Title

Image classification methods applicable multiple satellite imagery

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Abstract

Classification is considered as one of the processes of extracting attributes from satellite imagery and is one of the usual functions in the commercial satellite image processing software. Accuracy of classification plays a key role in deciding the usage of its results. Many tremendous efforts for the higher accuracy have been done in such fields; training area selection, classification algorithm. Our research is one of these effort in different manners.

In this research, we conduct classification using multiple satellite image data and evidential approach. We statistically consider the posterior probabilities and certainty in maximum likelihood classification and methodologically Dempster's orthogonal sums. Unfortunately, accuracy for the whole data sets has not assessed yet, but accuracy assessments in training fields and check fields shows accuracy improvement over 10% in overall accuracy and over 0.1 in kappa index.