

Two Robots Designed by Electrical Engineering Professor and Students Won National Awards

TKU' s Department of Electrical Engineering has become two-time winners in November. Congratulations! First,. They won a Grand Prize and a Second Prize in the “2001 National Soccer Robot Competition” sponsored by 3C Industry Application Teaching Resource Center, Ministry of Education. Second, in “the Competition of Microcomputer Application System Design and Implementation” , also sponsored by M.O.E., the “Unmanned and Voice-Controllable Mobile Robot Design and Implementation System” has caught the eye of the judges and received an excellent rating. The graduate students involved in the project went to National Taiwan University of Science and Technology to receive a cash prize for NT\$40,000.00 and a citation.

Prof. Weng Ching-chang is the master- minder of the above two inventions. He was, of course, assisted by a group of enthused undergraduate/graduate students.

The soccer robot had already stolen the show when it first appeared in The Four Engineering Departments' Pageant. Now, this time, it was displayed at a different place, in the Activity Center of the National Chung Cheng University.

The pitched battle was fought between 7 universities totaling 11 teams. They were from National Cheng Kung University, National Chung Cheng University, National Chung Hsin University, etc.

First, they taped the ongoing tournament by a camcorder. Then they transmitted the monitored images and had them conveyed to a host computer. After that, manual intelligence chipped in, and they began to control the fight by manipulating the routes taken by each team, and a heated battle fought between rival soccer players began.

As for the “Unmanned and Voice-Controllable Mobile Robot Design for Searching and Collecting System”, the game is just as tortuous and interesting as its title; it’s a name twister. It is partly done by a DV (Digital Video) hoisted above the game ground. The image is processed by the DV, and through an analytical reading, the robot catches the message and knows very well to dodge the obstacles on the way. Then it rapidly searches its surroundings and collects the desired object and carries it to the destination without fail. How wonderful!

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