

Mechanical Engineering Master's Defense

Novel Waypoint Generation Method For Increased Mapping Efficiency Using UAV

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abstract

This project is to develop a new method to generate GPS waypoints for better terrain mapping efficiency using a UAV. In high windy condition, an UAV may not capture image at desired GPS location, which in turn interferes with the desired percentage of overlap between images; both frontal and sideways; thus causing discrepancies while stitching the images together. The objective is to look at the flight logs, predict the waypoints at which the UAV might have swayed from the desired flight path and generate a new set of waypoints for a correction flight. This will save the time required for stitching the images together, thus making the whole process faster and more efficient.



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