

Uso de VANT como ferramenta para estimativa de altura de dossel em manguezal:

Um estudo investigativo em Guaratiba, Rio de Janeiro, Brasil.

Caio de Lima Boa Morte¹

Luiz Felipe Salomon Guaycuru de Carvalho¹

Rafael Silva de Barros¹

1. Universidade Federal do Rio de Janeiro - Departamento de Geografia - Av. Athos da Silveira Ramos 274, 21941-916 Rio de Janeiro, Brasil (caiolboamorte@gmail.com, rafael.barros@igeo.ufrj.br, Luiz_salomon@poli.ufrj.br)

ABSTRACT

Estimatives for tree heights are difficult if there is no LIDAR data available. However, UAVs (Unmanned aerial Vehicle) or drones may generate very accurated DSM (Digital Surface Model). The aim of this study is to investigate altimetric characteristics that can be obtained through UAV imagery of a 3 hectares mangrove formation at Guaratiba, Rio de Janeiro - Brasil, by subtracting the DSM by DTM. The expected result is a Digital Canopy Model (CDM) that can be used as a way to measure the vegetation height with high detail on a carbon stock survey. Results presented high planimetric and altimetric accuracy for the orthophotomosaic and for the DSM. Since the maximum error was 10.1 centimeters for the DSM and the terrain heights variation were under 75 centimeters, the estimative for the DCM error is lower than 1 meter

Keywords: Drone, DCM, DSM, Mangrove

O artigo completo foi publicado em uma das revistas parceiras do evento