

SUT Strengthens Strategic Collaboration with NCKU and TTSTC

Advancing international education, smart healthcare, semiconductor and AI collaboration in Taiwan

19–24 July 2026 | Tainan, Taiwan

SUT delegation at NCKU / TTSTC



• Photo: Dinner with Chair Professor Fong-Chin Su, host, Executive Director of TTSTC, NCKU and distinguished guests.

Associate Prof. Dr. Soodkhet Pojprapai and Associate Prof. Dr. Sirirat Tubsungnoen Rattanachan, delegation from Suranaree University of Technology (SUT) visited National Cheng Kung University (NCKU) in Tainan, Taiwan, from 19 to 24 July 2026 to strengthen academic and research collaboration through the Taiwan–Thailand Science and Technology Center (TTSTC). The working visit connected smart healthcare, biomedical innovation, artificial intelligence, medical robotics, semiconductor research, talent development, student and faculty mobility, and industry engagement.

VISIT HIGHLIGHTS

Smart Healthcare	Biomedical Innovation	AI & Robotics	Strategic Partnership
Home care and smart exercise technologies	Design thinking, prototypes and pitches	AI-assisted diagnosis and medical robotics	Research, mobility and industry links

Learning from NCKU's Home Care and Smart Exercise Ecosystems

The delegation observed home-care technologies designed to help older adults live safely and independently. Demonstrations included integrated safety monitoring, health assessment, alert systems, mobility assistance and user-friendly residential design. The visit also presented how model living spaces can help learners visualize the full workflow of home-care services.

Home Care Technology

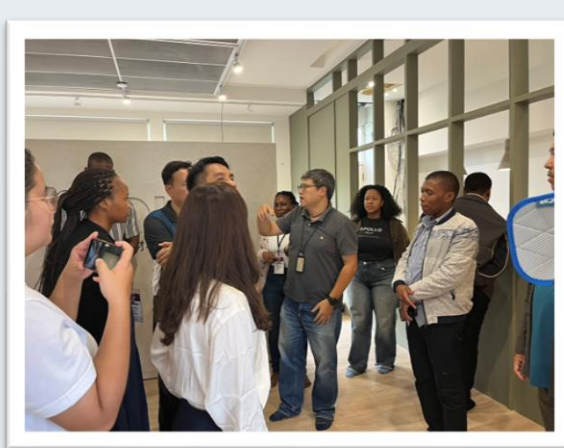


Photo: Home-care devices, model living environment, safety systems or mobility-support technology

At the all-age smart exercise center, the delegation learned how AI-enabled equipment, physical assessment and cloud-based monitoring can support health promotion and rehabilitation. The system can record performance, assist in individualized exercise planning and strengthen muscles required for balance and daily movement. The approach is relevant not only to older adults but also to preventive health across different age groups.

All-Age Smart Exercise Center

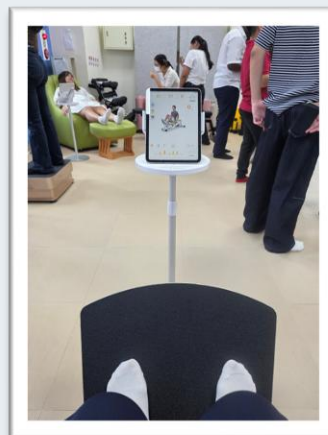


Photo: Participants testing smart exercise equipment, health assessment or AI monitoring.

“Technology becomes meaningful when it is designed around safety, independence and quality of life.”

BIOMEDICAL INNOVATION AND DESIGN

From Clinical Needs to Prototypes and Pitches

The delegation observed student teams applying design thinking to healthcare challenges. The process moved from problem identification and need finding to solution design, prototyping and pitching. Cases included hypertension, HIV and diabetes. Some teams created 3D-printed prototypes and short demonstration videos to explain how their devices could be used.

Student Pitching / Prototype Demonstration

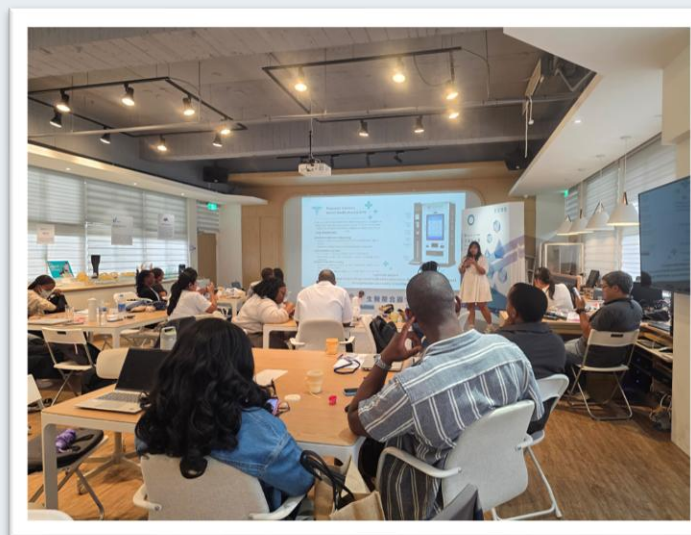
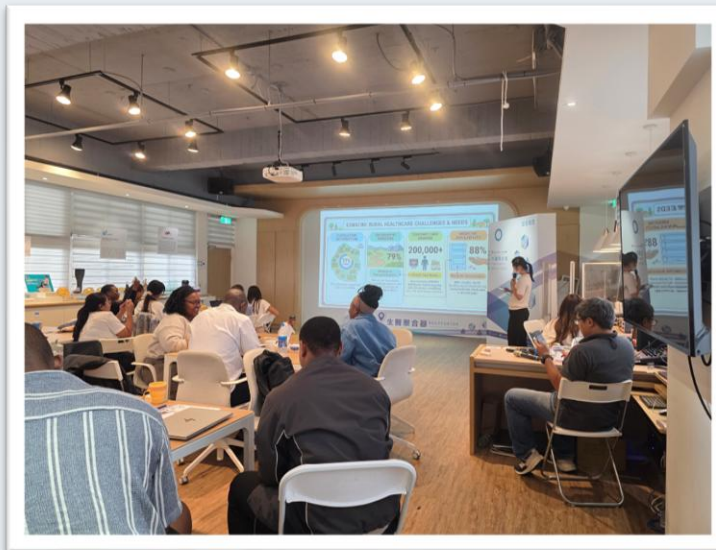


Photo: Student pitches, prototype review, design workshop or final presentation.

AI-Assisted Diagnosis and Clinical Decision Support

Lectures highlighted the use of artificial intelligence in pathology and cancer-related image analysis. AI can assist with screening, improve consistency and reduce the time required for reviewing large numbers of images. The discussions emphasized that medical professionals remain responsible for interpretation and final clinical decisions.

AI in Healthcare Lecture

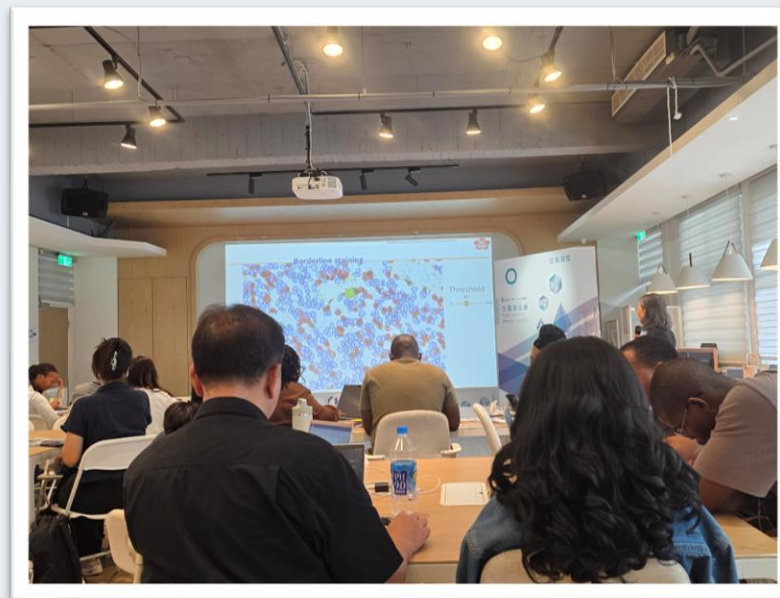
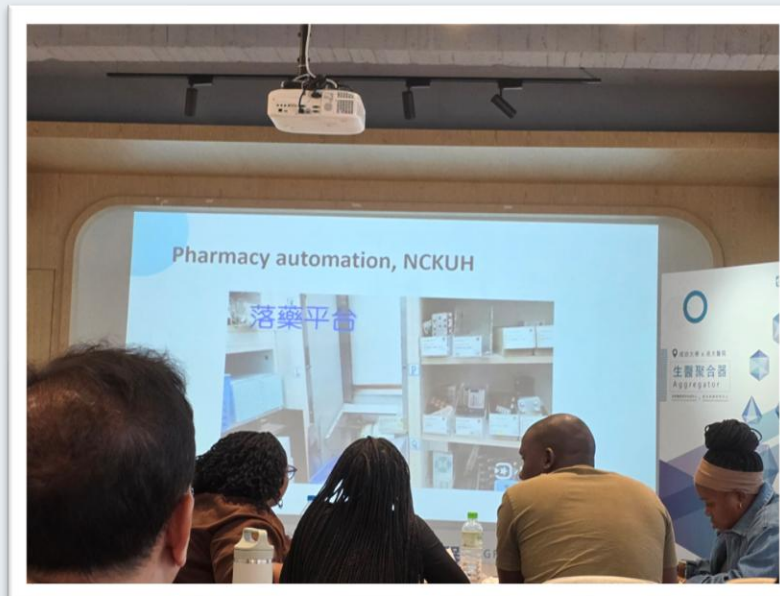


Photo: Lecture on digital pathology, AI-assisted diagnosis or healthcare data analysis.

Exploring New Models of Healthcare Delivery

The visit also covered medical robotics and remote-care applications. Examples included robots for hospital logistics and medication delivery, service and companion robots, feeding assistance, telepresence, telemedicine, remote diagnostics, capsule endoscopy and telesurgery. These technologies can extend access and improve efficiency, while introducing challenges related to cost, training, tactile feedback, equipment reliability and workflow setup.

Hospital Robotics	Remote Healthcare	Clinical Challenges
Logistics, delivery and service support	Telemedicine, telepresence and diagnostics	Cost, training, reliability and safety

Medical Robotics / Remote Healthcare



Photo: Robot demonstration, telemedicine system, laboratory visit or technical lecture.

Building Relationships for Long-Term Collaboration

A dinner gathering hosted by Chair Professor Fong-Chin Su, Executive Director of TTSTC, created an informal setting for exchanging ideas with senior representatives from NCKU, Taiwan's National Science and Technology Council, the Taipei Representative Office and the TSMC–NCKU Joint Research Center. The event strengthened professional relationships and opened new opportunities for international education, research, innovation and industry cooperation.

Dinner Gathering / International Networking

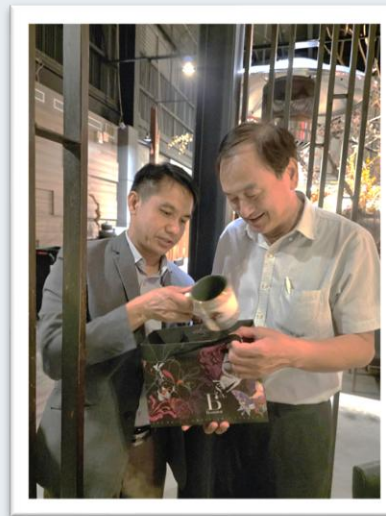


Photo: Group photo, discussion with Professor Fong-Chin Su, exchange of gifts or networking at dinner. Chair Professor Fong-Chin Su, host, Executive Director of TTSTC, NCKU, Ms Alison Li-Chen Wang Director, Science and Technology Division, Taipei Representative Office in the UK, Professor Wang-Long Li, Director General, Department of International Cooperation and Science Education, NSTC, Prof. Wen-Tai Chiu, Vice President of International Affairs, NCKU, Distinguished Prof. Yeong-Her Wang, Director, TSMC-NCKU Joint Research Center, Chair Prof. Woei-Jer Chuang, former Vice President, NCKU, Assoc. Prof. Supakit Rooppakhun, Suranaree University of Technology (SUT), Assoc. Prof. Soodkhet Pojprapai, Suranaree University of Technology (SUT) and Assoc. Prof. Sirirat Tubsungnoen Rattanachan, Suranaree University of Technology (SUT)

FUTURE COLLABORATION

Semiconductor, AI, Research Mobility and Industry-Based Learning

Discussions explored a long-term framework focused on semiconductor technology, artificial intelligence, green-energy AI, biomedical engineering and smart healthcare. Possible activities include joint workshops, collaborative research proposals, publications, postdoctoral opportunities and research internships lasting three months or longer.

2026	2027–2028	2029–2031	Future
Joint workshops and program design	Student and faculty mobility	Semiconductor & AI academic pathways	Joint research and industry ecosystem

Priority areas for follow-up

- Student and faculty exchange through TTSTC
- Joint research in semiconductor, AI, smart healthcare and rehabilitation engineering
- Industry-linked internships with Taiwanese companies operating in Thailand
- Co-supervision, visiting scholars and postdoctoral mobility
- Joint publications, grant proposals and technology commercialization

Research Meeting / Joint Center Visit



Photo: Meeting with NCKU researchers, joint center visit or technical discussion.

Smart Insole and Sensor-Based Health Applications

The delegation discussed research translation opportunities related to smart insoles, plantar-pressure sensing, rehabilitation and physical-activity monitoring. A future system could combine wearable sensors, AI and cloud-based analysis to support preliminary screening, individualized exercise planning and rehabilitation. Potential commercialization pathways may involve healthcare providers, pharmacies, technology companies and startup partners.

Potential Research Outputs

- ✓ Sensor-integrated smart insole
- ✓ AI-based movement and risk assessment
- ✓ Clinical and rehabilitation datasets
- ✓ Joint papers and grant proposals

Potential Societal Impact

- ✓ Accessible health monitoring
- ✓ Support for ageing populations
- ✓ Personalized rehabilitation
- ✓ University–industry innovation

Smart Insole / Sensor Research Discussion

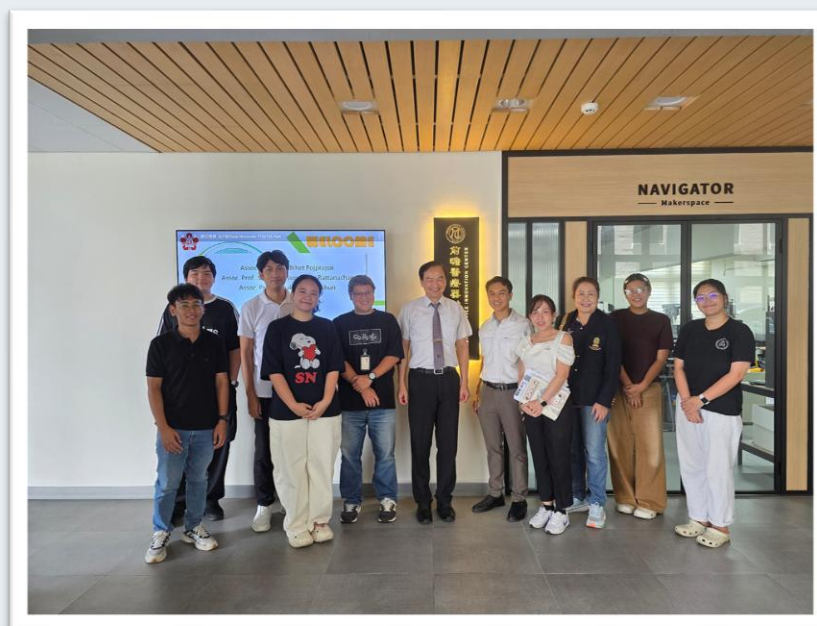


Photo: Smart insole, plantar-pressure system, sensor prototype or research discussion.

LOOKING AHEAD

Toward a Sustainable SUT–NCKU Partnership

The working visit provided valuable insights into Taiwan’s integrated approach to education, healthcare technology, research and industry collaboration. It also established a practical foundation for cooperation among SUT, NCKU and TTSTC. The next phase will focus on converting discussions into joint activities that expand international learning opportunities, strengthen high-technology talent development and generate research and innovation outcomes for Thailand, Taiwan and the ASEAN region.

Together, SUT, NCKU and TTSTC can connect talent, technology and industry to create sustainable impact.

Center for International Affairs (CIA)
Suranaree University of Technology

Cia.sut.ac.th
International collaboration feature