Paper Title: Mapping urban land cover based on object oriented classification using WorldView 2 satellite remote sensing images

Topic: investigation and research methodology of biotic and biotic environments
Preference: Poster presentation
Keywords: WorldView 2, object-oriented, urban land cover, High resolution remote sensing
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Abstract:
Land use and Land cover (LULC) map is important basic data for assessing eco-environment. The present study highlights the potential advantage that WorldView-2 image could provide more detail land cover map at local level. The poster deals with the problem, how to classify worldview 2 image with object-oriented image analysis method and get the detail land cover map. A decision tree for classify the worldview 2 images in Szekesfehervar, Hungary was proposed. Main steps included as follows: First, multi-scale segmentation; Second, feature extraction and selection; Third, creation of process tree with the rule set. Forth, classification and accuracy assessment. The result shows that a total of nine LULC classes have been successfully classified with overall classification accuracy of 79.4%. More than 85% classification accuracy, in terms of producer's accuracy, is achieved for five classes (water, forest, crop, building with brick roof, others building), with highest for water (100%). Urban area and suburban can be effectively distinguished with multi-scale object-oriented classification technique .Moreover, the new bands Seashore are found to be very important for discrimination of bare arable land from other land cover. Class related feature such as the Distance to tree or shadow is significant for distinguishing the building from some special land cover class, for example some bare land with higher water content.