Research

Multifunctional UMP drone new technology in agriculture sector

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PEKAN, 21 May 2022 - A team of researchers from the Centre for Design and Innovation of Technology (PRInT), Universiti Malaysia Pahang (UMP) successfully produced a multifunctional drone using local expertise known as ‘Rajawali’ to expand innovation and use of new technologies in increasing the productivity of the agricultural sector.

Recently, a test run was held at the paddy field around Kampung Serandu to see the function of the multifunctional drone technology for fertiliser and pesticide spraying activities especially for agricultural works.

Also present were the Chairman of the UMP Board of Directors, Tan Sri Dato’ Sri Dr. Abdul Aziz Abdul Rahman, Senior Director of the Research Management Centre, Professor of ChM. Dr. Mohd Hasbi Ab Rahim, and Research Leader who is a Lecturer of the College of Engineering (KKEJ), Ir. Dr. Noor Zaihah Jamal assisted by a drone practitioner, Zek Aman Abd. Ghani and other researchers.

Also present was Mohd Khairuddin Zakaria, the Village Head of Kampung Serandu. According to Ir. Dr. Noor Zaihah Jamal, a use-adjusted drone, has a tank capacity of 30 litres with a maximum water spray speed of 10 litres per minute, while the spray efficiency is 0.4 acres per minute.



“It can be controlled at a distance with a height of 30 meters and with a maximum speed of 10 meters per second.

“As for flight control, it uses a flight control device (flight controller), GPS sensor and remote control unit.

“In addition, this drone uses batteries with a capacity of 4000 mAh and a motor speed of 5000 rpm,” she said.

She hoped that this drone would improve the quality and economic growth of the surrounding community.

Meanwhile, Tan Sri Dato’ Sri Dr. Abdul Aziz was excited and grateful to witness the drone produced by UMP researchers and it realised his desire to see UMP researchers always creating the latest technology.

He congratulated and was thankful to all UMP researchers for the success of producing technology for the benefit of the local community.

“To date, it is understood that more than 9,000 students have participated in robotics and drone programmes in the Science, Technology, Engineering and Mathematics (STEM) programme implemented by UMP lecturers,” he said.

The community in Pekan including children has also benefited from the existence of UMP either in the academic field or technology sharing.

He hoped that this technology could be expanded and help in agricultural activities thus producing

optimal crop yield.

The Village Head, Mohd Khairuddin Zakaria, 56, was also grateful and proud of the selection of Kampung Serandu for UMP to conduct a study by bringing in a large drone technology and benefiting from the creation of this multifunctional drone.

“Furthermore, most of the residents here are farmers who depend on agricultural income.

“I hope that this collaboration can be continued with all the residents and hope that the paddy fields of Kampung Serandu will be more advanced with the support and technology of UMP so that the economy of the villagers will grow in line with the development of the country,” he said.

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