介 / *Speech Summary***

本次講題透過三大章節說明臺灣地熱發電推動現況與展望，首先介紹臺灣地熱發電潛能評估及具地熱發電潛力區域，再說明臺灣地熱發電推動至今累積成果，最後為未來地熱推動策略精進作為，包含持續精進地熱能探勘與開發申設程序，加速業者投入開發，以及修正地熱能發電示範獎勵辦法，提高誘因吸引地方政府畫設專區，促進中央與地方合作，加速推動地熱設置。

This presentation explains the development status and prospects of geothermal energy in Taiwan through three main sections. First, it presents the assessment of Taiwan's geothermal potential and areas with promising geothermal resources. Next, it explains the achievements accumulated in promoting geothermal power development. Finally, it discusses strategies for future enhancement, including continuous improvement of geothermal regulations, accelerating private sector participation, and improving financial incentives to encourage local governments to designate geothermal zones. Strengthen collaboration between central and local governments and accelerate the deployment of geothermal energy in Taiwan.

**講師經歷 / *Speaker Experience***

學歷：台灣大學地質科學所碩士

經歷：經濟部能源署油氣發展及管理組/組長

Education:

- M.Sc. in Geosciences, National Taiwan University

Experience:

- Director, Petroleum and Gas Development and Management Division, Energy Administration, MOEA



講師姓名 / SPEAKER

## 吳珮瑜 / Pei-Yu Wu

環境部 技監兼副執行長

Deputy Executive Director  
Green Policy Office, Ministry of Environment

### 台灣綠色成長基金 Taiwan Green Growth Fund

#### 內容簡介 / *Speech Summary*

「台灣綠色成長基金」是由行政院國家發展基金提供資金，環境部執行的專案投資方案，規模達新臺幣(下同)100億元，為期10年，核心目標是積極響應全球淨零排放趨勢，加速臺灣達成2050淨零轉型目標。主要運作機制是透過政府資金引導，結合民間創投力量，共同投入於推動淨零與永續相關的創新技術和新興產業。

投資對象主要聚焦於從事淨零永續相關新興業務的國內非上市櫃企業，以及主要營業活動在臺灣的境外企業。基金優先支持六大淨零關鍵領域，包括資源循環、永續與儲能技術、深度節能、碳捕捉再利用、數位低碳技術以及氣候變遷調適等。基金採取共同投資模式，單一企業總投資上限為1.5億元，旨在降低民間投資風險，促進綠色產業生態系的發展，為臺灣綠色成長注入新動能。

The "Taiwan Green Growth Fund" is a NT\$10 billion, 10-year investment scheme funded by the National Development Fund and managed by the Ministry of Environment, with the core mission to accelerate Taiwan's 2050 Net-Zero Transition.

The Fund employs government capital to drive private venture investment into innovative net-zero and sustainable technologies and emerging industries. It targets unlisted green enterprises and focuses on six key areas, including resource circulation, energy storage, energy conservation, carbon capture, digital low-carbon technology, and climate adaptation. The goal is to mitigate investment risk and foster the green industrial ecosystem.

#### 講師經歷 / *Speaker Experience*

##### 學歷：

- 國立陽明醫學院公衛研究所碩士
- 中國醫藥學院公共衛生學系畢業

##### 經歷：

- 環境部綜合規劃司司長
- 行政院環境保護署技監
- 行政院環境保護署綜合計畫處、環境監測及資訊處副處長

##### Education:

- Master's degree, Institute of Public Health, National Yang Ming College of Medicine
- Bachelor's degree, Department of Public Health, China Medical University

##### Experience:

- Director, Department of Comprehensive Planning, Ministry of Environment
- Technical Superintendent, Environmental Protection Administration, Executive Yuan
- Deputy Director, Department of Comprehensive Planning and Department of Environmental Monitoring & Information Management, Environmental Protection Administration, Executive Yuan



講師姓名 / SPEAKER

## 陳棋炫 / Chi-Hsuan Chen

經濟部地質調查及礦業管理中心 簡任技正

Senior Technical Geological Survey and Mining  
Management Agency, Ministry of Economic Affairs

### 臺灣地熱資源及探勘進展

## Geothermal Resources and Exploration Progress in Taiwan

### 內容簡介 / *Speech Summary*

臺灣位於歐亞板塊與菲律賓海板塊交界，地熱資源豐富多樣，兼具熱液型與熱岩型系統。東北部大屯火山群與宜蘭地熱區具高溫潛能，花東地區等地則適合中低溫發電；西部沉積岩區雖蘊藏熱區位較深，但具農業加溫、溫泉觀光及區域熱能應用潛力。

地礦中心近年積極推動全臺地熱探勘，於9縣市10處場域完成18口地質井，累積深度逾15,000公尺，建立地熱概念模型，並運用重磁聯測、地電阻率與三維構造建模等技術，提升潛能評估精度。未來將持續推動資料整合與成果共享，促進產官學研合作，帶動地熱資源從發電到直接利用的多元發展，朝向穩定、安全與永續能源目標邁進。

Taiwan is located at the junction of the Eurasian and Philippine Sea plates, giving rise to abundant and diverse geothermal resources that include both hydrothermal and hot dry rock systems. The Tatun Volcano Group and the Yilan geothermal area in the northeast possess high-temperature potential, while regions in eastern Taiwan, such as the Hualien–Taitung area, are suitable for medium- to low-temperature power generation. In western Taiwan, although geothermal heat is found at greater depths within sedimentary formations, there is strong potential for applications such as agricultural heating, hot spring tourism, and regional thermal energy utilization.

In recent years, the Geological Survey and Mining Management Agency (GSMMA) has actively advanced geothermal exploration across Taiwan, completing 18 geological wells in 10 sites within 9 counties, with a cumulative drilling depth exceeding 15,000 meters. Through the establishment of geothermal conceptual models and the application of integrated gravity–magnetic surveys, resistivity imaging, and 3D structural modeling technologies, the accuracy of resource assessment has been significantly improved. Moving forward, GSMMA will continue to promote data integration and knowledge sharing, strengthen collaboration among government, industry, and academia, and foster the diversified development of geothermal resources—from power generation to direct-use applications—toward a stable, safe, and sustainable energy future.

### 講師經歷 / *Speaker Experience*

陳棋炫博士現任經濟部地質調查及礦業管理中心簡任技正，為臺灣大學地質科學研究所博士，專長於地熱資源探勘與區域地質研究，並具地熱專案管理經驗。研究領域涵蓋地震地質與構造解析。歷任中央地質調查所區域地質組科長，主辦多項地熱探勘計畫。此外，也在計畫執行內推動國際合作，積極促進臺灣地熱技術與國際接軌。

Dr. Chi-Hsuan Chen currently serves as a Senior Technical Specialist at the Geological Survey and Mining Management Agency, Ministry of Economic Affairs. He holds a Ph.D. from the Department of Geosciences at National Taiwan University, specializing in geothermal resource exploration and regional geological research, with extensive experience in geothermal project management. His research interests include seismotectonics and structural geology. Dr. Chen previously served as the Chief of the Regional Geology Division at the Central Geological Survey, where he led several major geothermal exploration projects. In addition, he has actively promoted international collaboration within project implementation, contributing to the advancement and global integration of Taiwan's geothermal technologies.



講師姓名 / SPEAKER

## 王守誠 / Shou-Cheng Wang

台灣地熱資源發展協會 常務理事

Executive Director  
Taiwan Geothermal Energy Association

### 實現規模化地熱開發的臨門一腳

## The Critical Final Step to Large-Scale Geothermal Development

### 內容簡介 / Speech Summary

台灣地熱法規及政策逐步在近三年已調整到位，並多次邀請國際地熱專業團隊分享國際最新商業化技術及案例，已改變民間企業及金融機構對於地熱投資的負面看法。但國內現有地熱案場的財務條件仍大幅改善以爭取投資者的信心，規模化擴充地熱案場是必要的一條路，這是國際上60多年來降低地熱成本及風險的經驗。規模化地熱案場可同時達到去風險化(De-Risking)，其準備工作必須來自專業團隊的攜手協力，探勘階段尤其需要避免地表電力設備、海水造成的嚴重電磁干擾問題，且能達到高解析度的技術優勢；開發階段要能與國際團隊合作，引進符合高溫鑽井規範及經驗豐富的鑽井技術團隊，目前國內已有多家企業著手建置地熱產業鏈。目前政策上的誘因除了保證收購的躉售電價(FIT)、原住民族部落加成及補助外，更應納入既有的部落溫泉輔導獎勵機制及公民電廠補助機制，促使開發商與在地產業發展更多地方創生的機會，建立規模化地熱開發的共識，例如金崙溫泉區正在以此方向整合，也可以複製到其他具有溫泉地熱徵兆的部落地區，使地熱發電成為偏遠地區維持生命線的防災型電力。

Over the past three years, Taiwan has refined its geothermal regulations and policies, inviting international geothermal experts to share the latest commercialized technologies and case studies. This has shifted private enterprises' and financial institutions' perceptions, making geothermal investment more attractive. However, current domestic geothermal projects still require significant financial improvements to boost investor confidence. Scaling up geothermal developments is essential to reducing costs and risks, following over 60 years of international experience. Large-scale projects help de-risk development and require collaboration among professional teams, especially during exploration to avoid electromagnetic interference from power equipment and seawater, and to leverage high-resolution technology. During development, partnerships with international teams and the adoption of advanced high-temperature drilling standards are vital; several local companies are building a domestic geothermal industry chain. Policy incentives now include feed-in tariffs (FIT), bonuses and subsidies for indigenous communities, and should also incorporate support for local hot spring industries and citizen power plant subsidies. These measures would foster collaboration with local industries and communities, as seen in Jinlun Hot Spring Area, and could be replicated in other tribal regions, making geothermal power a resilient energy source for remote areas.

### 講師經歷 / Speaker Experience

成功大學地球科學碩士及海洋大學地球科學博士，具有地球化學、地球物理、地震學、鑽井工程、資源評估等領域的實際經驗，從事地熱推動及技術研究超過16年，曾擔任生態關懷者協會理事長及台灣地熱資源發展協會首任秘書長。目前為海洋大學博士後研究員及地熱協會常務理事，兼任環境部地熱影響模擬計畫及原民會溫泉推動計畫辦公室顧問。

Holding a Master's degree in Earth Sciences from National Cheng Kung University and a Ph.D. in Earth Sciences from National Taiwan Ocean University, this individual has hands-on experience in geochemistry, geophysics, seismology, drilling engineering, and resource assessment. With over 16 years dedicated to geothermal promotion and technical research, they have served as the President of Taiwan Ecological Sustainability Association and the inaugural Secretary-General of the Taiwan Geothermal Association. Currently, they are a postdoctoral researcher at National Taiwan Ocean University, an executive director of the Geothermal Association, and a consultant for both the Ministry of Environment's geothermal impact simulation project and the Indigenous Peoples' Hot Spring Promotion Office.



講師姓名 / SPEAKER

## 李長穎 / Dr. John Lee

日成科技股份有限公司 執行長

Managing Director  
OSA

### 台東地熱發電廠建置之觀察與經驗

## Observations and experiences in Geothermal power plant construction in TaiTung, Taiwan

### 內容簡介 / *Speech Summary*

台灣擁有豐富的地熱資源，具備穩定、低碳且不受氣候影響的基載綠電，為全球能源轉型中的關鍵選項之一。此次演講將介紹地熱資源的分布特性，說明全球與台灣地熱發展的現況與未來展望，並探討台灣在推動地熱發電過程中的機會與挑戰。同時也將分享地熱開發的創新技術與開發流程，期能持續推動地熱能應用，促進台灣能源轉型與永續發展。

Taiwan possesses abundant geothermal resources that provide stable, low-carbon, and weather-independent baseload green energy, making them a key option in the global energy transition. This presentation will introduce the distribution characteristics of geothermal resources, review the current status and future outlook of geothermal development worldwide and in Taiwan, and discuss the opportunities and challenges in advancing geothermal power domestically. It will also share innovative technologies and development procedures, aiming to further promote geothermal applications and contribute to Taiwan's energy transition and sustainable development.

### 講師經歷 / *Speaker Experience*

#### 工作

- 執行長，日成科技，2021 - ，基載再生綠能系統
- 銷售經理，卡特彼勒公司，2009-2021，天然氣產品銷售，整個亞太地區
- 項目經理，卡特彼勒公司，2006-2009，煤礦瓦斯發電
- 高級首席工程師，Solar Turbines Inc，2001-2006，燃燒系統設計
- 首席工程師，Solo Energy Corp，2000-2001，燃燒系統設計

#### 教育

- 博士，華盛頓大學，1995-2000，燃燒，NOX，內燃機
- 博士(未完成)，康奈爾大學，1991-1992，燃燒 - 微重力液滴
- 碩士，紐約州立大學水牛城分校，1989-1991，燃燒 - 危險廢物焚燒
- 學士，普渡大學，1986-1989，航空航太 - 推進系統

#### Work

Managing Director, OSA, 2021 to current, base load renewable systems

- Sales Manager, Caterpillar Inc, 2009-2020, gas product sales, all of Asia Pacific
- Project Manager, Caterpillar Inc, 2006-2009, coal mine methane power generation
- Sr. Principal Engineer, Solar Turbines Inc, 2001-2006, gas turbine combustion systems design
- Principal Engineer, Solo Energy Corp, 2000-2001, micro gas turbine combustion systems design

#### Education

- Ph.d., University of Washington, 1995-2000, combustion, NOX mechanisms, internal combustion engines (gas turbines)
- Ph.D. (uncompleted), Cornell University, 1992-1993, microgravity combustion
- MS, SUNY Buffalo, 1989-1991, combustion, hazardous waste incineration
- BS, Purdue University, 1986-1989, propulsion, aeronautics and astronautics



講師姓名 / SPEAKER

## 謝秉志 / Dr. Bieng-Zih Hsieh

成功大學地熱碳封存及石油策略研究中心 主任

Research Center of Geothermal,  
CO<sub>2</sub> Storage and Petroleum Strategy,  
National Cheng Kung University

### 從地熱儲集層開發工程的角度來建構地熱探勘策略

## Geothermal Exploration Strategies: A Reservoir Engineering Perspective

### 講師經歷 / Speaker Experience

謝秉志博士 (Max Bieng-Zih Hsieh, Ph.D.) 目前是國立成功大學資源工程學系教授，同時擔任成大地熱碳封存及石油策略研究中心主任一職。謝教授是國立成功大學工學博士，專長背景是石油工程 (Petroleum engineering)，目前致力於儲集層工程 (Reservoir engineering) 的理論研究與實務應用。謝教授建立「二氧化碳地質封存暨儲集層工程研究室 (CO<sub>2</sub> sequestration and Reservoir Engineering, CO<sub>2</sub>RE)」，將儲集層工程的知識應用於深層地熱、二氧化碳地質封存、天然氣水合物、石油與天然氣開發之中。謝秉志教授除了在大學及研究所提供臺灣獨特的石油工程與地熱工程教育之外，也為業界提供石油開採及地熱開發的顧問服務。

Max Bieng-Zih Hsieh, Ph.D., is a Professor in Department of Resources Engineering, National Cheng Kung University (NCKU). Dr. Hsieh's major interest is in the practice and applications of reservoir engineering, especially in Geothermal energy, Carbon dioxide (CO<sub>2</sub>) storage, gas hydrate, and oil/gas resources. He holds a BS degree in Mining and Petroleum Engineering; an MS degree in Resources Engineering; and a Ph.D. degree in Petroleum Engineering, all from National Cheng Kung University. Dr. Hsieh is the PI of CO<sub>2</sub> sequestration and Reservoir Engineering (CO<sub>2</sub>RE) Lab. He is a consultant petroleum engineer, and offers professional petroleum and geothermal engineering education in Taiwan.

Dr. Bieng-Zih Hsieh's Carbon Dioxide Sequestration & Reservoir Engineering (CO<sub>2</sub>RE) Lab is mainly focusing on the applied technologies for the unconventional oil/gas resources, anthropogenic CO<sub>2</sub> reduction, and renewable geo-resource energy. CO<sub>2</sub>RE Lab is using the knowledge of reservoir engineering, the techniques of petroleum production engineering, and the tool of reservoir simulation to study: (1) the current and the future unconventional gas resources, Shale gas and Gas hydrate; (2) CO<sub>2</sub> geological storage in depleted gas reservoir and aquifer, and CO<sub>2</sub> enhanced recovery in oil and natural gas reservoirs (CO<sub>2</sub>-EOR, CO<sub>2</sub>-EGR); and (3) Conventional hydrothermal, Enhanced, and Advanced geothermal systems (CGS, EGS, AGS), as well as the hot sedimentary aquifer geothermal (HSA) in Taiwan.

**November 5 - 7** 高雄展覽館 Kaohsiung Exhibition Center

**永續供應論壇**

Sustainable Supply Forum

**11 / 6** 高雄展覽館 304a

14:00-16:40, Novemer6, 2025

TIME	TOPIC	SPEAKER
14:00-14:10	開幕致詞 Opening Remarks	賴樹鑫 台灣永續供應協會 創會理事長 國際採購與供應管理聯盟 董事暨理事會成員  Shu-Shin (Steve) LAI, Founding Chairman, TASS Council & Board Member, IFPSM
14:10-14:20	開幕演講-「中國與亞洲的永續供應鏈發展」  Opening Speech- “Sustainable Supply Chain Development in China and Asia”	蔡進 國際採購與供應管理聯盟副會長暨亞太地區主席 CAI Jin, Vice President & Regional Chair AP, IFPSM President, CFLP, China 中國物流與採購聯合會會長 President, CFLP
14:20-14:40	主題演講 一 「新時代的供應鏈挑戰與契機·從領導開始」 Keynote Speech - I “Supply Chain Challenges and Opportunities in the New Era, from leadership perspective”	吳惠群 教授 香港物資採購與供銷學會 會長 Prof. Stephen W.K. NG President, IPSHK, Hong Kong
14:40-15:00	主題演講 二 「印度的永續與韌性供應鏈發展」 Keynote Speech - II “Sustainable and Resilient Supply Chain in India”	彌納 總會長 印度物質管理協會  Lalit Raj MEENA National President, IIMM, India
15:00-15:20	主題演講 三 「馬來西亞邁向綠色未來的永續供應鏈之旅」 Keynote Speech - III “Malaysia’ s Journey towards a Sustainable Supply Chain for a Greener Future”	楊佐良 會長 馬來西亞採購與物資管理協會  Chor Leong YANG President, MIPMM, Malaysia
15:20-15:40	主題演講 四 「從風險到韌性:建立氣候智慧與可持續的」 Keynote Speech - IV “From Risk to Resilience: Building Climate-Smart and Sustainable Supply Chains - Philippine Initiatives and Global Practices”	馬嘎迪亞 會長 菲律賓供應管理協會  Gerard MAGADIA, President, PISM, Philippines
15:40-16:00	主題演講 五 「泰國綠色與淨零倡議」 Keynote Speech - V “Thai Green and Net Zero Initiative”	桑猜 副會長 泰國採購與供應鏈管理協會  Sanchai NITHEEKULAWAT Vice President, PSCMT, Thailand
16:00-16:40	論壇討論:「建構具韌性的永續供應鏈」 Panel Discussion “Building the Sustainable Supply Chains with Resilience”	主持人:何英傑 國際採購與供應管理聯盟 董事會成員 香港物資與採購供銷協會 主席 與談人: 印度、印尼、馬來西亞、菲律賓、泰國、南韓各國家協會代表  Moderator: Dannies Y.K. HO Board Member, IFPSM Chairman, IPSHK Panelists: Delegates from India, Indonesia, Malaysia, Philippines, Thailand, South Korea
16:40	閉幕謝詞 Closing Remarks	賴樹鑫 創會理事長 台灣永續供應協會 Shu-Shin (Steve) LAI

**November 5 - 7** 高雄展覽館 Kaohsiung Exhibition Center

# 淨零轉型解決方案(四)

## 資源循環講座

Net-Zero Forum (Session IV) Resource Circulation

**11 / 7** 高雄展覽館 南館

10:30-12:25, November 7, 2025



永續舞台

TIME	TOPIC	SPEAKER
10:30-10:35	開幕致詞 Opening Remarks	主辦單位 Organizer
10:35-10:50	廢木在用·華麗重生 Waste Wood Reused, Gorgeously Reborn	蘇名健 創辦人 蘇花工鹿工作坊 Ming-Chien Su, Founder, Su-Hua-Gung-Lu Workshop
10:50-11:05	社會共好, 餐具循環將會是我們的起點 Reusable Tableware: Our Starting Point Toward a Shared Better Future	許築靖 鐵馬載憶有限公司 Alicia Hsu, Carry Memory Bike Co., Ltd.
11:05-11:20	從廢棄物到綠能: 外埔綠能園區的循環經濟實踐 From Waste to Green Energy: The Circular Economy Practices of the Waipu Green Energy Park	郭世勳 副理 禾山林綠能股份有限公司 Albert Kuo, Associate Manager, Forest Water
11:20-11:50	以竹代塑— 用綠色材料與AI科技, 推動永續創新方案 Replacing Plastic with Bamboo— Using green materials and AI technology to promote sustainable innovation	徐惇穎 創辦人 先進材股份有限公司(新竹金) Alex Shu, Founder, Advanced Materials Co., Ltd.
	環境要永續 運動不缺席 For a sustainable Future, Let sport Take Part	陳佳銘 總經理 弘佳工業 Chia Ming Chen, Managing Director, OSSTSPORT
	農業可持續發展之塑膠污染解決方案 Plastic Pollution Solutions for Sustainable Agricultural Development	謝雅敏 總經理 成信實業股份有限公司 Dr. Ya-Min Hsieh, General Manager, Transcene Corp.
11:50-12:05	改變現有能源格局走向永續 Transforming the Current Energy Landscape Toward Sustainability	陳奕潔 副董事長 銘福集團 Janet Chen, Vice Chairperson Ming Fu Group
12:05-12:25	資源循環零廢棄 TZero Waste through Resource Circulation	賴瑩瑩署長 資源循環署 Lai Ying-Ying, Director General, Resource Circulation



講師姓名 / SPEAKER

## 蘇名健 / Ming-Chien Su

蘇花工鹿工作坊 創辦人

Founder,  
Su-Hua-Gung-Lu Workshop

### 廢木在用、華麗重生

### Waste Wood Reused, Gorgeously Reborn

#### 內容簡介 / *Speech Summary*

由於豬舍建造設計極重視通風明亮的條件,因選擇閒置豬舍種植鹿角蕨,然而鹿角蕨屬於附生植物需固定於板子上養護,板質材料選用老屋拆除的檜木板拼接而成,製作每塊都是獨特造型的背板,讓鹿角蕨板植呈現獨特的美,芭樂枝條在農人眼中是不好清除,枝條硬且彎彎曲曲不好搬運,我們剛好藉由這特性來與植物結合出具立體造型木座,擺飾呈現更有層次,我們最終藉由市集與手作課程來推廣作品讓更多人欣賞它們的美

Because the pigsty's design prioritizes ventilation and brightness, we chose an unused pigsty to plant staghorn ferns. However, staghorn ferns are epiphytes and need to be anchored to boards for maintenance. The boards were made from salvaged cypress planks from an old house, each uniquely shaped, giving the staghorn fern arrangement a distinctive beauty. Guava branches are notoriously difficult to remove by farmers—they're stiff, crooked, and hard to move. We cleverly utilized this characteristic to create threedimensional wooden stands, adding depth and dimension to the arrangement. Ultimately, we promoted our work through markets and hands-on workshops, allowing more people to appreciate their beauty.

#### 講師經歷 / *Speaker Experience*

屏東科技大學 植物保護研究所  
蘇花工鹿創辦人

National Pingtung University of Science and Technology  
Department of Plant Protection



講師姓名 / SPEAKER

**許築靖** / Alicia Hsu

鐵馬載憶有限公司

Carry Memory Bike Co., Ltd.

**社會共好，餐具循環將會是我們的起點****Reusable Tableware: Our Starting Point Toward a Shared Better Future****內容簡介 / *Speech Summary***

由創辦人林安宜成立並設計179earth.com，透過循環餐具的使用，除了期望提升民眾的社會環保意識，更以共享的方式，增加社會攜手合作的機會，讓願意投入的人一起讓循環餐具更容易，並且增加就業，成就共好。

**講師經歷 / *Speaker Experience***

在媒體出版及行銷行業逾10年，近年深入科學家研究項目的報導規劃，也與多家台灣企業合作ESG報告書製作及議題推廣，長期關注社會及環境議題，更深知環境永續的重要性，也期望能成為社會環境保護的助手，而鐵馬載憶將會是台灣推動環保餐具使用最好的第一個起點。



講師姓名 / SPEAKER

## 郭世勳 / Albert Kuo

禾山林綠能股份有限公司 副理

Associate Manager,  
Forest Water

### 從廢棄物到綠能：外埔綠能園區的循環經濟實踐

## From Waste to Green Energy: The Circular Economy Practices of the Waipu Green Energy Park

### 內容簡介 / *Speech Summary*

外埔綠能園區位於臺中市外埔區，是全國首座以「資源循環」與「再生能源」為核心理念的示範園區。園區整合廚餘回收、沼氣發電、堆肥再利用及環境教育功能，展現從廢棄物到綠能的完整循環經濟模式。透過將日常生活與市場產生的廚餘導入厭氧消化系統，轉化為沼氣再發電，園區不僅減少廢棄物處理量與污染排放，也成功將原本被視為環境負擔的廢棄物轉化為具經濟與能源價值的再生資源。

外埔綠能園區以「在地資源、在地處理、在地利用」為原則，與周邊農業社區合作，將消化後產物製成有機質堆肥回饋農地，形成「食物—廢棄物—能源—農業」的循環鏈，促進地方永續與社區共榮。

在管理與推廣層面，園區導入智慧監測系統，掌握廢棄物進出量及能源轉換效率，確保運作穩定。並積極推動環境教育與導覽活動，吸引各級學校、企業與政府單位參訪，提升民眾對綠能的理解與認同。同時，園區與學研機構及綠能產業合作，持續優化沼氣利用與堆肥品質，打造結合教育、示範與創新研發的永續平台。

外埔綠能園區不僅是臺灣推動循環經濟的重要案例，更展現地方與企業協力打造綠色未來的具體行動。

#### From Waste to Green Energy: The Waipu Green Energy Park

Located in Waipu District, Taichung City, the Waipu Green Energy Park is Taiwan's first circular economy demonstration site focusing on raw kitchen waste recycling and renewable energy. The park integrates waste collection, anaerobic digestion, biogas power generation, compost reuse, and environmental education. Household and market kitchen waste is converted into biogas for electricity, reducing waste and pollution while transforming it into valuable energy and economic resources.

Following the principle of "local resources, local treatment, and local utilization," the park works with nearby agricultural communities to turn digestion residues into organic compost, returning nutrients to farmland and creating a sustainable "food-waste-energy-agriculture" cycle. This approach supports local agricultural sustainability and encourages community participation in green energy development.

The park uses intelligent monitoring systems to track waste input and energy conversion, ensuring efficient operations. It promotes environmental education through guided tours and workshops, attracting schools, businesses, and public agencies to experience renewable energy applications. Partnerships with academic institutions and green technology companies further enhance biogas efficiency and compost quality, forming a platform that combines education, demonstration, and innovation.

The Waipu Green Energy Park exemplifies Taiwan's circular economy in action, showing how collaboration between government, industry, and communities can create a sustainable, energy-resilient future.

## 講師經歷 / *Speaker Experience*

### 學歷

國立中興大學環境工程學系學士

國立台北大學自然資源與環境管理研究所碩士

### 工作經歷

參與政府水污染防治專案

負責畜牧業沼渣沼液農地肥分使用計畫、廢棄物流向管制專案

污水處理廠營運管理

公共設施促參案件經營管理

外埔綠能生態園區專案統籌與執行

### 專業領域

環境工程與水污染防治

污水處理與綠能應用

循環經濟及專案管理

跨領域技術整合與政府、企業、社區協作

### Education

- B.Sc. in Environmental Engineering, National Chung Hsing University
- M.Sc. in Natural Resources and Environmental Management, National Taipei University

### Professional Experience

- Participated in government water pollution control projects
- Managed livestock biogas residue fertilizer programs and waste flow management initiatives
- wastewater treatment plant operations
- Manages public-private partnership projects
- Project Manager of the Waipu Green Energy Ecological Park

### Areas of Expertise

- Environmental engineering and water pollution control
- Wastewater management and green energy applications
- Circular economy and project management
- Cross-disciplinary technical integration and government-industry-community collaboration



講師姓名 / SPEAKER

## 徐惇穎 / Alex Shu

先進材股份有限公司 創辦人

Founder,  
Advanced Materials Co.,Ltd.

### 以竹代塑—

### 用綠色材料與AI科技,推動永續創新方案

### Replacing Plastic with Bamboo—

### Using green materials and AI technology to promote sustainable innovation

#### 內容簡介 / *Speech Summary*

先進材股份有限公司成立於2020年,品牌為「新竹金新竹金」、「新竹金BAMBOO」,專注於100%可生物降解負碳包材創新與研發。以竹纖維生質複合材料粒子為核心,應用於食品級與電子級包材,並結合竹AI模型與AI碳計算系統,精準調控配方與量化減碳效益。

期望減少供應鏈塑料使用,大幅降低全球產品碳足跡,鎖定科技業痛點,共同應對全球供應鏈變化。

以台灣在地竹林資材推動循環再生,實踐「以竹代塑」,致力倡議減碳、減塑與減廢,打造永續未來。

Founded in 2020, Advanced Materials Co., Ltd., under the brands "Hsinchu Gold" and "Hsinchu Gold BAMBOO," specializes in the innovation and development of 100% biodegradable, carbon-negative packaging materials. Utilizing bamboo fiber biocomposite particles, they are used in food-grade and electronic-grade packaging. Integrating bamboo AI models and AI carbon calculation systems, they precisely control formulations and quantify carbon reduction benefits.

We hope to reduce the use of plastic in the supply chain, significantly lower the carbon footprint of global products, target the pain points of the technology industry, and jointly respond to changes in the global supply chain.

We utilize local bamboo forest resources to promote replacing plastic with bamboo, they are committed to promoting carbon, plastic, and waste reduction to create a sustainable future.

#### 講師經歷 / *Speaker Experience*

- 國立清華大學材料所博士班
- 2007年十大傑出青年電機工程師
- 2021年金峰獎十大創業楷模
- 2025年中國工程師學會新竹分會候補理事
- 2025年十大傑出工程師候選人
  
- Ph.D. Program in Materials Science, National Tsing Hua University
- Top 10 Outstanding Young Electrical Engineers, 2007
- Top 10 Entrepreneurial Role Models – Golden Peak Award, 2021
- Alternate Director, Hsinchu Branch, Chinese Institute of Engineers, 2025
- Candidate for 2025 Top Ten Outstanding Engine



講師姓名 / SPEAKER

## 陳佳銘 / Chen Chia Ming

弘佳工業 總經理

Managing Director,  
OSSTSPORT

### 環境要永續運動不缺席

### For a sustainable Future, Let sport Take Part

#### 內容簡介 / *Speech Summary*

全世界的運動產業蓬勃發展,運動已經是跟生活緊密相關,各式各樣且大量的運動相關產品被製造出來,已經形成一個龐大的供需市場,在這個應該是健康的產業中,可能直接或間接造成環境的負擔,身為台灣運動地板製造商的OSSTSPORT能不能在這個運動市場中做些什麼努力?

The global sports industry is flourishing, and sports have become an integral part of daily life. A wide variety and massive volume of sports-related products are being manufactured, creating a vast supply-and-demand market. However, this industry—which should inherently promote health—has, both directly and indirectly, placed a burden on the environment. As a Taiwanese manufacturer of athletic track surfaces, OSSTSPORT must ask: Is there something we can do to make a meaningful contribution within this expanding sports market?

#### 講師經歷 / *Speaker Experience*

在弘佳工業OSSTSPORT擔任總經理,自行研發出來的技術,開發合成橡膠跑道及其他運動地板,也是台灣第一家運動田徑跑道取得國際田徑總會(WA)認證的公司,目前開發出來的運動地板行銷到世界超過20個國家

At OSSTSPORT, the General Manager has led the independent development of proprietary technologies to produce synthetic rubber running tracks and other sports flooring systems. OSSTSPORT is recognized as the first company in Taiwan to obtain World Athletics (WA) certification for its athletic track surfaces. Today, its products are successfully marketed and installed in over 20 countries worldwide.



講師姓名 / SPEAKER

## 謝雅敏 / Dr. Yamin Hsieh

成信實業股份有限公司 總經理

General Manager,  
Transcene Corp.

### 農業可持續發展之塑膠污染解決方案

## Plastic Pollution Solutions for Sustainable Agricultural Development

### 內容簡介 / *Speech Summary*

農業使用塑膠資材以地膜耗用量大,足以造成白色汙染,本講題提出解決方案,可有助於農業改善,促進永續發展。

The extensive use of plastic materials such as mulch films in agriculture has led to significant white pollution. This presentation proposes solutions that can help improve agricultural practices and promote sustainable development.

### 講師經歷 / *Speaker Experience*

#### 現任職務

- 成信實業股份有限公司 總經理
- 成亞資源科技股份有限公司 董事長

#### 技術

- 碳資源再生技術、濕法冶金技術、循環經濟專業設計顧問

#### 經歷

- 創立成信實業 2019
- 共同創落成亞資源 2015
- 日本東京大學環境科學系研究員 2008
- 國立成功大學資源工程系博士2005
- 服務領域
- 在都市採礦的領域,帶領專業高級人才的工作團隊,運用基礎物理化學知識能量去結合科技,提供專業的循環經濟設計顧問服務,特別是給予廢棄物新的身分證,資源價值鑑定報告

透過量化循環效益,協助企業決策跨入零廢棄的關鍵第一步。

擅長「產業共生型的循環經濟設計」,將A公司的資源物,設計成為B公司的原料,落實循環。



講師姓名 / SPEAKER

## 陳奕潔 / Janet Chen

銘福集團 副董事長

Vice Chairperson  
Ming Fu Group

### 改變現有能源格局走向永續

### Transforming the current energy landscape toward sustainability

#### 內容簡介 / *Speech Summary*

銘福集團——改變現有能源格局走向永續

銘福集團自1976年創立以來，深耕資源再生與循環經濟領域，秉持「城市採礦、綠色永續」的核心理念，致力於改變現有能源格局，推動環境與經濟並行發展。集團從廢鋼鐵、廢車輛及廢五金起家，逐步拓展至廢資訊家電、塑膠、鉛蓄電池與乾電池等回收處理事業，並在全台建立完善的環保產業鏈。面對全球淨零趨勢，銘福集團積極推動碳盤查、碳足跡管理及減碳計畫，於麻豆設立SRF再生燃料研發中心與再生能源電廠，發展廢棄物能源化技術，打造綠色能源循環體系。

集團不僅關注環境保護，更著重社會責任與人文關懷，推動醫療生技、教育、公益及銀髮照護事業，期望以多元永續的發展策略，帶動產業正向轉型。未來，銘福將持續以創新科技與國際合作為驅動力，串聯各事業體能量，實現「資源循環、能源永續、環境共榮」的願景，為台灣乃至全球綠色經濟發展注入新動能，邁向更潔淨、更永續的未來。

#### Ming Fu Group — Transforming the Energy Landscape Toward Sustainability

Founded in 1976, Ming Fu Group has long been a pioneer in Taiwan's circular economy and resource recycling industry. Guided by the philosophy of "Urban Mining for a Sustainable Future," the Group is committed to reshaping the existing energy landscape through innovation and environmental responsibility. Starting from scrap metal, end-of-life vehicle, and waste hardware recycling, Ming Fu has expanded into comprehensive waste management—including electronics, plastics, and lead-acid batteries—establishing one of the most complete recycling networks in Taiwan.

In response to global net-zero trends, Ming Fu actively promotes carbon inventory management, carbon footprint reduction, and renewable energy development. The Group has built SRF (Solid Recovered Fuel) research and production facilities and renewable power plants in Madou, integrating waste-to-energy technology into its operations. Beyond environmental initiatives, Ming Fu also invests in healthcare, education, and public welfare, embodying its belief that sustainability must balance ecology, economy, and humanity.

With continuous innovation and global collaboration, Ming Fu Group strives to lead Taiwan's green transformation—turning waste into value, energy into sustainability, and responsibility into long-term progress for the planet.

#### 講師經歷 / *Speaker Experience*

陳奕潔副董事長畢業於美國南加州大學(USC)碩士，現任銘福集團副董事長。她兼具國際視野與創新思維，積極推動集團於綠色經濟與循環再生產業的永續轉型。陳副董事長同時擔任台灣輔助醫學醫學會國際事務諮詢委員會主任委員，致力於跨國產學與醫療交流，推動再生醫學與健康管理領域的合作。除企業經營外，她長期關注社會公益，投入多項慈善組織，包括翔鳳慈善關懷協會、心安草關懷協會、勵馨基金會、原住民文教協會、癌症希望基金會等，並關懷獨居老人及弱勢族群。她同時積極參與多個國內外專業與創業社團，如YPO世界青年總裁協會北京分會、工商建研會、台灣上市櫃公司協會及女性創業菁英會，展現企業女性領導者的影響力與責任感。陳副董事長秉持「以永續創新連結未來」的理念，致力讓銘福集團在環保、醫療與公益間取得長遠平衡。

## 講師經歷 / *Speaker Experience*

Vice Chairperson Janet Chen holds a master's degree from the University of Southern California (USC) and currently serves as Vice Chairperson of the Ming Fu Group. With an international perspective and innovative mindset, she actively leads the Group's transformation toward sustainable development in the circular economy and green industries. She is also the Director of the International Affairs Advisory Committee of the Taiwan Complementary Medicine Society, promoting cross-border collaboration in regenerative medicine and health management.

Beyond corporate leadership, she is devoted to social welfare and philanthropy, contributing to various organizations such as the Xiangfeng Charity Care Association, Xin'an Grass Association, the Garden of Hope Foundation, the Indigenous Cultural Education Association, and the Cancer Hope Foundation, with a strong commitment to supporting underprivileged and elderly communities.

She also participates in professional and entrepreneurial networks including the YPO Beijing Chapter, the Chinese Business Construction Research Association, the Taiwan Listed Companies Association, and the Women Entrepreneurs Elite Group. Upholding the belief of "Connecting the Future through Sustainable Innovation,

" Vice Chairperson Chen strives to achieve long-term balance between environmental responsibility, medical advancement, and social well-being.

# 3 展商名單及介紹

## Exhibitors Information

參展商名單 Exhibitors List

展商介紹 Exhibitor Information  
(依照展商編號排序)

## 機構與組織 INSTITUTIONS

台灣中油公司	CPC CORPORATION TAIWAN	S1330
台灣電力公司	TAIWAN POWER COMPANY	S1330
金屬工業研究發展中心	METAL INDUSTRIES RESEARCH & DEVELOPMENT CENTRE	S1322
紡拓會	TAIWAN TEXTILE FEDERATION	S1412
高雄市政府環境保護局	ENVIRONMENTAL PROTECTION BUREAU KAOHSIUNG CITY GOVERNMENT	S1302
高雄市經貿發展協會	KAOHSIUNG COMMERCE & TRADE DEVELOPMENT	S1403
國立高雄科技大學	NATIONAL KAOHSIUNG UNIVERSITY OF SCIENCE AND TECHNOLOGY (NKUST)	S1122
經濟部中小及新創企業署	SMALL AND MEDIUM ENTERPRISE AND STARTUP ADMINISTRATION, MOEA	S1330
中小微企業AI創新應用主題館	SMEA AI PAVILION	S1108
怡和國際股份有限公司	YIHO INTERNATIONAL CO., LTD.	S1108
台灣和喧綠能股份有限公司	HEXA RENEWABLES TAIWAN CO., LTD.	S1108
智恆探索有限公司	ECOX CO., LTD.	S1108
幸福氣能源股份有限公司	LUCKY GAS ENERGY CO., LTD.	S1108
士芃科技股份有限公司	SHIPENG TECHNOLOGY CO., LTD.	S1108
麗鴻科技股份有限公司	LEDVON SECURITY TECHNOLOGY CO., LTD.	S1108
歐群科技股份有限公司	OCEAN TECHNOLOGIES CO.,LTD.	S1108
國紡企業股份有限公司	LOVETEX INDUSTRIAL CORP.	S1108
奶基運動事業有限公司	CURVES	S1108
寶寶食品企業有限公司	BIN BAO FOOD ENTERPRISE COMPANY LIMITED	S1108
億進寢具企業有限公司	I CHIN BEDDING CO., LTD.	S1108
隆興冷凍廠股份有限公司	LUNG SHING REFRIGERATING WORKS CO., LTD.	S1108
馬家麵線有限公司	MAJA NOODLES COMPANY	S1108
豆酥朋食品股份有限公司	DOSUPER FOOD CO., LTD.	S1108
新味醬油食品工廠	HSINWEI SOY SAUCE FACTORY	S1108
經濟部能源署	ENERGY ADMINISTRATION, MINISTRY OF ECONOMIC AFFAIRS, R.O.C.	S1330
經濟部產業發展署	INDUSTRIAL DEVELOPMENT ADMINISTRATION, MOEA	S1330
環境部資源循環署	RESOURCE CIRCULATION ADMINISTRATION MINISTRY OF ENVIRONMENT	S1336
王功農漁牧生產合作社		S1336
睿成塑膠有限公司		S1336
蘇花工鹿工作坊		S1336
鐵馬載憶有限公司	CARRY MEMORY BIKE CO., LTD.	S1336

## 資源循環 RESOURCE CIRCULATION

EUCNC CO., LTD.	EUCNC CO., LTD.	S1416
上順水泥製品企業股份有限公司	SHANG SHUN CONCRETE PRODUCTS, LIMITED CO.	S1130
中山斯瑞德環保科技有限公司	HARDEN SHREDDER MACHINERY CO., LTD.	S1114
中聯資源股份有限公司	CHC RESOURCES CORPORATION	S1111
日益和股份有限公司	SUN SURFACE TECHNOLOGY CO., LTD.	S1126
台灣卜力斯股份有限公司	PASSAL CO., LTD.	S1132
正修科技大學	CHENG SHIU UNIVERSITY	S1138
名麒針織有限公司	MAIN CHIEF KNITTING CO., LTD.	S1231
成信實業股份有限公司	TRANSCENE CORP.	S1222
桃園永續資源館	TAOYUAN SUSTAINABLE RESOURCE CENTER	S1214
原程企業股份有限公司	YUN-CHEN ENTERPRISE CO., LTD.	S1229
財團法人紡織產業綜合研究所	TAIWAN TEXTILE RESEARCH INSTITUTE	S1213
國立臺北科技大學	NATIONAL TAIPEI UNIVERSITY OF TECHNOLOGY	S1238
豐園北科大木創中心	CENTRE OF WOODWORK TECHNOLOGY AND INNOVATION (COWTAI)	S1238

## 能源 NEW ENERGY

三地能源股份有限公司	SANTI RENEWABLE ENERGY	S1226
三阪實業股份有限公司	SANWU BANDO INC.	S1121
財團法人工業技術研究院 (先進光電 & 整合應用技術組)	INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE	S1313
光宇工程顧問股份有限公司	UNITECH NEW ENERGY ENGINEERING CO., LTD.	S1119
財團法人工業技術研究院 (測量中心)	INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE (ITRI)	S1115
國立成功大學地熱碳封存及石油策略研究中心	GEOHERMAL, CO2 STORAGE AND PETROLEUM STRATEGY RESEARCH CENTER	S1410
日成科技股份有限公司	OSA ENGINEERING	S1331

## 永續城市 SUSTAINABLE CITY

CHUNG-ANG UNIVERSITY	CHUNG-ANG UNIVERSITY	S1418
LUKAS CO., LTD.	LUKAS CO., LTD.	S1232
NESPRESSO	NESPRESSO	S1406
PAUL WURTH INTERNATIONAL S.A.	PAUL WURTH INTERNATIONAL S.A.	S1136
SUWON SUSTAINABLE CITY FOUNDATION	SUWON SUSTAINABLE CITY FOUNDATION	S1420
SUWON UNIVERSITY START-UP INCUBATION CENTER	SUWON UNIVERSITY START-UP INCUBATION CENTER	S1422
TAKE 5 PEOPLE SDN. BHD.	TAKE 5 PEOPLE SDN. BHD.	S1436
WEIGUT PARTING	WEIGUT PARTING	S1434
社團法人台灣智慧淨零建築產業聯盟	TAIWAN INTELLIGENT ZERO CARBON BUILDING ALLIANCE	S1310
高田科技有限公司	KAOTEN SCIENTIFIC CO., LTD.	S1337
傑明新能源	EUKA POWER	S1310
愛比科技股份有限公司	IPEVO CORP.	S1230
新加坡商英國標準協會集團私人有限公司臺灣分公司	BRITISH STANDARDS INSTITUTION	S1235
億鴻系統科技	E-FORMULA TECHNOLOGIES INC.	S1310
樂鮮良房		S1310

## 綠色創新 GREEN INNOVATION

台灣酵素村股份有限公司	TAIWAN ENZYME VILLAGE CO., LTD.	S1131
系品有限公司	LEO LIU	S1133
經濟部國際貿易署企業永續暨CBAM申報諮詢攤位	CORPORATE SUSTAINABILITY AND CBAM REPORTING CONSULTATION	S1113
綠能互動充電站	SMART GREEN ENERGY CHARGING STATION	S1139

## 減碳科技 DECARBONIZATION TECHNIQUES

台灣耶拿儀器有限公司	ANALYTIK JENA TAIWAN CO., LTD.	S1237
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經濟部中小及新創企業署

SMALL AND MEDIUM ENTERPRISE AND STARTUP ADMINISTRATION  
MINISTRY OF ECONOMIC AFFAIRS攤位編號  
Booth No.

S1108

S1330

## 經濟部中小及新創企業署

SMALL AND MEDIUM ENTERPRISE AND STARTUP ADMINISTRATION,  
MINISTRY OF ECONOMIC AFFAIRS

#中小企業#循環經濟#低碳永續

### 公司簡介

循環經濟是達成淨零排放的重要手段，透過資源再利用、材料回收與產品延壽等方式，可推動產業邁向高值化與低碳化發展。經濟部中小及新創企業署支持建置「永續材質圖書館」，提供小批量試製、新材質應用打樣，以及材質應用媒合輔導等服務，協助中小企業邁向永續。另一方面，農廢循環再利用與跨域生態系的建構，則展現出不同面向的永續實踐，從廢棄資源再生到產業協作升級，共同推動循環經濟落地，開創低碳永續的新契機。

 連結網址 | <http://www.sme.gov.tw/>



攤位編號 | **S1111**  
Booth No.

## 中聯資源股份有限公司

CHC RESOURCES CORPORATION

#中聯資源股份有限公司#爐石粉#節能減碳

### 公司簡介

爐石粉，為一貫作業煉鋼廠在鐵水冶煉製程產出的熔融爐渣，經高壓水淬驟冷製程並經研磨始符合「國家標準CNS12549水淬高爐爐渣粉」，將爐石粉與卜特蘭水泥混拌後產製卜特蘭高爐水泥具備提升晚期強度、緻密性與耐久性等效益。

Ground-Granulated Blast-Furnace Slag(GGBFS), produced as molten slag during the iron smelting process in continuous integrated steelmaking plants, undergoes rapid cooling via high-pressure water quenching in compliance with the CNS 12549 standard. Mixing GGBFS and Portland cement, offering enhanced late-stage strength, density, and durability.

爐石粉不僅為有用資源，更是綠色建材。爐石粉碳排約50kg CO<sub>2</sub>-e/ton；卜特蘭水泥則約900kg CO<sub>2</sub>-e/ton，當爐石粉有效取代卜特蘭水泥時具有顯著減碳效益。

GGBFS is not only a valuable resource but also a eco-friendly building material. Its carbon footprint is approximately 50kg CO<sub>2</sub>-e/t, whereas Portland cement emits around 900kg CO<sub>2</sub>-e/t. Effectively substituting Portland cement with GGBFS yields significant carbon reduction benefits.

🌐 連結網址 | <https://www.chc.com.tw/>

攤位編號 | **S1113**  
Booth No.

## 工研技術研究院 (產業科技國際策略發展組)

### 經濟部國際貿易署企業永續暨CBAM申報諮詢攤位

Corporate Sustainability and CBAM Reporting Consultation

#CBAM

#### 公司簡介

歐盟為防止產業碳洩漏並促使全球產業朝低碳製造轉型，於2021年7月通過碳邊境調整機制 (CBAM) 草案，未來企業出口到歐盟市場皆必須購買CBAM憑證。2025年更邁入歐盟CBAM最終過渡期申報年，許多受管制的企業不知要如何準備資料提供歐盟客戶，基此，經濟部國際貿易署委工研院於本展覽特別設立諮詢攤位，幫助企業了解政策架構意涵與申報資料填寫釋疑。



展商介紹 EXHIBITOR INFORMATION

**harden**

攤位編號 | **S1114**  
Booth No.

**中山斯瑞德環保科技有限公司**

HARDEN SHREDDER MACHINERY CO., LTD.

公司簡介



🌐 連結網址 | <https://mfw.com.tw/>

## 財團法人工業技術研究院量測中心

Industrial Technology Research Institute/  
Center for Measurement Standards

#金能獎#太陽光電產品#綠能產品檢測實驗室

### 公司簡介

經濟部能源署自2013年起舉辦「優質太陽光電產品評選活動」，設立「金能獎」，表揚高效與高品質之國產太陽光電產品。本活動主要依據國際電工委員會 (IEC) 國際太陽光電最新標準，並因應產業發展與市場需求，每年制訂新的評選標準與加嚴測試條件，以期選出最具代表性的台灣優質太陽光電產品。114年度第十三屆金能獎評選標準除持續提高各類產品效率門檻與更新參考標準至最新版本外，考量國內高溫高濕、颱風等環境特性，在模組與電池評選標準方面，新增紫外線誘發衰減測項，並加嚴模組機械負荷測試，提高產品可靠度與抗風等環境耐候性。在變流器方面，為強化資安等級，新增資安測項與監視單元資安管理，以確保電力系統的安全穩定。

金能獎引領台灣太陽光電產品品質標竿，114年度第十三屆金能獎共設有「一般型模組」、「利基型模組」、「太陽能電池」及「變流器」四大類別。獲獎之金能獎產品無論在品質、性能與可靠度方面，皆能滿足台灣海島型環境之嚴苛要求，具產品差異化優勢與國際競爭力。

工研院量測中心綠能檢測測試實驗室為國內具備太陽光電、儲能與充電系統等三合一完整測試能力之TAF ISO/IEC 17025認證實驗室，亦為標檢局VPC指定實驗室與德國TUV在台合作單位。具備IEC 61215、61730、62109、61851；CNS 61215、15118、15382、15426、62477-1、15511等測試能力，可測試產品覆蓋電池、模組、變流器、儲能系統及充電樁等，還可提供3A+級太陽光模擬器校正、行動測試車服務、支援戶外案場與系統驗證；並與PTB、NIST、UNSW等機構合作，參與IEC/SEMI國際標準制定。提供全方位之檢測能量與客製化服務，是台灣綠能產業具公信力之第三方檢測認證實驗室。

工研院綠能檢測測試實驗室提供全方位之綠能產品檢測能量與客製化服務，是台灣綠能產業具公信力之第三方檢測認證實驗室。

## 充電、儲能、太陽能技術齊聚

我們提供全面的檢測服務，涵蓋從太陽能發電、電力儲存與轉換，到電動車充電的完整綠色能源生態系，提供更嚴謹、更貼近實務、更具公信力的測試服務。

### ◆ PV變流器



測試服務	併網	安規	實驗室測試項目
國內應施檢驗 (RPC) 國內自願性產品認 (VPC)	IEC 62118 IEC 61727 CNS 15382	IEC 62109-1/-2 CNS 15426-1/-2	防孤島測試 諧波失真 溫升測試 IP等級

### ◆ 電力電子轉換系統



測試服務	併網	安規	實驗室測試項目
國內應施檢驗 (RPC) 國內自願性產品認 (VPC)	CNS 15382 併網型儲能系統之 電力轉換系統併聯 要求技術規範	CNS 15426-1/-2 CNS 62477-1	防孤島測試 諧波失真 溫升測試 IP等級

### ◆ 充電樁



測試服務	安規	通訊協定	實驗室測試項目
國內應施檢驗 (RPC) 國內自願性產品認 (VPC)	IEC 61851-1/-2/3 CNS 15511-1/-2/3	IEC 61851-2/-3/-24 CNS 15511-2/-3/-24	電擊防護 通訊架構測試 溫升測試 IP等級

## ◆ 太陽光電系統自願性綠色要求

### 太陽光電模組浸泡水質測試

綠能，不該只是發電，更應是對環境的承諾。我們的水質測試服務，讓太陽能模組在發揮能源效益的同時，也守護台灣最珍貴的水資源。

#### ◆ 測試模擬應用場景，把關環境風險

- 模組破壞處理 (Module Breaking)**
  - 依國際 IEC 61730 規範將模組破裂，模擬模組在損壞情境下對水質的影響
- IPX8 長時間沉水試驗**
  - 模組需完全浸入水下 1 公尺以上，持續 7 天
  - 水質可調整鹽度、模擬鹽灘、湖泊等特殊環境
- 水樣採集與分析**
  - 符合國內外飲用與環境水質管制標準，於試驗前後採樣，進行：
    - ▶ 11 項重金屬 (如鉛、鎘、砷、汞等)
    - ▶ 16 項有機物 (如鄰苯二甲酸酯等)

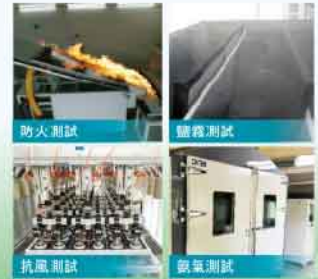
#### 太陽光電模組水質測試



#### ◆ 更嚴謹、更貼近實務、更具公信力

測試特色	說明
國際標準導入	測試依據 IEC 及 CNS 等國際國家規範執行。
高鹽模擬環境	水質可調整鹽度，模擬鹽灘、海邊、極端氣候下的使用情境。
模組破壞岩出鹽測	搭配破裂模擬與岩出分析，提高檢測完整與風險預測精準度。
正式合格水質送驗	送交環保署認可實驗室進行分析，具備公正力與社會信服力。
整合結構安全測試	可搭配耐蝕、機械、火災等安全試驗，一次完成多重驗證。
已成功應用多案場	已協助多家國內模組製造商順利通過驗證，真實請參考性。

#### 可搭配腐蝕與安全測試



如需更多資訊或測試諮詢，歡迎聯繫

**檢測中心**

何慶功 業務副組長 T: 03-5918739 E: johnnyho@itri.org.tw  
張修銘 工程師 T: 03-5916712 E: KennyChang@itri.org.tw

如需更多資訊或測試諮詢，歡迎聯繫

**標準中心**

何慶功 業務副組長 T: 03-5918739 E: johnnyho@itri.org.tw  
丁宇 技術經理 T: 03-5917323 E: ackling@itri.org.tw

連結網址 | <https://www.tepv.org.tw/>  
<https://www.itri.org.tw/english/ListStyle.aspx?DisplayStyle=05&SiteID=1&MmmID=617751557151650751>





光宇工程顧問股份有限公司

Unitech New Energy Engineering Co., LTD

攤位編號  
Booth No.

S1119

## 光宇工程顧問股份有限公司

UNITECH NEW ENERGY ENGINEERING CO., LTD.

#減碳平台#低碳發電設備#生態多樣性復育

### 公司簡介

光宇工程攜手集團關企建越科技、嘉益能源及曜越綠電等四家公司，發揮集團協同效益，共同打造「減碳平台」，以系統化與數據化的方式，為客戶提供完整減碳規劃。該平台不僅延伸傳統環評業務範疇，更涵蓋 ESCO 節能績效改善、科技碳權交易、自然碳匯案場開發等專業領域，協助企業建構符合國際標準的碳管理架構。光宇同時投入生物多樣性調查、環境保育設計與自然正向顧問服務，以確保專案具長期永續價值。透過專業技術、跨域合作與政策趨勢整合，光宇工程持續提升企業 ESG 競爭力，引領產業邁向淨零轉型目標。

Unitech New Energy Engineering Co., Ltd., together with ECO Technical Services Co., Ltd., JIA YI ENERGY CO., LTD., and Yao Yue Green Power, has established an integrated Carbon Reduction Platform to deliver comprehensive decarbonization solutions.

The platform expands beyond traditional environmental impact assessments to include ESCO energy efficiency improvement, technology-based carbon credits, and nature-based carbon sink development, supporting enterprises in building frameworks aligned with global standards. In addition, Unitech provides biodiversity surveys, ecological conservation planning, and nature-positive consulting, ensuring long-term sustainability.

By combining technical expertise, cross-sector collaboration, and alignment with international climate policies, Unitech strengthens corporate ESG competitiveness and drives industries toward net-zero transformation.

 連結網址 | <https://www.kunitech.com.tw/>

 **BANDO**攤位編號 | **S1121**  
Booth No.

## 三阪實業股份有限公司

SANWU BANDO INC.

#阪東薄膜#三阪實業

### 公司簡介

三阪實業本次即將展出日本阪東集團全新研發節能材料。

這款由日本阪東精心研發的先進材料，透過獨特的放射冷卻技術，且無須複雜的施工技術，就能有效降低建築物、設備及車輛的表面溫度。

這不僅能大幅減少空調與冷卻系統的耗能，更能幫助企業實踐節能減碳的目標，應對碳足跡的計算與SGS報告需求。

歡迎親臨本攤位，了解更聰明的降溫解方！

SANBAN will showcase the BANDO's newly developed energy-saving material. Engineered in Japan by Bando Chemical Industries, this advanced material uses unique radiative-cooling technology to effectively lower the surface temperatures of buildings, equipment, and vehicles—without requiring complex installation.

By cutting heat load, it can significantly reduce the energy consumption of air-conditioning and cooling systems, while helping enterprises pursue energy-saving and decarbonization goals, including carbon-footprint accounting and SGS reporting needs.

 連結網址 | [https://www.bando.com.tw/welcome\\_tw.php](https://www.bando.com.tw/welcome_tw.php)

**國立高雄科技大學**

National Kaohsiung University of Science and Technology

攤位編號  
Booth No.**S1122**

## 國立高雄科技大學

NATIONAL KAOHSIUNG UNIVERSITY  
OF SCIENCE AND TECHNOLOGY (NKUST)

#真菌力量(以菇解毒、白腐真菌)#太陽能車#全魚利用、金紙回收、永續祭祀

### 公司簡介

國立高雄科技大學 LAB 2.0

— 實驗室日常中的永續行動 —

高雄科技大學始終以「實驗 × 創新 × 未來」為核心精神，致力於推動永續發展與跨領域創新，透過教育、研發與實作落實社會責任。

本次以「實驗室」為展覽主軸與空間設計靈感，象徵每一項研究成果背後，都是來自無數次的測試、驗證與精進。

展覽聚焦 永續發展 (SDGs) 與跨域創新實踐，涵蓋從污染治理、食農教育、智慧交通、再生能源、漁業轉型、原民文化保存，到地方創生等多元主題。

觀眾將深入了解本校研究團隊如何透過實驗精神，呈現技職教育與應用研究如何深度連結社會需求，並攜手產官學研共同打造更具韌性與永續的未來城市。

《金淨》計畫關注傳統民俗祭祀活動所衍生的金紙焚燒污染問題，透過創新回收與再生技術，成功將金紙灰燼轉化為環保建材與文創商品，實現焚燒後廢棄物的循環再利用。計畫以設計導入傳統信仰場域，攜手在地廟宇、社區居民與青年共創團隊，重新思考環境友善的祭祀方式，推動文化永續與環保並行的生活模式。此外，透過實地工作坊與社區參與行動，深化民眾對綠色信仰的認同與實踐，並帶動觀光與文化創生的雙重效益。《金淨》體現 SDG 11「永續城市與社區」、SDG 12「責任消費與生產」精神，展現大學以社會實踐為核心的地方創生模式，為傳統信仰文化與環境保護之間搭起永續橋梁。

《酶好菇事》是一項結合微生物科技與環境工程的跨域創新計畫，聚焦於戴奧辛等高毒性持久性污染物 (POPs) 所造成的土壤與水源污染議題。團隊運用白腐真菌與天然酶進行生物整治，發展低能耗、無二次污染的替代技術，開創友善環境的解毒新途徑。此技術鏈結農業廢棄物再利用、真菌培養、教育推廣與移動式菇寮建構，兼具研發應用與社區參與價值。計畫除環境治理外，更建立觀光教育園區，讓民眾理解生物整治科技的應用與潛力。《酶好菇事》實踐 SDG 3、4、6、9、11、12、13 等多項目標，呈現大學如何以科技力量回應環境危機，並帶動產學研社共同邁向永續未來。



水產品副產物再應用-全魚利用



金淨-金紙回收、永續祭祀

The Golden Purity project addresses environmental pollution caused by the burning of joss paper in traditional folk rituals. By developing innovative recycling and regeneration techniques, the project transforms joss ash into eco-friendly building materials and cultural-creative products, achieving a circular economy for post-incineration waste. Through the integration of design into religious sites and collaboration with local temples, community residents, and youth co-creation teams, the project promotes an environmentally friendly approach to worship and a sustainable cultural lifestyle. Community workshops and participatory actions further deepen public awareness of green beliefs, while boosting local tourism and cultural revitalization. Golden Purity embodies the essence of SDG 11 "Sustainable Cities and Communities" and SDG 12 "Responsible Consumption and Production", demonstrating how universities can drive social practice-based place-making and bridge tradition with sustainability.

The Myco-Remediation Project is a cross-disciplinary innovation initiative that leverages microbial biotechnology and environmental engineering to tackle contamination caused by persistent organic pollutants (POPs) like dioxins in soil and water. By utilizing white-rot fungi and natural enzymes for bioremediation, the team develops a low-energy, non-toxic alternative to conventional treatment methods—pioneering a green solution for environmental detoxification. The project integrates agricultural waste reuse, fungal cultivation, educational outreach, and mobile mushroom labs, combining applied research with community engagement. Beyond remediation, it establishes an eco-education tourism park to enhance public understanding of bioremediation technologies. This project advances multiple SDGs including 3, 4, 6, 9, 11, 12, and 13, illustrating how universities can harness scientific innovation to address environmental crises and promote sustainable futures through academia-industry-community collaboration.



阿波羅太陽能車

攤位編號 | **S1126**  
Booth No.

## 日益和股份有限公司

SUN SURFACE TECHNOLOGY CO., LTD.

#日益和#除膠液#顯影液

### 公司簡介

半導體封裝製程中的化學除膠(CD)製程，主要是將導線架以化學藥水來作浸泡，藉此可將膜壓後溢出的樹脂殘膠予以去除。日益和產品特性

- 1.可於較低溫下操作即可有效去除溢脂溢膠
- 2.使用CD藥水後不傷導線架底材
- 3.廣泛適用於各種材質之導線架
- 4.操作性佳

#### Chemical Deflashing (CD) chemicals

1. Excellent ability to remove molding flash/resin bleed at lower temperatures
2. Not damage to the substrate of lead frame
3. Suitable for lead frames with PPF, Cu alloy or Fe/Ni alloy substrate

日益和無機顯影液主要是以鉀鹽系統所調配的鹼性顯影液，因其中具有一定的緩衝力，可使顯影過程中的pH值變化幅度小且較為穩定，一般通稱為MIB (metal ion bearing) 顯影液。

#### 產品特性

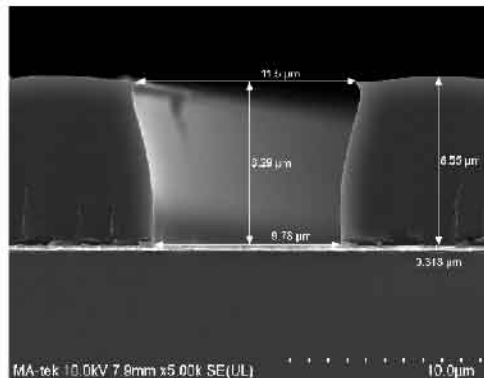
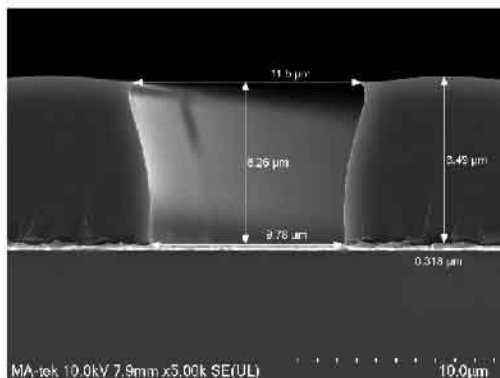
- 1.SBD-700系列顯影液穩定性高，且品質管控良好(金屬不純物及微粒子數)
- 2.濃度值R1/R2穩定不飄移
- 3.可提供客戶特殊需求之濃度(如顯影後對比或解析度要求較高)
- 4.無刺激性臭味(無味)

- 1.Good performance stability and quality control particularly on metal impurities and particles
- 2.Less variation on R1 & R2
- 3.Concentration adjustable to meet special requirements
- 4.No pungent odor

## IC 先進封裝黃光蝕刻製程

### 顯影 & 清洗 / 稀釋

- PI/PBO / Dry film developer
- PR Stripper
- Etchant
- EBR



## IC 導線架封裝

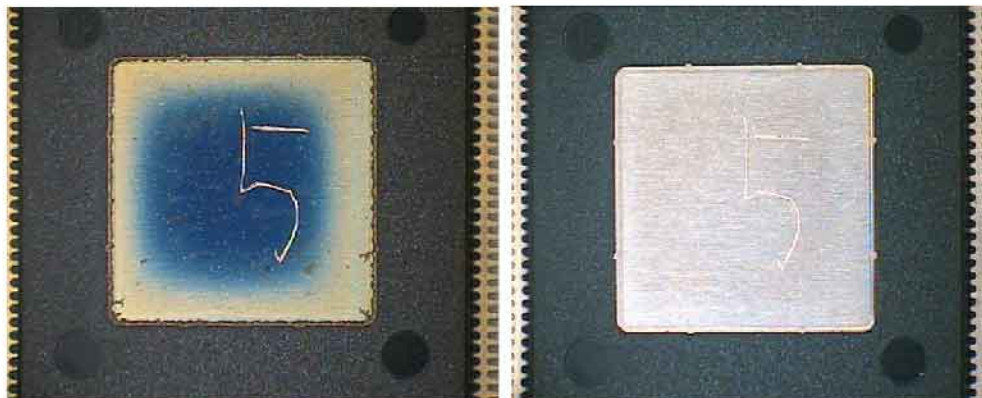
### 導線架電鍍前處理

- 化學 / 電解除膠
- 活化

### 導線架電鍍後處理

- Belt Stripper
- ReWork

### 導線架電鍍鍍液



Before

After

🌐 連結網址 | <http://www.sunstech.com.tw/>





## 台灣酵素村

Taiwan Enzyme Village Co., Ltd.

攤位編號  
Booth No.

**S1131**

## 台灣酵素村股份有限公司

TAIWAN ENZYME VILLAGE CO., LTD.

#台灣酵素村#日初蔬果發酵液 #循環經濟力

### 公司簡介

台灣酵素村成立於2010年，為國內酵素產業的重要品牌。多次獲得高度肯定，包括：美國自然醫學研究院授予「亞洲區酵素科學研究中心」、獲頒聯合國「人類關懷獎」、ISO14067產品碳足跡標籤、BS8001循環經濟最高成熟度認證、2025年台灣循環經濟獎中小企業年度典範獎。堅持使用台灣本土當令農產作為原料，結合日本發酵技術與自有專利菌種，545天自然發酵工法，打造品質穩定且風味獨特的酵素產品。全方位OEM/ODM/OBM服務，積極拓展海外市場，將台灣優質的蔬果酵素推向國際。秉持「誠信、關懷、品質、創新」的經營理念，精進發酵技術與應用領域，為費者帶來健康與活力。以純粹天然的美味來自對土地的尊重與對健康的執著，讓世界看見酵素的力量。

Enzyme Village Taiwan, established in 2010, is a leading brand in Taiwan's enzyme industry. The company has received multiple prestigious recognitions, including: designation by the American Institute of Natural Medicine as the "Asia Enzyme Science Research Center", the United Nations Human Concern Award, ISO 14067 Product Carbon Footprint Label, BS 8001 Circular Economy Highest Maturity Certification, and the 2025 Taiwan Circular Economy Award SME Annual Role Model. Committed to using fresh, seasonal local agricultural produce as raw materials, Enzyme Village integrates advanced Japanese fermentation technology with its proprietary patented strains. Through a 545-day natural fermentation process, it produces enzyme products with consistent quality and unique flavor. The company provides comprehensive OEM, ODM, and OBM services, actively expanding into international markets to bring Taiwan's premium fruit and vegetable enzymes to the world.

台灣酵素村專注於蔬果發酵產品製造與永續循環創新，為全球首家通過BS 8001循環經濟最高級認證之酵素企業。秉持「吃果子拜樹頭」理念，與在地農民合作，落實「從農田到發酵到再生」的循環價值鏈。製程中實踐循環經濟與低碳轉型，展現「搖籃到搖籃」循環體系，落實循環經濟以達成減碳目標，並推動SDG12(永續消費與生產)與SDG13(氣候行動)，是業界最具代表性的「永續+循環」實踐企業。循環設計與資源再利用：1.果渣轉為有機肥料：將發酵後產生的果渣轉製為有機質肥料，不但回饋土地也促進土壤固碳與固氮，提升農作物品質。2.創新低碳包裝：與點睛設計合作開發酵素渣紙塑盒，降低包材碳足跡。

Enzyme Village Taiwan specializes in the production of fermented fruit and vegetable products and circular innovation, and is the world's first enzyme enterprise to achieve the highest-level BS 8001 Circular Economy certification. Guided by the philosophy of "gratitude to the source", the company works closely with local farmers to establish a circular value chain "from farm to fermentation to regeneration". Throughout its manufacturing process, Enzyme Village practices circular economy principles and low-carbon transition, demonstrating a cradle-to-cradle system. These efforts contribute to carbon reduction goals while advancing SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action), positioning the company as one of the most representative enterprises in the field of sustainability and circular economy.



🌐 連結網址 | <https://enzyvillage.com/>



攤位編號 | S1132  
Booth No.

## 台灣卜力斯股份有限公司

PASSAL CO.,LTD

#雙膜片式壓濾機#淨化機#淘洗機

### 公司簡介

#### 雙膜片式壓濾機：

是卜力斯研發的第一項產品,其設備安全穩定高,全自動化,不須人工操作,操作方便簡單。設備較同性質他牌產品效率高,100%台灣研發、生產、製造規格全客製化服務,為客戶身打造。

#### DOUBLE MEMBRANE FILTER PRESS

The Double Membrane Filter Press is the first product developed by PASSAL. The product is reliable, safe, easy to operate, and fully automatic.

The Double Membrane Filter Press is more efficient than its competitors, and it is 100% made in Taiwan.

淨化機:化工產品在製程過濾程序中經常使用淘洗或水洗程序,其目的在使過濾的產品純化,用水或其他容液將產品中不需要的雜質清洗純化,以提高產品質量與價值。

#### PURIFYING FILTER SYSTEM

Currently widely used in the semiconductor IC design, wafer, crystal power, opto-electronics, memory sticks and panel manufacturing industries, the Purifying Filter System is often used as a part of their purifying water systems. It can be installed in front of the ultrapure water UF membranes to pre-filter coarse particles and sharp objects. The Purifying Filter System can reduce the purification burden and replacement frequency of UF membranes to effectively reduce purification costs.





## 系品有限公司

LEO LIU

### 公司簡介

在全球面臨氣候變遷與塑膠污染的挑戰下，來自台灣的創新品牌「Care For You」(易扣系列)以「安全、健康、設計、減塑數據工具」為核心精神，推出一系列兼具實用性與環保價值的方案，並倡議以行為習慣的養成來推動社會整體改變，讓綠色餐飲不再只是口號，而是日常中的行動。

品牌精神：Care For You 關懷從個人延伸到社會

創辦人劉觀生在66歲時從系統工程顧問轉戰綠色產業，以銀髮創業精神推出「Care For You」，不僅是一個品牌名稱，更是一種責任與行動的展現。

劉觀生強調，環保不是犧牲，而是創造更安全、舒適且能被長期使用的選擇，讓每一次決定都成為對地球的一份貢獻。

品牌精神的核心有三大面向：

- 1.安全與健康：以柔韌、耐用且無毒的設計理念，避免一次性產品帶來的割傷、化學風險及環境汙染。
- 2.設計與便利：強調簡單直觀，讓使用者在日常生活中能輕鬆養成長期使用的習慣。
- 3.數據與驗證：透過數據化工具累積減塑成果，轉化為 ESG 驗證與社會責任的具體展現。

易扣系列：概括性的綠色餐飲解決方案

Care For You 的易扣系列並非單一產品，而是針對日常餐飲中各種一次性消耗品的替代方案，從飲品器具、外帶包裝到日常攜帶工具，都融入「安全、便利、數據化」的設計思維。其目的並非僅止於替代，而是要讓消費者在任何生活環境中，都能自然選擇長期使用的綠色工具，逐步累積行為改變，最終形成社會新風潮。

使用易扣系環保餐具是一種榮譽象徵：從「不拿一次性餐具」轉變為「我自願選擇綠色餐飲，因為這是新世代的驕傲」。當越來越多年輕人參與，行為改變將逐步擴散，像過去台灣推動垃圾不落地、分類、排隊文化與公共衛生運動一樣，形成世代共同的社會習慣。

社會影響：小選擇，大未來若全台灣每人每天減少一支吸管、一個便當盒或一只塑膠袋，一年下來就能減少數億件一次性用品。Care For You 強調，這些數字的累積不只是統計，而是「餐飲污染逐步消失」的具體實現。

品牌希望透過產品設計與習慣養成的雙重推動，讓環保不再是少數人的選擇，而是全民的生活方式。這不僅能減少塑膠垃圾，還能帶動企業 ESG 驗證、碳權市場，並強化台灣在國際永續發展上的形象。

綠生活，從你開始「你的選擇，就是社會未來的樣子。」

Care For You 邀請所有消費者，特別是青年世代與企業，成為綠色餐飲改革的推手。每一次使用綠色環保餐飲工具，都是對社會承諾的落實。

攤位編號 | **S1136**  
Booth No.

## 盧森堡商保沃思國際(股)公司 台灣分公司

PAUL WURTH INTERNATIONAL S.A.

#PUAL WURTH

🌐 連結網址 | [www.paulwurth.com](http://www.paulwurth.com)



**#turningmetalsgreen**

At SMS group, we have made it our mission to create a carbon-neutral and sustainable metals industry. We supply the technology to produce and recycle all major metals. This gives us a key role in the transformation towards a green metals industry.





# 國際合作與成果

## International cooperation and results

### World Distribution



### 國際合作意向書(MoU)



### 《國際合作亮點》 Highlights of international cooperation

#### 美國 USA

- 美國賓州大學生物化學工程系Prof. Wen K. Shieh、威德恩大學土木工程系Po-Yen (Kevin) Wang教授簽訂合作同意書。Cooperation Agreements Signed with Prof. Wen K. Shieh from the Department of Biochemical Engineering at the **University of Pennsylvania**, Prof. Po-Yen (Kevin) Wang from the Department of Civil Engineering at **Widener University, USA**.

#### 泰國 Thailand

- 泰國 S.P.S Co., LTD和 Envir Service Co. Ltd.簽署合作同意書(MOU)。長期合作「戴奧辛檢驗計畫」**檢驗煙道及周界空氣中Dioxins和POPs**。Signed an MOU with S.P.S Co., LTD and Envir Service Co. Ltd in Thailand for the analysis and identification of dioxin substances in chimney and perimeter areas.

#### 越南 Vietnam

- 越南Van Lang University和Institute of Environmental Industry簽訂MOU。協議研究和學生交流以及短期培訓等。其中與VLU合作包含**土壤中的戴奧辛和重金屬之研究**。Signed an MOU with Van Lang University (VLU) and Institute of Environmental Industry in Vietnam to explore research collaboration, student exchanges, and short-term training programs, among other initiatives. The collaboration with VLU focuses on the research of dioxins and heavy metals in soil.
- 越南Ton Duc Thang University(TDTU)聯合舉辦**4th ICETI 2023研討會**。並邀請擔任會議**keynote speakers**。Co-organized the **4th ICETI 2023** conference with Ton Duc Thang University (TDTU) in Vietnam, invited **keynote speakers** to participate in the event.



#### 印尼 Indonesia

- 印尼MUTU International顧問公司簽訂MOU。將針對國際的**環境檢驗網路和議題進行規劃和研究**。並於**2023年8月派員至本中心培訓交流**。Signed an MOU with MUTU International, a consultant company in Indonesia, to collaborate on planning and researching international environmental testing networks and issues. Representatives has sent to our center for training and exchange in August 2023.
- 印尼Nexus3 Foundation (NGO)合作**三個計畫**分別為:PRTR 計畫-「環境介質中的環境毒物調查」、Gita Pertiwi 計畫-「牛只中毒物及持久性污染物資料庫建立計畫」和「空氣中持久性污染物分佈調查計畫」。Collaborated with Nexus3 Foundation, an NGO in Indonesia, on three projects: PRTR Project – “Investigation of Environmental Toxins in Environmental Media”, Gita Pertiwi Project – “Establishment of a Database for Toxins and Persistent Pollutants in Cattle”, and “Investigation of Persistent Pollutant Distribution in the Air”.
- 積極配合政府發展策略。擴展與南向國家合作。目前**規劃與印尼大學聯合成立Taiwan – Indonesia Dioxin Center establishment**。Actively aligning with government development strategies and expanding cooperation with countries to the south, we are currently planning to establish the **Taiwan-Indonesia Dioxin Center** in collaboration with University of Indonesia.



#### 柬埔寨 Cambodia

- 柬埔寨CPVC/PVC黏著劑之**生產設備設計/規劃/建廠/試運轉/試量產計畫**(鑾琪塑膠股份公司計畫)。Production Plant Project for CPVC/PVC Adhesives in Cambodia (Hershey Plastics Co., Ltd. Project).





## 財團法人紡織產業綜合研究所

TAIWAN TEXTILE RESEARCH INSTITUTE

#紡織品回收循環#紡織產業綜合研究所#廢漁網回收再生尼龍

### 公司簡介

本技術可從聚酯混紡織物中高效取得高純度聚酯纖維，適用於聚酯/棉與聚酯/彈性纖維兩類系統，分別於常溫及120°C條件下作業，並可在高溫條件下同時進行聚酯分離與脫色。系統可依業者需求調整配方與製程條件，以確保聚酯回收率超過98%、藥劑回收率達85%以上。處理過程於常壓下進行，維持回收聚酯之物化性不受影響，且藉由過濾模組可回收製程用水並再利用，同時回收棉轉化之纖維素與彈性纖維生成之聚氨酯聚合物，促進紡織品循環再利用與永續價值鏈建構。

利用回收漁網所製得的尼龍6為基材，經混煉改質技術引入親水官能基與彈性鏈段，不僅有效改善原始尼龍6分子鏈的高結晶度與剛性特性，亦顯著提升其柔韌性、延展性與貼合加工性，使材料更適合應用於紡織領域。此改質尼龍具備優異的相容性與可加工性，可進一步透過薄膜製造與貼合工藝，形成兼具高耐磨性、防水透濕性及低碳環保特質的功能性薄膜。該薄膜不僅實現廢棄漁網資源的再生循環利用，亦兼顧機能與永續價值，廣泛適用於戶外機能服、防水外套、背包及鞋材等產品，展現再生材料在高附加價值紡織應用上的潛力與實際可行性。

This technology efficiently recovers high-purity polyester fibers from blended textiles, applicable to both polyester/cotton (ambient temperature) and polyester/elastane (120 °C) systems. Under high-temperature conditions, polyester separation and decolorization can be carried out simultaneously through formula adjustment. The process operates under normal pressure, maintaining the recovered polyester's physical and chemical integrity. Polyester recovery exceeds 98%, while chemical recovery surpasses 85%. A filtration module enables recycling and reuse of process water, while cellulose from cotton and polyurethane polymers from elastane can also be recovered. The system can be customized to industry needs, supporting textile recycling and the development of a sustainable circular value chain.

Using recycled fishing nets as the raw material, nylon 6 is modified through a chain-extension and copolymerization process that introduces hydrophilic functional groups and elastic segments. This modification effectively reduces the high crystallinity and rigidity of virgin nylon 6, while significantly enhancing its flexibility, ductility, and adhesion properties—making it more suitable for textile applications. The modified nylon exhibits excellent compatibility and processability, enabling the production of eco-friendly functional films through film-forming and lamination techniques. These films feature outstanding abrasion resistance, waterproofness, and moisture-vapor permeability, achieving both sustainability and high performance. By transforming discarded fishing nets into high-value functional materials, this approach demonstrates the practical potential of recycled polymers in outdoor apparel, waterproof jackets, backpacks, and footwear applications, contributing to circular economy and sustainable development.



攤位編號 | **S1214**  
Booth No.

## 桃園永續資源館

Taoyuan Sustainable Resource Center

#永續資源館#海廢再生(Marine waste recycling)#再生粒料(Recycled pellets)

### 公司簡介

以封裝測試廠產出之廢壓模膠資源化為再生建材原料

Recycling waste molding rubber from packaging and testing plants into recycled building materials

以海廢再生材料打造永續咖啡廳以及貝殼鈣再生之保養品

Using recycled marine waste to create a sustainable cafe and skincare products made from shell calcium

## 成信實業股份有限公司

TRANSCENE CORP.

#成信實業#氧化生物降解劑 #綠建材環氧地坪漆

攤位編號 | **S1222**

Booth No.

### 公司簡介

成信亮點為氧化生物降解劑。成信實業所提供之SP氧化生物降解劑可製作成生物分解母粒，此母粒可廣泛應用於PP、PE等聚烯烴。SP氧化生物分解母粒具有添加方便與降解時間可控、不改變產品的加工方式、不影響產能原有性能的優點，產品符合FDA標準，通過歐盟瑞典官方認證(RISE)，也是全世界氧化生物降解材料中，唯一取得完整官方認證的材料。

Transcene highlight is Oxidizing biodegradants.

The SP Oxidizing biodegradants from Transcene could be made into the biodegradable masterbatch, which is widely applicable to polyolefins such as PP and PE.

SP oxidative biodegradable masterbatch has the following advantages: easy to addition in the stuff and controllable degradation time, has not change the processing method of the product, and no changes to product processing methods or impact on production capacity and performance.

The product complies with FDA standards and has received official EU Swedish certification (RISE), it's the only oxidative biodegradable material in the world that has obtained full official certification.

成信實業擁有循環經濟技術能力，亮點為成信自創的「循環經濟123」廢棄物資源化系統。1.體檢，進行廢棄物診斷及體檢；2.找產品市場，評估二次資源市場與需求；3.Re-design，找出創新加工技術及製程。以此系統規劃設計產出可替代現有材料之再生產品，滿足工業永續對再生原物料之需求。同時更是建立廢棄物循環再利用，而且是在確實可行的商業經濟模式下建立，因而串接了新的供應鏈，達成經濟效益。

Transcene Corp. has circular economy technology capabilities. One of the highlights is the company's self-created "Circular Economy 123" waste resource recycling system. 1. Physical examination, conduct waste diagnosis and physical examination; 2. Find the product market, evaluate the secondary resource market and demand; 3. Re-design, find out innovative processing technologies and processes. This system is planned and designed to produce recycled products that can replace existing materials to meet the sustainable needs of industry for recycled raw materials. At the same time, waste recycling and reuse is established, and it is established under a feasible business economic model, thus connecting new supply chains and achieving economic benefits.

攤位編號 | **S1229**  
Booth No.

## 原程企業股份有限公司

YUN-CHEN ENTERPRISE CO., LTD.

#冷卻水處理#CCD觸媒水垢防止器 #節能減碳

### 公司簡介

原程企業股份有限公司2008年成立，是冷卻水、鍋爐系統專業技術團隊，扮演設備系統的醫師，維護相關設備之效率與使用壽命。

有鑒於環保意識抬頭，節能減碳是趨勢，2021年成功開發物理式觸媒水垢防止器並正式命名為CCD，申請新型及發明專利，產品針對防垢、除垢效果顯著並獲得客戶好評。

期待能以CCD-觸媒水垢防止器與您結緣，並為您省下浪費掉的電力。

YUN-CHEN ENTERPRISE CO., LTD. founded in 2008, specializes in cooling water and boiler systems. Acting as system “doctors,” we focus on improving efficiency and extending equipment life. In 2021, we developed the CCD Catalytic Scale Preventer, a patented physical solution for scale prevention and removal, earning strong client recognition. CCD helps reduce energy waste and supports eco-friendly operations.

🌐 連結網址 | <https://www.ycccd.com.tw/>

## 愛比科技股份有限公司

IPEVO Corp.

#愛比科技#Vurbo.ai#IPEVO

攤位編號  
Booth No.

**S1230**

### 公司簡介

Vurbo.ai AI 即時語意翻譯軟體專為企業跨國溝通、國際會議與多語協作打造，支援超過 100 種語言，融合語意理解、術語匯入與模糊詞彙校正技術，能精準應對各行業專業行話、縮寫及不同口音挑戰。更提供雲端同步字幕、雙向即時口譯及多語翻譯等多元服務，大幅提升企業跨國協作效率，協助團隊突破語言隔閡，實現自然、流暢且精準的智慧翻譯體驗，打造無縫國際交流新標準。

Vurbo.ai real-time AI translation is built for global business, conferences, and multilingual teamwork. Supporting 100+ languages, it integrates semantic understanding, terminology import, and fuzzy correction to handle jargon, abbreviations, and accents with precision. With cloud captions, two-way interpretation, and multilingual services, it boosts efficiency, breaks language barriers, and delivers a fluent, natural, and accurate translation experience for seamless international collaboration.

IPEVO 愛比科技以會議視訊設備起家，並榮獲榮獲台灣精品金質獎，推出 TOTEM 360，以 360° 5K 全景影像、AI 聲源追蹤與智慧音效，帶來沉浸式會議體驗。同步展出 Vurbo.ai AI 翻譯軟體，支援 100+ 語言，精準處理術語、縮寫與口音差異，提供雲端字幕與雙向口譯，助力跨國協作更順暢。另有 IPEVO 無線音訊會議系統，VOCAL HUB 可串聯最多 6 台智慧麥克風揚聲器，具 AI 雙向降噪與 360° 收音，覆蓋 15 公尺，輕鬆應對中大型會議，全面提升混合溝通效能。

IPEVO, a leader in conferencing solutions and winner of the Taiwan Excellence Gold Award, presents TOTEM 360 with 360° 5K immersive video and AI audio. Also featuring Vurbo.ai with real-time translation in 100+ languages and the Wireless Audio System supporting 6 AI-powered mics with 360° pickup, ensuring seamless global collaboration.



攤位編號 | **S1231**  
Booth No.

## 名麒針織有限公司

MAIN CHIEF KNITTING CO., LTD.

#長短織環境友善布料生產#臺灣製造#名麒針織有限公司

### 公司簡介

產品特色:將農業廢棄物大規模轉化為永續的加值產品

鳳梨纖維的運用,為利用廢棄物,包括生產過程中產生的殘留物既創造了環境效益(防止傾倒和焚燒),也帶來了社會效益(幫助農民增加收入)

將農場廢棄物時尚化。

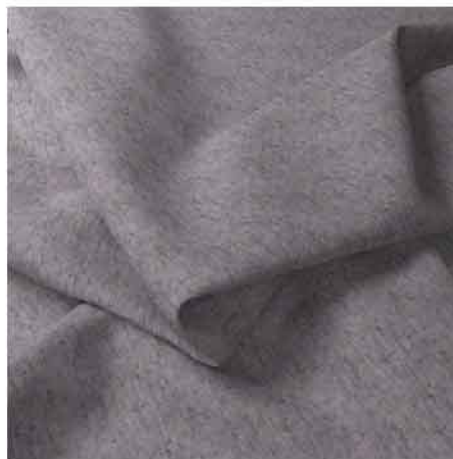
- 將鳳梨葉廢棄物轉化為永續的紡織材料(例如天然纖維、混紡紗線和布料)
- 鳳梨葉纖維(PALF)是一種可持續的天然纖維替代品,可取代傳統棉花,從而促進循環經濟。

Product Highlights: Large-scale conversion of agricultural waste into sustainable, value-added products.

The use of pineapple fiber, including residues from production processes, creates both environmental benefits (preventing dumping and incineration) and social benefits (helping farmers increase their income).

Farm waste becomes fashionable.

- Converting pineapple leaf waste into sustainable textile materials (such as natural fibers, blended yarns, and fabrics).
- Pineapple leaf fiber (PALF) is a sustainable natural fiber alternative to conventional cotton, contributing to a circular economy.



使用回收再生短纖維， 搭配專業色棉配色技術、混紡紡紗技術，紡成兼具手感與特殊外觀之麻花或素色色紗，

省去後道染色加工、環保加倍

回收再生短纖維來源: ◆ 回收瓶片之再生纖維。◆ 紗線、裁片、邊角料、次級布料回收分類經物理解纖再生短纖維。

邊角料、庫存布、二手衣回收再利用

- 原料碳排放量低 (約0.3kg CO2/kg)
- 解纖棉原色較雜 (可透過原抽色棉配色調整)
- 外觀有多色棉粒感
- 色相批差較大, 染色困難度高 (可與原抽色棉混紡改善)

Using recycled staple fibers, combined with specialized color-matching and blended spinning techniques, we create twisted or solid-colored yarns with a unique feel and appearance.

This eliminates the need for post-dyeing processing, doubling our environmental impact.

Recycled staple fiber sources: ◆ Recycled fiber from recycled bottle flakes. ◆ Yarn, trimmings, scraps, and secondary fabrics are recycled and sorted.

Recycled staple fibers are physically defibrinated.

- Recycling of scraps, fabric stock, and secondhand clothing Low carbon emissions from raw materials (approximately 0.3kg CO2/kg)

Fiber-free cotton has a more mixed color (this can be adjusted by using authentic drawn cotton)

- The appearance has a multi-colored, grainy feel

Hue varies widely from batch to batch, making dyeing difficult (this can be improved by blending with authentic drawn cotton)

🌐 連結網址 | <https://www.mainchief.com/>





展商介紹 EXHIBITOR INFORMATION



Your partner  
in progress

攤位編號 | **S1235**  
Booth No.

## 新加坡商英國標準協會集團 私人有限公司臺灣分公司

BSI Group Singapore Pte. Ltd. Taiwan Branch

#英國標準協會#碳中和#碳足跡

### 公司簡介

降低排放，實現永續的未來

BSI 致力於成為有效應對氣候變遷迫切威脅的領導者，我們制定文件與標準，協助將科學知識轉化為實用工具。為了讓消費者相信產品或服務是真正的碳中和，BSI 提供碳中和產品與服務的 Kitemark 風箏標誌。該驗證基於以下兩個主要標準，以及碳足跡管理計畫，使持續的碳減量成為可能。

- ISO 14067:2018: 使用生命週期評估 (LCA) 量化碳足跡
- BS ISO 14068 - 1:2023: 透過管理實務實現淨零排放的指南

在培養對智慧城市和人居環境的信任時，行動勝於言語。BSI 在制定塑造實體和數位世界標準方面發揮關鍵作用，並利用數位信任來實現可持續發展的未來。

智慧城市標準為城市領導階層提供有效改變的新工具與機會。BSI 智慧城市與社區 Kitemark 風箏標誌驗證是基於 ISO 37106 國際永續城市與社區標準的最佳實務，可協助您因應管理實體資源、規劃都市物流，以及最重要的確保永續成長的挑戰。

我們的 PAS 2080 驗證計畫可協助組織透過減少和管理碳排放量，展現其對永續基礎設施的貢獻。對於人居环境價值鏈中的所有參與者，包括建築師、設計師、資產所有者、建築商和材料供應商，此標準都極為重要。

# Carbon Footprint Verification for Products and Services

Helping you to sell your products to local and global buyers.

**Verification requirements are based on the internationally recognized standard, ISO 14067.**

Can you clearly demonstrate a commitment to calculate and verify greenhouse gas emissions, while managing the environmental impact of your products or services? Many shoppers of all ages are looking to make more sustainable buying choices.

1 in 3 

shoppers across the globe would pay more for a carbon footprint verified product or service, compared to a similar product or service that was not verified<sup>1</sup>.

85% 

of global consumers have become 'greener' in their purchasing behaviours<sup>1</sup>.

63% 

of consumers have made moderate to significant changes to their consumption behaviours over time, to live more sustainably and reducing their carbon footprint<sup>1</sup>.

## ISO 14067

ISO 14067 defines principles, requirements, and guidelines for quantifying and reporting the carbon footprint of a product consistent in methods outlined in international standards on lifecycle assessment (ISO 14040 and ISO 14044). It also considers lifecycle greenhouse gas emissions from raw material extraction.

<sup>1</sup> Simon-Kucher & Partners | Global Sustainability Study 2021 | Consumers are key players for a sustainable future | Sample 10,281 adults across 17 countries

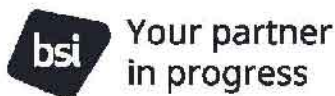


Products that have successfully completed the carbon footprint verification process will be awarded the globally recognized **BSI Verified Mark of Trust**, a which can be used to **showcase your independent verification, reinforce stakeholder confidence and enhance your brand reputation** in a marketplace that is increasingly concerned with sustainable business practices.

BSI Carbon Footprint Verification is also a stepping stone towards achieving **BSI Kitemark™ Certification for Carbon Neutral Products and Services** - recognized as a truly prestigious achievement in sustainability.

## Next steps

Visit our website [bsigroup.com](https://www.bsigroup.com) to find out more. Submit the enquiry form online or email us at [productcertification@bsigroup.com](mailto:productcertification@bsigroup.com) and request the PF2061 Product Carbon Footprint Scoping form to begin your carbon footprint verification journey.



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## 台灣耶拿儀器有限公司

ANALYTIK JENA TAIWAN CO., LTD.

攤位編號 | **S1237**  
Booth No.

#Sirius 高效能微波感應耦合電漿硝酸生產工廠  
#MICAP-OES 1000 微波共振耦合氮氣電漿 ICP-OES  
#節能減碳的微波感應耦合電漿核心工廠

### 公司簡介

美國 Radom 公司推出採用 Cerawave™ 微波電漿技術的高功率 Sirius 微波電感耦合等離子系統，以提高電漿輔助硝酸生產效率，同時降低單位能耗(SEC)，亦可用於汙染控制以及衍生的熱源回收再利用。

永續環境及能源材料的研究分析利器，美國 Radom 公司推出最節能減碳的 MICAP-OES 1000 N<sub>2</sub>-based Microwave ICP-OES 全新登場!! 企業 ESG 目標達成的最佳工具!! 獨家專利微波共振電漿耦合材料: Cerawave!! 使用一般等級(4N)的氮氣產生電漿，不需要 RF Generator，也無須外接水循環冷卻機，操作及維護成本最低!! 歡迎來電洽詢及實機操作展示。

Radom Corporation, USA developed the solution for onsite instrumentation with Microwave Inductively Coupled Atmospheric Plasma – Optical Emission Spectrometer with 1000W power. This innovative nitrogen-based plasma atomic spectroscopy instrument replaces the traditional argon generated plasma technology. MICAP-OES 1000 uses highly efficient Cerawave technology which eliminates the electric water-cooled coil found in commercially available ICP-OES instruments today. Cerawave does not need water or air cooling and nitrogen is less expensive than argon. The power of Cerawave technology, coupled with a high-resolution echelle polychromator with CMOS detector, provides simultaneous measurement of elements in the prepared sample. The ability to screen core samples on location means results can be determined more quickly. An added benefit is the ability to collect more samples in an area to create a comprehensive map of the potential yield.

Radom Corporation, USA announced a high-power Sirius microwave inductive coupled plasma system by using Cerawave™ plasma torch technology, to enhance the rate of nitric acid production of plasma-assisted nitrogen fixation systems, while achieving specific energy consumption (SEC) of smaller-scale setups, and also available to pollution control and recycling & reuseable of produced heat.



## 國立臺北科技大學

攤位編號 | S1238

### 國立臺北科技大學

BSI Group Singapore Pte. Ltd. Taiwan Branch

#### 公司簡介

國立臺北科技大學工業設計系源自1912年創校木工科，為全台最早成立之工業設計科系。設有「產品設計組」、「家具與室內設計組」及「創新設計碩士班」，以設計思考與實作並重，培育兼具創新力與專業實務能力之設計人才。研究領域涵蓋產品設計、家具與空間設計、互動介面、文化創意、永續與社會設計等。

本系積極參與USR(大學社會責任)計畫，推動設計專業融入地方實踐與永續發展。結合「豐園北科大木創中心」及「木藝培育暨設計研發中心」能量，執行「木創文化攪動深根計畫」與「永續設計行動課程」，以木工藝為核心連結地方產業與文化再生，帶領學生參與社區合作、工藝傳承與環境共生設計，實踐設計教育的社會價值，展現北科工設系在文化創新與地方永續的領導角色。





## 展商介紹 EXHIBITOR INFORMATION



攤位編號 | **S1302**  
Booth No.


### 高雄市政府環境保護局

Environmental Protection Bureau Kaohsiung City Government


#高雄市政府環境保護局# 2050高雄淨零


#### 公司簡介

高雄市政府環保局以「淨零高雄」為主題，展現城市邁向2050淨零轉型的具體行動。面對全球氣候變遷挑戰，高雄積極落實減碳治理，持續以具體行動實踐「淨零高雄」願景，推動低碳、智慧、永續並進的城市發展，邁向2050淨零排放的綠色新未來。

 循環經濟新模式 — 透過廢棄物再利用、再生能源，展示高雄在「從資源到再生」的城市循環體系。

 淨零教育行動 — 讓民眾輕鬆學習減碳、節能與永續行動，推動「全民淨零」生活文化。

 公私協力平台 — 結合產業力量，共創「淨零產業大聯盟」，打造綠色經濟新契機。

 淨零學院 — 淨零學院 — 全國首創的實體淨零學院，提供通識、證照及技術課程，並與國際查驗單位合作，培育產官學界淨零轉型人才。

## 台灣智慧淨零建築產業聯盟 億鴻系統科技股份有限公司

e-FORMULA Technologies

#台灣智慧淨零建築產業聯盟#億鴻系統科技股份有限公司  
#電能、熱能、水能、氣能與碳能管理#節能 ESCO 與儲能整合服務

### 公司簡介

台灣智慧淨零建築產業聯盟攜手億鴻系統科技股份有限公司共同亮相，展示智慧建築與能源永續的最新應用成果。億鴻長期深耕智慧能源領域，致力於開發整合型能源管理解決方案，並以「五能整合」為核心技術架構，結合電能、熱能、水能、氣能與碳能管理，提供建築從用能監測、節能優化到碳排追蹤的完整策略。

此次台智盟與億鴻聯手參展，將以「智慧能源整合與永續管理」為主軸，展示 e-Formula 自主研發的 eFOM 智慧能源管理系統。該系統可即時蒐集建築能源數據，透過 AI 分析與雲端控制實現能源協同運作，有效提升建築能源使用效率並降低碳排。透過實際案例展示與互動體驗，參觀者將能更直觀地理解智慧建築如何結合能源韌性與數據決策，推動產業邁向淨零目標。

**工業技術研究院**Industrial Technology  
Research Institute攤位編號 | **S1313**  
Booth No.

## 工業技術研究院

INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE

#綠能Green Energy#跨域整合Cross-Domain Integration#太陽光電Solar

### 公司簡介

為引導我國太陽光電產業朝系統終端創新發展,「太陽光電創新應用產品設計競賽獎」已號召具創新性、可擴散應用之太陽光電系統應用產品,協助產業注入創意活水、激盪新的解決方案、突破現況困境,朝未來新的利基型產品布局,擴大終端多元出海口,提升產業競爭力。

To propel Taiwan's solar photovoltaic industry toward cutting-edge system-end innovation, the "Photovoltaic Innovation Design Awards" invites submissions of groundbreaking and scalable solar photovoltaic application products. This initiative seeks to ignite creativity, drive transformative solutions, overcome existing challenges, and unlock future market niches, ultimately broadening diverse end-market opportunities and boosting industry competitiveness.





金屬工業研究發展中心  
METAL INDUSTRIES RESEARCH & DEVELOPMENT CENTRE

攤位編號  
Booth No.

**S1322**

## 金屬工業研究發展中心

METAL INDUSTRIES RESEARCH & DEVELOPMENT CENTRE

#金屬中心#MIRDC#循環金屬

### 公司簡介

小型化高效銲接協作機器人 (Compact and High-Performance Welding Cobot)

CHPW用於金屬厚板銲接，擁有3D雷射銲道辨識、AI生成銲點座標技術與專家資料庫，並具靈活移動、降低設備成本和穩定銲接品質優勢，可實現多機同步加工，為大型結構件銲接提供智慧化解決方案。

航太用AI優化放電加工設備 (Advanced Machining for Aerospace Applications based on AI Technology)

金屬中心首創「航太用AI優化放電加工設備」，整合AI智慧優化技術與創新營運模式，不僅提升加工精度及效率並優化生產管理，提供航太零組件加工創新解決方案。



小型化高效銲接協作機器人 (Compact and High-Performance Welding Cobot)



航太用AI優化放電加工設備(圖二：航太用AI優化放電加工設備 (Advanced Machining for Aerospace Applications based on AI Technology)) (Advanced Machining for Aerospace Applications based on AI Technology).

## 台灣中油股份有限公司煉製研究所(煉研所)

CPC CORPORATION TAIWAN

CPC Corporation, Taiwan Refining & Manufacturing Research Institute

#碳纖複材工業葉扇系統#廢塑膠再製高價值生物可分解材料

#廢塑膠再利用轉化升級技術

### 公司簡介

碳纖複材工業葉扇系統，以混摻有中油短碳纖之新設計複材葉扇，取代傳統鋁合金葉扇，搭配無刷馬達，可達到清新、涼感、節能三大目的。

This carbon fiber composite industrial blade system adopts a newly developed blade incorporating CPC short carbon fibers, replacing conventional aluminum alloy blades. When integrated with a brushless motor, the system provides improved air circulation, thermal comfort, and energy efficiency.

利用廢棄塑膠為原料，進行化學解聚以及官能基改質的程序，製作為生物可分解材料，可應用於農業用膜或是包裝袋，大幅降低使用後塑料對環境的衝擊，兼具循環經濟與環保的重要性。因循環經濟及2050年淨零碳排政策，廢塑膠回收再利用是重要關鍵，以廢塑膠熱裂解油為原料，經吸附劑純化及觸媒轉化，生產石油腦替代品之製程技術，目標產品為可直接使用於現有煉化廠用之石油腦替代品。

Waste plastics are utilized as feedstock in a process involving chemical depolymerization and functional group modification to synthesize biodegradable materials. These materials are suitable for applications such as agricultural mulch films and packaging bags, thereby substantially mitigating the post-consumer environmental impact of plastics. This approach underscores the dual significance of promoting circular economy principles and advancing environmental sustainability.

Due to the circular economy and the 2050 net-zero carbon emission policies, the recycling and reuse of waste plastics are crucial. The process technology utilizes pyrolysis oil from waste plastics as feedstock, purified with adsorbents and catalytic conversion, to produce a naphtha substitute. The target product is a naphtha substitute that can be directly used in existing refineries.



🌐 連結網址 | <https://www.cpc.com.tw/cl.aspx?n=3375>



## 台灣中油股份有限公司綠能科技研究所(綠能所)

CPC CORPORATION TAIWAN

Green Technology Research Institute, CPC Corporation, Taiwan

#組織型溫室氣體第三方查驗#脂肪酸酯試量產 #生質多元醇

### 公司簡介

中油自主開發之「連續式固態觸媒轉酯化技術」，採用專利固態觸媒 (TWI590868B) 一步驟高效催化生物油脂與醇類反應，實現生質脂肪酸酯之高轉化率 (>99%) 與高純度 (>99%) 生產，並具低廢棄、低能耗等綠色製程優勢。該技術於113年成功建置年產10公秉試量產工廠，整合反應、分離及純化程序，大幅提升製程連續性與產品品質。所產生質脂肪酸酯具生物可分解性、低刺激性及良好潤滑性，適用於低碳燃料及工業潤滑油領域；亦可進一步經由環氧化與開環技術製備生質多元醇，廣泛應用於各種聚氨酯領域，如工業發泡劑、鞋底、床墊等高值應用。整體技術具備減碳、循環經濟與產業升級潛力，為台灣中油奠定永續發展基礎。

CPC Corporation developed a continuous heterogeneous catalyst transesterification technology, using a patented catalyst (TWI590868B) to efficiently catalyze a one-step reaction between bio-based oils and alcohols. This process achieves over 99% conversion and purity, with low waste and energy consumption, supporting green manufacturing. In 2024, a pilot-plant with 10-kiloliter annual capacity was successfully commissioned, integrating reaction, separation, and purification to ensure stable operation and high product quality. The bio-based fatty acid esters produced are biodegradable, low-irritant, and have excellent lubrication, suitable for low-carbon fuels and industrial lubricants. Through epoxidation and ring-opening, these esters convert into bio-based polyols used in polyurethane foams, shoe soles, and mattresses. This technology advances carbon reduction, circular economy, and industrial upgrading, laying a foundation for the sustainable development of CPC.



中油公司依客戶查驗目標提供公正且客觀之第三方查驗服務，以提升企業客戶揭露之碳排放數據的可信度；除作為企業之溫室氣體排放量管理與管制基礎參考外，也能符合預期使用者需求。本公司目前通過TAF認證，並取得環境部查驗機構許可證，對外提供組織層級溫室氣體自願性方案及環境部方案之查驗服務，此外亦有其他的查驗準則可供選擇，並將持續強化及維持最佳的服務品質。

CPC Corporation provides independent and objective third-party verification services tailored to our customers' specific goals. Our aim is to enhance the credibility of disclosed carbon emissions data, supporting companies in both managing their greenhouse gas emissions and meeting stakeholder expectations. We are accredited by the Taiwan Accreditation Foundation (TAF) and licensed by the Ministry of Environment, authorizing us to conduct verifications for both voluntary organizational-level greenhouse gas programs and official government schemes. A range of additional verification standards is also available to meet diverse customers' needs. We have always been committed to providing high-quality and first-in-class services for our customers.








## ISO 14064-1(CNS 14064-1) 組織溫室氣體 查驗服務

### 服務介紹

為響應國際淨零減排趨勢，本公司依據ISO/IEC 17029、ISO 14065、ISO 14064-3和TAF（確證與查證機構認證規範），提供申請組織溫室氣體盤查報告的查驗服務。

查驗之溫室氣體包括二氧化碳 (CO<sub>2</sub>)、氧化亞氮 (N<sub>2</sub>O)、甲烷 (CH<sub>4</sub>)、氫氟碳化物 (HFCs)、全氟碳化物 (PFCs)、六氟化硫 (SF<sub>6</sub>) 和三氟化氮 (NF<sub>3</sub>)。

### 服務範圍

查驗服務範圍包含：  
 自願性方案 — ISO 14064-1(CNS 14064-1)組織層級溫室氣體查證。  
 環境部方案 — ISO 14064-1(CNS 14064-1)及國內溫室氣體盤查最新公告之法規與管理規範(如：環境部溫室氣體查驗指引、溫室氣體排放量盤查作業指引、事業溫室氣體排放量資訊平台相關規定)。

### 申請查驗流程

申請書與評估表寄出

報價與簽約

成立查驗小組

文件審查

查驗規劃

S1

S2

技術審查與核對決定



台灣中油股份有限公司 - 綠能科技研究所環保科技組

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## 經濟部產業發展署(產發署)

INDUSTRIAL DEVELOPMENT ADMINISTRATION, MOEA

#淨零排放#循環經濟#產業發展署

### 公司簡介

2025經濟部專館以「綠色轉型 永續未來」為題，展現經濟部及國營企業相關之亮點成果。產業發展署依國家近年發展重點，將本署展品鎖定於：AI導入、技術增值、綠色原料等三大面向，以相關材料現行處理方式解析出發，透過創新技術導入，達到去化、優化、取代及減碳的最終效益。因應2050 淨零排放的國際趨勢，推動循環技術與循環材料創新研發，透過減廢、循環料替代原生料，為國內產業的減碳效益助攻

 連結網址 | <https://www.ida.gov.tw/ctrl?PRO=idx2015&lang=0>



日成科技股份有限公司  
Optimization Solutions Asia Engineering

攤位編號 | S1331

## 日成科技

OPTIMIZATION SOLUTIONS ASIA ENGINEERING CO., LTD.

### 公司簡介

最佳地熱發電解決方案：

地熱發電是少數可作為基載發電的再生能源，但卻有著深藏地底看不見得未知數，同時台灣過去開發地熱的經驗，遇到了發電效率不斷下降的問題。因此日成科技與國外專業地熱開發的顧問、設備業者合作，提供全方位的地熱開發顧問服務、先進的地熱發電設備與完整的系統規劃，能夠大幅降低地熱開發風險，提升案場效率。

Optimal Geothermal Solution: Geothermal power is one of the few renewable energy sources capable of serving as baseload power, providing a stable and continuous electricity supply. However, this technology faces hidden challenges deep underground, and Taiwan's past experiences in geothermal development have shown that power generation efficiency tends to decline over time. Nevertheless, with continuous advancements in international geothermal development technologies, these risks and efficiency bottlenecks have been effectively overcome.

OSA collaborates with international professional geothermal development consultants and equipment providers to offer comprehensive geothermal development consulting services, advanced equipment of geothermal power plant, and complete system planning. This not only significantly reduces development risks but also greatly improves the efficiency of power plants, maximizing the potential of geothermal resources. These efforts ensure that geothermal power plants can operate efficiently over the long term and enhancing the investment return.

最佳沼氣發電解決方案：

隨著環境保護與再生能源需求的日益增長，沼氣發電已成為再生能源解決方案中的關鍵之一。沼氣發電不僅能將農業、工業及生活廢棄物轉化為清潔能源，還能有效減少溫室氣體排放，對環境保護做出實質貢獻。然而，目前沼氣發電面臨著三大挑戰：沼氣中的硫化氫會腐蝕設備，導致運行壽命縮短，此外，產氣率較低也限制了能源產出的效率。再者，沼渣與沼液的去化已成為業界亟待解決的關鍵課題。

為了應對這些問題，日成科技引進最先進且穩定的沼氣發電設備，並採用科學化的系統設計，確保系統與設備能穩定高效運行。我們的解決方案不僅提高了沼氣發電的效率，還能有效延長設備的使用壽命。同時，透過精確的遠端監控與優化設計，我們協助發電廠提升產氣率與發電效益，加速案場投資回報效益。

Optimal Biogas Solution: As environmental protection and the demand for renewable energy continue to grow, biogas power generation is becoming increasingly important. Biogas technology not only transforms agricultural, industrial, and household waste into clean energy but also effectively reduces greenhouse gas emissions, making a substantial contribution to environmental protection. Biogas power generation, however, currently faces two major challenges: corrosion and damage from hydrogen sulfide in the biogas, which reduces the equipment's operational lifespan, and low energy output efficiency due to the low gas production rate.

To address these issues, OSA introduced the most advanced and stable biogas power generation equipment, combined with scientifically designed systems to ensure stable and efficient operation of both systems and equipment. Our solutions not only improve biogas power generation efficiency but also extend the lifespan of the equipment. Additionally, through remote monitoring analysis and diagnosis system developed by OSA, we help power plants enhance gas production rates and power generation efficiency, accelerating the return on investment for projects.

 <https://www.osa-international.com/>



攤位編號 | **S1337**  
Booth No.

## 高田科技有限公司

KAOTEN SCIENTIFIC CO., LTD.

#高田科技有限公司#防爆型光離子VOC氣體偵測器#手提未知氣體分析儀(FTIR)

### 公司簡介

防爆型光離子VOC氣體偵測器

檢測揮發性有機物(VOCs) 如苯、甲苯、VCM、萘、酮類和胺類等

手提未知氣體分析儀(FTIR)

手提式未知氣體分析儀,可供現場人員快速採集、分析環境中的未知氣體,適用於各式廠區、管道及危險區域。



**DETECT AND IDENTIFY THOUSANDS OF GASES IN SECONDS**

**XPLORIR**

**RAPID ANSWERS:**  
Less than 20 seconds for results

**SENSITIVE:**  
Detection and Identification at concentrations down to low ppm

**SPECIFIC:**  
Positive identification of gases and vapors using proven FTIR technology

**BREADTH OF ANALYSIS:**  
Detect and identify more than 5,500 gases and vapors including:

- TICS
- Petroleum Products
- Solvents
- Industrial Chemicals
- VOCs
- CWA Agents
- Refrigerants
- Common Gases

**RedWave**  
TECHNOLOGY

## 高雄市經貿發展協會

攤位編號 | **S1403**  
Booth No.

## 高雄亞洲新灣區碳中和暨永續發展平台

KAOHSIUNG COMMERCE &amp; TRADE DEVELOPMENT

#高雄亞洲新灣區碳中和暨永續發展平台#高雄市經貿發展協會  
#艾森諾能源有限公司-甜高粱種植循環經濟

### 公司簡介

歐盟為防止產業碳洩漏並促使全球產業朝低碳製造轉型，於2021年7月通過碳邊境調整機制 (CBAM) 草案，未來企業出口到歐盟市場皆必須購買CBAM憑證。2025年更邁入歐盟CBAM最終過渡期申報年，許多受管制的企業不知要如何準備資料提供歐盟客戶，基此，經濟部國際貿易署委工研院於本展覽特別設立諮詢攤位，幫助企業了解政策架構意涵與申報資料填寫釋疑。



攤位編號 | **S1410**  
Booth No.

## 國立成功大學 地熱碳封存及石油策略研究中心

Research Center of Geothermal CO2 Storage and Petroleum Strategy

#酸性地熱資源之水化學改質與材料應用技術

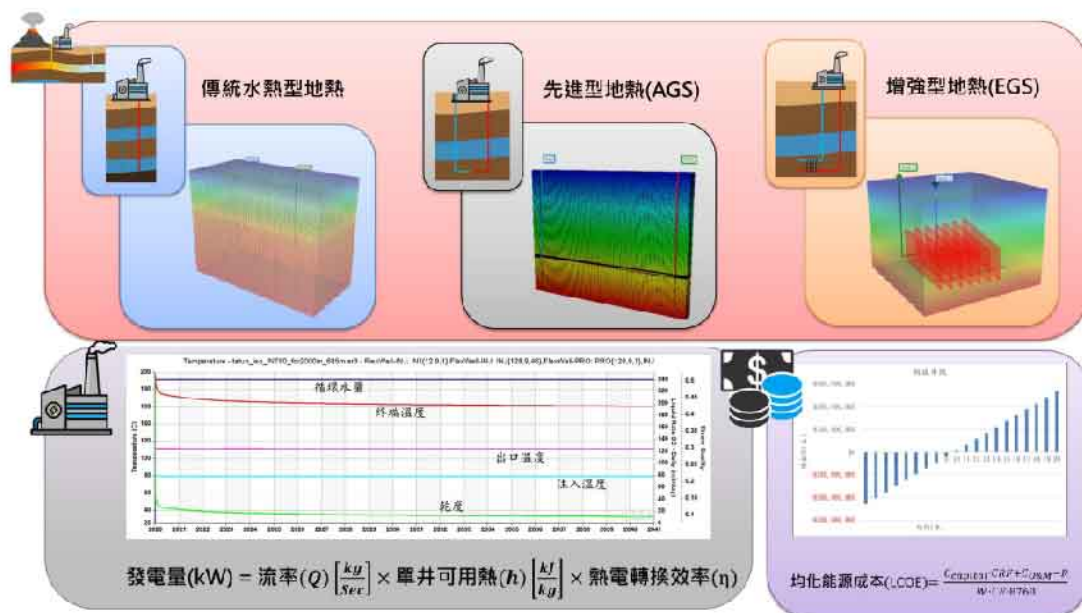
#沈積岩地熱、AGS、EGS與傳統水熱系統整合之地熱經濟模擬評估

### 公司簡介

酸性地熱資源之水化學改質與材料應用技術

臺灣多處地熱區(如大屯火山群)具有高溫且強酸性的地熱流體,蘊含龐大能源潛力,卻因腐蝕與沉澱問題導致井筒與設備壽命受限。本中心針對此挑戰發展酸性地熱水改質與沉澱物減量技術,結合化學中和實驗與礦物結晶分析,建立地熱水質控制與防蝕評估方法。研究成果可有效降低酸水對生產管線與換熱系統的損耗,並延長設備運轉週期,提升酸性地熱場的可開發性與經濟效益。此技術展現我國在地熱化學管理與永續利用上的創新能量,為高溫酸性地熱區開發建立關鍵技術基礎。

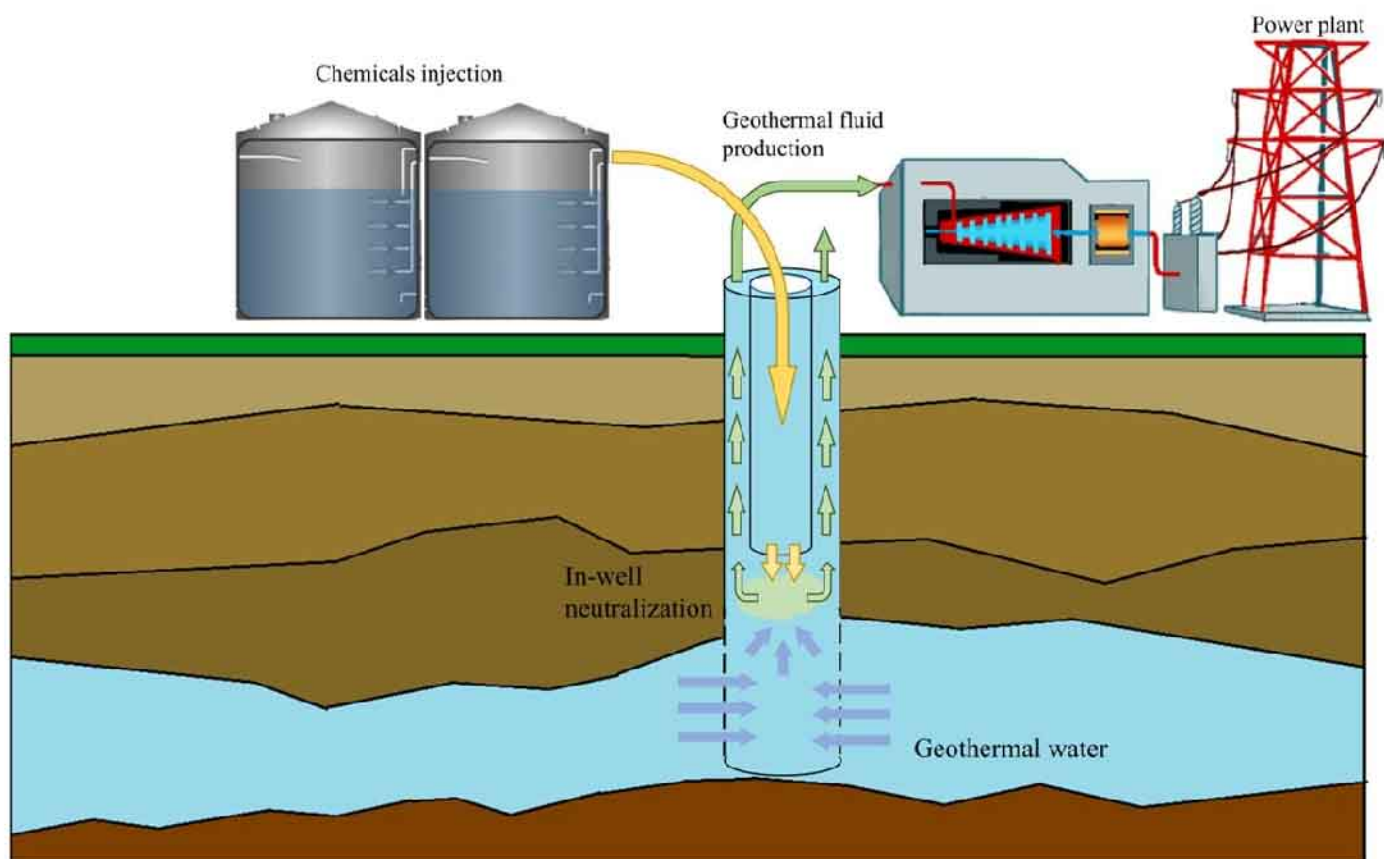
Hydrochemical Modification and Material Applications for Acidic Geothermal Resources Taiwan's geothermal areas, such as the Tatun Volcanic Group, contain high-temperature acidic fluids with great energy potential but face severe corrosion and scaling issues. Our center develops technologies for geothermal water treatment and scaling reduction through chemical neutralization and mineral analysis, establishing methods for water quality control and corrosion prevention. These advancements reduce equipment damage, extend operational lifespan, and enhance the economic feasibility of acidic geothermal development, showcasing Taiwan's innovation in sustainable geothermal resource utilization.



### 沈積岩地熱、AGS、EGS與傳統水熱系統整合之地熱經濟模擬評估

本中心以數值模擬與技術經濟分析為核心，建立可應用於不同地熱開發模式（傳統水熱、增強型 EGS、先進型 AGS）的整合評估平台。系統可根據地下熱藏條件、井配置與循環設計模擬產能與回收效率，並結合成本模型進行 LCOE 與投資回收期分析。此研究能協助業界在早期探勘階段即量化不同開發方案的技術可行性與經濟優勢，提供決策依據。透過該平台可促進地熱開發由傳統經驗式轉向科學化與數據化，支持臺灣地熱產業邁向高效率、低風險及淨零永續的能源布局。

Integrated Economic Simulation of SGR, AGS, EGS, and Conventional Hydrothermal Systems Our center has developed an integrated simulation platform combining numerical modeling and techno-economic analysis for various geothermal development models—conventional hydrothermal, Enhanced Geothermal Systems (EGS), and Advanced Geothermal Systems (AGS). The system simulates production performance and recovery efficiency based on reservoir conditions, well configuration, and circulation design, while evaluating LCOE and payback periods through cost modeling. This approach enables early-stage assessment of technical and economic feasibility, supporting data-driven decision-making. The platform advances Taiwan's geothermal industry toward efficient, low-risk, and net-zero sustainable energy development.





## 展商介紹 EXHIBITOR INFORMATION



EUCNC Co., Ltd.

攤位編號 | **S1416**  
Booth No.



CHUNG-ANG UNIVERSITY

攤位編號 | **S1418**  
Booth No.



SUWON SUSTAINABLE CITY FOUNDATION

攤位編號 | **S1420**  
Booth No.



SUWON UNIVERSITY START-UP INCUBATION CENTER

攤位編號 | **S1422**  
Booth No.

## 聯合再生能源股份有限公司

United Renewable Energy Co., Ltd.

#聯合再生能源#全方位再生能源品牌#Total Solution

### 公司簡介

全方位再生能源品牌－URECO聯合再生能源(3576)，不僅提供受國際、國家級標章認證的高轉換率、高效能太陽能模組產品，更透過垂直整合再生能源產業鏈，為客戶提供從建置、維運、儲能到售電的一條龍服務。

URECO聯合再生能源深耕再生能源二十年，從台灣到全球，案場遍布五大洲，世界級夥伴信賴的選擇，打造高效能全方位綠能解決方案，讓社會邁向淨零碳排與永續未來，Power Your World!

Total Solution Renewable Energy Brand — URECO, United Renewable Energy Co., Ltd. (TWSE:3576)

URECO is a leading renewable energy brand that provides high-efficiency, high-conversion solar modules certified by both international and national standards. Through a vertically integrated renewable energy value chain, URECO delivers one-stop, total solutions encompassing project development, construction, operation and maintenance, energy storage, and green power sales.

With over two decades of expertise in the renewable energy industry, URECO has established a strong presence from Taiwan to the world, with projects spanning across five continents. Trusted by global partners, URECO is committed to delivering high-performance, all-encompassing green energy solutions—driving society toward net-zero carbon emissions and a sustainable future.

Power Your World!



## 展商介紹 EXHIBITOR INFORMATION



# 鼎日能源科技股份有限公司

DS Energy Technology Co., Ltd.

#模組回收#維運#緊急

## 公司簡介

### 專業太陽能電廠維運

提供定期巡檢、模組清潔與即時故障修復，主動發現隱患以提升電廠穩定發電與長期投資回報。

### 智慧監控系統

24小時實時監控每個模組與設備，發現異常立即警示，並進行跨場域效能比對與自動報表產出。

### 全台快速服務網絡

六大城市布局，1.5小時內快速響應現場故障，降低停機損失。

### 大型儲能系統應用

儲存離峰電力，調峰減少成本，突發停電時快速供電，支援電力市場交易。

### 太陽能模組回收再利用

回收分解玻璃、鋁框與矽材，助力企業達成ESG永續目標。

### Professional Solar Plant Maintenance

We conduct regular inspections, cleaning, and prompt repairs to prevent issues and ensure stable, long-term power generation.

### Smart Monitoring System

Provides 24/7 real-time monitoring of every module and device, with instant alerts and automated operational reports.

### Nationwide Rapid Response

Technical teams in six cities respond within 1.5 hours to minimize downtime and energy loss.

### Energy Storage Solutions

Stores low-cost off-peak electricity, supplies backup power during outages, and enables participation in energy markets.

### Solar Panel Recycling

Recycles key components to support sustainability goals and reduce environmental impact.



展商介紹 EXHIBITOR INFORMATION



## 日月光半導體製造股份有限公司

Advanced Semiconductor Engineering

 連結網址 | ASE Kaohsiung  
(<https://asekh.aseglobal.com/ch/index.html>)



## 金聯成資源科技股份有限公司

JIN LIAN CHENG RESOURCES AND TECHNOLOGY CO.,LTD.

#名仁資源科技股份有限公司#鋰電池回收處理專業廠#金聯成資源科技股份有限公司

### 公司簡介

台灣第一個汰役鋰電池B2B(Battery To Battery)的循環經濟生態系,將汰役鋰電池進行回收、破碎、純化、精煉、以及再生產,建構出完整的循環生命週期技術解決方案,提供台灣境內一個符合國際規範的回收處理管道,有效達成在地化稀貴資源循環利用,零碳足跡與資源永續發展目標。



## 山林水環境工程股份有限公司

FOREST WATER ENVIRONMENTAL ENGINEERING CO., LTD.

#大型水務營運商#循環經濟#設計營運一體化

### 公司簡介

山林水環境工程股份有限公司以「守護水資源、實踐循環經濟」為核心使命，專注於污水處理與再生水開發、廢棄物資源化及再生能源利用三大業務。

公司為全臺主要水務營運商之一，管理多座污水處理廠與再生水設施，服務人口達數百萬。代表案例如永康再生水廠、中科園區污水廠及楠梓污水廠，將生活污水再利用，推動城市水循環，為國內再生水供應的主要服務商。

廢棄物資源化為第二核心，旗下子公司力優勢環保運用濕式處理技術，將焚化底渣轉化為可再利用材料，兼顧環保與經濟效益。

再生能源方面，山林水以廚餘厭氧消化產生沼氣並發電，推動綠能循環應用。

公司秉持專業與創新精神，持續以全生命週期整合服務，成為臺灣永續水資源與環境工程的領導品牌。

山林水環境工程股份有限公司以「守護水資源、實踐循環經濟」為使命，專注於污水處理與再生水開發、廢棄物資源化及再生能源利用。公司為全臺主要水務營運商之一，管理多座污水及再生水廠，為國內再生水供應主要服務商。旗下力優勢環保運用濕式技術將焚化底渣再利用，兼顧環保與效益；並以廚餘厭氧消化產生沼氣發電，推動綠能循環。山林水以專業與創新引領永續環境工程發展。

### 打造全臺多項第一的山林水工程

山林水環境工程股份有限公司成立逾二十年，以「守護環境、循環共生」為使命，致力於水資源、廢棄物及再生能源整合服務。公司以創新技術與營運導向管理，創下多項全臺第一的里程碑：包含全臺第一件污水下水道 BOT 案——楠梓污水系統，日處理量達七萬五千CMD，奠定公共污水促參營運基礎；全臺第一座高科技再生水廠——永康再生水廠，穩定供應科技業用水，推動城市水循環；以及全臺第一座廚餘生質能發電廠——外埔綠能生態園區，實現廢棄物能源化再利用。山林水積極拓展再生水領域、廢棄物循環再生，持續引領環境技術革新。公司以全生命週期整合服務模式，從設計、建造到營運一體化推動永續發展，成為臺灣環境工程與綠色經濟指標企業。

山林水環境工程股份有限公司以「守護環境、循環共生」為使命，致力於水資源、廢棄物與再生能源整合服務，創下多項全臺第一。包括第一件污水下水道 BOT 案——楠梓污水系統、第一座高科技再生水廠——永康再生水廠，以及第一座廚餘生質能發電廠——外埔綠能生態園區。公司以創新技術與營運導向推動水資源及廢棄物循環利用。山林水以全生命週期整合服務，從設計到營運一體化，持續引領臺灣永續環境工程發展。



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