

## Texture Analysis Of High Resolution Panchromatic Imagery For Terrain Classification

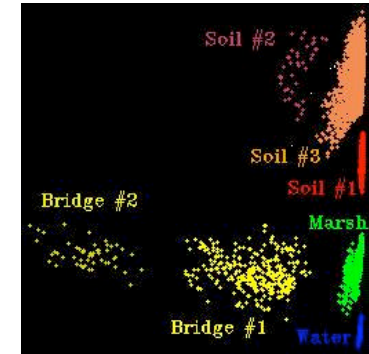
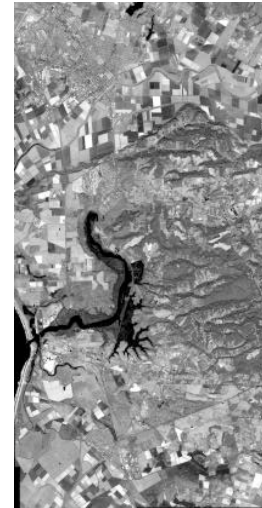
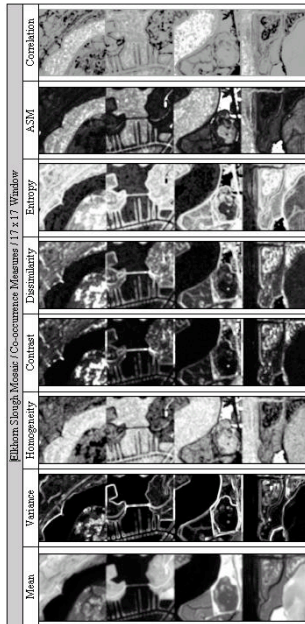
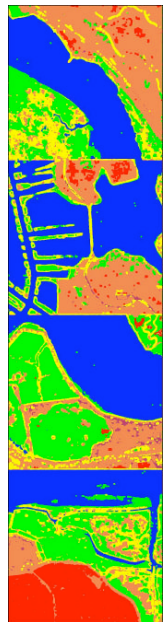
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Terrain classification is studied here using the tool of texture analysis of high-spatial resolution panchromatic imagery. This study analyzes the impact and effectiveness of texture analysis on terrain classification within the Elkhorn Slough Estuary and surrounding farmlands within the central California coastal region. Ikonos panchromatic (1 meter) and multispectral (4 meter) imagery data are examined to determine the impact of adding texture analysis to the standard MSI classification approaches.



Spectral Angle Mapper and Maximum Likelihood classifiers are used. Overall accuracy rates increased with the addition of the texture processing. The classification accuracy rate rose from 81.0% for the MSI data to 83.9% when the additional texture measures were added. Modest accuracy (55%) was obtained from texture analysis alone. The addition of textural data also enhanced the classifier's ability to discriminate between several different woodland classes contained within the image.

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