



Edinburgh 2008, 17th September 0900-1740 hrs

Pre-Conference Workshop

Use of TLS in Forestry: operational applications, current research and future developments

**Forest Research, Northern Research Station, Roslin, Midlothian, EH25 9SY,
United Kingdom**

Dear colleagues,

I have the pleasure of inviting you to a pre-conference workshop focused on the use of Terrestrial Laser Scanning in forestry. This workshop will be held at the Northern Research Station, Forest Research, on the 17th of September 2008 before the SilviLaser 2008 conference.

The workshop is a semi-hands-on event, which aims to bring together scientists, developers, contractors and forest managers. We will demonstrate the opportunities brought by this innovative technology to operational forestry and future research activities. During this event several systems and work experiences will be shown, participants will be able to get useful feedback to help improve products, business opportunities or for targeting new research. The workshop will inform about the current state-of-the-art in TLS systems and data processing techniques in order to meet a range of information needs. This event aims to encourage new and stronger linkages between forest scientists, practitioners, researchers, system developers and end-users of derived products.

In the afternoon, three commercial companies will conduct demonstrations in our forest plots to show how systems operate and how data can be analysed with their software solutions.

Specific topics of interest will be:

- Basic information about TLS,
- Accuracy of point cloud data and commercially available systems,
- Analysis of point clouds and retrieval of relevant forest parameters,
- The use of Treemetrics Software as one of the first commercial applications for forest inventory and planning,
- Importance of registration process for the integration of these data with other datasets (i.e. Airborne LiDAR, Aerial Photography, etc),
- Pros and cons between Pulse and Phase Lasers,
- Practical considerations when using TLS,
- State of the art in research and future directions.
-

Attendance is limited to 30 people and places will be allocated on a first come first served basis. Total cost for the Workshop is £25, which covers refreshments, lunch and transport from Heriot-Watt University to Forest Research and return.

Best wishes,

Juan Suárez
Remote Sensing Applications Programme, Forest Research
Forest Research

Workshop programme:

Time	Subject	Presenter
9:00-10:00	Registration and Welcome	Juan Suárez (Forest Research)
10:00-10:30	Introduction to Terrestrial Laser Scanning (TLS): basic concepts, areas of application and current research	Prof. Richard Lucas (Aberystwyth University, UK)
10:30-11:00	TreeMetrics solutions for forestry: the use of the Autostem software for forest inventory and planning forest operations	Enda Keane (www.treeMetrics.com , Ireland).
11:00-11:30	Coffee Break	
11:30-11:50	Commercial software and systems. Leica	TBA. www.leica-geosystems.com
11:50-12:10	Commercial software and systems. Faro	David Southan, FARO UK, www.faro.com
12:10-12:30	Commercial software and systems. Riegl	Dr. Gaham Hunter, www.3dlasermapping.com
12:30-13:00	Lunch	
13:00-13:30	Coupling TLS with Taper functions for pre-harvest inventories	Dr. John Fonweban (Forest Research)
13:30-14:00	Can TLS measure forest canopy structure?	Prof. Mark Danson (Salford University). FARO, Riegl and Leica
14:00-15:30	TLS in operation. Live scanning of tree using commercial systems and software	
15:30-16:00	Coffee	
16:00-17:00	Visualisation of the scannings, demonstration of software by each company. 20 mins each.	FARO, Riegl and Leica
17:00-17:40	Plenary session. The future of TLS in operational forestry with representatives of the industry	Forestry Commission, Leica, Faro, Riegl, Salford and Aberystwyth Universities.
17:40-18:00	Concluding remarks and Closing of the Workshop	Juan Suárez

Transport will be provided to the Heriot Watt University to attend the ice-breaker session prior to the Silvilaser conference.

Please, notice that this is a separate Workshop from the main Silvilaser Conference and all applications should be returned to Evelyn Hall (evelyn.hall@forestry.gsi.gov.uk) by 1st September (at the latest).

Payment for the Workshop can be made by credit card only.

Personal Details (please complete in BLOCK CAPITALS)

Surname:		Title:
First name(s):		
Organisation:		Country:
Department:		
Full Postal Address:		
		Postal (zip) code:
Email Address:		
Telephone Number:		

Credit Card:	<input type="checkbox"/> Visa	<input type="checkbox"/> MasterCard
Credit Card Holder Name:		
Credit Card Number:	Start Date:	
Security Code: (last 3 digits on reverse of card)	Expiry Date:	