

Urban Land Cover from GF-2 Satellite Images Using Object Based and Neural Network Classifications

Authors : Lamyaa Gamal El-Deen Taha, Ashraf Sharawi

Abstract : China launched satellite GF-2 in 2014. This study deals with comparing nearest neighbor object-based classification and neural network classification methods for classification of the fused GF-2 image. Firstly, rectification of GF-2 image was performed. Secondly, a comparison between nearest neighbor object-based classification and neural network classification for classification of fused GF-2 was performed. Thirdly, the overall accuracy of classification and kappa index were calculated. Results indicate that nearest neighbor object-based classification is better than neural network classification for urban mapping.

Keywords : GF-2 images, feature extraction-rectification, nearest neighbour object based classification, segmentation algorithms, neural network classification, multilayer perceptron

Conference Title : ICGE 2017 : International Conference on Geomatics Engineering

Conference Location : Dublin, Ireland

Conference Dates : August 16-17, 2018