DTU Wins the 2013 CDIO Cup at Harvard University

With their two projects "A Low-cost Do-It-Yourself Water-Filtering System for Farmers" and "Solar and Battery-Powered Alphabet Blocks", DTU students beat 31 competitors from well-known universities in Canada, France, Russia, Sweden, Denmark and others to win the 2013 CDIO Cup, with first and second prizes from the CDIO Academy. The event was held from June 9 to 13 at Harvard University and MIT. Winning such prestigious awards in a big international competition demonstrated the talent and spirit of DTU students in the age of global integration.

DTU team wins the 2013 CDIO Cup

The CDIO initiative (Conceive - Design - Implement - Operate) is an innovative educational concept to assist in producing the next generation of engineers worldwide. CDIO was formally founded by the Massachusetts Institute of Technology (MIT) in collaboration with three Swedish universities in 2000.

Since its inception, the CDIO network has welcomed more than 80 universities from 25 nations, demonstrating its vital role and reputation in the global education technology revolution. Besides sharing information and scientific research, the CDIO Academy annually evaluates the projects of its members in education technology applications.This year's project theme was "Innovative Applications of Design and Technology". The 2013 CDIO Academy was an opportunity for engineering students to showcase the design and implementation of innovative products, processes and systems. DTU was the second university from Vietnam to participate in the CDIO Initiative and taking part in the CDIO Academy for the first time in 2013. With their dedication to research and excellent preparation for the competition, DTU students won great recognition at the CDIO Academy.

The DTU team in front of the John Harvard statue

Two DTU students, Vo Truong Hoang Linh and Nguyen The Quynh Nhi, were concerned that many poor people in the Central region cannot afford access to hygienic drinking water, so they researched the implementation of a low-cost DIY water-filtering system for farmers. Under the guidance of Dr. Tran Nhat Tan, a member of the DTU Center for Research and Development, they impressed the judges at Harvard University and MIT with their project **"A Low-Cost DIY Water-Filtering System for Farmers"**. Linh and Nhi spent more than a year researching waste treatment and the protection of the environment with the local communities. Applying CDIO concepts to their studies, Hoang Linh and Quynh Nhi traveled to remote areas in Quang Nam, Quang Ngai and Hue to conduct surveys and design a water-filtering system which could absorb heavy metals such as lead, iron, copper and arsenic to purify the water. They used local materials which could be found in those rural areas to build their filter, including honeycomb stone, husk and clay, so that farmers can now easily construct their own filters by following the instructions. The "Low-cost DIY Water-Filtering System for Farmers" project overcame many strong competitors to win the CDIO 1st Prize for Basic Projects and the CDIO 2013 Winner's Cup for Basic and Advanced Projects. The project was highly appreciated because of its humanitarian and practical value and the professional presentation of the DTU project team.

Happy to receive the awards, Nguyen The Quynh Nhi said: "*We are very proud of our achievements. Participating in a big international competition with participants from the world's leading universities, we were a bit perplexed at first. However, with the special academic and soft skills we learned at DTU, we did our best and won first prize. There was another water-filtering system presented by a team from the UK. As soon as they heard about our project, they met us to ask for more information and were pleasantly surprised by our product and awards. It was a great moment."*

The "**Solar and Battery-Powered Alphabet Blocks**" project was proposed by Nguyen Duc Trong, Nguyen Kim Thang and Tran Quoc Hai from DTU and by Winna Santi from Nangyang and Singapore Polytechnic, under the direction of Dr. Ha Dac Binh and Dr. Cheah Sin Moh. The project won the CDIO Basic 2nd prize. The long-lasting collaboration between DTU and Singapore Polytechnic resulted in the conception of the project. Its objective is to create an alphabet learning tool for children living in remote areas of the world, especially in Africa. The team worked together to design low cost solar-powered LED alphabet blocks with pronunciation.

Heading the DTU delegation, Dr. Le Nguyen Bao, DTU Vice Provost, said: "*The fact that DTU students have recently won such high awards in international competition demonstrates their talent, spirit and progress in the age of global integration. These victories have definitely increased their confidence in national and international competitions. These significant prizes that DTU students have won at the 2013 CDIO Academy have become a great inspiration for all Vietnamese students to dedicate themselves to applied science and technology research."*

Returning to Vietnam, the winners received a warm welcome from DTU lecturers and students. DTU students expect to reach for new heights and try their best to turn their dreams of an even better educational system in Vietnam into a reality.

(Media Center)