Vegetation Monitoring Using UAV: A Preliminary Study

ABSTRACT

Remote sensing using drone or UAV (unmanned aerial vehicle) is the current trends and this technology can provide unrevealed life altering benefits to mankind. Drones are being used in many sectors such as for military, research, agricultural and recreational means. This technology not only can reduce the time of inspection, but it is also giving many benefits such as provides real-time live video for site inspection that can help user to analyze site logistic and speeding up the overall tasks. However, vegetation monitoring using remote sensing has its own challenges in terms of processing the captured image and data. Somehow, previous research has suggested a lot of different possible algorithm that could be used for post-processing the data gathered. Nevertheless, most of the algorithm requires a specific sensor in order to get the result. The objective of this paper is to identify and verify the algorithm that is suitable to process the vegetation image. This research will use the data gathered from various area by using consumer camera and process by using Visible Atmospherically Resistant Index (VARI) indices. Finally, this research will observe the accuracy of the result analyzed using the VARI and identify the characteristic of the algorithm.