AUD'13
Arbonaut User Days

19 – 21 August **2013**

THEME OF AUD'13: PAVING THE WAY TO SUSTAINABLE FOREST & CARBON MANAGEMENT

Venue: Faculty of Forestry, Universiti Putra Malaysia

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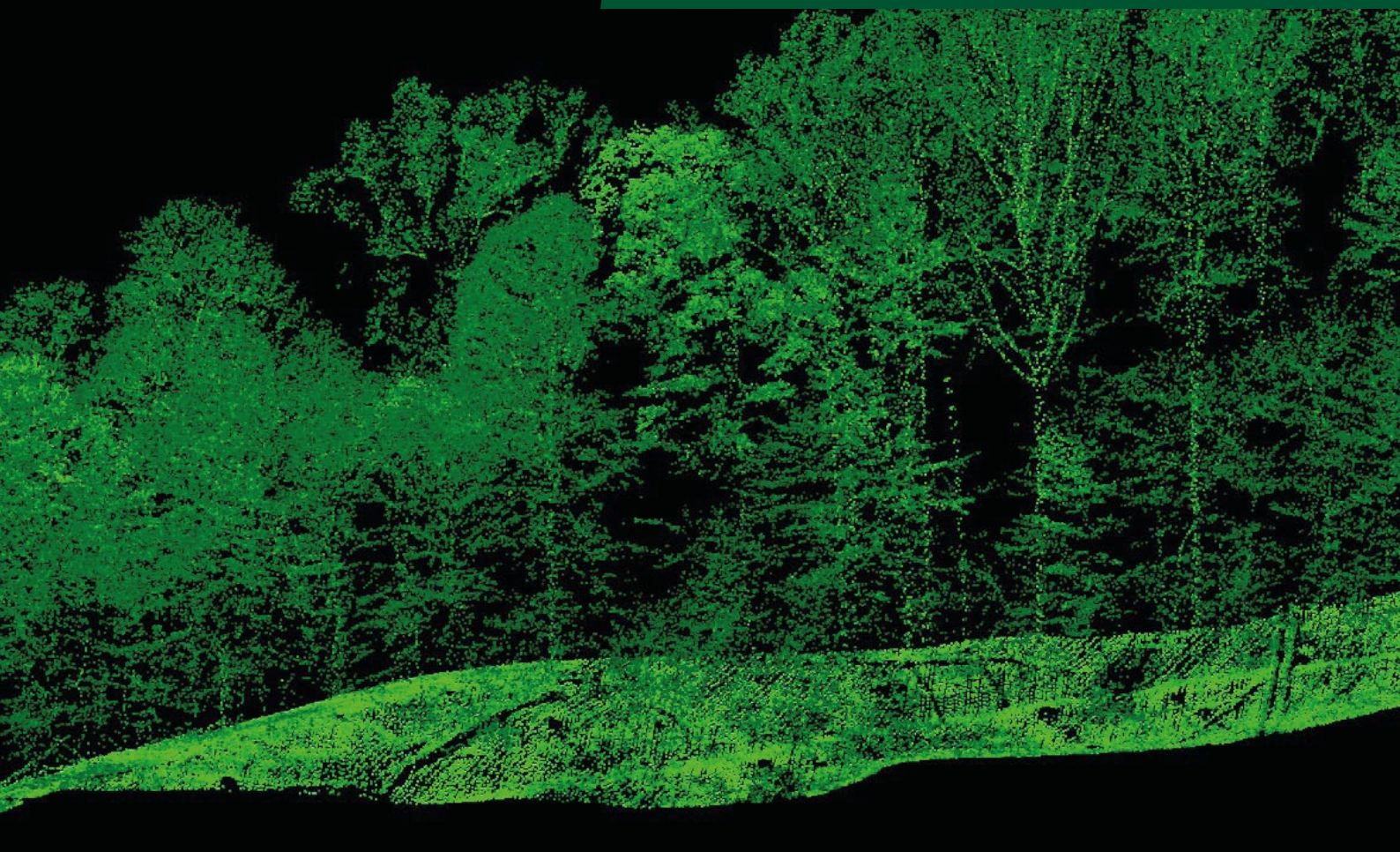

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Arbonaut User Days 2013 workshop is built around field data management and airborne lidar application in numeric forest inventory.

AUD'13 is tailored for:

- technical advisers,
- researchers,
- lecturers,
- interested individuals with basic knowledge of GIS, remote sensing & forest inventory.

If you have not been using LiDAR based inventory methods today, these days will provide a valuable insight into LiDAR based technologies. We will also cover LiDAR Assissted Multisource Program (LAMP) benefits and help you to design an optimal inventory process to fit into your local requirements.

Arbonaut is a technology company founded in Finland in 1994. We specialize in GIS, forest inventory based on remote sensing data and management applications for sustainable natural resource management. Our principal services are as follow:

1) Methodology and technology development for forest resource assessment in context of REDD+.
2) Lidar-based inventory for commercial forestry.
3) Lidar-based vegetation mapping and geospatial modeling.
4) Forest information system services.

Arbonaut has developed the ArboLiDAR inventory process for commercial forest inventories in the Nordic Countries. It has been utilized for large-scale inventory projects in Ghana, Nepal and Laos to support harnessing REDD+ benefits since 2009. Now, ArboWebForest technology has supported forest inventory campaigns in Kenya, Ghana, Cambodia and Vietnam.

AUD'13 programme overview:

- **Forest Inventory Data Management.** A complete data management workflow is essential to adopt for achieving high quality forest inventory results. Digital data collection allows near real time data sharing, quality control and data storage in the remote server databases. The customized server tools allow modeling tree level attributes and their aggregation at plot, stand and administrative levels quickly. The results can be communicated among other users through a user-friendly WebGIS interface and sharing workspaces with supporting GIS data layers. The FAO –compliant mobile data collection, quality assurance workflow and associated ArboWebForest will be demonstrated to the participants.

- **Lidar in Numeric Forest Inventory**
  - Lidar Data Quality Assessment & Preprocessing.
    Data received from external service providers must be controlled, further processed, and converted into the formats for utilization in forest inventory applications.
  - Stand Delineation.
    To plan operations in commercial forestry, a forest land property is divided into smaller management units with uniform internal characteristics. Session participants will become familiar with the ArboLiDAR segmentation process, which improves efficiency in stand delineation and allows generation of forest stands based on density, height, and species composition properties extracted from lidar data and optical imagery.
  - Lidar-Based Numeric Forest Inventory.
    This session introduces participants to forest inventory techniques that rely on lidar data as the primary remote sensing data input. Field plots and lidar data are used in combination with advanced estimation methods to create accurate forest inventory data in a statistically sound manner.
  - Lidar-Assisted Multisource Programme (LAMP) for REDD+ carbon stock inventories.
    LAMP methodology provides higher accuracy, resolution, and feasibility compared to any other methodologies when forest resource attributes must be reported at national and sub-national scales. LAMP inventories rely on airborne lidar sampling, a reduced number of field measurements, and satellite imagery to produce carbon stock maps of the areas of interest.

For more information and enquiries:

www.arbonaut.com/AUD2013

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Come & Join Us!

- AUD'13 is held in English.
- Early bird registration fee before 1 July 2013: 500 EUR excluding lodging.
- Standard registration fee after 1 July 2013: 600 EUR excluding lodging.
- AUD'13 registration deadline: 1 August 2013.

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