

IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING

A PUBLICATION OF THE IEEE GEOSCIENCE AND REMOTE SENSING SOCIETY

SEPTEMBER 2003

VOLUME 41

NUMBER 9

IGRSD2

(ISSN 0196-2892)

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About the Cover: The image shows an urban land-cover classification derived from a 1-m resolution pan-sharpened multispectral IKONOS image of Columbia, MO, produced using a hierarchical fuzzy classification approach. Many land-cover classes found in the urban environment, such as the Road and Building classes, are spectrally similar, resulting in significant levels of misclassification errors when traditional classification techniques such as maximum likelihood (ML) are applied to the data. While these classes are spectrally similar, they often exhibit very different spatial characteristics. The hierarchical fuzzy classifier makes use of both spectral and spatial information during the classification process. The fuzzy classifier uses only those features best suited for specific classes, resulting in increased discrimination between spectrally similar urban land-cover classes. Classification maps obtained using this technique exhibit an 8% to 11% increase in classification accuracy when compared to the traditional ML classification approach. For more information, see “A Hierarchical Fuzzy Classification Approach for High-Resolution Multispectral Data Over Urban Areas” by A. K. Shackelford and C. H. Davis, which begins on page 1920.

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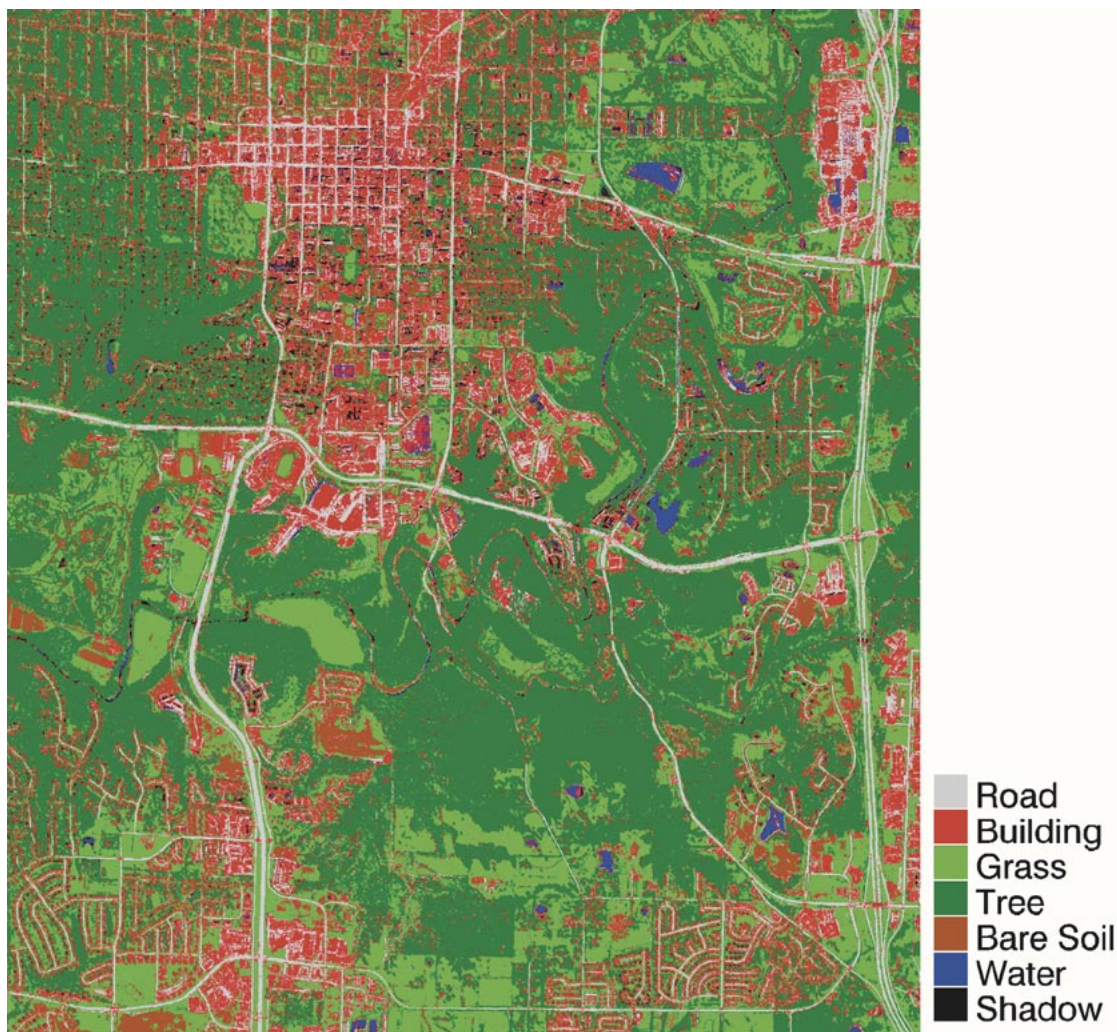
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