Research

UMPSA Researchers help develop IoT System to boost oyster mushroom production

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BATU PAHAT, 30 September 2024 – A collaborative effort between Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA) and Ada Fresh Farm has successfully led to the development of a high-tech mushroom house equipped with an Internet of Things (IoT) system, representing a significant advancement in the agricultural industry, particularly in mushroom cultivation.

The research, led by Dr. Nur Huda Ramlan and Dr. Ahmad Syahiman Mohd Shah from the Faculty of Electrical and Electronics Engineering Technology (FTKEE), was supported by Dr. Ahmmad Shukrie Md Yudin from the Faculty of Mechanical and Automotive Engineering Technology (FTKMA).

According to Dr. Nur Huda, the IoT system installed is capable of monitoring temperature, humidity, and carbon dioxide levels inside the mushroom house.

“This system is designed to ensure an ideal environment for optimal mushroom growth.

“The automated cooling system helps sustain optimal temperatures, particularly during extreme heat conditions.

“The new mushroom house at Ada Fresh Farm was built with funding from the Malaysian Palm Oil Board (MPOB) and is equipped with a smart cooling system and IoT technology developed by UMPSA, under the Translational Research Programme Fund from the Ministry of Higher Education (MOHE),” she explained.



Hasmiza Desa, Coordinator of TUNAS Southern Zone 2 at MPOB, who officiated the opening of the new mushroom house, congratulated Ada Fresh Farm and UMPSA on their successful collaboration.

“By leveraging technology to improve productivity and the quality of agricultural produce, we hope

this mushroom house will serve as a model for modern agriculture in Malaysia," she said.

The founder of Ada Fresh Farm, Rasyada A Rahman@Rahim, expressed her gratitude to UMPSA for placing their trust in Ada Fresh Farm for this collaboration.

"We are also grateful to MPOB for funding the fourth mushroom house at Ada Fresh Farm.

"With collaborations like this, we hope the mushroom industry in Malaysia will continue to grow rapidly and contribute to the nation's economy through the latest technological innovations," she said.

The event concluded with a tour of the new mushroom house, showcasing the IoT technology in action and demonstrating how it can enhance mushroom production while reducing labour requirements.

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