

NEWS



Feature Column

Publish Date : 2025-01-08

Bridging Art and Technology: NYCU’s Journey in Computer Music Composition



Professor of the Institute of Music Yu-Chung Tseng (far right), and his “Composition and Technology Group” students showcase their research achievements in computer music.

By Professor Yu-Chung Tseng

Edited by Chance Lai

What happens when technology meets art? Every technological revolution infuses music with new possibilities, from the harpsichord to digital synthesizers, from recording technology to AI-generated music. At the forefront of these changes, National Yang Ming Chiao Tung University (NYCU) has played a pivotal role in advancing computer music in Taiwan, blending visionary foresight with relentless dedication.

Origins: Blurring the Lines Between Art and Technology

In the late 1980s, NYCU took its first bold steps onto the global stage of computer music. At the university’s invitation, Professor Phil Winsor from the University of North Texas College of Music brought his expertise to NYCU, initiating a transformative era for the field. Collaborating with composer Professor Ting-Lien Wu, Winsor established the Applied Arts Laboratory, laying the foundation for computer music development at NYCU.

By 1992, the Institute of Applied Arts was founded with a dedicated music program, marking Taiwan’s first academic platform for computer music research. This momentum culminated in 2000 when the Institute of Music became an independent entity, offering electronic and computer music majors. A groundbreaking **Master Program of Sound and Music Innovative Technologies (SMIT)** was also launched in partnership with the College of Engineering, fostering interdisciplinary innovation at NYCU.

My Journey in Computer Music: From Inspiration to Legacy

As a research assistant in the Applied Arts Laboratory, I encountered computer music for the first time—a moment that became the cornerstone of my career. Guided by Professor Winsor, I pursued further studies in the United States and authored Taiwan’s first doctoral dissertation on computer music composition. Upon returning to NYCU, I devoted myself to teaching and creating computer music, building upon the robust foundation laid by my mentor.

Computer music is a field that continually challenges traditional boundaries. Students here delve into cutting-edge music technologies while exploring diverse forms of expression. From live coding for improvisational performances to designing custom sensors and digital controllers that redefine musical interfaces and even incorporating brainwave data for bio-music performances, these innovations transform music into a dynamic language resonating with technology.

Going Global: Sharing Taiwan’s Voice with the World

A global perspective is integral to computer music education. Our students actively participate in music festivals and competitions worldwide, consistently earning accolades and having their works featured on prestigious platforms such as the New York Electroacoustic Music Festival. I’ve had the privilege of leading award-winning students on international tours across France and Germany, where we visited renowned institutions like the In-GRM Center in Paris and the GRAME Center in Lyon. These experiences offered invaluable insights into the pulse of global computer music technology.

Driven by the aspirations of Professor Winsor, I remain committed to advancing computer music at NYCU. Through international exchanges, we aim to amplify Taiwan’s unique musical voice, contributing to the cultural diversity of computer music worldwide. Looking ahead, we envision charting new territories where art and technology converge, establishing NYCU’s music technology lab as a shining beacon on the global map of music innovation.



Professor Yu-Chung Tseng (left) of the Institute of Music specializes in electronic music and interactive composition. His works have received widespread international acclaim, and he actively promotes the creation and curation of contemporary music. Under his guidance, his students and their creations have frequently won awards and been selected for competitions and music festivals both domestically and internationally, making him a key figure in advancing electronic music and technology-driven creative works.

Related Image(s) :



cover image

← Back

▼ Open