

UGM Lecturer Wins Hermes Startup Award 2021

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UGM academicians, for some time, successfully brought achievements home. This time, a lecturer from the UGM Faculty of Agricultural Technology, Bayu Dwi Apri Nugroho, S.T.P., M.Agr., Ph.D. has successfully brought their startup team RiTx to take the first position of Hermes Award 2020 for the Startup Category in Hannover Messe Jerman event. He conducted this research during his doctoral degree. The secondary data found that between 1980-2010, the agricultural sector experienced degradation in productivity up to 20 percent. Farmers have limited access to the climate and the weather because the BMKG (National Meteorology, Climatology, Geophysics Agency) issued climate and weather information to the city or regency only. In fact, the weather could be different after 2 kilometers.

"Farmers said that the miscalculation on climate and calculation made their productivity result in a breakdown. In fact, the climate is cyclical, and we actually can predict the weather changes scientifically," said Bayu on Tuesday (20/4).

Therefore, the RiTx Bertani formation does not only aim to increase farmers' productivity but also to adjust the behavior changes in Indonesia to be structural data-based.

PT. Mitra Sejahtera Membangun Bangsa created Startup RiTx filled with an excellent concept.



Smart Farming 4.0 is built using a sensor to conduct real-time data retrieval in agriculture and farming. Some data obtained consists of weather, temperature, humidity, wind strength, soil pH, and fertility. Furthermore, to increase its accuracy, Bayu developed an algorithm to translate the accessible information for farmers, such as the weather forecast, water pouring, and the fertilization time. Moreover, there is another feature in this concept; Artificial Intelligence (AI) can detect pests' existence. Farmers can also learn the process of planting up to the marketing process.

"I'm so delighted and proud. This achievement is a form of appreciation for the team's hard work. Our team has become a flintstone to motivate each other in assisting farmers," he said.

Recently, RiTx Bertani could be utilized in the 38 types of food commodities and horticulture. It only takes one hour long to install the sensor in the field. An amount of 22 regencies in Indonesia collaborated with ministries and institutions, such as Bappenas, the Coordinating Ministry for the Economy, Ministry of Agriculture, Kominfo, Ministry of Health, Bank Indonesia, BNI, several private industries had used this technology. It is estimated that in 2021, RiTx Bertani could be installed in the 76 regency areas in Indonesia.

"I hope RiTx Bertani can remain to develop and innovate to give a broader positive impact for Indonesian farmers," explained Bayu.

Author: Khansa

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