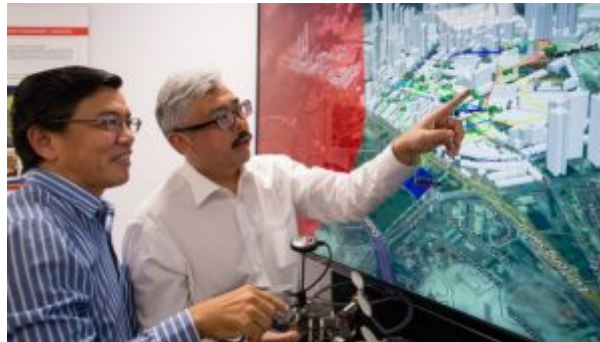


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## Engineers Develop Air Traffic Control System for Drones in Singaporean Airspace

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Nanyang Technological University (NTU) engineers have begun developing an air traffic control system for drones that include geofencing, designated flight lanes and ground stations to track all airborne UAVs.

According to the researchers, the skies of the near future will be increasingly packed with drones, surveying, snapping photos and delivering an array of goods. A network with that many moving parts would need some structure – just like the one being developed by the NTU team.

“At NTU, we have already demonstrated viable technologies such as UAV convoys, formation flying and logistics, which will soon become mainstream,” says Professor Low Kin Huat, lead researcher on the project. “This new traffic management project will test some of the new

concepts developed with the aim of achieving safe and efficient drone traffic in our urban airways.”

The system would be made up of designated take off and landing zones, and once in the air, the drones would be directed along specified corridors, essentially building an invisible system of roads in the air. Sensitive locations, like airports and power stations, could be geofenced off, to prevent wandering UAVs from taking any potentially hazardous shortcuts.

Coordinating stations may be established to keep everything in order. From these facilities, aerial traffic can be monitored and adjusted, making sure the drones are flying where they're supposed to, at the right speeds, and at a safe distance apart from each other.

Current technology might not be up to the task of putting these ideas into practice just yet, so another aim of the project is to research and develop drone systems that can handle smart and safe path-finding, and collision detection and avoidance.

The concept and simulation phase of the four-year project is expected to wind up by the end of 2017, and testing of new UAVs developed for the system will begin the following year.

NTU obviously isn't the first to tackle this idea: In the US, the Federal Aviation Authority's (FAA) strict laws have kept Amazon's drone mostly grounded while NASA has been testing its own UAV traffic management system. Elsewhere, Canadian and Australian universities too have proposed systems that might help drone integration within urban airspace.

*Image credits: Nanyang Technological University*

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