Drone-based Internet of Things for Smart Agriculture: A Review

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Abstract

Agriculture is vital for human survival. In the modern world, there is an ever-increasing need for food with the increasing population. Hence, farmers are determined to have successful harvests in order to meet the market demand and make high profits as well. But this is difficult to achieve with traditional farming methods such as spreading seeds by hand and checking each and every plant for their health. Not only is it hard to do but it takes up a lot of time. The Internet of Things is in high demand nowadays. By utilizing technology in agricultural practices, we can get more work done in lesser time. Even though most farmers around the world use some type of machinery like tractors and sprinkler systems, drone technology is still new to the field. This paper reviews several types of drone technologies available for efficient and productive agriculture by using drones for tasks such as soil quality evaluation, spreading of seeds, monitoring crops, identifying pests, and even evaluating the ripeness of fruits. This review showcases how drone technology offers a viable solution for addressing various challenges in the agricultural sector, challenges that manual labor and conventional machinery such as tractors are unable to tackle.

Keywords: *Agricultural drone, Internet of Things, Spraying pesticides*