FPInnovations

WEB CONFERENCE

FOREST OPERATIONS PROGRAM 2018-2019

Thursday : 1-2 PM, Eastern time
10-11 AM, Pacific Time

Species identification at the individual tree level using airborne lidar: State of the art in Eastern Canada

Date: March 14th, 2019

With: Jean-François PRIEUR, PhD candidate, Université de Sherbrooke

While area-based forest inventories using ALS are now operational and relatively widespread, Individual tree (IT) mapping remains mostly experimental and confined to small areas. IT, however, offers the advantage of unambiguous species identification. We will first present an operational deployment of methods developed in Benoît St-Onge's research group which inventoried every visible tree in a 200,000 ha forest in New Brunswick using standard (monospectral) ALS. This resulted in a database of 200,000,000 crowns with spatial 3D and intensity features associated with each crown. Species identification reached an accuracy of 95% for broad/needle discrimination and 67% when distinguishing between 11 species for our reference sample.

We will then present the results of a study at Petawawa Research Forest in which we investigate if the IT methods deployed in New Brunswick for monospectral ALS can be transferred to new sensors such as multispectral ALS and single photon lidar. Preliminary results indicate that our methods are transferrable to these new sensors.

For more information:

Contact the following individuals, based on your region:

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