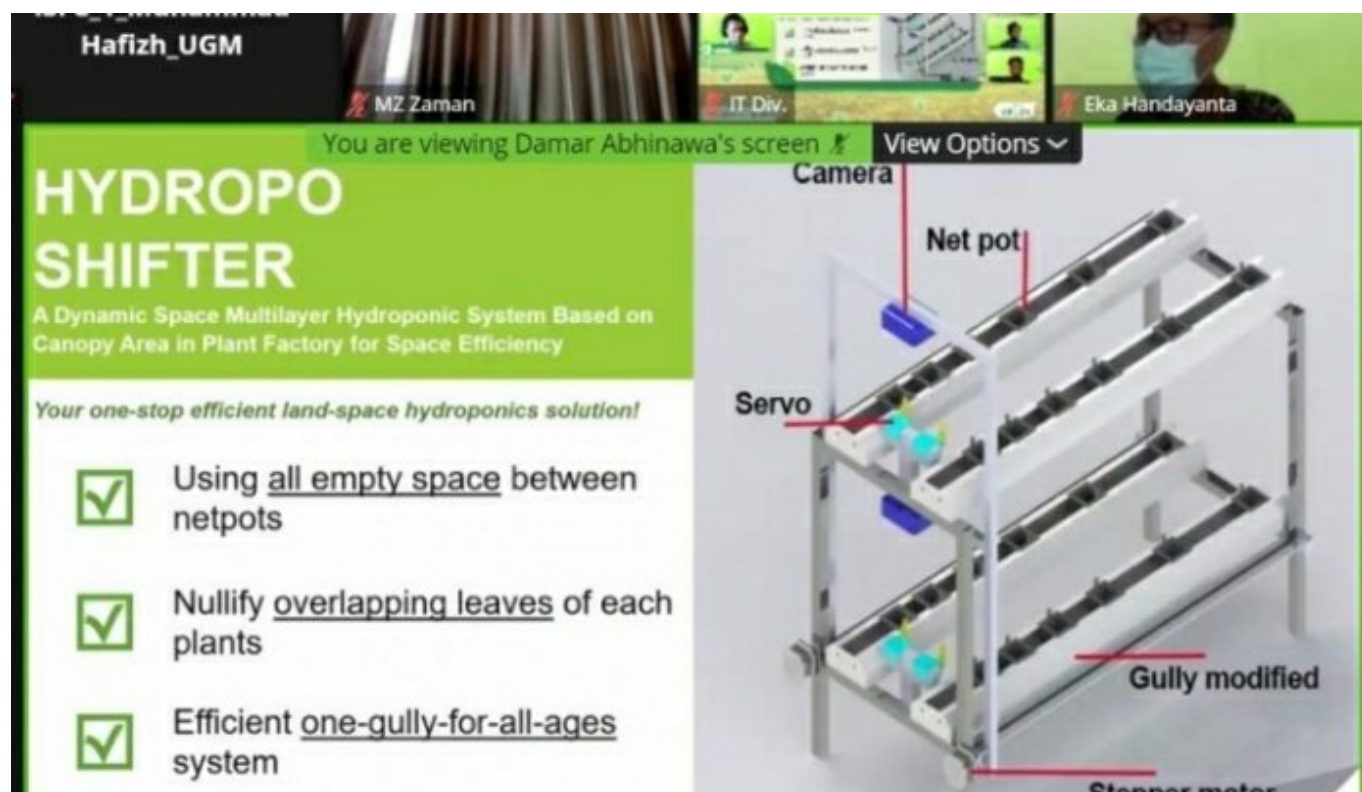


# Hydropo-shifter Succeeds at International Smart Farming Competition 2021


Thursday, 08 July 2021 WIB, By: Salma



Ardan Jaenuri, Damar Abhinawa, and Muhammad Hafizh of the agricultural engineering program came first in the paper contest, International Smart Farming Competition 2021, held by Sebelas Maret University in commemoration of its 45th anniversary. The competition aimed to feature novel, exciting smart farming ideas from global participants for productivity and efficiency enhancement, preservation, and sustainable practices of agriculture.

Each participant could pick one of the following topics, namely precision agriculture; agriculture information, big data, robotic, and artificial intelligence; e-commerce technology for agricultural products; agricultural products' quality and safety inspection technology; agriculture modernization model and technology integration; drones, sensors and multispectral imaging for agricultural sectors; internet of things for agriculture; and others related to innovative concepts and technologies for Farming 4.0. The top five finalists were required to submit a video of their proposed idea and present it online in the final on July 1.

With guidance from lecturer and researcher at Smart Agriculture Research, Andri Prima Nugroho, Ardan, Damar, and Hafizh formulated an innovative farming system for space efficiency in a paper entitled "Hydropo-shifter: A Dynamic Space Multilayer Hydroponic System Based on Canopy Area in Plant Factory for Space Efficiency".



They designed the system to detect piled leaves from hydroponic vegetables in the plant factory. Following the detection, the system would automatically shift the overlapping leaves, allowing optimal utilization of space in between. According to Ardan, the team looks forward to intensively developing the innovation to help farmers improve their farming system through precision agriculture.

“The Hydropo-shifter results in more efficient utilization of agricultural areas. It does not leave space between each plant,” said Ardan on Wednesday (7/7).

Author: Ika

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