Abstract
Building area calculation from LiDAR points is still a difficult task with no clear solution. Their different characteristics, such as shape or size, have made the process too complex to automate. However, several algorithms and techniques have been used in order to obtain an approximated hull. 3D-building reconstruction or urban planning are examples of important applications that benefit of accurate building footprint estimations. In this paper, we have carried out a study of accuracy in the estimation of the footprint of buildings from LiDAR points. The analysis focuses on the processing steps following the object recognition and classification, assuming that labeling of building points have been previously performed. Then, we perform an in-depth analysis of the influence of the point density over the accuracy of the building area estimation. In addition, a set of buildings with different size and shape were manually classified, in such a way that they can be used as benchmark.

Palabras clave
Lidar, parallel computing