## The Impressive Initial Results of the Smart E-Pen with Eyecatching Ethereal Strokes

The "Smart e-Brush" research and development team, co-hosted by Ben-Hang Chang, Director of Carrie Chang Fine Arts Center, and Dr. Tzung-Hang Lee, Dean of the College of Engineering and the AI Innovation College, is carrying out the AB dual-track transformation plan with the support of Chin-Tsai Chen, Chairman of WIN Semiconductor Corp. and President of the Tamkang University Worldwide Alumni Association. On January 8, at the Spring Festival Couplet calligraphy event held in the lobby of the Grand Hotel, the preliminary research and development result "Ethereal Calligraphy" (空靈揮毫) was presented in public for the first time. It was demonstrated by waving hands in the air, and through technology, the invisible calligraphy was converted into written characters, which received considerable attention from Deputy Minister of Interior Ching-Chun Hua, the Chairperson of TKU, Dr. Flora Chia-I Chang, Chin-Tsai Chen, numerous calligraphy masters and guests. This groundbreaking technology is expected to open the way for e-brush calligraphy to enter the metaverse.

The team includes Professor Wen-Bing Horng, Professor Chien-Chang Chen, Professor Chi-Yi Lin, and Assistant Professor Meng-Luen Wu from the Department of Computer Science and Information Engineering, and Assistant Professor Chieh-Ying Chang from the Department of English, and they are continuously improving the existing digital e-brush while enhancing the content of the e-brush app system on the iPad. They are currently working on the "Beautiful Handwriting Project" (「美跡計畫」), as well as functions such as layout and font search, hoping to improve the beauty of calligraphy and use various e-brush functions to enhance the learning, creation, and expression of calligraphy and painting.

In addition, in order to improve the learning outcomes of the "Digital e-Pen and Creative Practice" course offered on campus for the past 10 years, Ben-Hang Chang collaborated with ViewSonic last semester to equip the computer classrooms with e-pen screens and conduct in-depth education on e-pen calligraphy and painting, with the hope of promoting more

convenient and practical e-pen calligraphy and painting learning. The Carrie Chang Fine Arts Center also held many related exhibitions and calligraphy competitions to encourage students across the country to actively learn e-pen calligraphy and painting, with the aim of continuing calligraphy education and promoting this tradition art through digital technology.

Ben-Hang Chang recently went to Japan to host the 39th International Lanting Calligraphy Society Annual Meeting and Exhibition. As the president, he actively promoted e-Pen calligraphy to the international calligraphy community and received good feedback. What's even more exciting is that the "Brilliance of the Past and Present - Chang Dai-Chien's Calligraphy and Painting Exhibition" held by TKU was heavily reported by media in Japan and South Korea. He said that "Nihon Art Journal" in Japan and "Seoye Monthly" in South Korea have a long history and have a very high professional media status in Japan and South Korea. Their extensive coverage of the exhibition reflects the value of the exhibition, and he believes that after reading the reports, readers in Japan and South Korea should be able to better understand the connotation of Tamkang University's emphasis on holistic education and enhance the university's visibility.

2023/03/05

