

NCTU cultivated more than

750

startup/scientific research teams.

9.5 citations per paper in 2015-2019. Above the average (7.3) in Taiwan.

The total amount of funds raised > NT \$300 million each year.

## Establishing Startup Lab to cultivate innovative talents

The Center of Academia-Industry Collaboration of NCTU has set up a Startup Lab, which provides free work area and entrepreneurship counseling resources. The Lab sets up an entrepreneurship seed fund, holds entrepreneurship team competitions, and encourages students to start their own business. From 2018 to 2019, it successfully cultivated four international startup companies. In 2019, the NCTU Seed Fund Entrepreneurial Competition provided 1 million TWD to sponsor five startup teams to set up companies. NCTU integrates the resources of the Center of Academia-Industry Collaboration and the Global Research and Industry Alliance Program of the Ministry of Science and Technology to actively promote academia-industry cooperation and provide guidance for the incubation of startup teams.

AgriTalk, a new company led by Associate Professor Wen-Liang Chen of the Department of Biological Science and Technology, specializes in "smart agriculture." AgriTalk intelligent agricultural system uses the Internet of Things (IoT) to monitor soil environmental changes, predict plant diseases and insect pests, and carries out intelligent fertilization through agricultural artificial intelligence. It also provides customized agricultural fertilizer and pesticide with accurate application time and dosage.



## Encouraging innovative research and patent development

NCTU actively promotes integrated research teams and establishes good connection between academia and industry. NCTU encourages teachers and students to participate in large-scale integrated academia-industry research programs to improve industry and commerce's technological capabilities. NCTU also increases research and development (R&D) expenditure to encourage innovation.

From 2016 to 2018, the average total funding for projects undertaken by each faculty has increased year by year, ranking first among the top universities in Taiwan. The faculties have also displayed their creativity and engagement in patents. From 2016 to 2018, the income derived from the non-payment of intellectual property rights is the highest in all universities in Taiwan.

## Promoting Science, Technology, Engineering and Math (STEM) Education and cultivating teachers all over the country

To fulfill the information and technology education of 108 Curriculum Guidelines, NCTU launched an Artificial Intelligent and Internet of Thing (AloT) capacity building program. The program integrates the needs of local government, school principals and teachers with the professional resource on campus. The program provides training to solve the lack of information and technology education teacher in primary and secondary schools. The first phase of the program has designed the "12u10" teaching materials according to the core competencies of Information and Technology Education emphasized in the 12-Year Basic Education Curriculum Guidelines. The program has held training courses around the country in Hsinchu, Keelung, Yilan, Taitung and Miaoli. One hundred eighty-two hours of lectures have been completed.

## Cultivating hundreds of innovative and scientific research teams in the Center of Industry Accelerator and Patent Strategy (IAPS)

IAPS was founded in 2013, and it is the first incubation accelerator set up by the academic circle in Taiwan, which combines university, government and industry resources to provide systematic guidance for SMEs by experts. So far, it has cultivated more than 750 startup and scientific research teams, and the total amount of funds raised is more than NT \$300 million each year.