Tamkang Times No. 548

## TKU ROBOT SOCCER TEAM "FORERUNNER" WON THE FIRA ROBOSOT CHAMPIONSHIP

TKU voice-controlled robot soccer team "Forerunner," created by the Electrical Engineering Department, won the FIRA (Federation of International Robot-soccer Association) first place in the robosot category by 3-2 victory over Harbin Institute of Technology (HIT) after a two-hour deadlock this month. TKU achieved international fame by winning this title.

Also, the mechanical soccer robots have won the Screening Committee Award in the category of semiconductor design and application in the Wan-hung Gold-Silicon Competition in June this year, in which "forerunner" was praised as a "mechanical Beckham." The same soccer robots won first place in 2003 FIRA World Cup in Vienna, Austria; HIT (China) and CIIP Glory (Australia) placed the second and third in the same category.

TKU president Dr. Horng-jinh Chang praised the students for their performance in this event at a press conference last Wednesday: "You all are heroes. It is not simply the pride of our country but also the pride of TKU." The trophy brings international recognition not only to the ROC but also to TKU. President Chang told the students that the University has placed the development of robot technology as one of its priority research projects; he also encouraged students to enhance their research on robot technology in order to meet further challenges. TKU founder Dr. Clement C.P. Chang will also meet these students this Wednesday, giving them cash prizes as encouragement.

These robots are equipped with 16 bit and 32 bit microprocessors and image

receivers, which enable them to process the images they catch. Six sets of infrared ray sensors, which are capable of detecting obstacles, prevent the robots from colliding with one another. These robots also feature electronic compasses, which helps locate their positions in the field. With such apparatus, each robot attempts to obtain the soccer ball when within a two- meter range and finds the best position to score. Professor Ching-chang Wong in the Electronic Engineering Department indicated that the challenge to be overcome in the near future was to make robots pass the ball more frequently, rather than playing solo.

2010/09/27