

## **DEPT. OF ELECTRICAL ENGINEERING WON CHAMPIONSHIP IN 2008 ALTERA INNOVATE ASIA CHIP DESIGN COMPETITION**

Dr. Wong Ching-chang, Chair of Dept. of Electrical Engineering, led Ph. D. graduates Lee Shih-an, and two graduate students in master program Chiang Ching-ching, Yu Chia-juen to attend the 2008 Altera Innovate Asia Chip Design Competition, host by ALTERA Co., at Tatung University, and won the championship with 50, 000 NT prize money for their work “SoPC Design for Intelligent Real-time Supervising System.” Dr. Wong Ching-chang was awarded with the Certificate of Excellent Advisor and 10, 000 NT prize money.

More than 400 people from 133 teams, 50 universities and Colleges participated in the heated competition for design and technology. It is extraordinary for TKU team to beat various outstanding teams, such as Cheng Kong University, Yang-ming University, and Central University.

Dr. Wong explained that they designed both the hardware and software in their work, incorporating the human body tracing calculation and image procession accelerator into the chip to increate the speed of image procession. In terms of technology renovation, they used the double cores Nios II processor in FPGA chip, one for image procession, the other for transmission and communication. In this way, the user can monitor the operation through internet. Their work won high recognition for using low expense to develop high picture quality and operation efficiency in their intelligent monitoring system, which is believed to contribute greatly to the development and application of Taiwan Web-Cam Monitoring Industry.

Team leader, Lee Shih-an, indicated that the time for the preparation was

very limited, so before the competition they often stayed up to work out the compilation. All the teammates felt excited for the championship they won. Besides, the recognition by ALTERA, a leading organization in the field of semiconductor chip design, would help them a lot no matter in further studies or in future career.

In addition, Dept. of Electrical Engineering won other prizes in “2008 Intelligent Robotic Manufacture Design Competition” hosted by Precision Machinery Research & Development Center, and directed by Ministry of Economic Affairs, including Hsin Kuang Security Merit-mention Award with 50, 000 NT award money for the design of “The Pacifier,” and another three Merit-mention Awards for Creativity in the section of outlook design, each with 20, 000 NT award money—for their works “La Chi Storm,” “The Searching Web—A Self-serving Security Robot,” and “A Good Helper in Management.”

Yang Yu-ting, second year graduate student in Ph. D. program, who participated in Hsin Kuang Security Award competition, indicated that it was regretful that the design of “The Pacifier” did not get a better grade because the robot moved out of the field for the slippage of control board. Dr, Wong remarked that they will pay more attention to fixing the junction between parts with more supporting points, and expected to get better performance in the future competitions. ( ~ Chen Chi-szu )

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Ph. D. graduates Lee Shih-an (left) , and two graduate students in master program Chiang Ching-ching (right) , Yu Chia-juen (middle) attended the 2008 Altera Innovate Asia Chip Design Competition, host by ALTERA Co., and won the championship.

