

## **“Building Detection using EO, Lidar, and GEOBIA”**

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### **Abstract**

The detection of buildings using analysis of electro-optical (EO) and lidar data followed by Geographic Object-Based Image Analysis (GEOBIA) is discussed. Pre-processing, analysis, and post-processing are illustrated. Accuracy assessment using a manually derived validation referent and calculation of performance metrics are also described. The building finder algorithm described herein produces an overall accuracy of 95.3%, producer’s and user’s accuracies of 81.6% and 86.8%, respectively, and a false alarm rate of 2.2%, for the specific data set utilized in this study.