

## TKU ARCHITECTURE PHD CANDIDATE WON CHAMPIONSHIP: THE ONLY AWARD FOR TAIWAN

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With their work “Installation of a Staircase,” Architecture PhD candidate and lecturer Hung-ming Chen and Aluninus Zhen-jia Li won the first place among over 200 competitors in the “Form-Z Joint Study Program” in the U.S. Architecture senior Jing-ti Tsai also won the title of “Excellent Design” with her work “Studies on the Texture of a Woven Wall.” She is going to Chicago to receive the award on Oct. 22. TKU is the only university in Taiwan that has won such an honor in the “Form-Z Joint Study Program” this year.

“Installation of a Staircase” was originally designed for the landing space between the 6th and 7th floors of the Main Engineering Building. According to 15 human sitting positions, they designed five proposals with the help of the Form-Z 3D module software, and selecting the most suitable one according to the theory of mechanics. The supervisor, Associate Professor Chen-cheng Chen explained that the work was done in the natural shape of a forest cut by a digital lathe. Different from the ordinary square and upright shape, the work created an artistic beauty of the seats and achieved a natural effect that could not be done with human hands. They finally completed the work after overcoming so many unexpected difficulties, but their work was unique. For example the machine can cut things not longer than 120 cm, so they made many natural curves at the joints of the boards and many natural changes in board arrangements. Finally they created the work as high as 3 meters, yet it looked perfectly natural. The floor of the stair landing was not even, so they used crosswise beams for the base of the design, which also had moisture-proof effects.

All students felt the stair landing design was freshly novel and unique.

Architecture senior Hong-xiang Tsai said with surprise, “The design is not only fresh and novel but also creative, so it naturally attracts others’ attention! If there is a similar design at every stair landing, students will be more enjoyably relaxing. If the background wall is colorfully painted, it will have better and mutually complementary effects.” Regarding the award, Hung-ming Chen expressed his deep gratitude to his supervisor Prof. Chen-cheng Chen who had imported digital equipment to help out the design. With the advanced equipment, TKU is not really behind Harvard University, University of Pennsylvania and Columbia University. “Since my undergraduate years, Prof Chen has always backed me up and often burnt the midnight oil to discuss my designs with me. I am indeed deeply grateful to him.” Prof. Zhen-cheng Chen said that originally they wanted only to cooperate with the concept of the Dean of the College of Engineering, Gwo-hsing Yu to offer the design for students to have a better resting place. But unexpectedly the design won the first prize, and they appreciated the support of the College.

“Studies on the Texture of a Woven Wall” by Architecture senior Jing-ti Tsai is a design with a large piece of paper (25 cm by 100 cm) with 50 cuts. With the cut texture, she twisted the paper and stretched it into a hundred kinds of shapes then, she simulated the structures of a wall by selecting the cuts with organizational terraces and visual effects. Prof. Chen-cheng Chen mentioned that Jing-ti Cai’ s skills of designing drawing and creativity reached a certain maturity. With continuing hard work, she would prospect well. For winning a prize the first time, Jing-ti Cai happily said, “It was both unexpected and sweetly surprising. It has helped to boost my self-confidence. I will be more earnest and devoted to every case in the future. With higher expectations, I hope to make better progress.”  
( ~Dean X. Wang )

