

Challenges and Opportunities: One Stop Processing for the Automation of Indonesian Large-Scale Topographic Base Map Using Airborne LiDAR Data

Authors : Elyta Widyaningrum

Abstract : The LiDAR data acquisition has been recognizable as one of the fastest solution to provide the basis data for topographic base mapping in Indonesia. The challenges to accelerate the provision of large-scale topographic base maps as a development plan basis gives the opportunity to implement the automated scheme in the map production process. The one stop processing will also contribute to accelerate the map provision especially to conform with the Indonesian fundamental spatial data catalog derived from ISO 19110 and geospatial database integration. Thus, the automated LiDAR classification, DTM generation and feature extraction will be conducted in one GIS-software environment to form all layers of topographic base maps. The quality of automated topographic base map will be assessed and analyzed based on its completeness, correctness, contiguity, consistency and possible customization.

Keywords : automation, GIS environment, LiDAR processing, map quality

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020