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2023 Taiwan Medical Technology Exhibition: NYCU's Innovative Smart Healthcare Holds Promise for Benefiting Both Clinical and Home Care for The Public



The development of the "Wearable Brain-Machine Interface" includes the development of wearable brainwave devices and electrodes, the development and optimization of machine learning algorithms, and the application of smart healthcare in clinical research.

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Competent healthcare is ushering in a wave of future technology. National Yang Ming Chiao Tung University (NYCU) is leading in biomedical and electronic information technology, emerging as a critical player shaping Taiwan's future in intelligent healthcare. At the recently concluded '2023 Taiwan Healthcare Expo' on December 3, NYCU showcased the cutting-edge technological achievements of its top ten elite teams, presenting Taiwan's innovative strength in competent healthcare to the world.

**NYCU Unveils
Exceptional Research
Results in Medicine,
Innovation, and
technology.**



The Smart Healthcare Technology of NYCU Injects New Vitality into the Development of Smart Healthcare in Taiwan and Leads Taiwan Towards Global.

Prominent AI technology was prominently featured in many of NYCU's ten exhibition booths, with the expectation that integrating AI and medical data will alleviate the healthcare workforce burden associated with an aging population. NYCU is committed to continually bringing breakthroughs to Taiwan's biomedical technology field through technological innovation, accelerating the practical application of biomedical technology to benefit more people.

The intelligent healthcare technology of NYCU is leading Taiwan towards global recognition, propelling continuous progress in medicine through technological prowess. Looking ahead,

The shining orb at the center of the stage reflects a shared vision for the future, symbolizing NYCU's collaborative efforts to open the door to smart healthcare. It signifies NYCU's united cooperation and joint venture towards the boundless future of medical technology.

Dr. Tzu-Hao Cheng, Vice President of NYCU, emphasized, 'NYCU has attained success in the semiconductor field, and the next optimization frontier is biomedical.' The exhibition, themed around MIT (Med. Inn. Tech Expo), highlighted the 'NYCU Pavilion,' exhibiting the most distinctive and diverse research results in medicine, innovation, and technology. These advancements are set to benefit the public in both clinical and home care settings.

For example, Professor Yu-Te Wu's team presented the 'Altewan DeepBT Detector,' a brain

NYCU will continue to delve into related fields, promote industry-academic collaboration, nurture professional talents, and actively engage in international cooperation to inject new energy into the development of intelligent healthcare in Taiwan.

Vice President Dr. Tzu-Hao Cheng stated that 70% of CEOs in companies within the Hsinchu Science Park are alumni of NYCU, highlighting the success of the university's symbiotic relationship with the industry. NYCU aspires to establish itself as the driving force behind Taiwan's biomedical industry through high-quality industry-academic collaboration, creating a second stronghold for Taiwan's national defense.

In addition to showcasing NYCU's advancements in the biomedical field, Vice President Dr. Tzu-Hao Cheng also announced, "In 2024, the university

tumor detection system that, through AI image interpretation, precisely identifies the initial contours of brain tumors. This innovation enhances the accuracy and efficiency of image interpretation, representing a significant advancement in precision medicine.

In addition, Professor Li-Wei Ko's team showcased the 'Wearable Brain-Machine Interface,' which integrates dry electrodes for brainwaves with AI deep learning to recognize and digitize brainwave patterns. This technology holds the potential for integration with applications such as headache warnings, sleep health monitoring, and assistance in treating attention deficit hyperactivity disorder (ADHD).

will officially establish an Industry-Academia Co-Creation Office, with the hope that outstanding research results can gradually integrate with the industry, enhancing the university's influence and contributing to society!"



President Dr. Chi-Hung Lin expressed encouragement, urging, 'The school is a stage with complete sound and light effects, allowing teachers and students to express themselves freely!' NYCU aims to establish a comprehensive and healthy system and ecosystem, contributing to Taiwan's continuous improvement.

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