Roof Material Detection Based on Object-Based Approach Using WorldView-2 Satellite Imagery

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Abstract : One of the most important tasks in urban area remote sensing is detection of impervious surface (IS), such as building roof and roads. However, detection of IS in heterogeneous areas still remains as one of the most challenging works. In this study, detection of concrete roof using an object-oriented approach was proposed. A new rule-based classification was developed to detect concrete roof tile. The proposed rule-based classification was applied to WorldView-2 image. Results showed that the proposed rule has good potential to predict concrete roof material from WorldView-2 images with 85% accuracy.
Keywords : object-based, roof material, concrete tile, WorldView-2
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