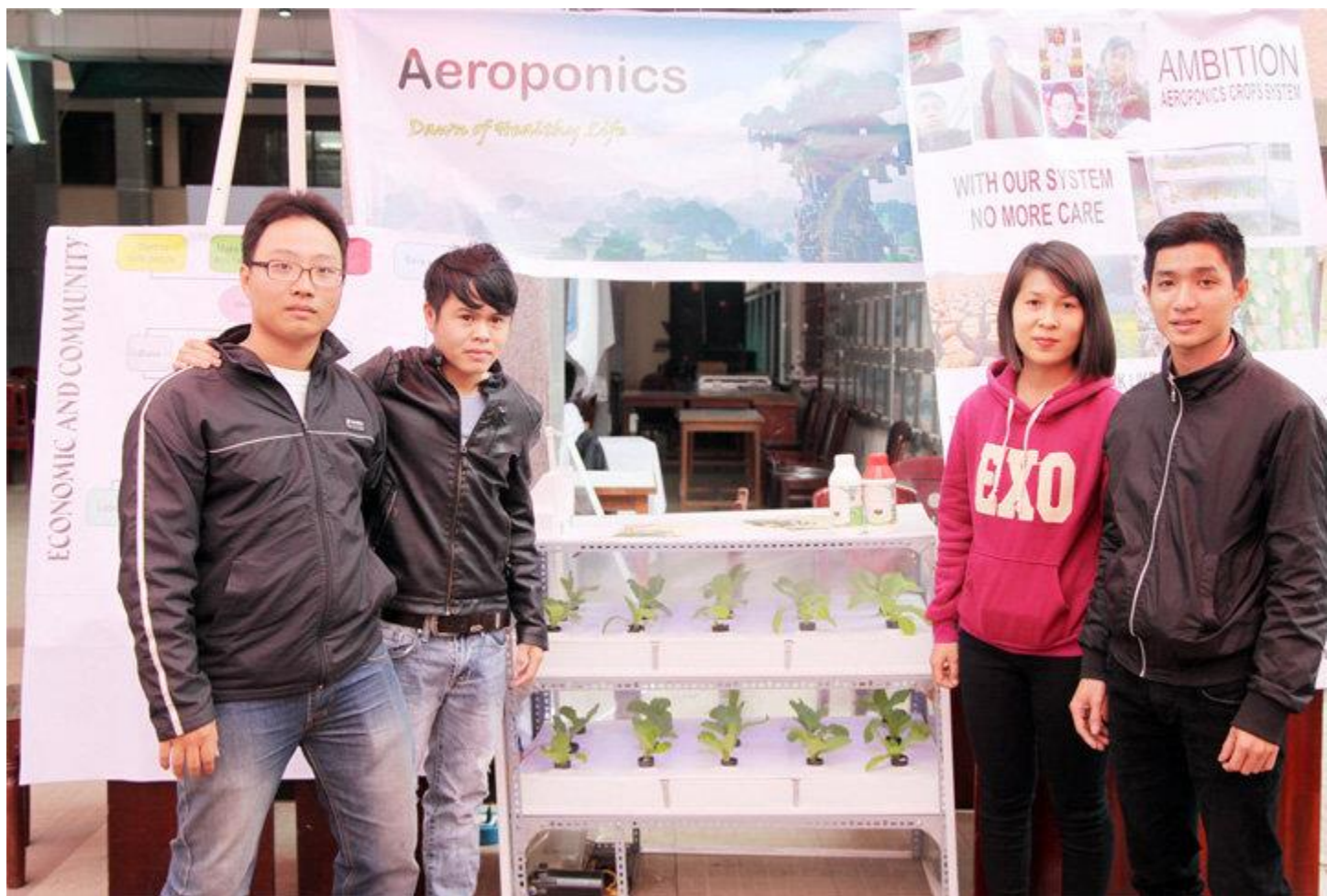


DTU Students Develop Aeroponics System

Four DTU students, Nguyen Quoc Binh, Phan Minh Anh, Tran Hai Dang and Nguyen Thi Thanh Hang have invented and successfully implemented an Aeroponics system. It uses an integrated controller to automatically water and fertilize plants and to check on their overall condition, significantly improving productivity and lowering the risk of plant diseases.

Using a DHT22 sensor and a soil moisture sensor, the automated system measures and controls various indicators, such as water and nutrition requirements, humidity and temperature. The sensors monitor established threshold levels and transmit information to the MSB430 processor chip. When receiving a signal, the system automatically waters the plant with the appropriate nutrients.



The Aeroponics system on display at the 2016 DTU Social Venture Plan competition

A SIM module is also built into the system to automatically alert farmers in case of emergency and to replenish their tanks with water and nutrients. The system is economical, mobile, compact and efficient, and can be installed in a small house. Savings include 80% for water and 95% for fertilizer.

Phan Minh Anh from DTU Electrical Engineering said: *“Today, there are many kinds of vegetables and fruit with unknown origins and some contain poisonous chemicals. By developing our Aeroponics system, we hope to improve the health of the community. We will continue to research ways of upgrading and improving the system, taking advantage of clean power resources to develop as many environmentally friendly products as possible.”*

(Media Center)