

77th International Conference on Agricultural Engineering

LAND.TECHNIK AgEng 2019

The Forum for Agricultural Engineering Innovations

The following topics will be discussed:

- Drives, Analysis of Drive Trains, Drive Technology
- Tractors, Combine Harvester, Tyres and Soil
- Automation, Field Robotics, Automation Concepts
- Data Management, Networks, Communication
- Harvesting Technologies, Precision Farming, Optimization of Farm Work, Tillage und Sowing, Soil and Fertilisation
- Operating Systems, Cyber Physical Systems

Scientific Chairman

Henning Meyer, Technische Universität Berlin, Germany

Only online!

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All participants have the possibility to buy "Exclusive" Tickets for AGRITECHNICA for 10th or 11th November 2019

Opening Event of:



Official Partner:



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1st Conference Day
Friday, 8 November 2019

10:00 Registration



Plenary Session (Room 1A and 1B)

12:00 **Welcoming Address and Opening Remarks: VDI-MEG**

Peter Pickel, President of Max Eyth Society for Agricultural Engineering (VDI-MEG), Kaiserslautern, Germany

12:10 **Welcoming Address and Opening Remarks: EurAgEng**

Peter Groot Koerkamp, President, EurAgEng, Wageningen, The Netherlands

12:20 **Welcoming Address and Opening Remarks: DLG**

Hubertus Paetow, President, DLG e. V., Frankfurt, Germany

12:30 **"Recalculating the route" – Digitisation of the rural regions and agriculture from the point of view of the Federal Ministry of Food and Agriculture**

Klaus Heider, Bundesministerium für Ernährung und Landwirtschaft, Berlin, Germany

13:00 Coffee Break



Analysis of Drive Trains (Room 2)

Moderation: Marcus Geimer, Karlsruher Institut für Technologie (KIT)
Teilinstitut Mobile Arbeitsmaschinen (Mobima), Karlsruhe, Germany

13:30 **Virtual Sensors for State Detection of Internal Combustion Engines**

Michael Hinrichs, Product Engineer, Peter Pickel, John Deere GmbH & Co. KG, Kaiserslautern, Rolf Isermann, Technical University of Darmstadt, Germany

14:00 **An Analysis of the Energy Consumption in the High Pressure System of an Agricultural Tractor through Modeling and Experiment**

Xin Tian, Maha Fluid Power Research Center, Purdue University, Lafayette, IN, USA, Stefano Fiorati, CNH Industrial S.p.A, Modena, Italy

14:30 **Multi-Domain Simulation Approach for the Assessment of the NVH Behaviour of a Tractor**

Gerwin Pasch, Research Assistant, Georg Jacobs, Institute for Machine Elements and Systems Engineering, RWTH Aachen, Germany

15:00 **Methods to evaluate steering performance of agricultural tractors**

Søren Liljenberg, Steering Sales Manager, Mogens Frederiksen, Thomas Langer, Danfoss Power Solutions, Nordborg, Denmark

15:30 Coffee Break



Tyres and Soil (Room 2)

Moderation: Thomas Anken, Agroscoop ART, Ettenhausen, Switzerland

16:00 **Soil pressure and pulling behavior of a standard and a half-track tractor chassis concept**

Thomas Fedde, Head of Advanced Development, Michael Peeters, Roger Stirnimann, CLAAS Tractor SAS, Velizy Villacoublay Cedex, France

16:30 **Development of a tire-soil interaction model for agricultural tractors**

Antti Lajunen, Assistant Professor, University of Helsinki, Finland

17:00 **Field performance of Trelleborg PneuTrac tyres**

Giovanni Molari, Agricultural and Food Sciences, University of Bologna, Francesco Paolini, CNH Italia, Modena, Piero Mancinelli, Trelleborg Wheel Systems, Tivoli, Italy

17:30 Break

17:45 **Plenary Session: Awarding of the VDI-MEG Prizes/Awarding of the EurAgEng Award of Merit** (Room 1A and 1B)

19:00 Get-together Dinner



Data Management (Room 1A)

Moderation: Hermann Buitkamp, VDMA e. V. Frankfurt, Germany

AEF – Partnership to develop open standard for cloud communication

Norbert Schlingmann, General Manager, Agricultural Industry Electronics Foundation AEF e. V., Frankfurt, Germany, Vik Vandecaveye, CNH Industrial Belgium N.V., Zedelgem, Belgium, Christophe Gossard, John Deere, Mannheim Germany

Agrirouter: First user experiences and next steps with the manufacturer independent data exchange platform

Johannes Sonnen, Product Manager, Jens Möller, Alexander Hammerschmidt, DKE-Data GmbH & Co. KG, Osnabrück, Germany

NEXT Machine Management – AG Software Innovation

Hannes Schallermayer, General Manager, aag agriculture application group GmbH & Co. KG, Frankfurt, Germany

A Proposal for a Cloud to Cloud Data Exchange Standard

Hans Jürgen Nissen, Partnering Manager, John Deere GmbH & Co. KG, Kaiserslautern, Germany, Nicholas Shafer, John Deere Intelligent Solutions Group, USA



Data Management – Networks (Room 1A)

Moderation: Carsten Hoff, CLAAS E-Systems KGaA mbH & Co KG, Gütersloh, Germany

High Speed ISOBUS, an AEF Project for next generation Ag networking

David Smart, Sr. Staff Engineer, John Deere, Waterloo, USA, Volker Brill, Claas E-Systems GmbH, Dissen, Germany

Advanced On-board Electronics Architecture with Automotive Ethernet

Markus Ehrl, Head of Department Electrics/Electronics, Georg Happich, AGCO GmbH, Marktobendorf, Germany

Open Integrated Data Platform for Agricultural Machinery

Georg Kormann, Manager Engineering, Hans-Jürgen Nissen, Stefan Stahlmecke, Intelligent Solutions Group, John Deere GmbH & Co. KG, Kaiserslautern, Germany

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Klaus Heider, Bundesministerium für Ernährung und Landwirtschaft, Berlin, Germany

13:00 Coffee Break



Drives (Room 1B)

Moderation: Thomas Herlitzius, Institut für Naturstofftechnik, Lehrstuhl Agrarsystemtechnik, Technische Universität Dresden Germany

13:30 **Electric-mechanic power-split PTO for implements**

Jakob Münch, Research Assistant, Thomas Herlitzius, Technische Universität of Dresden, Christian Gentz, RWTH Aachen, Germany

14:00 **eCVT for tractors: continuously variable driving and electric power for implement drives**

Raphael Himmelsbach, Manager Drivetrain Concepts & Electrification, Jürgen Pohlenz, ZF Friedrichshafen AG, Friedrichshafen, Karl Grad, ZF Friedrichshafen AG, Passau, Germany

14:30 **Electrified Traction Drives for agricultural systems – renaissance of the mechanical drive axle**

Stefan Igl, Product Manager, Gerhard Grömmer, Karl Gard, ZF Friedrichshafen AG, Passau, Germany

15:00 **Energy efficiency improvements for hydraulic linear drives**

Dierk Peitsmeyer, Product Portfolio Manager, Bucher Hydraulics, Klettgau, Germany

15:30 Coffee Break



Field Robotics (Room 1B)

Moderation: Christopher Steven MacCool, Institute for Agricultural Engineering, University Bonn, Germany

16:00 **Design and development of an autonomous mower for agriculture use**

Rhett Schildroth, President, Redshield Consulting, Ely USA

16:30 **Extending ISO 11783 for four wheel steering and implement steering**

Timo Oksanen, University Lecturer, Dept. of Electrical Engineering and Automation, Aalto University, Espoo, Finland

17:00 **Automated precise overseeding on grassland with digitale detection**

Markus Sax, Competitiveness and System Evaluation, Roy Latsch, Thomas Anken, Agroscope, Ettenhausen, Switzerland

17:30 Break

17:45 **Plenary Session: Awarding of the VDI-MEG Prizes/Awarding of the EurAgEng Award of Merit** (Room 1A and 1B)

19:00 **Get-together Dinner**



Automation (Room 3)

Moderation: Franz Handler, HBLFA Francisco Josephinum, Wieselburg, Austria

Virtual Harvesting as a Key Element in the Development of a novel LiDAR based Combine Harvester Steering System

Jannik Redenius, Development Engineer, CLAAS E-Systems GmbH, Dissen, Daniel Irmer, CLAAS SE GmbH, Harsewinkel, Christian Bußmann, IBEO Automotive Systems GmbH, Hamburg, Germany

Predictive driving strategy for radar-based slope detection in tractors

Markus Birk, Development Engineer, Bastian Volpert, Manfred Auer, ZF Friedrichshafen AG, Friedrichshafen, Germany

Machine learning for process automation of agricultural machines in field applications

Simon Becker, Kevin Daiß, Research Assistant, Institute of Mobile Machines, **Karam Daaboul**, Institute of Applied Informatics and Formal Description Methods, Karlsruhe Institute of Technology, Karlsruhe, Germany

An integrated OEM and retrofit Spray quality monitor system for agricultural Sprayers

Peter Hien, Director, Thorsten Krauland, MSO Meßtechnik und Ortung GmbH, Bad Münstereifel, Germany



Harvesting Technology (Room 3)

Moderation: Thomas Göres, CLAAS Selbstfahrende Erntemaschinen GmbH, Harsewinkel, Germany

Validation of a particle simulation of potatoes under harvesting-like conditions

Lukas Poppa, Research Assistant, Ludger Frerichs, Bernd Niemöller, Technische Universität Braunschweig, Germany

Continuous harvesting of olive orchards with wide canopies in hedge

António B. Dias, José O. Peça, Anacleto C. Pinheiro, Institute of Mediterranean Agricultural and Environmental Sciences, University of Évora, Portugal

Production of high quality wood chips for energetical exploitation by using a two-step-chipper and ventilation with ambient air

Roman Kahle, Research Assistant, Siegfried Firus, Thomas Herlitzius, Technische Universität Dresden, Germany

2nd Conference Day
Saturday, 9 November 2019



Operating Systems (Room 2)

Moderation: Ivo Hostens, CEMA Comite Europeen des Groupement, Bruxelles, Belgium

08:30 Development of a Seamless User Experience for Smart Farming Operations – From Machine Interaction to System Synergy

Adrian Hackfort, Director Product Management Global Fuse Technologies, Georg Happich, Martin Lichtenstern, AGCO GmbH, Marktobendorf, Germany

09:00 A Field Tested Adaptive User-Interface – New Ways to Operate Tractors

Timo Schempp, Research and Teaching Assistant, Institut für Agrartechnik, Universität Hohenheim, Stuttgart, Andreas Kaufmann, Institute for Engineering Design and Industrial Design University of Stuttgart, Ingmar Stöhr, elobau GmbH & Co. KG, Leutkirch, Germany

09:30 Ergonomic – compact armrest of agricultural tractors

Claudia Campanella, Head of Ergonomics and HMI department, CNH Industrial S.p.a, Modena, Italy

10:00 Feldschwarm-HMI – a semistationary user interface for operating and monitoring highly automated systems

Sebastian Lorenz, Scientific Associate, Jens Krzywinski, Christoph Schreiber, Technische Universität, Dresden. Germany

10:30 Coffee Break



Product Development (Room 2)

Moderation: Herbert Coenen, Uniparts India Ltd./Noida, India

11:00 Approach to reduce the complexity increase in development processes of mobile machines

Hagen Neurath, Research Assistant, Ludger Frerichs, Institute of Mobile Machines and Commercial Vehicles, University of Braunschweig, Germany

11:30 Implementation of a dynamic product development method for agricultural engineering based on virtual prototypes

Paaranan Sivasothy, Institute for Measurement and Sensor-Technology, Technische Universität Kaiserslautern, Germany

12:00 Multi domain simulation as a tool to support the development of agricultural systems

Martin Piechnick, Managing Director, marpitec GmbH, Aschaffenburg, Germany

12:30 Remotely Controlled Electro-Hydraulics ready for the IoT

Giorgio Bombarda, Managing Director, HP Hydraulic - Bondioli & Pavesi Group, Pieve di Cento, Italy, Thassilo Maxeiner, Bondioli & Pavesi GmbH, Groß Gerau, Germany

13:00 Lunch Break



Precision Farming (Room 1A)

Moderation: Thomas Engel, John Deere GmbH & Co. KG, Kaiserslautern, Germany

A Open Source GIS system for small-scale agriculture

Lukas Hauer, Junior Researcher, Josephinum Research, Wieselburg, Austria

High Definition Yield Maps for Precision Ag Decision Support

Matthew Darr, Professor, Iowa State University, Agricultural and Biosystems Engineering, Elings Hall, USA, Volker Fuchs, Federico Pardina, Deere & Company, USA

Growing Smart Farming Services – How to get the best out of Farming Data

Susanne Braun, Project Manager, Fraunhofer IESE, Kaiserslautern, Markus Schweitzer, John Deere GmbH & Co. KG, Kaiserslautern, Germany

Process Operation Map for Assessment of ideal Configuration and Behaviour

Thilo Steckel, Development Engineer, CLAAS E-Systems GmbH, Dissen, Germany



Soil and Fertilisation (Room 1A)

Moderation: Claus Grøn Sørensen, Aarhus University, Denmark

Broadband SHF Radar Measurements for Soil Moisture Estimation in the Range between 1 and 18 GHz

Matthias Trimmel, Peter Riegler-Nurscher, Reinhard Streimelweber, Josephinum Research, Wieselburg, Austria

A new in-situ multi-depth, multi-constituent, on-the-go precision soil analyzer

Asim Biswas, Assistant Professor, Erik Eising, SoilReader, Winnipeg, Canada

Automated mobile field laboratory for on-the-go soil-nutrient analysis with the ISFET multi-sensor module

Vadim Tsukor, Development Engineer and Researcher, Stefan Hinck, Arno Ruckelshausen, University of Applied Science Osnabrueck, Germany

A robust plant localization and identification system for precision farming

Thijs Ruigrok, Gert Kootstra, Eldert van Henten, Farm Technology Group Wageningen, The Netherlands

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Deutsche Messe AG, Hannover, Germany

**Optimization of Farm Work** (Room 1B)

Moderation: Peter Groot Koerkamp, Wageningen University – Farm Technology Group, Wageningen, The Netherlands

08:30 Production System Optimization with Electrified Powertrain

Steven Duppong, System Engineer Large Tractor, John Deere, Waterloo, USA, **Olivier Delvaux**, Embedded Systems project manager, Ets JOSKIN S.A., Soumangne, Belgium

09:00 Optimization of tractor front loader for improved design freedom and increased operability

Thomas Langer, Market Development Manager, Birkir Oskarsson, Erik Westergaard, Danfoss Power Solutions ApS, Nordborg, Denmark

09:30 Mobile intelligence for LEMKEN equipment – A retrofitable intelligent hardware generates additional value for various agricultural implements

Hendrik Vennemann, Product Manager Electronics, Henning Hecheltjen, Marco van den Boom, LEMKEN GmbH & Co.KG, Alpen, Germany

10:00 Approach for increasing automation progress in root crop harvesting

Daniel Bösenberg, Development Engineer, Wolfram Strothmann, GRIMME Landmaschinenfabrik GmbH & Co. KG, Damme, Hubert Korte, University of Applied Science, Osnabrück, Germany

10:30 Coffee Break**Automation Concepts** (Room 1B)

Moderation: John Reid, John Deere Company, Coffeyville, USA

11:00 Development of future machine concepts for the needs-based fertilization of individual plants

Volker Stöcklin, Director R&D, Maximilian Zimmer, RAUCH Landmaschinenfabrik GmbH, Sinzheim, Germany

11:30 CULTI CAM HD: Efficient Weed Control in Row Crops using Active Implement Steering and Stereo Camera

Gert Lysgaard Andersen, System Engineer, CLAAS E-Systems Verw. GmbH, Nivaa, Denmark

12:00 SunBot: Autonomous Nursing Assistant for Emission-Free Berry Production, Genral Concepts and Framework

Cornelia Weltzien, Head of Department and Chair at University, TU Berlin, Redmond Shamshiri, Volker Dworak, Leibniz Institute for Agricultural Engineering and Bioeconomy, Potsdam, Marcin Pietras, Hydac Software GmbH, Großbeeren, Germany

12:30 Generation of Digital Terrain Models from GNSS Data

Aurelia Maria Moanță, Product Engineer PhD, Christian Bartolein, John Deere GmbH & Co. KG, Kaiserslautern, Germany

13:00 Lunch Break**Tillage and Sowing** (Room 3)

Moderation: Stefan Böttinger, University Hohenheim, Stuttgart, Germany

Hybrid-Disc-Plough – An energy saving plough concept for heavy soils

Christian Rechberger, Research associate, Matthias Trimmel, HBLFA Francisco Josephinum, BLT- Wieselburg, Franz-Ferdinand Huber, Ingenieurbüro Huber, Leibnitz, Austria

Concept of a new cultivator generation, reducing of wear costs with a combination of vertical and horizontal tools

Jens Wiethoff, Product Manager Stubble Cultivation, Ludger Maas, Georg Achten, LEMKEN GmbH & Co. KG, Alpen, Germany

Development and utilization of a new application system for precise fertilizer placement in corn

Max Bouten, Research Assistant, Till Meinel, Wolfgang Kath-Petersen Cologne Institute of Construction Machinery and Agricultural Engineering, Technical University Cologne, Germany

Investigation of the working precision and economic efficiency of automatically and manually guided hoes in grain

Albert Stoll, Professor for Agricultural Engineering, Mika Duttlinger, Sebastian Klasen, Nuertingen-Geislingen University, Nuertingen, Germany

**Combine Harvester** (Room 3)

Moderation: Thomas Barreilmeyer, CLAAS Selbstfahrende Erntemaschinen GmbH, Harsewinkel, Germany

High Capacity Draper Header

Bryan Yanke, Module Architect, Michael Vandeven, Senior Engineer, Duane Bomlony, Vehicle Architect, John Deere, East Moline, USA

New cleaning system design for high capacity combine harvesters

Jonas Toft Andersen, Research & Advanced Engineering, Morten Leth Bilde, AGCO A/S, Randers, Denmark

Predictive Feed-Rate Control for Combine Harvesters

Philipp Münch, Sensor Specialist, European Technology Innovation Center, John Deere GmbH & Co. KG, Kaiserslautern, Germany

Development of increased tire diameters and the effects on the axles and drive trains of a combine harvester

Jan Philipp Behra, Development Engineer, Hendrik Stockhofe, CLAAS Selbstfahrende Erntemaschinen GmbH, Harsewinkel, Germany

Official Conference Language

The official language of the conference will be English. Simultaneous translation will not be available.

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All participants have the possibility to buy „Exclusive“ Tickets for AGRITECHNICA for 10th or 11th November 2019 at the price of EUR 56,- (regular price EUR 81,-). We will send the promotion code one week prior to the conference by email. Payment by Creditcard or Paypal. There will be no disposal during the conference.

Only online!



Tractors (Room 2)

Moderation: Heinz Böhler, AGCO GmbH, Marktoberdorf, Germany



Cyber Physical Systems (Room 1A)

Moderation: Arno Ruckelshausen, Fakultät Ingenieurwissenschaften und Informatik University of Applied Science Osnabrück, Germany

14:00 **Development of a compact After-Treatment System for agricultural tractors**
Luca Levato, CFD Engineer, Carlo De Marco, CNH Industrial, Modena, Italy

14:30 **Four-Tracked Solution for Large Row Crop Tractors**
Jeremy L'Heureux, Product Engineer, John Deere Waterloo Works, Cedar Falls, USA

15:00 **Idling of agricultural tractors**
Michele Mattetti, Researcher, Dept. of Agricultural and Food Sciences, University of Bologna, Nicola Lenzini, Stefano Fiorati, CNH Industrial – Tractor Innovation Engineering, Modena, Italy

15:00 **Break**



Plenary Session (Room 1A and 1B)

15:50 **Modularity and Systems Engineering – a Discipline and a Journey**
Bernhard Haas, John Deere GmbH & Co. KG, Mannheim, Germany

16:20 **Closing Remarks**
Henning Meyer, Scientific Chairman of the Conference

16:30 **End of the conference**

Program Committee

Thomas Anken, Agroscoop ART, Ettenhausen, Technische Universität Wien, Austria
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Henning Meyer, Technische Universität Berlin, Germany

Technical Chair



Max Eyth Society for
Agricultural Engineering

The Association of German Engineers (VDI) is one of the leading engineer's associations worldwide. The Max Eyth Society for Agricultural Engineering represents a technical division of the VDI. It bears the name of the founder of agricultural engineering as a distinct discipline in Germany, Max Eyth (1836-1906).

www.vdi.de/meg



The European Society of Agricultural Engineering (EurAgEng) exists to promote the professions of Agricultural and Biosystems Engineering and the people who serve it. The Society is particularly active in conferences, Special Interest Groups, publications, networking, and international lobbying.

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Wissensforum

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**Drive Technology** (Room 1B)**Moderation: Peter-Michael Synek**, Stellvertr. Geschäftsführer, VDMA Fachverband Fluidtechnik e. V., Frankfurt, Germany**14:00 Transferring agricultural machines from field to the laboratory for emission check****Danilo Engelmann**, Professor and Head of the Laboratory for IC-Engines and Exhaust Emission Control, University of Applied Sciences, Nidau, Roger Stirnimann, Berner Fachhochschule, Zollikofen, Switzerland, Simon Becker, Karlsruhe Institute of Technology, Karlsruhe, Germany**14:30 Overcoming design challenges of electro-hydraulic steering systems****Tom Rudolph**, Sales Director, Thomas Langer, Danfoss Power Solutions, Nordborg, Denmark, Phillip Bolton, Danfoss Power Solution (US) Company, Ames, USA**15:00 Reducing draft force on mounted implements by electrified traction roller****Jochen Georg Wiecha**, Research Assistant, Heinz Bernhardt, Technical University of Munich, Freising, Thomas Herlitzius, Technical University Dresden, Germany**15:00 Break****Plenary Session** (Room 1A and 1B)**15:50 Modularity and Systems Engineering – a Discipline and a Journey****Bernhard Haas**, John Deere GmbH & Co. KG, Mannheim, Germany**16:20 Closing Remarks****Henning Meyer**, Scientific Chairman of the Conference**16:30 End of the conference****Communication** (Room 3)**Moderation: Peter Hieronymus**, Claas E-Systems GmbH, Dissen, Germany**Security Concept for ISOconnect – a Secure ISOBUS Telemetry Device****Matthias Rothmund**, Manager Products & Sales, Roland Marx, OSB AG, Munich, Germany**(How to build) 5G Networks for Agricultural and Rural Areas****Norman Franchi**, Gerhard Fettweis, Vodafone Chair Mobile Communications Systems, Thomas Herlitzius, Technische Universität Dresden, Germany**TIM empowers cross vendor couples to higher performance****Andreas Volbracht**, System Engineer, CLAAS Selbstfahrende Erntemaschinen GmbH, Harsewinkel, Jasper Jeninga, CLAAS E-Systems GmbH, Bad Saulgau, Jan-Hendrik Wölker, Agricultural Industry Electronics Foundation e. V. Gütersloh, Germany**Gold Sponsors**

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AVL designs and develops complete agricultural vehicles and all the major components of agricultural tractors. Furthermore, AVL is specialized in cabin development and in homologation of tractors.



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AGRITECHNICA 2019 with SYSTEMS & COMPONENTS

As the world's leading tradeshow for agricultural machinery, AGRITECHNICA 2019 will give visitors the opportunity to experience and learn about the most up-to-date technologies and developments in agricultural mechanization – thanks to 2,800 exhibitors from 52 countries and a comprehensive technical program.

SYSTEMS & COMPONENTS is the meeting place for the supply industry within AGRITECHNICA. It highlights the latest developments in the sectors of drivetrain technology, electronics, hydraulics, engines, spare, wearing and replacement parts as well as cabs and power lifts. The exhibition welcomes more than 100,000 professional visitors from management, R&D, purchasing, research and academia.

Its related technical programme in the Future Lounge stands 2019 under the guiding theme of "Assisted Farming – Engineering agriculture through smart solutions" and highlights the topics "Future Machine Architecture", "Additive Manufacturing" and "Predictive Maintenance", and presents "New Business Models".

New: For the first time DLG will introduce "The Systems & Components Trophy – Engineers' Choice" award. With the trophy, the B2B platform for the supply industry at AGRITECHNICA aims to grant awards for systems or components with new or distinctly improved concepts that can contribute significantly to developing and realising products that facilitate the use of new processes or substantially improve processes already familiar. The winners of the 2019 Systems & Components Trophy – Engineers' Choice award will be selected by a jury consisting of development engineers for farm machinery manufacturers exhibiting at AGRITECHNICA 2019.

Please sign in right now – The number of participants is limited.

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Convention Center (CC), Deutsche Messe AG Exhibition Ground, 30521 Hannover, Germany

Conference desk at the Convention Center:
You can reach the conference desk at the following number: Phone: +49 (0)151-14259017

Room reservation:
Hannover: Convention Center (CC), Deutsche Messe AG, Exhibition Ground, 30521 Hannover, Germany
List of hotels with VDI preferential rate for the conference participants, please see the website www.hannover.de/landtechnik
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