COMPARISON OF SUPERVISED CLASSIFICATION TECHNIQUE OF LAND USE MAP USING HIGH RESOLUTION IMAGE

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AUTHOR'S DECLARATION

I declare that the work in this thesis/dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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ABSTRACT

The land cover relate with physical feature of land surface. Land cover can be categories such as development area, vegetation areas, rural area, urban area and anything rely on the land surface. Remote sensing have been used to detect the changes of the land covers occurs by human activity. In this project, the objective is to generate supervised classification SPOT 7, to determine the accuracy of classification using maximum likelihood, minimum distance, mahalanobis distance and spectral angle algorithm and to produce the land use map. The algorithm were used to perform the supervised classification. The landuse were classified into six classes i.e. shrub, forest, paddy, cropland, build up and water. The accuracy assessment using error matrix method were done. A total of sixty (60) ground data were used to validate the accuracy of the classification. The result shows that maximum likelihood algorithm has the highest value for overall accuracy and overall kappa statistic which is 87% and 84% respectively. The lowest value shows by minimum distance algorithm is 68% and 61% respectively.

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