

FOUR PROFESSORS' RESEARCHES PATENTED

Once again TKU's faculty demonstrates rich achievements of research. Four professors' research products acquired national patents: Yeh Fung-huei's (Department of Mechanical and Electro-Mechanical Engineering) "Integrated Control Apparatus of Computer Platform for the Blind and Transferring Interface of Braille Display Monitor," Lu Po-chien's (Department of Water Resources and Environmental Engineering) "Triple-Vane Mechanical Heart Valve," Lin Meng-shan's (Department of Chemistry) "Auto-Sampling Electrochemical Sensing Strip with Screen-Printed Three Electrodes", Huang Jiung-yao's (former professor at Department of Computer Science and Information Engineering) "Multi-Monitor Simultaneous Display System of Virtual Reality." Professor Huang Jiung-yao switched to Chungcheng University last summer vacation, co-owning the patent with TKU.

According to Office of Research and Development (ORD), for encouraging teachers' more active involvement in patenting and transferring research products, school will be in charge of all the related overheads; the necessary money will not be deducted from the income of technique transfer, being proportionally distributed according to the regulations. For more preferential details, please consult the homepage of ORD. Currently 11 proposals are in the process of reviewing.

According to Professor Yeh Fung-huei, Integrated Control Apparatus of Computer Platform for the Blind and Transferring Interface of Braille Display Monitor dissolves the differentiation of blind and normal users of computer, keeping intact the original hardware interface and reconstructing software into the interface for general use. The wireless communications technology "Blue Bud" has been invented, an intelligent simulation connector with the advantages of compressed size, convenience

of handling and functional upgrading. He indicated, “The blind can’t see the computer screen and rely on their auditory and tactile sense; they need assistant apparatus to understand messages. Although they can receive messages through language, they still face many problems in examination, memorizing and learning. The purpose of researching appropriate assistant apparatus is to make the use of the Internet more convenient for the blind.”

According to Professor Lu Po-chien, the “Triple-Vane Mechanical Heart Valve” is renovated from the previous “Triple-Vane Artificial Heart Valve,” making the switching-on and off easier. He said, “Because of the imbalance of food sources, fat is likely to pile up at the valve and violate its proper functioning, which may lead to the reverse flow of blood. Hopefully the Triple-Vane Mechanical Heart Valve can be a blessing to people suffering this disease.” Besides, Professor Lu Po-chien is currently working on “Cycling Assistant Apparatus,” a grand invention-to-be for the patients of heart disease.

Lin Meng-shan explained that Auto-Sampling Electrochemical Sensing Strip with Screen-Printed Three Electrodes is a basic technology, mainly applied in the sample testing in bio-medicine. Professor Huang Jiung-yao’s Multi-Monitor Simultaneous Display System of Virtual Reality, easy to operate, can enhance the clarity of screen. (~Han-yu Huang)

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