Automatic Extraction of Water Bodies Using Whole-R Method

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Abstract : Feature extraction plays an important role in many remote sensing applications. Automatic extraction of water bodies is of great significance in many remote sensing applications like change detection, image retrieval etc. This paper presents a procedure for automatic extraction of water information from remote sensing images. The algorithm uses the relative location of R-colour component of the chromaticity diagram. This method is then integrated with the effectiveness of the spatial scale transformation of whole method. The whole method is based on water index fitted from spectral library. Experimental results demonstrate the improved accuracy and effectiveness of the integrated method for automatic extraction of water bodies.

Keywords : feature extraction, remote sensing, image retrieval, chromaticity, water index, spectral library, integrated method
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