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Institution of Agricultural Engineers

## **Landwards Conference 2019**

### ***Can Big Data lead to Smarter Farming?***

This conference will explore the question as to whether “big data” will be the new tractor for agriculture

**Date:** Wednesday 30<sup>th</sup> October 2019, 9.30am – 4pm

**Location:** Peterborough Suite, East of England Events Centre, Peterborough

## Part 1 – Setting the Scene

0930	<b>Arrival, Registration and Networking – Post Graduate Poster Display</b>
0945	<p><b>Introductory Remarks</b> – <i>Understanding the Big Data challenge and the opportunities this brings for farmers and the wider supply and support system. Looking at the engineering and technology challenges and opportunities.</i></p> <p><b>Professor Jane Rickson – President IAgrE</b></p>
1000	<p><b>The role of Big Data in unlocking unimaginable solutions to feeding the world and environmental protection</b> – <i>Agrimetrics provides, connects and analyses complex data to drive greater productivity for agrifood businesses and deliver food sustainably. This session will explore how big data emerging from engineering/machinery-driven applications is transforming and has transformed other industries and therefore where there may be great potential for Agriculture.</i></p> <p><b>Benjamin Turner, Chief Operating Officer, Agrimetrics</b></p>
1020	<p><b>How will Big Data Transform Agriculture – Practical Lessons from the Farm</b> – <i>From Agronomist to Grain Merchant, Farm Manager to Machine operator, the role of data in shaping decisions and improving yields has moved on apace. This session will look at the work of agronomists and the emerging role of Precision Technology advisor and integrator. This session will focus on how the agricultural support network will link technology, knowledge and advice to deliver sustainable farming</i> <i>Linking Technology, Knowledge and Advice to Deliver Sustainable Farming</i></p> <p><b>Oliver Wood, Precision Technology Manager, Omnia Precision Agronomy</b></p>
1040	<p><b>The next generation Claas LEXION Combine Harvester</b> – <i>How data collection can contribute to smarter farming. Optimising machine performance with continuous data access allowing the manufacture to fine tune the machine “on the move” through simultaneous “access data” and “connectivity” and on board support. In addition, “data delivery” and “data reception” to or from other systems and decision making tools. These tools can be vehicle/fleet related or contribute to the classic precision farming approach enabling an operation to utilize input more effectively - the right amount, at the right place and time.</i></p> <p><b>Dr. Joachim Stiegemann – Claas Product Management</b></p>
1100	<b>Coffee Refreshment Break – Post Graduate Poster Display</b>
1130	<p><b>IoT for Agriculture</b> – <i>The opportunity is now presented for the agricultural industry to take a lead in defining an IoT structure for specific agricultural support that goes beyond the specification of technology and addresses the need for developing a framework for accommodating protocols, standards, the needs for operational governance and open systems infrastructure to assist global application and scalability. This session addresses these challenges and opportunity to realise an industry-lead IoT for Agriculture – an IoT.</i></p> <p><b>Anthony Furness - Visiting Professor, Harper Adams University</b></p>
1150	<p><b>Big Data: Changing the paradigm for small farms</b> - <i>The UK is predominantly made up of small mixed farms, which present very different challenges to large arable farms. Luke Halsey of Farm491, the UK’s leading AgriTech incubator, will explore how big data represents an opportunity for smaller farms and how we can create value for farmers by providing valuable insights from data. From Luke’s experience working alongside AgriTech entrepreneurs he will</i></p>

	<i>discuss lessons learned and potential opportunities for smaller farms, as well as the importance of the business model to enable equitable farmer adoptions.</i>  <b>Luke Halsey – Farm491</b>
1210	<b>Digitalisation and Service Journey</b> – <i>the steps on the journey at CNH Industrial on the digitalisation of their machines and journeys</i>  <b>Filippo Fassino – Customer Contact Service Director CNH Industrial</b>
1230	<b>Panel Discussion:</b> <i>In light of this morning discussion, will data be the great panacea it is claimed to be? Will “big data” be as revolutionary as the tractor and mechanisation?</i>  <b>Chaired by Andy Newbold – IAgrE Past President</b>
1315	<b>Lunch &amp; Networking – Post Graduate Poster Display</b>

## Part 2 – Parallel Workshops – Lessons from the Land

Time	Emerging Research and Policy Themes	On Farm Developments
1400	<b>Nick Starkey (Royal Academy of Engineering)</b> The role of the Royal Academy of Engineering in developing research and policy themes around emerging technologies which rely on the collection and application of “Big Data” in areas such as autonomous vehicles, drone technologies, data ethics and where the government should invest in digital technologies.	<b>Will Wells (Hummingbird Technologies)</b> Developments in the use of artificial Intelligence, imagery and data analytics from satellite, drone, plane, and robot technology, to provide farmers with high-resolution maps of their crops at critical decision-making junctions in the season. Using advanced machine learning and computer vision techniques, delivering actionable insights on crop health directly to the field.
1430	<b>Ron Corstanje (Cranfield University)</b> The role of the UK Government Digital Champion. Developments in Agri-Informatics. The application of big data and data sciences to support grower decision making. Insights into research with multi-national Information Technology and Food manufacturers.	<b>Mark Rutter (Harper Adams University)</b> Big Data and the Livestock Sector. How can Big Data be collected from the livestock sector? Sensor technologies and the animal including developments at Harper Adams. Thoughts on the ethical dilemmas of collecting data directly from animals
1500	<b>Rob Simmons (IAgrE Member and Researcher)</b> Development of a Soil Management Information System for Horticulture  The Climate Corporation and Gamaya already offer data-driven agricultural insights that take soil type, seed suitability and local weather patterns into account.	<b>Simon Pearson (Lincoln University)</b> The use of Big Data to support autonomous systems and agri-robots. Overview of developments with the Universities of East Anglia and Cambridge
1545	<b>Conference Review</b> <ul style="list-style-type: none"><li>• <i>Review of Conference and Next Steps</i></li></ul>	
1600	<b>End of Conference</b>	

## When, where, how much, where to book?

**When:** Wednesday 30 October 2019

**Where:** The Peterborough Suite, East of England Arena & Events Centre, Peterborough PE2 6XE,  
for Sat Nav please use postcode PE2 6XE

**Cost:** Member Rates: Full Member Delegate £100 + vat, Retired £75 + vat, Student £40 + vat  
Non Member Rates: Full delegate £150 + vat, Retired £100 + vat, Student £50 + vat

**Booking:** <https://iagre.org/events/IAgrEConf2019>



For directions please use the following address: <https://eastofenglandarena.com/visitors/getting-here/>