

New Zealand  
Programme  
and  
Registration

Forest Data Collection - Remote Sensing - Inventory Management

 forest  
tech2019

19 - 20 November 2019, Rotorua, New Zealand

Event Sponsors:



Supporting FIEA Partners:



[www.foresttech.events](http://www.foresttech.events)

**Monday 18 November 2019**  
**Pre-Conference One-Day Workshop**  
 9.00am – 4.30pm, Distinction Rotorua Hotel  
 ESRI Forestry/Eagle Technology Workshop

**DAY ONE: Tuesday 19 November 2019**

9.00am Welcome & Introduction - FIEA

**SESSION 1: DISRUPTIVE TECHNOLOGIES - WHAT, WHY AND HOW?**

9.10am **Digital Transformation of the Forest Industry.** Opportunities and challenges  
*Russell Craig, National Technology Officer, Microsoft NZ*

**SESSION 2: TAKING DISRUPTIVE TECHNOLOGIES OUT OF THE LAB AND INTO THE FOREST**

9.45am **Real-World Applications for the Internet of Things in Forestry Operations**  
*Shaun McBride, NZ Operations Director, ThinXtra*

**10.15am Morning Tea & Networking**

10.45am **UAV Swarm Systems for Herbicide Application and Seed Deployment**  
*Matthew Aghai, Director of Research & Development, DroneSeed, USA*

11.15am **Changing Forest Inventory as we know it.** Full forest inventory tree assessments using VR  
*David Herries, GM, Interpine*

11.45am **Tech TALKS.** Short presentations on new product innovations

**12.15pm Lunch & Networking**

**SESSION 3: ADVANCEMENTS IN REMOTE SENSING & FIELD DATA CAPTURE TECHNOLOGIES. APPLICATION IN THE FOREST**

1.30pm **An ALS Single-tree Inventory in North America for Growth Modelling and Tree Merchandising**  
*Dan Kluskiewicz, Lead Geospatial Programmer, Northwest Management, USA*

2.00pm **Advances in Hyperspectral Imaging.** Current technologies, their application within the primary industry and opportunities for the forestry industry  
*Ian Yule, Professor in Precision Agriculture, Massey University*

2.30pm **Extracting Individual Tree Metrics through Advanced Terrestrial LiDAR Scanning**  
*Wing Zhong, Solutions Engineer, GreenValley International, USA*

**3.00pm Afternoon Tea & Networking**

**SESSION 4: APPLIED RESEARCH RESULTS SHOWING PROMISE. OPPORTUNITIES FOR FOREST AND RESOURCE MANAGERS**

3.30pm **Deep Learning and Opportunities in Forestry Remote Sensing**  
*Grant Pearce, Geomatics Scientist, Scion*

4.00pm **New Tools for Measuring Forest Health.** Detecting disease at a tree-by-tree level using drones, photogrammetry, computer vision and machine learning  
*Dr. Lloyd Windrim, Postdoctoral Research Fellow, Australian Centre for Field Robotics, University of Sydney, Australia*

4.30pm **Terrestrial LiDAR Scanning.** Filling the gap in defining stem quality attributes. Recent trial results with flying sub canopy UAV's  
*David Pont, Scientist – Geomatics, Scion & Tzu-Jui Lin, PHD Student, Mechanical Engineering, University of Auckland*

**5.00pm Refreshments & Networking**

**DAY TWO: Wednesday 20 November 2019**

**SESSION 5: TRANSFORMING GEOSPATIAL DATA INTO KNOWLEDGE. THE PRACTICAL APPLICATION AND OPERATIONAL USE OF REMOTE SENSING DATA**

8.30am **How to make the Most of Your Aerial Imagery.** Applying advanced image analytics for better forest management decisions  
*Sven Huettermann, Geomatic Engineer, SKYLAB, Germany*

9.00am **Strengthening of Near Real Time Satellite Monitoring through Partnerships**  
*James Saunders, Remote Sensing Specialist, Swift Geospatial, South Africa*

9.30am **Use of LiDAR Data for Forest Inventory, Planning and Management.** Operational implementation of LiDAR technology by a global forest products company  
*Fernando Bustamante, Technical Manager, Forestal Arauco, Chile*

**10.00am Morning Tea & Networking**

10.30am **Forest Inventories with LiDAR Technology.** Comparisons between area based and individual tree assessments from recent trials on *P. radiata* plantations in Chile  
*Dr. Guillermo Palacios, Founder & CEO/ Miguel Lara, R&D Coordinator, IDAF Forestry Consulting, Spain*

11.00am **Effective Integration and Use of Planet Satellite Imagery into Day to Day Forest Operations**  
*Lang Nguyen, Geospatial Analyst, Hancock Forest Management (NZ)*

**SESSION 6: UAV'S - FROM RESEARCH AND TRIALS TO FOREST OPERATIONS. INNOVATIONS, USES AND PRACTICAL IMPLEMENTATION**

11.30am **Beyond Visual Line of Sight for UAV's.** Unlocking the next frontier for forestry remote sensing  
*Robin Hartley, Manager UAV Operations and Geospatial Scientist, Scion*

**12.00pm Lunch & Networking**

1.00pm **Hovermap - Enabling Autonomous Under-Canopy Drone Flight and Lidar Mapping**  
*Stefan Hrabar, CEO & Co-founder, Emesent, Australia*

1.30pm **Early Evaluation of Post Planting Seedling Survival with UAV's.** Results from recent FCNSW trials  
*Mike Sutton, Forest Information and Planning Manager, Forestry Corporation NSW, Australia*

**SESSION 7: PRACTICAL APPLICATION OF NEW MAPPING & MOBILE APPS IN THE FOREST**

2.00pm **Young Innovators.** Young foresters discuss the role they play in using and encouraging tech adoption within the industry  
*Matt Cotterrell, Technical Forester, City Forests & Jack Palmer, Forest Engineer, Forme Consulting Group*

2.30pm **On Boarding a Modern-day GIS for Forestry Operations**  
*Sheldon Ellis, Manager Forest Optimisation, Pan Pac Forest Products & Jack Palmer, Forest Engineer, Forme Consulting Group*

**3.00pm Conference Concludes**

**Thursday 21 November 2019**  
**Post Conference One-Day Workshop**  
 9.00am – 4.30pm, Toi Ohomai Computer Suite (limited to 20 persons)  
 ESRI Forestry/Eagle Technology Hands-on Workshop

**Post Conference Half-Day Workshop**  
 8.00am-12.00noon, Scion, GreenValley International (limited to 30 persons)  
 Mobile Terrestrial Lidar Solutions for Forestry



## BACKGROUND:

ForestTECH is this region's premier forestry technology series. It's run for Australasia's forest resource managers, planners and inventory foresters by the Forest Industry Engineering Association (FIEA). Since 2007, it's the one event every year that continues to draw in foresters into one location in both countries

### Who will be attending ForestTECH 2019?

- Forest resource managers
- GIS, mapping & remote sensing specialists
- Inventory foresters
- Forest managers
- Forest owners
- Forestry researchers
- Forestry consultants
- Technology & equipment suppliers

### What happened last year?

Well over 250 delegates attended the ForestTECH series in November 2018. All of the major forestry companies in Australia and New Zealand were represented. With the technology series now well and truly making its mark on the forestry technology calendar, representatives from major Indonesian, Malaysian, South African and South American forestry companies also attended ForestTECH 2018.

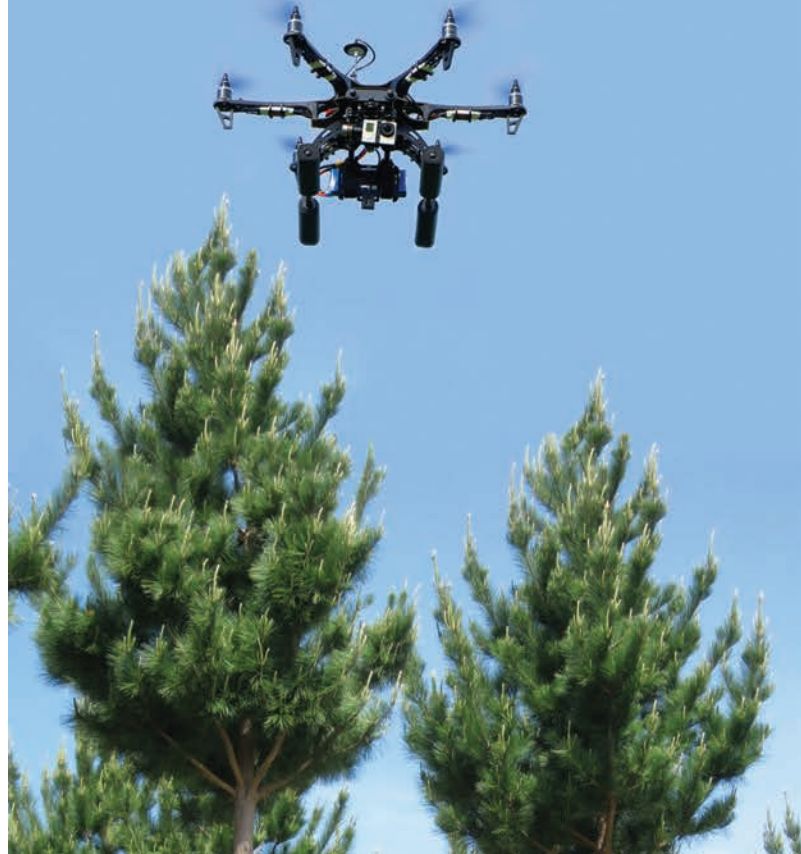
### What's planned for 2019?

Key themes this year include;

- Storage, processing and management of "big data"
- The practical application of automation, robotics and sensors by forest managers
- Integrating virtual and augmented reality into forestry operations
- Results and lessons from reconciling remote sensing data into the field
- Satellite tools for mapping, planning and operations
- New innovations in mobile forest apps and collection tools
- Results from remote sensing research and in-forest trials
- Workflow solutions for data collected from airborne and UAV systems
- New mapping and GIS applications
- Changing skill sets required by today's forest resource managers

Venue: Distinction Rotorua Hotel, 390 Fenton Street, Rotorua

Accommodation: Special ForestTECH 2019 room rates from \$160 (incl GST) are available to delegates at the Distinction Rotorua Hotel. Please state you are attending the ForestTECH 2019 conference when booking. For room reservations call freephone: 0800 654 789, Tel: +64 7 349 5200 or E-mail: [reservations@distinctionrotorua.co.nz](mailto:reservations@distinctionrotorua.co.nz)



### ForestTECH 2019 Workshops:

To capitalise on those travelling into Rotorua, three practical workshops have also been set up this year for ForestTECH 2019 conference delegates.

One-day pre and post conference workshops are being run by the specialist systems integration and information management company, Eagle Technology. These have been designed to meet the growing interest from forestry companies across the country in using geospatial tools and workflows.

A practical half day workshop is also being run by Scion in conjunction with GreenValley International the morning after the ForestTECH 2019 conference. It's designed to showcase new technologies for collecting and processing high-quality 3D forestry spatial data using portable, handheld devices (terrestrial LiDAR scanning).

Details for each workshop can be found on the event website. To attend the three workshops delegates will need to have registered for the ForestTECH 2019 conference.

Please note that FIEA reserves the right to change the programme if needed without prior knowledge to event delegates.



Presented by: Forest Industry Engineering Association (FIEA), a division of Innovatek Ltd



**4 Ways to Register**

- Website: [www.foresttech.events](http://www.foresttech.events)
 Tel: (+64) 7 921 1382  
 Fax: (+64) 7 921 1381
  Post: FIEA, PO Box 1230, Rotorua 3040, New Zealand.

**SPECIAL Early Bird Discount: Register BEFORE Friday 4 October 2019**

Discounts are also available for multiple registrations and listed supporting industry association members. Note: For two of the three workshops, Workshops 2 and 3 (\*), numbers will be limited and spaces will be filled on a "first in-first served" basis.

**Delegate Details:**

Name:	Position:	Email:	Conference (√)	Workshop 1 (√)	Workshop 2* (√)	Workshop 3* (√)
_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Company: \_\_\_\_\_

Postal Address: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

Programme Rates:	Rate/Delegate	# Attendees	Total
Conference Early Bird Rate <i>(applies before or on 4 October 2019)</i>	NZ\$890		\$
Conference Standard Rate <i>(applies after 4 October 2019)</i>	NZ\$990		\$
Conference Group Rate <i>(when booking 3 or more delegates - same workplace)</i>	NZ\$795		\$
Supporting Association Discount Rate <i>(Participating Associations listed below)</i>	NZ\$890		\$
FIEA Discounts			-\$
Workshop 1 <i>(Mon 18 Nov. Eagle Technology / Esri Forestry)</i>	NZ\$95		\$
Workshop 2 <i>(Thu 21 Nov. Eagle Technology / Esri Forestry)*</i>	NZ\$95		\$
Workshop 3 <i>(Thu 21 Nov. Mobile Terrestrial Lidar Solutions for Forestry)*</i>	NZ\$35		\$
SUB TOTAL			\$
+ GST (15%)			\$
<b>GRAND TOTAL</b>			<b>\$</b>

**Registration Details:**

- NOTE: A credit card fee of 2.5% applies to all Credit Card transactions.
- All prices exclude GST (15%).
- Forest Industry Engineering Association (FIEA) member discounts of 10-25% apply on ALL listed Conference Rates. FIEA Membership Details and Benefits can be seen on [www.fiea.org.nz](http://www.fiea.org.nz). Membership status and discounts available can be checked by calling our FIEA offices.
- Supporting Associations** include: New Zealand Forest Owners Association and New Zealand Institute of Forestry.
- To be **eligible for the Early Bird Rate**, registrations and payment must be received **ON or BEFORE Friday 4 October 2019**. All 'Early Bird' discounts require payment at time of registration and before the cut-off date in order to receive any discount. Any discounts offered (including group discounts) require payment at the time of registration.
- Your conference registration payment covers the **morning and afternoon teas, lunches, refreshments, a conference handbook and access to presentations** (electronic download for those presentations where presenter approval has been given).

**Cancellation policy:** For cancellations **on or before Friday 4 October** a 10% administration fee applies. Cancellations received **after 4 October** are non-refundable but are transferrable. Please allow 30 days for refunds to be processed. If you wish to transfer your registration to another individual from within your company, please provide us with at least 24 hours advance notice.

**Payment:**

- Cheque payable to Forest Industry Engineering Association, or  
 Direct credit our Westpac Account: 03 1552-0257749-00, or  
 Please debit my MasterCard / Visa (circle one)

Amount enclosed: \$ \_\_\_\_\_ Cardholder's signature: \_\_\_\_\_

Credit card number: \_\_\_\_\_ CSC Number: \_\_\_\_\_

Expiry date: \_\_\_\_\_ Cardholder's name: \_\_\_\_\_

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