

02

ZERO HUNGER

Research

AIoT+Agriculture

Rice blast is one of the most serious plant diseases. Existing image detection methods for the disease are mostly used after plants are already infected, and it is too late to save. NYCU's team of biotechnology and information engineering experts combined their expertise in biotechnology, IoT, AI, and agriculture to create the AgriTalk Management System. This system uses non-image IoT devices to monitor temperature, humidity, barometric pressure, and other indicators under the RiceTalk agricultural feature project and AI models to provide early predictions of rice blast. This research team also proposed an innovative spore germination mechanism as a new feature extraction model for agriculture. In current experiments, RiceTalk's prediction of rice blast has an 89.4% accuracy rate.

Promote Healthy Eating for the Elderly

Taiwan became an aging society in 1993, and went on to become an aged society (where over 14% of the population is aged 65 years or above) in 2018. It is estimated that Taiwan will become a super-aged society (where over 20% of the population is aged 65 years or above) by 2025. In 2011, NYCU established the Aging and Health Research Center, which conducts research focused on basic biology, clinical medicine, and technological applications. The Center also actively promotes proper and healthy eating habits for the elderly. By teaching older people how to prevent aging, strengthen their muscles, and improve their cognitive skills through the meals they eat every day, the Center helps them lead positive, vibrant lives and avoid dementia and disabilities.

2 ZERO HUNGER



40

Course Units



58

Publications in SCOPUS

5.7%

Percentage of All Taiwan Publications

Social Impact

Campus Market

Over the years, to encourage local farmers to keep cultivating and farming their land, and to provide students and faculty members with a convenient way to buy local produce, the NYCU Chiao-Tung Campus Store and the Student Council invite different local farmers and caterers to set up their stalls on campus, forming a small market that students, faculty members, and local residents greatly look forward to. The market also diversifies the dining options on campus.



Student Cultivation

Healthy Meals and Care for the Underprivileged

NYCU established the Healthy Meals and Care for the Underprivileged course in 2013. Over the years, the course has taught students proper nutrition education. In 2020, the course began collaborating with student clubs to not only make and donate delicious and healthy snacks to the "St. Teresa Children Center," but also to teach the children there how to make their own healthy snacks. Students taking the course also sell healthy meals at the student cafeteria and donate all proceeds to underprivileged groups.

The Self-Cooking Era

NYCU's Yang-Ming and Chiao-Tung Campuses are both located on a hillside. Most students rely on the school cafeteria or the food delivery services that have become popular in recent years for their meals. However, in the event of bad weather or a natural disaster, getting food can become a challenge. Therefore, when building new dormitories, NYCU took students' need to prepare meals for themselves into consideration. For students gradually learning about healthy eating, this is the final step of their food education.

Stewardship

Meal Delivery Services for Elderly People at the National Yang Ming Chiao Tung University Hospital Long-Term Care Center

The National Yang Ming Chiao Tung University Hospital in Yilan has a small, but multi-functional, Long-term Care Center that not only provides elderly people with the necessary care, but also has special equipment and meals that cater to their needs. The Center features adjustable tables and chairs that can be arranged to suit different activities, and meals designed to meet elderly people's nutritional needs. The meals are also designed to have bright colors that stimulate their appetites, as well as special utensils that will make it easier for elderly people to eat on their own. These efforts take care of elderly people's physical and emotional needs, making sure they don't feel uncomfortable about eating due to the limitations of their bodies. In addition to the care center, we also collaborate with institutions of all kinds to ensure that elderly people can receive good care and dining services without having to leave their houses during the pandemic.



765

Students who chose the Course Units

