

## **NCYU Assistant Professor Jing-Feng Weng and Research Team Achieve Outstanding Success at Major Academic Conferences**

Assistant Professor Jing-Feng Weng from the Department of Mechanical and Energy Engineering at National Chiayi University (NCYU) has demonstrated exceptional research leadership in image processing, 3D optical measurement, and smart agriculture. Between 2024 and 2025, Dr. Weng led his team to participate in several prestigious conferences, including CSME 2024/2025, OPTIC 2024, FCNDT 2024, and CTAM 2025. The team published dozens of high-quality papers and won numerous awards in student paper competitions, showcasing NCYU's leading position in opto-mechatronics integration and smart monitoring technology.

### **1. Robust Research Energy: International Exchange in Optics, Mechanics, and Smart Agriculture**

Dr. Weng is dedicated to cultivating students' international perspectives. At OPTIC 2024, the team presented papers on 3D point cloud reconstruction and HDR surface inspection, allowing students to demonstrate their logic and programming skills in an all-English environment (Fig. 1).

Under his guidance, undergraduate student Chun-Lung Cheng won the "Best Poster Presentation Award" at the inaugural FCNDT 2024 for his research on PCB defect detection (Fig. 2). Furthermore, at CSME 2024, graduate students Yu-Qian Cheng and Jin-Bo Ou both received "Award of Excellence (Oral)" for their innovative work on 3D reconstruction and glass scratch detection (Fig. 3). Graduate student Yu Chen was also invited to present O-ring inspection technology at a special forum during CSME 2025.

Beyond awards, Dr. Weng has tirelessly mentored many students to deliver oral presentations at CSME 2023-2024, building a strong academic foundation and practical industry skills (Fig. 4).

### **2. Academic Leadership: Serving as International Symposium Chair**

Dr. Weng's academic expertise has earned international recognition. He was invited to serve as the Symposium Chair for the 49th National Conference on Theoretical and Applied Mechanics (CTAM 2025) and the 4th International Conference on Mechanics (4th ICM). He hosted the forum focused on "Advanced Microscopic Imaging, AI, and Optical Measurement in NDT and Process Control."

At CTAM 2025, Dr. Weng led a team of 6 undergraduate and 2 graduate students to publish 8 papers simultaneously (Fig. 5). The research successfully extended optical technology to smart agriculture and industrial automation, including automated body measurements for pigs, egg geometry measurement, and aerospace turbine blade inspection.

Dr. Weng stated that participating in major conferences provides students with comprehensive training in logical reasoning and public speaking. Moving forward, the research team will continue to focus on smart monitoring and advanced non-destructive testing (NDT), creating further academic and industrial value for NCYU.

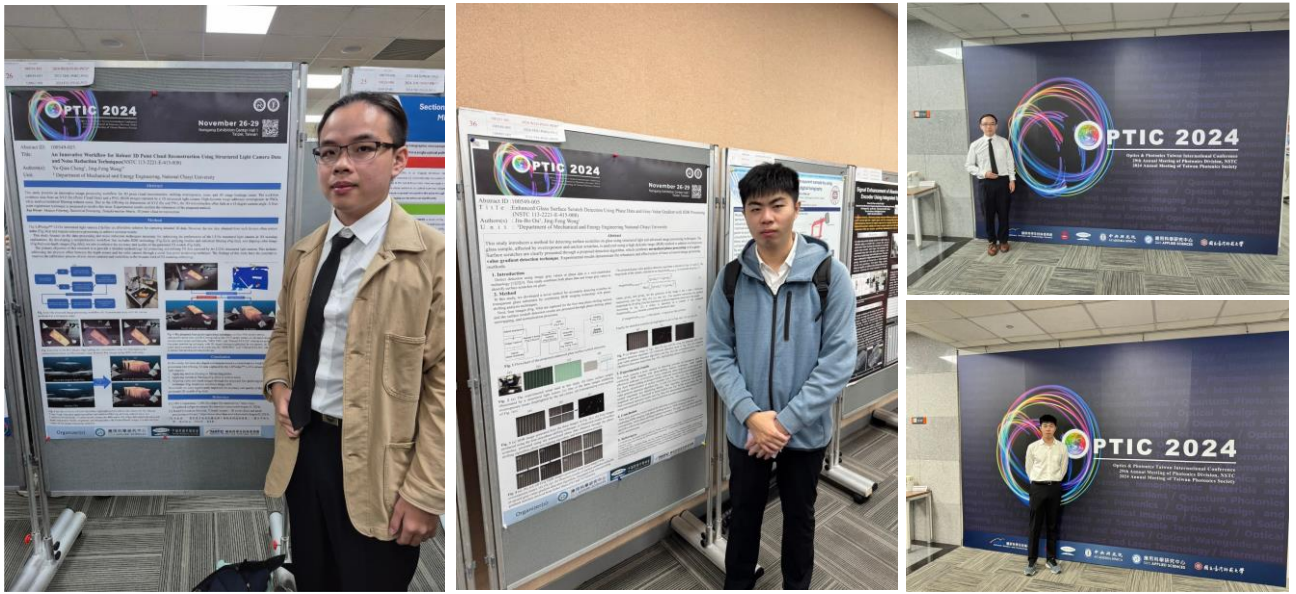


Fig. 1: Graduate students Yu-Qian Cheng (left) and Jin-Bo Ou (right) at the OPTIC 2024 international conference.



Fig. 2: Assistant Professor Jing-Feng Weng (left) with Chun-Lung Cheng (right), winner of the Best Poster Presentation Award at FCNDT 2024.



Fig. 3: Assistant Professor Jing-Feng Weng (right) with award-winning graduate students Yu-Qian Cheng (center) and Jin-Bo Ou (left) at CSME 2024.



Fig. 4: Group photo of Assistant Professor Jing-Feng Weng with students Yu Chen, Jia-Peng Huang, Chun-Lung Cheng, and Cheng-Han Sung at CSME 2024.





Fig. 5: Assistant Professor Jing-Feng Weng with the 8 presenting students at CTAM 2025. Individual photos show the presentation of certificates to students including Yu-Qian Cheng, Jin-Bo Ou, Wen-Hong Luo, and others.