

Paper Title: Comparison of different image classification methods in urban environment

Topic: 2. complex study of urban eco-environment in the Western Transdanubia Region (high-resolution satellite imagery analysis)

Preference: poster presentation

Keywords: satellite images, image classification, land use, urban area

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Abstract:

Urban growth, land cover and land use data play an important role in ecological and environmental research. In several studies remote sensing data are used as a source data, but the results are not quite satisfying for detailed land cover detection in urban areas. This study has been carried out to find an appropriate method to classify the high resolution remote sensing data. In our work beside traditional pixel based (NDVI analysis, supervised classification) method we used the segment-based classification to compare the object-oriented with pixel-based classification approach. The results of land cover classifications derived from remotely sensed data are compared by accuracy assessment. An appropriate methodology for urban land mapping using high resolution remotely sensed data is presented and evaluated in city Székesfehérvár. In this research satellite images of Landsat TM and military survey have been used to study the urban sprawl.