

## Accuracy Assessment of Land Use Mapping Methods-Spatial Reference to KDU Southern Campus

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### Abstract

The development of land-use mapping is approached from a historical perspective. Southern campus was chosen as a study area because it has a water area, a cultivation area, a built-up area and a forest area which were needed to create a land use land cover map. With the most recent technologies, numerous methods for mapping land usage have been established. To assess the validity of these procedures, no comprehensive investigation has yet been carried out. As a result, it is emerged to analyse the accuracy of land use mapping. The Global Navigation Satellite System (GNSS) was used as a ground data collection method to prepare a land use plan of the study area. Further, land use maps for the same area were prepared by using satellite images and drone images. Accordingly, the accuracies of the Remote Sensing product were compared with the output of the ground data collection method. According to this study, The Supervised Method of sentinel image has received 88% accuracy and the semi-automatic Method of sentinel image has received 88% accuracy. Moreover, the unsupervised Method of sentinel image has also received 86% accuracy. The Supervised Method of drone image has received 90% accuracy. In comparison of all these results, the drone images are suitable for in creating land use land cover maps.

**Keywords:** *Drone Images, Image Classification, Remote Sensing*