



DRONE FOR COMMUNITY AND INDUSTRY

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“Add more colour and richness to the existing teaching methods and research programmes by bringing tangible benefits to local communities.”

Universiti Tun Hussein Onn Malaysia or known as UTHM is one of the premier technical universities in Malaysia, always supporting the community and industry engagement among staff. Having the niche area in transportation, UTHM is actively running and developing programmes and research activities related to drone technologies, applications, and human capital development.

As one of the advocates of drone technology in the southern part of East Malaysia, UTHM aspires to fulfil one of the government’s initiatives outlined in Malaysia Aerospace Blueprint 2030, for Malaysia to be the number one aerospace nation in South East Asia (SEA) by the year 2030.



In UTHM, the drone research and development activities are run under UTHM research centre called Research Centre for Unmanned Vehicle (ReCUV) and UTHM spin-off company, Avitek Solution (M) Sdn. Bhd. UTHM firstborn agriculture drone, named Pinexri-20 has been developed for pineapple plantation in collaboration with Malaysian Pineapple Industry Board and officially launched by the Ministry of Higher Education Malaysia on 4th October 2020. This drone is equipped with an IoT smart-farming technology that integrates the innovative autonomous fertilising drone with real-time soil and crop monitoring. At this moment, research is being conducted to enhance the Pinexri-20 performance with the improved flight duration of up to 3 hours and carried payload up to 30kg with the new tethered drone and hybrid system for paddy field and palm oil plantation. The enhanced point-to-point system required by the palm oil industry will too be integrated into the system. The new products, which are projected to be out in the market by next year, are developed to optimise the productivity as well as increasing the economic returns while minimising the environmental impact in the agriculture industry.

Keeping up with the technology development in line with the industry needs, UTHM is currently developing the largest cargo drone in Malaysia, called C-Drone. This gigantic drone will be able to carry up to 180kg payload and will be of great benefit to the industries in need of heavy payload transportation. This national project is funded by the Ministry of Higher Education Malaysia with RM1Million research grant and is scheduled to be launched by September this year.

Community engagement has become pivotal for well-functioning institutions. With the rise of awareness in that, UTHM takes initiatives to bring the drone technologies to the public eyes through the community engagement programmes such as the development of basic facilities in rural areas, STEM programme, knowledge transfer of drone application to the local community, and conducting training that promotes safety in drone operation. Community engagement is believed to reduce the technology gap and lead to more equitable and liveability of the local community. To ensure the training programmes are approved and up to the quality standard set by the authority, UTHM is now engaging with the Civil Aviation Authority of Malaysia (CAAM) to become an approved Remote Pilot Training Organisation.



