



AGENG CONFERENCE 2018

New engineering concepts for a valued agriculture

8 – 12 July 2018, Wageningen, the Netherlands

Conference Agenda

Session Overview

Date: Sunday, 08/Jul/2018

9:00am -		IRCAEW Workshop research updates - part 1 Location: Orion Room C1032 Chair: Prof. Baoming Li Chair: Prof. Hongwei Xin
10:30am -	Coffee break Sunday morning Location: Orion Restaurant	
10:45am -		IRCAEW Workshop research updates - part 2 Location: Orion Room C1032 Chair: Prof. Baoming Li Chair: Prof. Hongwei Xin
12:00pm -	Lunch Sunday (Council & EB members, IRCAEW workshop) Location: Orion Restaurant	
12:00pm -	Registration AgEng2018 Conference Sunday Location: Orion Ground floor	Welcome with coffee and from 16.00 h reception Location: Orion Restaurant
6:00pm		
1:00pm -	EurAgEng Council meeting Location: Orion Room C3020 Chair: David Tinker Chair: Dr. Claus Sørensen	IRCAEW Workshop research updates - part 3 Location: Orion Room C1032 Chair: Prof. Baoming Li Chair: Prof. Hongwei Xin
3:30pm -	Coffee break Sunday afternoon Location: Orion Restaurant	
4:00pm -	Editorial Board meeting Journal of Biosystems Engineering Location: Orion Room C3020 Chair: Dr. Bill Day Chair: Dr. Steve Parkin	IRCAEW Board meeting Location: Orion Room C1032 Chair: Prof. Baoming Li Chair: Prof. Hongwei Xin
6:00pm		

Conference Agenda

Session Overview

Date: Monday, 09/Jul/2018

7:00am - 5:00pm	Registration AgEng2018 conference Monday Location: Orion Ground floor								
9:30am - 10:30am	Plenary Session AgEng2018 conference (part 1) Location: Orion Room Waaijjer (Room 1005/1040/2005/2006/2050/2051) Chair: Maarten Vrolijk								
	9:30am - 9:45am Welcome and opening speech by Prof. dr. Arthur Mol, Rector Magnificus of WU Arthur Mol								
	9:45am - 9:50am Francis Sevilla Young Professional Award Claus Sørensen								
	9:50am - 9:55am EurAgEng Award of Merit - Scientific Understanding Claus Sørensen								
	9:55am - 10:00am Intermezzo Peter Groot Koerkamp								
	10:00am - 10:30am Agriculture and Artificial Intelligence Joachim Hertzberg								
10:30am - 11:00am	Coffee break Monday morning Location: Orion Restaurant								
11:00am - 12:00pm	Plenary Session AgEng2018 conference (part 2) Location: Orion Room Waaijjer (Room 1005/1040/2005/2006/2050/2051) Chair: Maarten Vrolijk								
	11:00am - 11:10am Outstanding Paper Award of the Journal of Biosystems Engineering Steve Parkin, Bill Day								
	11:10am - 11:15am Intermezzo Peter Groot Koerkamp								
	11:15am - 11:45am When the Best of Technology Meets the Best of Ecology, a Little Bit of Magic Happens Eldert van Henten, Dirk van Apeldoorn								
	11:45am - 12:00pm Good-bye to secretary-general of the EurAgEng society Aad Jongebreur								
12:00pm - 1:30pm	Lunch Monday Location: Orion Restaurant								
12:15pm - 1:15pm	Campus Tour 01: Agro-food robotics 1 - Horticulture	Campus Tour 02: Agro-food robotics 2 - Open field	Campus Tour 03	Campus Tour 04	Campus Tour 05	Campus Tour 06	Campus Tour 07	Campus Tour 08: Inter-cropping and pixel farming	
1:30pm - 3:00pm	Session 01: Topic 7 Animal production technology: LivAGE - Measuring and reducing emissions Location: Orion Room C2050 Chair: Dr. Guoqiang Zhang Chair: Dr. Andre Aarmink	Session 02: Topic 7 Animal production technology - Sensors cattle and sheep Location: Orion Room C2051 Chair: Robert Kaufmann 1:30pm - 1:50pm Measuring The Teat Skin	Session 03: Topic 4 Robotic systems in orchards Location: Orion Room C2005 Chair: Prof. Paolo Gay 1:30pm - 1:50pm OrchardMapper: Application for creating tree scale maps from high	Session 04: Topic 4 Robotic systems in livestock Location: Orion Room C2006 Chair: Dr. Thomas Anken 1:30pm - 1:50pm Decision-Tree and Support Vector Machine Algorithms for	Session 05: Topic 10 Post harvest technology Location: Orion Room C1005 Chair: Dr. Antonis Mistrionis 1:30pm - 1:50pm Hyperspectral Imaging For Foal Meat Classification Based On	Session 06: Topic 3 Co-production and implementations of technology 1 Location: Orion Room C2035 Chair: Prof. Pilar Barreiro 1:30pm - 1:50pm An Inventory of Smart	Session 07: Topic 8 Plant production technologies - Planting Location: Orion Room C2030 Chair: Dr. Corné Kempenaar 1:30pm - 1:50pm Design And Development Of Machinery	Session 08: Topic 5 New energy sources for agricultural applications Location: Orion Room C1040 Chair: Dr. Piotr Biernacki 1:30pm - 1:50pm Methanol As A Renewable	Session 09: Topic 6 Soil, land and water engineering - Water 1 Location: Orion Room C1032 Chair: Prof. Francisco Ayuga 1:30pm - 1:50pm Climate Change

1:30pm - 1:42pm Validation Of A Dual Tracer Ratio Method For Comparative Emission Measurements In A Naturally Ventilated Dairy Housing Joachim Mohn, Kerstin Zeyer, Margret Keck, Michael Zähler, Sabine Schrade	Elasticity With The Help Of The Suction Method <u>Susanne Demba</u> , Christian Ammon, Marie Neumerkel, Reiner Brunsch, Sandra Rose-Meierhöfer	resolution orthomosaics <u>Dvorajai Wulfsohn</u> , Oded Cohen, Ines Zamora	the Automated Measurement of Ingestive-related Cow Behaviors <u>Said Benaissa</u> , Frank Tuytens, David Plets, Luc Martens, Leen Vandaele, Hannes Cattrysse, Wout Joseph, Bart Sonck	Ageing Time <u>Ainara Lopez-Maestresalas</u> , Kizkitza Insausti, Carlos Lopez-Mollina, Claudia Perez-Roncal, Maria Victoria Sarries, Carmen Jaren, Silvia Arazuri	Farming Technologies <u>Frits K. Van Evert</u> , Spyros Fountas, Thanos Balafoutis, Koen van Boheemen, Chris van Dijk, Sandra Wolters, Sakura Tomita, Milica Trajkovic, Samy Ait-Amar, Alberto Lafarga, Klaus Erdle, Harm Brinks, Beatriz Arribas, Ulrich Adam, Stephane Volant, David Tinker	To Plant Daffodil Bulbs In Upland Pasture And Harvest The Above Ground Biomass. <u>David Richard White</u> , Ian James Loynes, Simon Edward Cooper, Kevin Stephens, Stephen Head, Hannah Vallin, John R T Davies, Mariecia D Fraser	Fuel From Surplus Electricity <u>Piotr Biernacki</u> , Tobias Röther, Wilfried Paul, Ansgar Schlüter, Sven Steinigeweg	Effects on Groundwater Recharge and Yield in the Barind Region of Bangladesh <u>Deen Islam</u> , AKM Adham, Mohammad Mizanur Rahman
1:42pm - 1:54pm Simulation of Nitrous Oxide Emission from Dairy Manure Stockpile Using Dynamic Chamber Technique Bin Hu, Chaoyuan Wang, Haoxiang Zhao, Yejian Wang, Zhengxiang Shi, Baoming Li, Weichao Zheng	1:50pm - 2:10pm Visual scores or subcutaneous fat thickness measurements, which is better for designing a 3D vision-technology body condition assessment method? <u>Eddie Bokkers</u> , Elles Leijdekkers, Xiangyu Song, Rik van der Tol	1:50pm - 2:10pm Automatic body condition scoring of dairy cows using multiple 3D cameras Xiangyu Song, Eddie Bokkers, Simon van Mourik, Peter Groot Koerkamp, Rik van der Tol	1:50pm - 2:10pm Automatic body condition scoring of dairy cows using multiple 3D cameras Xiangyu Song, Eddie Bokkers, Simon van Mourik, Peter Groot Koerkamp, Rik van der Tol	1:50pm - 2:10pm Antioxidants From Passion Fruits Seeds Carolina Cruzeiro Reis, Alexandra Mara G. Nunes Mamede, Antonio Gomes Soares, <u>Nina Katia Silva James</u> , Suely Pereira Freitas	1:50pm - 2:10pm Management system of small farm machinery hiring business for rice farming operations in Kampar Region, Indonesia <u>Ujang Paman Ismail</u>	1:50pm - 2:10pm Evaluation Of An Automated Seed Drill Depth Control System For Precision Seeding In Heterogeneous Fields <u>Søren Kirkegaard-Nielsen</u> , Lars Juhl Munkholm, Frederik Foldager, Alevtina Evgrafova, Kathrine Hauge Madsen, Eskild Hohlmann Bennetzen, Jens Erik Jensen, Ole Green	1:50pm - 2:10pm In-situ Evaluation of PV Pumping Systems for Drip Irrigation Use and Method for Yielding Hydraulic Performances <u>Abdellah El Aissaoui</u> , Oudada Mohamed, Assia Harkani	1:50pm - 2:10pm Flow Simulation in a Phreatic Aquifer using Infinite Elements in the Finite Element Analysis <u>Charalampos Doulgieris</u> , Thomas Zissis, Vasileios Pisinaras, Andreas Ilias
1:54pm - 2:06pm Greenhouse Gas Emissions from Dairy Open Lots in China Luyu Ding, Chaoyuan Wang, Guoqiang Zhang, Zhengxiang Shi, Baoming Li, Weichao Zheng, Ligen Yu, Qifeng Li	2:10pm - 2:30pm Comparison of Grazing Behaviour of Sheep on Pasture with Different Sward Surface Heights using an Inertial Measurement Unit Sensor Wensheng Wang, <u>Leifeng Guo</u>	2:10pm - 2:30pm Reliability of Autonomous Guided Systems for Vineyard Monitoring <u>Dionisio Andujar</u> , Jose Bengochea-Guevara, Angela Ribeiro	2:10pm - 2:30pm Classification method for cows' body parts in RGB-depth images based on template matching <u>Nan Jia</u> , Peter Groot Koerkamp, Gert Kootstra, Zhengxiang Shi, Songhuai Du	2:10pm - 2:30pm Evaluation of a Citrus Mobile Platform Using a Wireless Impact Recording Device Gyomar Gonzalez-Gonzalez, Patricia Chueca, <u>Coral Ortiz</u> , Beatriz Pérez-Lluch	2:10pm - 2:30pm An Innovation System Supporting The Adoption Of Precision Agriculture In Sweden: The Case Of Yara N-sensor <u>Christina Lundström</u> , Jessica Lindblom, Magnus Ljung	2:10pm - 2:30pm Evaluation Of An Automated Seed Drill Depth Control System For Precision Seeding In Heterogeneous Fields <u>Søren Kirkegaard-Nielsen</u> , Lars Juhl Munkholm, Frederik Foldager, Alevtina Evgrafova, Kathrine Hauge Madsen, Eskild Hohlmann Bennetzen, Jens Erik Jensen, Ole Green	2:10pm - 2:30pm Performance of a direct coupled DC pumping photovoltaic system to drip irrigation network Assia Harkani, <u>Abdellah El Aissaoui</u> , Hichame Fihri-fassi, Ousama Elkacimi	2:10pm - 2:12pm Territorial Analysis And Hydrological Modelling Of The Canale D'Aiedda Basin <u>Francesco Gentile</u> , Ersilia D'Ambrosio, Marinella Spano, Ossama M.M. Abdelwahab, Antonello Lonigro, Giovanni Francesco Ricci, Giovanni Romano, Angelantonio Calabrese, Giuseppe Pappagallo, Anna Maria De Girolamo
2:06pm - 2:18pm Naturally Ventilated Stables: Emission Measurements Combining Open-Path Lasers And Anemometers <u>Philippe Van Overbeke</u> , Shaojie Zhuang, Sabrina Curial, Eva Brusselsman, Peter Demeyer	2:30pm - 2:32pm A Novel Sensor For Respiration Rate Recording In Cattle <u>Saskia Strutzke</u> , Daniel Fiske, Christian Ammon, Wolfgang Heuwieser, Thomas Amon	2:30pm - 2:32pm Field Robot to Detect Plants Infected by Candidatus Liberibacter solanacearum in Horticultural Crops Using Multispectral Computer Vision Sergio Cubero, Santiago Lopez-Alaman, Ester Marco-Noales, Susana Sanjuan, Vicente Alegre, Silvia Barbe, Enrique Aguilar, Inmaculada Navarro, Nuria Aleixos, <u>Jose Blasco</u>	2:30pm - 2:50pm Lameness Recognition of Pigs Based on Skeleton Analysis and Gait Energy Image <u>Weixing Zhu</u> , Kaizhong Zhang, Jianxuan Qian, Xincheng Li	2:30pm - 2:32pm Hyperspectral Imaging Analysis Of Potato Flesh For Industrial Processing Aptitude <u>Ainara Lopez-Maestresalas</u> , Silvia Arazuri, Carlos Lopez-Mollina, Claudia Perez-Roncal, Carmen Jaren	2:30pm - 2:32pm Skills Needs For A Sustainable Farmer In The Framework Of The Sagri Project <u>Luis L. Silva</u> , Fátima Baptista, Vasco F. Cruz, José Rafael Marques-da-Silva	2:10pm - 2:30pm Managing Weeds In Wheat And Pulses By Optimising Plant Spatial Arrangement And Sowing Time Elio Romano, Carlo Bisaglia, Antonio Iannuzzi, Sergio Saia, Ivano Pecorella, Pasquale De Vita	2:30pm - 2:32pm Modeling in Matlab of a Standalone Photovoltaic Pumping System for Drip Irrigation Use and Performance Analysis Ousama El kacimi, <u>Abdellah El Aissaoui</u> , Assia Harkani, Mohamed Mansouri	2:12pm - 2:14pm Irrigation Performance of Soil-Moisture Based Automatic Irrigation System for Growing Soybeans in Korea <u>Soon Hong Kwon</u> , Jongsoon Kim, Ki-Yeol Jung, Sanghun Lee
2:18pm - 2:30pm Application Of Best Available Technique (BAT) For Emission Reduction Of Livestock Industry In Denmark <u>Peter Kai</u> , Michael Joergen Hansen, Kristoffer Jonassen	2:32pm - 2:34pm Generation of weed cover maps using an SLR camera <u>Karla Cantuña</u> , Dionisio Andujar, Jose Maria Bengochea-Guevara, Angela Ribeiro	2:32pm - 2:34pm Generation of weed cover maps using an SLR camera <u>Karla Cantuña</u> , Dionisio Andujar, Jose Maria Bengochea-Guevara, Angela Ribeiro	2:32pm - 2:50pm Lameness Recognition of Pigs Based on Skeleton Analysis and Gait Energy Image <u>Weixing Zhu</u> , Kaizhong Zhang, Jianxuan Qian, Xincheng Li	2:32pm - 2:34pm Mathematical Modeling of Thin Layer Solar Drying of Parsley <u>Reza Tabatabaeeekoloor</u> , Mohamad Mirzaei	2:32pm - 2:34pm SPARKLE Project: e-Learning Solutions to Create New Digital Agronomist Profiles on European Students Marco Vieri, Jorge Martinez-Guanter, Stefania Lombardo, <u>Manuel Perez-</u>	2:30pm - 2:32pm Skills Needs For A Sustainable Farmer In The Framework Of The Sagri Project <u>Luis L. Silva</u> , Fátima Baptista, Vasco F. Cruz, José Rafael Marques-da-Silva	2:32pm - 2:34pm Design and Evaluate a New Distiller for Seawater Desalination with Solar Photocells <u>Mohamed Nabih Omar</u> , Abdellateif Abdelwahab Samak, Mahmoud Hassan Keshek	2:12pm - 2:14pm Irrigation Performance of Soil-Moisture Based Automatic Irrigation System for Growing Soybeans in Korea <u>Soon Hong Kwon</u> , Jongsoon Kim, Ki-Yeol Jung, Sanghun Lee
2:30pm - 2:42pm Influence Of Wind Direction And Sampling Strategy On The Estimation Of Ammonia Emissions In Naturally								

	<p>Ventilated Barns David Janke, Diliara Willink, Sabrina Hempel, Christian Ammon, Barbara Amon, Thomas Amon</p> <p>2:42pm - 2:54pm Legal Requirements on Ammonia and Greenhouse Gas Emission from Animal Production Buildings in European Countries Bjarne Bjerg</p>					<p>Ruiz, Daniele Sarri</p> <p>2:34pm - 2:36pm Long-term tracking and automated analysis of tractor behaviour with JDLINK Pilar Barreiro, Miguel Garrido-Izard, Ismael Rueda, Antonio Rabasco</p>		<p>input, parameter and conceptual model uncertainty in groundwater modelling Syed Md Touhidul Mustafa, Jiri Nossent, Gert Ghysels, Marijke Huysmans</p>	
3:00pm - 4:00pm	<p>Coffee break and poster session Monday afternoon Location: Orion Restaurant</p>								
4:00pm - 5:30pm	<p>Session 11: Topic 7 Animal production technology: LivAGE - Modelling emissions Location: Orion Room C2050 Chair: Dr. Guoqiang Zhang Chair: Dr. Andre Aarnink</p> <p>4:00pm - 4:12pm Recent Advances of Modeling and Experimental Verification of Ammonia and Greenhouse Gas Emissions from Dairy Housing Christopher Choi</p> <p>4:12pm - 4:24pm Analysis of Factors Affecting Ammonia and Methane Emissions from Pig Slurries: Slurry Composition and Dietary Factors Walter Antezana, Alba Cerisuelo, Fernando Estellés, Salvador Calvet</p> <p>4:24pm - 4:36pm Effects of Environmental and Litter Factors on Ammonia Emission from Broiler Houses Andre Aarnink, Jan Van Harn, Klaas Blanken, Nico Ogink</p> <p>4:36pm - 4:48pm Development of a Computational Fluid Dynamics (CFD) Based Ammonia Emission Model</p>	<p>Session 12: Topic 7 Animal production technology - Sensors pigs and poultry Location: Orion Room C2051 Chair: Pieter Hogewerf</p> <p>4:00pm - 4:20pm Predictors for Disease Severity in Growing Pigs Ingrid van Dixhoorn, Rudi de Mol, Marion Kluivers, Norbert Stockhofe-Zurwieden, Annemarie Rebel</p> <p>4:20pm - 4:40pm Broiler Health Monitoring Through Automatic Camera-based Technologies Tom Van Hertem, Sofie Cardinaels, Kris Debaere, Johan Zoons, Erik Vranken, Gijs van den Berg</p> <p>4:40pm - 5:00pm Automatic Detection of Sneezing Sounds in Broiler Chickens Lenn Carpentier, Alberto Peña Fernández, Christel Verbesselt, Erik Vranken, Jan Paeshuysse, Tomas Norton, Daniel Berckmans</p> <p>5:00pm - 5:02pm Evaluating Pig Ear Skin Temperature: Intercontinental Transport vs Housing conditions Miguel Garrido-Izard, José M.</p>	<p>Session 13: Topic 4 Robotic systems in open fields Location: Orion Room C2005 Chair: Dr. Gerrit Polder</p> <p>4:00pm - 4:20pm Automatic Detection Of Broccoli Heads In Open Field Using An Artificial Neural Network Pieter M. Blok, Toon Tielen, Joris M. M. IJsselmuiden, Gert Kootstra</p> <p>4:20pm - 4:40pm Virus Infection Detection in Hyperspectral Images of Potato Plants using Deep Neural Networks Hendrik Adrianus Cornelis De Villiers, Pieter Marinus Blok, Gerrit Polder</p> <p>4:40pm - 5:00pm AgROSense, a real-time height compensation mechanism for crop monitoring applications Michael Terzer, Raimondo Gallo, Michael Riedl, Fabrizio Mazzetto</p> <p>5:00pm - 5:20pm Data Acquisition Platform for Collecting High-Quality Images of Cultivated Weeds Simon Leminen Madsen, Mads Dyrmann, Morten Stigaard Laursen, Solvejg Kopp Mathiassen, Rasmus Nyholm Jørgensen</p>	<p>Session 14: Topic 4 Robotic systems in pastures Location: Orion Room C2006 Chair: Dr. Lammert Kooistra</p> <p>4:00pm - 4:20pm Novel systems for pasture characterization using RGB-D cameras and UAV-imagery Victor Rueda-Ayala, José Manuel Peña, José María Bengochea Guevara, Mats Höglind, Christian Rueda-Ayala, Dionisio Andújar</p> <p>4:20pm - 4:40pm Estimating Pasture Nitrogen Content using Thermal Images Majeed Safa, Kirsty H Martin, Tom Maxwell, Birendra KC</p> <p>4:40pm - 5:00pm Challenges in modern automated Feeding Systems: Navigation Technologies Matthias Reger, Johannes Friedrich, Sascha Wörz, Jörn Stumpfenhausen, Anton Sieghart, Heinz Bernhardt</p> <p>5:00pm - 5:20pm Design of a Driving Robot for Collecting Floor Eggs Weichao Zheng, Dongxu Zhang, Changle Pang, Guanghui Teng, Chaoyuan Wang, Baoming Li</p> <p>5:20pm - 5:22pm</p>	<p>Session 15: Topic 2 New farming management systems - General Location: Orion Room C1005 Chair: Dr. Rik van der Tol</p> <p>4:00pm - 4:20pm Inspiring Students With An Introduction To Smart Dairy Farming C. {Kees} Lokhorst</p> <p>4:20pm - 4:40pm Adoption of Precision Farming by Flemish Farmers Tom Van Bogaert, Jelle Lecomte, Ruben Janssens, Ellen Maertens, Jürgen Vangeyte, Stephanie Van Weyenberg</p> <p>4:40pm - 5:00pm Connectivity of Agricultural Equipment and Applications - Strategic Approaches and Technical Standards Matthias Rothmund</p> <p>5:00pm - 5:20pm The Analysis Of Tweets In French Agriculture Using OLAP Systems Sandro Bimonte, Omar Boussaid, Jean-pierre Chanet</p> <p>5:20pm - 5:22pm The Outlook of Big Data Application in Agriculture in China Wensheng Wang, Leifeng Guo</p>	<p>Session 16: Topic 3 Co-production and implementations of technology 2 Location: Orion Room C2035 Chair: Prof. Peter (P.W.G.) Groot Koerkamp</p> <p>4:00pm - 4:20pm Adoption of automatic feeding systems in bovine livestock farms: a on-farm survey on Italian situation Carlo Bisaglia, Massimo Brambilla, Maurizio Cutini, Alberto Assirelli</p> <p>4:20pm - 4:40pm Promotion of Circular Economy in Alentejo's Agri-food Sector Vasco Manuel Fitas da Cruz, Bruno Magalhães, Cristina Ascenço, Fátima Baptista</p> <p>4:40pm - 5:00pm A Technical-Economic Analysis Of Precision Spraying In Vineyard And Apple Orchard Emanuele Tona, Aldo Calcante, Roberto Oberti</p> <p>5:00pm - 5:20pm Automation And Robotics Examples And Way of Working Of Collaboration</p>	<p>Session 17: Topic 8 Plant production technologies - Tillage and CTF Location: Orion Room C2030 Chair: Jan Kamp</p> <p>4:00pm - 4:20pm In-field Traffic Management: Logistics Optimisation Tool As A Soil Compaction Mitigation Strategy Andrés Villa-Henriksen, Nick Skou-Nielsen, Alevtina Evgrafova, Claus A. Grøn Sørensen, Ole Green, Gareth T.C. Edwards</p> <p>4:20pm - 4:40pm Controlled Traffic Farming "light" - A way to improve soil structure? Annett Latsch, Thonnat Anken</p> <p>4:40pm - 5:00pm Optimization Of The Main-Headland Zone Using Mouldboard Plough Section Control To Improve The Conditions For Crop Establishment Søren Kirkegaard-Nielsen, Lars Juhl Munkholm, Frederik Foldager, Alevtina Evgrafova, Michael Hviid Aarestrup, Martin Hviid Kristensen, Hans Christian Carstensen, Michael Nørreemark, Jesper Rasmussen, Ole</p>	<p>Session 18: Topic 5 Biogas production from novel substrates Location: Orion Room C1040 Chair: Dr. Roland W. Melse</p> <p>4:00pm - 4:20pm Unutilized Silage as a Biogas Substrate Johanna Lund, Carina Gunnarsson, Erik Fischer</p> <p>4:20pm - 4:40pm Flexible Operation Of Biogas And Biomethane Plants To Cover The Residual Load Rises Lena Peters, Sven Steinigeweg, Piotr Biernacki, Frank Uhlenhut</p> <p>4:40pm - 5:00pm GIS-Based Biogas Potential Assessment of Anambra State of Nigeria Emmanuel Chibundo Chukwuma, Victor Ndirika, Esomchukwu Igboke</p> <p>5:00pm - 5:20pm Anaerobic Co-digestion of Various Types of Agricultural Biomass Robert Spajić, Davor Kralik, Daria Jovičić, Đurđica</p>	<p>Session 19 Location: Orion Room C1032</p>

	<p>for a Ground Channel Ventilated Pig House Raphael Kubeba Tabase, Veerle Van Linden, <u>Peter Demeyer</u>, Jan Vierendeels</p> <p>4:48pm - 5:00pm Effect of Sidewall Openings on Flow Pattern and Gas Emissions of a Naturally Ventilated Dairy Barn – A Wind Tunnel Study <u>Qianying Yi</u>, Guoqiang Zhang, Marcel König, David Janke, Sabrina Hempel, Barbara Amon, Thomas Amon</p> <p>5:00pm - 5:12pm Challenges Of Predicting Ammonia Mass Transfer Coefficient In Pig Houses <u>Li Rong</u>, Andre Aarnink, Guoqiang Zhang</p> <p>5:12pm - 5:24pm Microclimate Characterisation And Ammonia Emissions Of Typical Greek Livestock Buildings <u>Thomas Bartzanas</u>, Catherine Baxevanou, Dimitris Fidaros</p>	<p>Requejo, Eva C. Correa, <u>Belén Diezma</u></p> <p>5:02pm - 5:04pm Side and belly lying posture detection in group pig based on binary images and SVM classifier <u>Abozar Nasirahmadi</u>, Oliver Hensel, Simone Müller, Phil Kirchhofer, Barbara Sturm</p> <p>5:04pm - 5:06pm Gender Distinction of Broiler Breeders by Camera <u>Dong Liu</u>, Erik Vranken, Lenn Carpentier, Alberto Peña Fernández, Bernice Lim, Tomas Norton</p>	<p>5:20pm - 5:22pm Design Of Simplified Optical Devices For The Agrofood Sector: Case Studies From Pre-Harvest To Post-Harvest <u>Roberto Beghi</u>, Valentina Giovenzana, Alessio Tugnolo, Riccardo Guidetti</p> <p>5:22pm - 5:24pm Implementation and Test of a Multi-functional Agricultural Robot based on Machine Vision in Nursery <u>Chung-Liang Chang</u>, Kuan-Ming Lin</p> <p>5:24pm - 5:26pm SPAD and hyperspectral images for sensing chlorosis affection in peach trees María Victoria Lafuente, <u>Pilar Barreiro</u>, Jean-Michel Roger, Lourdes Lleó</p>	<p>Evaluation of Pasture Productivity and Quality in the Montado Ecosystem Using Proximal Sensors <u>João Manuel Pereira Ramalho</u> Serrano, Shakib Shahidian, José Marques da Silva, Francisco Moral</p>	<p>Between Industry And Research institutes, <u>Rick van de Zedde</u>, Bram de Vrugt</p> <p>5:20pm - 5:22pm What are Driving factors and barriers of organic rice production in Iran? <u>Mohammad Sadegh Allahyari</u>, Hamid Mahdavi, Christos A. Damalas, Emily Shea Dunn</p> <p>5:22pm - 5:24pm Spatial distribution of mechanization levels in Italian greenhouses Elio Romano, <u>Massimo Brambilla</u>, Maurizio Cutini, Pietro Toscano, Felicetta Carillo, Carlo Bisaglia</p>	<p>Green</p> <p>5:00pm - 5:20pm Yield Response and Crop Damage Induced by Multipath vs. Multidrive Transport Trailers <u>Aleytina Evgrafova</u>, Søren Kirkegaard Nielsen, Mette Walter, Søren Boldsen, Mathieu Lamandé, Claes Dühring Jæger, Lars Munkholm, Ole Green</p> <p>5:20pm - 5:22pm TRACLAS: a project to improve under canopy tractor safety in case of overturning <u>Domenico Pessina</u>, Davide Facchnetti, Pierluigi Febo, Santo Orlando, Danilo Monarca, Massimo Cecchini, Simone Pascuzzi, Francesco Santoro, Maurizio Cutini, Vincenzo Laurendi</p>	<p>Kovačić</p> <p>5:20pm - 5:22pm Climate Costs of Anaerobic Treatment of Food Waste Co-digested with Animal Manure <u>John Morken</u></p>
5:30pm - 7:30pm	<p>ASABE-EurAgEng collaboration on Global Initiative for Sustainability Location: <u>Orion Room C1040</u> Chair: Dr. Claus Sørensen Chair: Prof. Lalit Verma</p>			<p>Workshop LivAGE: Ammonia and greenhouse gas emission from livestock housing Location: <u>Orion Room C1005</u> Chair: Dr. Peter Demeyer Chair: Dr. Andre Aarnink</p>			
7:30pm - 11:00pm	<p>Young Engineers Drinks & Barbecue Location: <u>Barbecue place near Forum building on Campus</u></p>						

Conference Agenda

Session Overview

Date: Tuesday, 10/Jul/2018

8:00am - 5:00pm	Registration AgEng2018 conference Tuesday Location: Orion Ground floor								
8:30am - 10:00am	<p>Session 21: Topic 7 Animal production technology - Emissions 1 Location: Orion Room C2050 Chair: Dr. Marjolein Derks</p> <p>8:30am - 8:50am Ammonia Emissions from Dairy Barns in Finland <u>Maarit Hellstedt</u>, Sari Luostarinen, Juha Gronroos, Hannu Haapala</p> <p>8:50am - 9:10am Effect Of Grazing On Ammonia Emission From Dairy Housing With Slatted Floor <u>Hendrik Jan C. Van Dooren</u>, Nico W.M. Ogink, Johan W. Van Riel, Julio Mosquera</p> <p>9:10am - 9:30am Elevated Feeding Stalls To Reduce Soiled Area In Dairy Housing: First Results From Comparable Ammonia Emission Measurements <u>Sabine Schrade</u>, Kerstin Zeyer, Joachim Mohn, Frederik Hildebrandt, Michael Zaehner</p> <p>9:30am - 9:50am A Novel Method With Improved Accuracy To Determine The Reduction Potential For</p>	<p>Session 22: Topic 7 Animal production technology - On farm technology 1 Location: Orion Room C2051 Chair: Bert Ipema</p> <p>8:30am - 8:50am Test of UHF ear tags for piglets and growing-finishing pigs on an optimized test bench. <u>Adrian Foerschner</u>, Felix Adrion, Eva Gallmann</p> <p>8:50am - 9:10am Measuring the walking distance of growing-finishing pigs with UHF-RFID <u>Felix Adrion</u>, Anita Kapun, Monika Tomalla, Matthias Reger, Eva Gallmann</p> <p>9:10am - 9:30am The Use Of Electronic Identification In Fattening Pigs Combined With Slaughterhouse Data To Improve Farm Management <u>Rudi de Mol</u>, Pieter Hogewerf, Bennie van der Fels, Jaap de Wit, Mark van den Eijnden</p> <p>9:30am - 9:50am Experimental Study on Feeding Accuracy of The Projection Type of Quantative Feeding Machine in RAS <u>Fengdeng Zhang</u></p>	<p>Session 23: Topic 4 Robotic systems in fruit orchards and vineyards: Location: Orion Room C2005 Chair: Prof. Francisco Rovira-Mas</p> <p>8:30am - 8:50am Visual Feedback for Flight Control of an Autonomous UAV Operating Within Vineyard Rows <u>Raphael Linker</u></p> <p>8:50am - 9:10am Fruit Detection Using Mobile Terrestrial Laser Scanning <u>Jordi Gené-Mola</u>, Eduard Gregorio, Javier Guevara, Fernando Auat, Alexandre Escolà, Josep-Ramon Morros, Joan R. Rosell-Polo</p> <p>9:10am - 9:30am Vibration Analysis and Canopy Adaptation of Citrus Tree for an Efficient Harvesting with Canopy Shaker Technology <u>Sergio Castro-García</u>, Rafael R. Sola-Guirado, Gregorio L. Blanco-Roldán, Antonio J. Serrano, Juan José Garcés Iniesta, Emilio Soria Olivas, Jesus A. Gil-Ribes</p> <p>9:30am - 9:50am A Study on Pick-Cycle-Times of Robotic Multi-Arm Tree Fruit Harvesters <u>Rajkishan Arikapudi</u>, <u>Stavros</u></p>	<p>Session 24: Topic 4 Robotic systems for plant observations Location: Orion Room C2006 Chair: Jan Kamp</p> <p>8:30am - 8:50am Identification of Reflected Spectral Related to Plant Circadian Rhythm Using Maximal Information Coefficient <u>Shogo Nagano</u>, Akito Sammyo, Hirokazu Fukuda</p> <p>8:50am - 9:10am Flower and Bud Detection of Gerbera L. using Faster Region-Based Convolutional Networks. <u>Jos Ruizendaal</u>, Ruud Barth, Jos Balendonck</p> <p>9:10am - 9:30am Monitoring Crop Status Using Hyperspectral Imaging <u>Gerrit Polder</u>, Anja Dieleman, Esther Meinen, Kees Weerheim</p> <p>9:30am - 9:50am Comparison Of Different Approaches In Estimating The Leaf Biomass In Romaine Lettuce By 3D Imaging <u>Emanuele Tona</u>, Aldo Calcante, Alberto Zani, Roberto Oberti</p> <p>9:50am - 9:52am A 3D low-cost photogrammetry method for weed plants modelling <u>Dionisio Andujar</u>, Mikel Calle, César Fernández-Quintanilla,</p>	<p>Session 25: Topic 1 New farming systems and concepts Location: Orion Room C1005 Chair: Prof. Thomas Banhazi</p> <p>8:30am - 8:50am Towards further refinement of Integrated Pest Management (IPM) strategies: integration of landscape of fear (LOF) <u>Inge Milou Krijger</u>, Steven R. Belmain, Grant R. Singleton, Peter W. G. Groot Koerkamp, Bastiaan G. Meerburg</p> <p>8:50am - 9:10am Predictive Systems Model Simulating The Development Of Beehives And Honeybee Population (Apis Mellifera) In Professional Apicultures <u>Jochen Georg Wiecha</u>, Sascha Wörz, Heinz Bernhardt</p> <p>9:10am - 9:30am A Methodological Framework To Incorporate Animal Capacities In A Structured Design Approach <u>Ellen Van Weeghel</u>, Bram Bos, Peter Groot Koerkamp</p> <p>9:30am - 9:50am Industrialization and Agricultural Mechanization in Africa <u>Lawrence Gumbe</u></p>	<p>Session 26: Topic 2 New farming management systems - IoF 1 Location: Orion Room C2035 Chair: Dr. Cor Verdouw</p> <p>8:30am - 8:50am Internet of Things Experiments in IoF2020 Dairy Trial <u>Kees Lokhorst</u>, Ivan Andonovic, Patrick Honcoop</p> <p>8:50am - 9:10am Herdsman: Fertility and animal welfare monitoring based on multiple on-farm data streams <u>Craig Michie</u>, Christos Tachtatziz, Ivan Andonovic, Andrew Hamilton, <u>Chris Davison</u></p> <p>9:10am - 9:30am Determining Valuable Variables To Design An Early Warning System For Individual Fattening Pigs, A Pilot Study. <u>Petra Briene</u>, Chari Vandenbussche, Cool Simon, Van De Gucht Tim, De Geest Pieterjan, Millet Sam, Vangeyete Jarissa</p> <p>9:30am - 9:50am Meat Transparency and Traceability in the IoF2020 Project with EPCIS <u>Ayalew Kassahun</u>, Georg</p>	<p>Session 27: Topic 8 Plant production technologies - Spraying 1 Location: Orion Room C2030 Chair: Dr. Ard Nieuwenhuizen</p> <p>8:30am - 8:50am Multiple Row Orchard Spraying Improves Spray Deposition And Reduces Spray Drift <u>Jan van de Zande</u>, Marcel Wenneker, Jean-Marie Michielsen, Hein Stallinga, Pleun van Velde, Pieter van Dalfsen</p> <p>8:50am - 9:10am Laser-guided Variable-rate Pesticide Spray Technology for Specialty Crop Production <u>Heping Zhu</u></p> <p>9:10am - 9:30am Adapting the PPP Spraying Machinery to the European Environmental Guidelines: Field Testing of Newly-developed Air-assisted Sprayers for Traditional Olive Canopies <u>Antonio Miranda-Fuentes</u>, Alberto Godoy-Nieto, Antonio Rodríguez-Lizana, Juan L. Gamarra-Diezma, Gregorio L. Blanco-Roldán, Emilio J. González-Sánchez, Jesús A. Gil-Ribes</p> <p>9:30am - 9:50am Fuel Consumption Analysis Of Real-World Measurements <u>Sprayer Boom</u></p>	<p>Session 28: Topic 5 Energy use and efficiency of tractors Location: Orion Room C1040 Chair: Dr. Thomas Bartzanas</p> <p>8:30am - 8:50am Tractor Driveline Efficiency Evaluation Taking into account Power Lost in Slippage. <u>Maurizio Cutini</u>, Massimo Brambilla, Carlo Bisaglia</p> <p>8:50am - 9:10am Preliminary Study On Traction Efficiency Of An Agricultural Tractor Equipped With An Extendable Ballast Holder <u>Massimiliano Varani</u>, Michele Mattetti, Giovanni Molari</p> <p>9:10am - 9:30am Agricultural Tire Energy Efficiency test method and dedicated equipment to compare and improve fuel consumption and traction of agricultural tires under real field conditions <u>Kornel Szalay</u>, Laszlo Kovacs, Gabor Bercesi, Istvan Oldal, Emmanuel Piron, Julien Charlat, Thierry Joly, Clement Poncet, Florence Tran</p> <p>9:30am - 9:50am Fuel Consumption Analysis Of Real-World Measurements <u>Sprayer Boom</u></p>	<p>Session 29: Topic 11 Nutrient management and waste treatment 1 Location: Orion Room C1032 Chair: Dr. Karin Groenestein</p> <p>8:30am - 8:50am Recycling Nutrients In A Circular Economy <u>Piet Derikx</u>, Pieter de Wolf, Oene Oenema, Krijn Poppe, Theun Vellinga, Koos Verloop, Jan Weijma, Wyno Zwanenburg</p> <p>8:50am - 9:10am The Best Application for Rice Husk toward Agricultural Sustainability <u>Mohammad Sadegh Allahyari</u>, Hadi Yaghoubi, Saeed Firouzi, Soroush Marzban</p> <p>9:10am - 9:30am Development Of An Empirical Model To Prepare Nutrient Solutions With The Use Of Controlled Release Fertilizers <u>Maria Zografou</u>, Christos Lykas</p> <p>9:30am - 9:32am Annual Legume Cover Crops Enhance The Sustainability of Rainfed Olive Orchards:</p>

	<p>Ammonia Of Innovative Dairy Cow House Floor Systems Gert-Jan Monteny</p>		<p>Vougioukas 9:50am - 9:52am Estimation of Vine Shoot Morphology and Volume Based on Computer Vision and Image Processing Barna Keresztes, Jean-Pierre Da Costa, Christian Germain</p> <p>9:52am - 9:54am Fast Method For The Weeds' Impact Evaluation On A Field Crop Using Smartphones. Elio Romano, Carlo Bisaglia, Massimo Palumbo, Nino Virzi, Fabiola Sciacca, Sergio Saia, Ivano Pecorella, Pasquale De Vita</p>	<p>Ángela Ribeiro, Jose Dorado 9:52am - 9:54am Evaluation Of The Potential For Automatic Herbicide In Wheat Crops Mihai Gidea, Catalin Mircea Constantinescu, Dragos Manea, Alexandru Ciorita, Laura Mihaela Iosub</p>	<p>Schwering, Nicolas Becker, Sabine Kläser, Tim Bartram, Ioannis Athanasiadis 9:50am - 10:10am Akkerweb, A New Platform For Use of Spatial And Temporal Data In Precision Farming. Corné Kempenaar, Thomas Been, Frits van Evert, Johan Booij, Jean-Marie Michielsen, Idse Hoving, Geert Kessel, Bert Philipsen, Henk Janssen</p>	<p>Optimization For Bed-grown Crops Henk Jan Holterman, Jan C Van de Zande, Pleun Van Velde</p>	<p>Michele Mattetti, Riccardo Molinari, Eugenio Sereni, Giovanni Molari</p>	<p>From Leaf Ionome to Tree Physiology Carlos M. Correia, Sandra Martins, Ermelinda Silva, Cátia Brito, Luís Pinto, José Moutinho-Pereira, Margarida Arrobas, Manuel Ângelo Rodrigues, Alexandre Gonçalves</p> <p>9:32am - 9:34am Determination of Ca2+ Absorption Rate of Young Rose Plants Grown in Hydroponic System Apostolos Zantzos, Maria Zografou, Christos Lykas</p> <p>9:34am - 9:36am " Influence Of Forced Aeration Rates On Maturation Of Composting Poultry Manure And Wood Shavings In Closed Reactor System" Waqas Qasim, Byeong Eun Moon, Frank Gyan Okyere, Fawad Khan, Jayanta Kumar Basak, Yong jin Lee, Hyeon Tae Kim</p>	
10:00am - 10:30am	<p>Coffee break Tuesday morning Location: Orion Restaurant</p>								
10:30am - 12:00pm	<p>Session 31: Topic 7 Animal production technology - Emissions 2 Location: Orion Room C2050 Chair: Dr. Peter Demeyer 10:30am - 10:50am Low Emission Slat Design for Swine Buildings Stéphane Godbout, Francy Alejandra Vanegas Izquierdo, Joahnn H. Palacios Rios, Matthieu Girard, Ariane Lévesque, Alain Rousseau 10:50am - 11:10am</p>	<p>Session 32: Topic 7 Animal production technology - On farm technology 2 Location: Orion Room C2051 Chair: Dr. Jan Harms 10:30am - 10:50am The Effect Of Liner Type On The Teat Load Caused By A Collapsing Liner Using A Pressure-Indicating Film Susanne Demba, Victoria Paul, Christian Ammon, Sandra Rose-Meierhöfer 10:50am - 11:10am Evaluation Of A Robotic Manure Scraper In Dairy</p>	<p>Session 33: Topic 4 Robotic systems for remote sensing in open fields Location: Orion Room C2005 Chair: Dr. Jean-Pierre Chanet 10:30am - 10:50am Robust Online Soil Roughness Measurement Using Stereo Vision Peter Riegler-Nurscher, Heinrich Prankl, Gerhard Moitzi, Helmut Wagentristl 10:50am - 11:10am Sustainable Management and Yield</p>	<p>Session 34: Topic 4 Robotic systems - Various topics Location: Orion Room C2006 Chair: Emmanuel Hugo 10:30am - 10:50am Structured Design of a Novel End-effector for a Bush Trimming Robot Bart A.J. van Tuijl, Toon P.M. Tielen, Angelo Mencarelli, Jochen Hemming 10:50am - 11:10am Vision-based Robotic Bush Trimming Evaluation Dejan Kaljaca, Angelo Mencarelli, Eldert</p>	<p>Session 35: Topic 1 New farming concepts in arable farming Location: Orion Room C1005 Chair: Prof. Pierluigi Febo 10:30am - 10:50am Sustainable Sensor-based Tillage Ole Green, Frederik Foldager, Alevtina Evgrafova, Kirkegaard-Nielsen Søren, Dalgaard Tommy, Munkholm Lars Juhl 10:50am - 11:10am Smaragd – development of an innovative</p>	<p>Session 36: Topic 2 New farming management systems - IoF 2 Location: Orion Room C2035 Chair: Dr. Sjaak Wolfert 10:30am - 10:50am IoT Architecture For Digitalization Of Silage Bale Life Cycle Management Khoa Dang, Antti Juntunen 10:50am - 11:10am Internet-based Harvest Fleet Logistic Optimisation Andrés Villa-</p>	<p>Session 37: Topic 8 Plant production technologies - Phenotyping weeds and crops Location: Orion Room C2030 Chair: Dr. Gerrit Polder 10:30am - 10:50am Automated Weed Intensity Mapping Kim Steen, Kevin Grooters, Carsten Højlund, Jesper Rasmussen, Rasmus Nyholm Jørgensen, Mads Dyrmmann, Ole Green 10:50am - 11:10am Field Performance Evaluation</p>	<p>Session 38: Topic 5 GHG emissions from milk production and slurry application Location: Orion Room C1040 Chair: Prof. Qiang Zhang 10:30am - 10:50am Title Case: Milk transport costs and carbon emissions of various triggered milk logistic chains Michael Schmid, Dr. Sascha Wörz, Prof. Dr. Heinz Bernhardt, Dr. Omar Hijazi 10:50am - 11:10am Insights In The Carbon</p>	<p>Session 39: Topic 11 Nutrient management and waste treatment 2 Location: Orion Room C1032 Chair: Dr. Adam Dubowzki 10:30am - 10:50am The Spreadwise System For Predicting Spread Patterns Of Centrifugal Fertilizer Spreaders Simon Cool, Jan G. Pieters, Koen C. Mertens, David Nuytens, Tim Van De Gucht, Jürgen Vangeyte</p>

	<p>Survey Of Air Scrubber Performance At Pig Farms In Practice: Odour And Ammonia Removal Still A Challenge <u>Roland W. Melse</u>, Guus M. Nijeboer, Nico W.M. Ogink</p> <p>11:10am - 11:30am</p> <p>Performance of a New Two-stage Chemical Air Cleaner for Livestock Pit Ventilation Air <u>Anders Peter Stubkjær</u>, <u>Adamsen</u>, Simon Wilhelm Yde Granath, Michael Jørgen Hansen, Anders Leegaard Riis</p> <p>11:30am - 11:50am</p> <p>Emission of nitrous acid (HNO₂) and other nitrogen (N) compounds from biotrickling filters treating exhaust air of pig houses <u>Roland W. Melse</u>, Johan P.M. Ploegaert</p> <p>11:50am - 11:52am</p> <p>Ammonia Emission From a Fattening Pig House With Partly Slatted Floor During Warm Thermal Conditions <u>Knut-Håkan Jeppsson</u>, Anne-Charlotte Olsson</p>	<p>Production By Means Of Ethological And Technical Parameters <u>Theresa Leinweber</u>, Sabine Schrade, Eva Gallmann, Michael Zähler</p> <p>11:10am - 11:30am</p> <p>Development Of A Test Stand For The Testing Of Alternative Manure Removal Methods In Slurry Channels <u>Bastian Kolb</u>, Eva Gallmann</p> <p>11:30am - 11:50am</p> <p>Evaluation of novel farrowing systems with possibility for the sow to move – Effects on working time requirement <u>Franz Handler</u>, Emil Blumauer, Birgit Heidinger</p> <p>11:50am - 11:52am</p> <p>Continuous electronic behaviour monitoring of growing-finishing pigs with UHF-RFID <u>Anita Kapun</u>, Felix Adrion, Eva Gallmann</p> <p>11:52am - 11:54am</p> <p>On farm on-line Somatic Cell Count measurements <u>Pieter Hogewerf</u>, Marleen Purmer, Bert Ipema</p>	<p>Monitoring of an Annual Mixture Forage <u>Luis Alcino Conceição</u>, José Rafael da Silva, Rute Santos, Noémia Farinha, Benvindo Maças</p> <p>11:10am - 11:30am</p> <p>Smart Irrigation System for the Sustainable Watering of Urban Lawns José Marin, Sandra Sendra, Lorena Parra, Jaime Lloret, <u>Pedro Vicente Mauri</u>, Alberto Masaguer</p> <p>11:30am - 11:32am</p> <p>Weed and Maize Classification in Early Growth Stages Based on Near-infrared Snapshot Hyperspectral Imagery <u>Junfeng Gao</u>, David Nuytens, Peter Lootens, Yong He, Jan.G Pieters</p> <p>11:32am - 11:34am</p> <p>Towards Automated Field Detection Of Alternaria Solani Using Hyperspectral Imaging <u>Ruben Van De Vijver</u>, Koen Mertens, Kurt Heungens, Ben Somers, David Nuytens, Tom De Swaef, Isabel Roldán-Ruiz, Irene Borra-Serrano, Peter Lootens, Jürgen Vangeyte, Wouter Saeys</p> <p>11:34am - 11:36am</p> <p>Nondestructive Measurement of Soybean Vigor using Short Wave Infrared Spectral Imaging Analysis Insuck Baek, Dewi Kusumaningrum, <u>Byoung-Kwan Cho</u></p>	<p>J. van Henten, Jochen Hemming, Toon P.M. Tielen</p> <p>11:10am - 11:30am</p> <p>Robotti – A Generic Arable Automated Tool Carrier Claes Dühring Jæger, Martin Boel, Jakob Pilegaard Juul, Ole Green, <u>Frederik Foldager</u></p> <p>11:30am - 11:50am</p> <p>Development of an Agricultural Autonomous Platform <u>Pieter-Jan Note</u></p> <p>11:50am - 11:52am</p> <p>On-the-track of Soil-borne Pathogens Using Electronic Noses <u>João Valente</u>, Harold J.G. Meijer, Qijun Jiang, Lammert Kooistra, Gert H.J. Kema</p> <p>11:52am - 11:54am</p> <p>Potential of a LiDAR-based automated system to reconstruct vineyard crops Hugo Moreno, Constantino Valero, Miguel Garrido, Bengochea-Guevara Jose M, <u>Dionisio Andujar</u></p>	<p>farming system in the Netherlands <u>Jan A.L.M. Kamp</u>, H. Schoorlemmer</p> <p>11:10am - 11:30am</p> <p>Explaining the Reflexive Interactive Design (RIO) Method using Intercropping as an Example <u>Marjolein Derks</u>, Peter Groot Koerkamp, Bram Bos</p> <p>11:30am - 11:50am</p> <p>Assessment of the Vegetation Parameters of Almond and Vine Plants for Designing a Compact Tractor Pietro Catania, <u>Antonio Comparetti</u>, Pierluigi Febo, Giuseppe Morello, Santo Orlando, Mariangela Vallone</p> <p>11:52am - 11:54am</p> <p>Design and Implementation of a Platform Based on IoT-cloud and Image Processing for Hydroponics Applications <u>Chung-Liang Chang</u>, Jun-Yong Tian, Wei-Lun Fu</p>	<p>Henriksen, Nick Skou-Nielsen, Claus A. Grøn Sørensen, Ole Green, Gareth T.C. Edwards</p> <p>11:10am - 11:30am</p> <p>Fruit 4.0: Towards data-driven fruit production <u>Cor Verdouw</u>, Nico Bondt, Jan Willem Kruize, Peter Frans de Jong, Jan van de Zande</p> <p>11:30am - 11:50am</p> <p>Systems of IoT systems for smart food and farming <u>Cor Verdouw</u>, Jeroen van Grondelle, Robbert Robbemond, Sjaak Wolfert</p> <p>11:50am - 11:52am</p> <p>Farms, Fogs and Clouds: Data open-architecture for optimal crop growth control for IoF2020 project Francisco Rodriguez Diaz, Manuel Berenguel Soria, Jorge Antonio <u>Sanchez Molina</u>, Manuel Muñoz Rodríguez, Cynthia Giagnocavo</p> <p>11:52am - 11:54am</p>	<p>Method for a Machine Vision Based Intra Row Hoeing Machine <u>Jochen Hemming</u>, Hermen de Jong, Lauwrens Struik, Jasper van Meer, Eldert J. van Henten</p> <p>11:10am - 11:30am</p> <p>Classification of Herbicide Resistant Papaver rhoeas L. and Stellaria media L. Using Spectral Data Robin Mink, Alexander I. Linn, Roland Gerhards, <u>Gerassimos Georgiou Peteinatos</u></p> <p>11:30am - 11:50am</p> <p>Semantic Segmentation of Clover-Grass Images using Images from Commercially Available Drones <u>Dennis Larsen</u>, Kim Arild Steen, Søren Skovsen, Kevin Grooters, Jørgen Eriksen, Rasmus Nyholm Jørgensen, Mads Dyrmann, Ole Green</p> <p>11:50am - 11:52am</p> <p>Development And Assessment Of A True Colour Sensor Array For Real Time Differentiation Between Crop-And Weed Plants. <u>Elisa Maria Schopphoven</u>, Oliver Schmittmann, Peter Schulze Lammers</p>	<p>Footprint Of Raw Milk From 12000 Individual Dutch Dairy Farms <u>Jeroen Hospers</u>, Sanne Dekker, Theun Vellinga, Rogier Schulte</p> <p>11:10am - 11:30am</p> <p>Title case: Economic comparison and carbon emissions of payload optimized milk logistic chains Michael Schmid, Dr. Sascha Wörz, <u>Prof. Dr. Heinz Bernhardt</u></p> <p>11:30am - 11:50am</p> <p>Technology For Efficient Application Of Liquid Manure: A Comprehensive Modelling Approach On Greenhouse Gas Emissions <u>Bianca Zerhusen</u>, Fabian Lichti, Stefan Nesper</p> <p>11:30am - 11:50am</p> <p>Increasing the Fertility of Marginal Soils by the Utilization of Waste Organic Matter <u>Wiesław Szulc</u>, Beata Rutkowska</p> <p>11:34am - 11:36am</p> <p>GO EFLUENTES – A New Approach for Animal Waste Management in Portugal <u>Vasco Manuel Fitas da Cruz</u>, Olga Conde Moreira, Elizabeth Duarte, Henrique Trindade</p>	<p>10:50am - 11:10am</p> <p>Slurry application efficiency evaluation <u>Christian Toft Madsen</u>, Nick Skou-Nielsen, Thorkild Qvist Frandsen, Claus Grøn Sørensen, Gareth T.C. Edwards, Ole Green</p> <p>11:10am - 11:30am</p> <p>Fertigation Equipment and Control Techniques: A Review Stefan Vidal, Tatiana Pinho, José Boaventura-Cunha, <u>Josenalde Oliveira</u>, Paulo Moura Oliveira</p> <p>11:30am - 11:32am</p> <p>Effects of Crop Rotation and Fertilization on Soil Fertility and Plant Nutrition <u>Beata Rutkowska</u>, Wojciech Stępień, Wiesław Szulc, Jan Łabętowicz</p>
12:00pm - 1:30pm	Lunch Tuesday Location: Orion Restaurant								
12:15pm - 1:15pm	Campus Tour 11: Agro-food robotics 1 - Horticulture	Campus Tour 12: Agro-food robotics 2 - Open field	Campus Tour 13: Carus - Research facility animal sciences	Campus Tour 14: AlgaePARC - Pilot facility algae research	Campus Tour 15	Campus Tour 16	Campus Tour 17	<p>EurAgEng General assembly - Open meeting (for all attendees) Location: Orion Room C1032 & C2035 Chair: David Tinker</p>	

								Chair: Dr. Claus Sørensen EurAgEng Recognition Awards <u>David Tinker</u>	
1:30pm - 3:00pm	Session 41: ENGAGE Engineering future food – The position of agricultural engineering Location: <u>Orion Room C1005</u> Chair: Dr. Reiner Brunsch		Session 42: Agricultural engineering – The role of education Location: <u>Orion Room C1040</u> Chair: Prof. Pierluigi Febo 1:30pm - 1:50pm Innovative Education Towards Sustainable Food Systems: Preliminary Results From Spain Teresa Briz, <u>Francisco Ayuga</u> , Ana I. García, Dominika Srednicka-Tober, Ewa Rembialkowska 1:50pm - 2:10pm Harmonisation of Higher Education in Agricultural/Biosystems Engineering <u>Antonio Comparetti</u> , Pierluigi Febo 2:10pm - 2:30pm The BSc and MSc study Programme Biosystems Engineering at Wageningen University <u>Wilko van Loon</u>		Session 43: Publication workshop by Elsevier / Journal of Biosystems Engineering Location: <u>Orion Room C1032</u> Chair: Dr. Bill Day Chair: Dr. Steve Parkin				
3:00pm - 4:00pm	Coffee break and poster session Tuesday afternoon Location: <u>Orion Restaurant</u>								
4:00pm - 5:30pm	Session 51: Topic 7 VERA workshop - Harmonisation of livestock emission measurements in EU Location: <u>Orion Room C2050</u> Chair: Iris Beckert	Session 52: Topic 9 Greenhouse production technology - Various topics Location: <u>Orion Room C2051</u> Chair: Dr. Thomas Bartzanas 4:00pm - 4:20pm Wind Pressures on Arched Roof Greenhouses Anastasios Giannoulis, Demetres Briassoulis, <u>Antonis Mistriotis</u> 4:20pm - 4:40pm Rule-based Versus Model-based Control of the Greenhouse Environment <u>Ido Seginer</u> , Peter J.M. van Beveren, Gerrit van Straten 4:40pm - 5:00pm Analysis of Greenhouse Cover Properties for Optimal Net Financial Result <u>Yuexiang Chen</u> , Bert van 't Ooster, Eldert van Henten 5:00pm - 5:20pm Disease Detection and Rate of Spread in Solanum Lycopersicum Leaves Under Variable Bioenvironmental Conditions Using Image Processing Technique <u>Frank Gyan Okyere</u> , Hyeon Tae Kim, ByeongEun	Session 53: Topic 4 Robotic systems using satellites for yield monitoring Location: <u>Orion Room C2005</u> Chair: Prof. Gilbert Grenier 4:00pm - 4:20pm Assessing the Spatio-Temporal Alfalfa yield variability Using Landsat-8 and Yield Monitor Data at field scale <u>Ahmed Kayad</u> , Khalid Al-Gaadi, ElKamil Tola, Rangaswamy Madugundu, Marco Sozzi, Francesco Marinello 4:20pm - 4:40pm Benchmark Of Satellites Image Service For Precision Agricultural Use <u>Marco Sozzi</u> , Francesco Marinello, Andrea Pezzuolo, Luigi Sartori 4:40pm - 5:00pm Current potentials and challenges using Sentinel-1 for broadacre field remote sensing Martin Peter Christiansen, Morten Stigaard Laursen, Birgitte Feld Mikkelsen, Rasmus Nyholm Jørgensen, <u>Nima Teimouri</u> , Claus Aage Grøn Sørensen	Session 54: Topic 10 Post harvest storage conditions Location: <u>Orion Room C2006</u> Chair: Prof. Wolfgang Büscher 4:00pm - 4:20pm Design Of An Innovative Plant For Fast Freezing Of Potato Dumplings <u>Alessandro Biglia</u> , Lorenzo Comba, Paolo Barge, Enrico Fabrizio, Davide Ricauada, Aimonino, Cristina Tortia, Paolo Gay 4:20pm - 4:40pm Influence Of Physical And Chemicals Characteristics From Pumpkin For Its Mechanized Processing <u>Erich Dietmar Rössel-Kipping</u> , Hipolito Ortiz-Laurel, Alejandro Amante-Orozco, Hector Martin Duran-Garcia, L Araceli Lopez-Martinez 4:40pm - 5:00pm Effect of Accelerated Storage Conditions on Pearl Millet Based Fried Snack Pramod Kumar Omre, <u>Ajita Tiwari</u> 5:00pm - 5:20pm Wall Pressures On Oblique Hoppers Of Steel Silos	Session 55: Topic 1 Challenges for future livestock systems Location: <u>Orion Room C1005</u> Chair: Prof. Peter Koerkamp 4:00pm - 4:20pm A Model to Assess Environmental Efficiency of Pig Production Systems Luis Lassaletta, <u>Fernando Estellés</u> , Arthur Beusen, Lex Bowman, Salvador Calvet, Hans van Grinsven, Jonathan Doelman, Elke Stehfest, Aimable Uwizeye, Henk Westhoeff 4:20pm - 4:40pm Monitoring Framework for the Assessment of the Integral Sustainability of Livestock Production <u>Abraham Paulus Bos</u> , Daniel Puente Rodriguez, Peter W.G. Groot Koerkamp 4:40pm - 5:00pm Interactive System Analysis Of Livestock Production In The Galápagos Islands: Co-designing Through Knowledge-Practice Interfaces	Session 56: Topic 2 New farming management systems - Precision farming 1 Location: <u>Orion Room C2035</u> Chair: Prof. Peter Schulze Lammers 4:00pm - 4:20pm Enhanced Vineyard Descriptors Combining UAV 2D and 3D Models <u>Lorenzo Comba</u> , Alessandro Biglia, Davide Ricauada, Aimonino, Paolo Barge, Cristina Tortia, Paolo Gay 4:20pm - 4:40pm A Territorial Services Platform for the Sustainable Precision Agriculture Applied to the Viticulture and Olive Growing Companies. <u>Daniele Sarri</u> , Marco Vieri, Marco Rimediotti, Marco Antoni, Sara Gallucci 4:40pm - 5:00pm Low Cost integral system for irrigation remote management based on a communication nodes network with sensors, weighing lysimetry and supervision of the vegetative state for	Session 57: Topic 8 Plant production technologies - Phenotyping pests and crops Location: <u>Orion Room C2030</u> Chair: Dr. Gert Kootstra 4:00pm - 4:20pm In-field Potato Diseases Detection <u>Kim Arild Steen</u> , Stéphane Delebassé, Kevin Grooters, Carsten Høilund, Mads Dyrmann, Søren Skovsen, Rasmus Nyholm Jørgensen, Ole Green 4:20pm - 4:40pm Automatic Monitoring of Insects in Oil Seed Crops <u>Anders Jonsson</u> , Fredrik Winquist 4:40pm - 5:00pm Effects of Drone Based Spatial and Temporal Distribution of Fertiliser in Grassland: Experiment Grass4Farming <u>Kees Lokhorst</u> , Jouke Oenema, Koos Verloop, Idse Hoving, Tamara Wind 5:00pm - 5:20pm Towards A More Sustainable Way Of Nitrogen Management In Potatoes <u>Johan Booij</u> , Frits van Evert,	Session 58: Topic 5 Energy use and ghg emissions from various systems Location: <u>Orion Room C1040</u> Chair: Jan Kamp 4:00pm - 4:20pm Sustainability Issues Related to Woody Biomass Supply From Fruit Tree Plantation Removal Alberto Assirelli, <u>Massimo Brambilla</u> , Giancarlo Rocuzzo, Carlo Bisaglia 4:20pm - 4:40pm Improvement of the carbon balance of irrigated arable crops by applying BMPs in Mediterranean conditions Francisco Márquez-García, <u>Jesus A. Gil-Ribes</u> , Emilio J. González-Sánchez, Gregorio L. Blanco-Roldán 4:40pm - 5:00pm Energy Balance and Economical indices in Small-scale Scallion Production System <u>Fatemeh Nadi</u> , Sami Ghnimi 5:00pm - 5:02pm Assessing Water Supply Sources Using	Session 59: Topic 6 Soil, land and water engineering - Soil 1 Location: <u>Orion Room C1032</u> Chair: Elisa Maria Schopphoven 4:00pm - 4:20pm Differential Interferometry as a Tool for Localized Study of Runoff Erosion <u>Francisco A. Sánchez-Crespo</u> , Eutiquio Gallego, José M. Fuentes, Francisco Ayuga, Ana I. García 4:20pm - 4:40pm Impacts of Artificial and Natural soil Conditioners on Water holding capacity and Hydraulic Conductivity of Sandy soils <u>Faisal Ibrahim Zeineldin</u> , Khalid Biro1 Turk, Mohammed Refdan Al-Hajhoj 4:40pm - 5:00pm Development Of A New Subsoil Management Concept For Combined Deep Loosening And Incorporation

<p>Moon, Waqas Qasim, Fawad Khan</p> <p>5:20pm - 5:40pm</p> <p>The Role of Crop Properties in Energy Efficient Greenhouse Design</p> <p><u>David Katzin</u>, Simon van Mourik, Eldert J van Henten</p> <p>5:40pm - 5:42pm</p> <p>Effect of Bench Heating on Growing Medium Temperature and Heat Loss From a Greenhouse in Wintertime</p> <p><u>Massimo Brambilla</u>, Elio Romano, Maurizio Cutini, Marco Fedrizzi, Mauro Pagano, Gianluca Burchi, Sonia Cacini, Daniele Massa, Chiara Terrosi, Carlo Bisaglia</p> <p>5:42pm - 5:44pm</p> <p>"Effect of Dimethyl ether (DME) Combustion on Lettuce and Chinese cabbage Growth in Greenhouse"</p> <p><u>Waqas Qasim</u>, Jayanta Kumar Basak, Frank Gyan Okyere, Fawad Khan, Yong Jin Lee, Hyeon Tae Kim</p> <p>5:44pm - 5:46pm</p> <p>Estimation the Strength of Biodegradable Organic Pots During Process of Growing Plants in Control Greenhouse</p> <p><u>YongJin Lee</u>, Waqas Qasim, Frank Gyan Okyere, Hyeon Tae Kim</p> <p>5:46pm - 5:48pm</p> <p>Sensitivity Analysis of a Modified Equation for Greenhouse Energy Demand Assessment.</p> <p><u>Massimo Brambilla</u>, Elio Romano, Maurizio Cutini, Marco Fedrizzi, Mauro Pagano, Gianluca Burchi, Sonia Cacini, Daniele Massa, Chiara Terrosi, Carlo Bisaglia</p> <p>5:48pm - 5:50pm</p>	<p>Eutiquio Gallego Vázquez, Adam Sadowski, Jose Maria Fuentes, Francisco Ayuga</p> <p>5:22pm - 5:24pm</p> <p>Maximization of whey processing in drying units with spare capacity: Brazilian dairy cluster case study</p> <p>Walciney Oliveira, Rodolfo Garcia-Flores, <u>Amauri Rosenthal</u>, Andre Dutra, Renata Tonon, Pablo Juliano</p> <p>5:24pm - 5:26pm</p> <p>Mandarin Mold Inactivation of Storage at Ambient Temperature by Non-thermal Plasma Treatment</p> <p><u>Youngwook Seo</u>, Hoeman Park, Jong Ryul Park</p> <p>5:26pm - 5:28pm</p> <p>Monitoring Watercress Shelf-life with VNIR Hyperspectral Image through Packaging Film</p> <p>Miguel Ángel Lara, Lourdes Lleó, Jean Michel Roger, <u>Belén Diezma</u></p>	<p><u>Daniel Puente Rodríguez</u>, Bram Bos, Peter Groot Koerkamp</p> <p>5:00pm - 5:30pm</p> <p>Dairy farming in the future - vision by Lely</p> <p><u>Arjen van der Kamp</u></p>	<p>horticultural crops</p> <p><u>Antonio Ruiz-Canales</u>, José Miguel Molina-Martinez, Martin John Oates, Juan José Pérez-Solano, Amparo Melián Navarro, Jesús Chazarra Zapata, Francisco López Peñalver, José Manuel González Esquivia</p> <p>5:00pm - 5:02pm</p> <p>Application of Precision Viticulture for Thematic Maps Production</p> <p><u>Pietro Catania</u>, Mariangela Vallone</p> <p>5:02pm - 5:04pm</p> <p>Analysis of Vine Vibration Conditions and Grape Harvest Quality in Spain under Actual Mechanized Harvest Conditions</p> <p><u>Wilson Da Costa</u>, <u>Pilar Barreiro</u>, Belén Diezma</p> <p>5:04pm - 5:06pm</p> <p>Development Of A Sensing Platform For Agricultural Water Management</p> <p><u>Min-Sheng Hung</u>, Bo-Chang Tseng, Ruo-Yin Wu</p>	<p>Willem van Geel, Brigitte Kroonen-Backbier, Corné Kempenaar, Thomas Been</p> <p>5:20pm - 5:22pm</p> <p>Automatic Monitoring of Slugs in Winter Crops</p> <p><u>Ulf Axelson</u>, Tomas Johansson, <u>Anders Jonsson</u></p> <p>5:22pm - 5:24pm</p> <p>Preliminary data of the associated crop in the growth of Ulmus pumila with different plant coverings.</p> <p>Maria de la Cruz Amorós, Inés Bautista, Antonio Plaza, <u>Pedro Vicente Mauri</u></p> <p>5:24pm - 5:26pm</p> <p>Control Effect of Drone in Rice Sheath Blight Disease</p> <p><u>Jin-Woo Nam</u>, Seong-Tae Lee, Deok-Gyeong Seong, Young-Gwang Kim, Young-Joi Cho, Kwang-Pyo Hong</p>	<p>Life Cycle Assessment: Study Case of Lemon Crop in Southeastern Spain</p> <p><u>Bernardo Martin-Gorri</u>, Jose Francisco Maestre-Valero, Victoriano Martinez-Alvarez</p> <p>5:02pm - 5:04pm</p> <p>Modeling the Impact of Carbon Dioxide Emissions on Global Warming</p> <p><u>Amirhossein Ghadir</u>, Soroush Marzban</p>	<p>Of Organic Material</p> <p><u>Inga Jakobs</u>, Oliver Schmittmann, Peter Schulze Lammers</p> <p>5:00pm - 5:02pm</p> <p>Evaluation of compaction in no-till vertisol field using methods of cone index and pedotransfer function - case of a Moroccan semi-arid context</p> <p>Yassine Al masmoudi, <u>Abdellah El Aissaoui</u>, Khalid Ibno Namr</p> <p>5:02pm - 5:04pm</p> <p>Novel In Situ System For Monitoring Soil Organic Carbon By Using Mobile Vis-Nir Spectroscopy And Machine Learning Techniques</p> <p><u>Nikolaos Tziolas</u>, Nikolaos Tsakiridis, Eyal Ben-Dor, Eleni Kalopesa, George Galanis, George Zalidis</p> <p>5:04pm - 5:06pm</p> <p>Development of New Version of the Spiked Shear Vane for Measuring of the Peatland Top Roots Layer Strength</p> <p><u>Adam Piotr Dubowski</u>, Krzysztof Zembrowski</p> <p>5:06pm - 5:08pm</p> <p>Analysis Of Tillage Operations With Variable Working Machine Parameters Using a Compact Disc Harrow</p> <p><u>Frank Gyan Okyere</u>, : Hyeon Tae Kim, ByeongEun Moon, Waqas Qasim, Min Ho Lee, Jae Min Jo</p>
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	<p>Fuzzy Logic Based Simulation For Balancing Environment Variables in Greenhouses <u>Nuri Caglayan</u></p> <hr/> <p>5:50pm - 5:52pm Effects of Infrared Radiation on Growth Parameters and Physiological Characteristics of Eggplant Cultivation <u>Angeliki Kavga, Vasileia Sinanoglou, Panagiotis Zoumpoulakis, Vasileios Kappatos</u></p> <hr/> <p>5:52pm - 5:54pm Selecting Significant Wavelengths To Predict Chlorophyll Content For Paprika Seedlings Leaves <u>Yong Hyeon Kim, Sung Hyuk Jang</u></p> <hr/> <p>5:54pm - 5:56pm Environmental Assessment of a Close Hydroponic Greenhouse system <u>Anna Vatsanidou, Thomas Bartzanas, Nikos Katsoulas</u></p>						
5:00pm - 6:00pm	<p>CIGR Working group II Structures and environment Location: Orion Room C1005 Chair: Prof. Tomas Norton</p>	<p>EurAgEng Innovators Session Location: Orion Room C1032 Chair: David Tinker</p> <p>Demonstration of the Smart Farming Platform <u>David Tinker</u></p>	<p>EurAgEng Working Group Rural Buildings and Landscape Location: Orion Room C1040 Chair: Prof. Patrizia Tassinari</p>				
7:00pm - 8:00pm	<p>Welcome reception and award ceremony Location: Town Hall City of Wageningen (Markt 22, Wageningen)</p> <p>Welcome speech by the Major of the city of Wageningen <u>G.J.M. van Rumund</u></p> <hr/> <p>EurAgEng Innovation and Development Award <u>Claus Sørensen</u></p> <hr/> <p>Young Engineers Best Paper Award <u>Claus Sørensen</u></p>						
8:00pm - 11:00pm	<p>Conference dinner Location: Grote Kerk ('Big Church') (Markt 1, Wageningen)</p>						

Conference Agenda

Session Overview

Date: Wednesday, 11/Jul/2018

8:00am - 5:00pm	Registration AgEng2018 conference Wednesday Location: Orion Ground floor								
8:30am - 10:00am	<p>Session 61: Topic 7 Animal production technology - Emissions 3 Location: Orion Room C2050 Chair: Dr. Nico Ogink</p> <p>8:30am - 8:50am Environmental Footprint Of Fattening Pigs: Do Including Agro-industrial By-products In Feed Mitigate Emissions? Guillermo Pardo, Salvador Calvet, Carlos de Blas, Agustín del Prado, <u>Fernando Estellés</u></p> <p>8:50am - 9:10am Potential for Predicting Ammonia Emissions from Naturally Ventilated Dairy Houses based on Indirect Parameters <u>Pernille Lund Kasper</u>, Peter Kai, Anders Feilberg</p> <p>9:10am - 9:30am Ammonia Emission Assessment After Buffalo Manure And Digestate Application <u>Ester Scotto di Perta</u>, Yann Collas, Nunzio Fiorentino, Elena Cervelli, Salvatore Faugno, Stefania Pindozi</p> <p>9:30am -</p>	<p>Session 62: Topic 7 Animal production technology - Climate control 1 Location: Orion Room C2051 Chair: Prof. Sandra Rose-Meierhöfer</p> <p>8:30am - 8:50am Monitoring environmental quality on commercial pig farms in Europe <u>Thomas Banhazi</u>, Annamaria Banhazi</p> <p>8:50am - 9:10am Long Term Investigations to Compare Different Renewable Energy Sources for Heating and Cooling Pig Houses <u>Wolfgang Büscher</u>, Manuel Krommweh, Hannah Licharz, Christian Maack</p> <p>9:10am - 9:30am Optimal ambient Temperature with regard to Feed Efficiency and Daily Gain of finisher pigs Rikke Koch Hansen, <u>Bjarne Bjerg</u></p> <p>9:30am - 9:50am Animal Welfare Indicators in Growing and Fattening Pigs with Different Environmental</p>	<p>Session 63: Topic 4 Robotic systems for orchards and vineyards Location: Orion Room C2005 Chair: Dr. Jochen Hemming</p> <p>8:30am - 8:50am Comparison Between Ultrasonic Sensors And 2D LIDAR As Perception Systems For Autonomous Vineyard Robots Andrés Cuenca, <u>Francisco Rovira-Más</u>, Verónica Saiz-Rubio</p> <p>8:50am - 9:10am Non-destructive Firmness Assessment of Avocado Fruit Using a Pneumatic Low Impact Device <u>Coral Ortiz</u>, Carlos Blanes, Martin Mellado</p> <p>9:10am - 9:30am Comparison Between Different Spatial Resolution Satellites Images For Viticulture <u>Marco Sozzi</u>, Ahmed Galal Kayad, Andrea Pezzuolo, Luigi Sartori, Marco Dubbini, Francesco Marinello</p> <p>9:30am - 9:50am Data Management System for New Harvesting Technologies Applied to High Density Olive Orchards Jose T. Colmenero-Martinez, Francisco J.</p>	<p>Session 64: Topic 10 Post harvest technology and simulations Location: Orion Room C2006 Chair: Prof. Pilar Barreiro</p> <p>8:30am - 8:50am Wireless Sensor System for Real-Time Measurement of Respiration Rate of Fresh Produce <u>Nandita Keshri</u>, Ingo Truppel, Christian Regen, Cornelia Weitzien, Pramod Mahajan</p> <p>8:50am - 9:10am A CFD-Simulation Approach for the Identification of Indoor Airflow Patterns in a Wine Cellar Enrica Santolini, Alberto Barbaresi, Beatrice Pulvirenti, Daniele Torreggiani, Patrizia Tassinari, <u>Stefano Benni</u></p> <p>9:10am - 9:30am A New Method to Calibrate Discrete Element Models of Fibrous Agricultural Materials <u>Adam Kovacs</u>, Gyorgy Kerenyi</p> <p>9:30am - 9:32am Application of the Inert Pressing Process for White Wines <u>Mariangela Vallone</u>, Pietro Catania</p> <p>9:32am - 9:34am Development of a Machine for the Production of Liquid Wine Yeast to Induce Grape Juice Fermentations <u>Lorenzo Guerrini</u>, Alessandro Parenti, Giulia Angeloni, Piernicola Masella, Damiano Barbato, Eleonora Mari, Yuri Romboli, Giacomo</p>	<p>Session 65 Location: Orion Room C1005</p>	<p>Session 66: Topic 2 New farming management systems - Precision farming 2 Location: Orion Room C2035 Chair: Prof. Kees Lokhorst</p> <p>8:30am - 8:50am Application of Drone-Based Maps in Planning Farm Operations for Sward Management in Silage Production <u>Jussi Nikander</u>, Markku Koistinen, Mikko Laajalahti, Oiva Niemeläinen, Jere Kaivosoja</p> <p>8:50am - 9:10am Design and Performance of an Unmanned Aerial System for Precision Pest Management <u>Jorge Martinez-Guanter</u>, Pablo Agüera, Juan Agüera, Manuel Perez-Ruiz</p> <p>9:10am - 9:30am CasNet – A Decision Support System for Yield Prediction of Cassava to Develop Inventory Planning Model in Indonesia <u>Riska Ayu Purnamasari</u>, Tofael Ahamed, Ryozyo Noguchi</p> <p>9:30am - 9:50am Animal Welfare Adjustment Real Time Environmental Condition of Housing (AWARTECH Project) - Living Lab Setup</p>	<p>Session 67: Topic 8 Plant production technology - Phenotyping orchard crops Location: Orion Room C2030 Chair: Dr. Kornél Szalay</p> <p>8:30am - 8:50am Canopy characterization of 65 French orchards by using a terrestrial Lidar: a data review. <u>Xiuyun Xue</u>, Yoan Hudebine, Jean-Paul Douzals, Florence Verpont</p> <p>8:50am - 9:10am Hyperspectral Remote Sensing Applications In Raspberry Plantation <u>Boglarka Keller</u>, Laszlo Kovacs, Renata Rak, Andras Jung, Fanni Sillinger, Nora Peterfalvi, Kornel Szalay</p> <p>9:10am - 9:30am Measuring Apple Blossom, Fruit And Tree Development For Improved Plant Protection And Orchard Management <u>Dirk Cornelis de Hoog</u>, Many Afonso, Pieter van Dalen, Peter Frans de Jong, Jean-Marie Michielsen, Jan van de Zande</p> <p>9:30am - 9:50am Analysis of different mechanical pruning strategies on the production of Clemenules mandarin and its costs</p>	<p>Session 68 Location: Orion Room C1040</p>	<p>Session 69: Topic 6 Soil, land and water engineering - Water 2 Location: Orion Room C1032 Chair: Maarten Vrolijk</p> <p>8:30am - 8:50am Artificial Ground Water Recharge Planning in Bijnor District Using Remote Sensing and G.I.S. <u>Harish Chandra Sharma</u></p> <p>8:50am - 9:10am Alternative Underdrain Designs for Reducing Pressure Drop across Sand Media Filters Toni Pujol, <u>Gerard Arbat</u>, Josep Bové, Jaume Puig-Bargués, Miquel Duran-Ros, Francisco Ramirez de Cartagena</p> <p>9:10am - 9:30am Coupling Water Saving Technologies and Wireless Sensor Network-based Information System for Efficient Irrigation Management Under Upland and Lowland Crop Production Systems <u>Victor Ella</u>, Steven Glaser, Carlos Oroza</p> <p>9:30am - 9:32am</p>

	<p>9:32am A Simple Model to Predict Ammonia emission From Livestock Pens <u>Anders Peter Stubkjær Adamsen</u></p>	<p>Conditions Vasco Fitas da Cruz, Rui Charneca, <u>Teresa Morgado</u>, Catarina Martins</p>	<p>Castillo-Ruiz, Sergio Bayano-Tejero, Gregorio L. Blanco-Roldán, Francisco Jiménez-Jiménez, Rafael R. Sola-Guirado, <u>Sergio Castro-Garcia</u>, Jesús A. Gil-Ribes</p>	<p>Buscioni, Silvia Mangani, Simona Guerrini, Lisa Granchi</p> <p>9:34am - 9:36am Microencapsulated Functional Lipids by Association of Pomegranate Seed and Soybean Oils <u>Nina Katia da Silva James</u>, Regina Isabel Nogueira, Luzimar Silva Mattos Nascimento, Suely Pereira Freitas</p>		<p>Vasco Manuel Fitas da Cruz, Fátima Baptista, <u>José Carlos Rico</u>, David Botas</p>	<p><u>Guillermo Mateu Navarrete</u>, Antonio Torregrosa Mira, Patricia Chueca Adell</p> <p>9:50am - 10:10am 'Clemenrubi' Mandarin Size Development After Manual And Mechanical Thinning <u>Antonio Torregrosa</u>, Enrique Orti, Emilio Soria, Sebastia Balasch, Coral Ortiz</p> <p>10:10am - 10:12am Mechanical Pruning of Lemon Trees <u>Bernardo Martin-Gorriz</u>, Antonio Torregrosa, Carlos Martinez Barba</p>	<p>Effect of Irrigation Systems and Water Quantities on Corn Production under Partial Rootzone Drying Conditions <u>Abdellateif Abdelwahab Samak</u>, Mohamed Nabih Omar, Mahmoud Hassan Keshek</p> <p>9:32am - 9:34am Down the drain: A model based irrigation strategy <u>Francisco Domingo Mondaca</u>, Simon van Mourik, Jos Balendonck, Eldert van Henten</p> <p>9:34am - 9:36am Development of an ICT-based Groundwater Control Systems for Increasing Yields of Field Crops Grown in Paddy Fields <u>Soon Hong Kwon</u>, Jongsoon Kim, Ki-Yeol Jung, Sanghun Lee</p> <p>9:36am - 9:38am Water Quality Correlation Analysis between Sewage Treated Water and the Adjacent Downstream Water in Nakdong River Basin <u>Sang Min Kim</u>, Hyun Kyung Cho</p>	
<p>10:00am - 10:30am</p>	<p>Coffee break Wednesday morning Location: Orion Restaurant</p>								
<p>10:30am - 12:00pm</p>	<p>Session 71: Topic 7 Animal production technology - Odour and particulate matter 1 Location: Orion Room C2050 Chair: Dr. Guoqiang Zhang</p> <p>10:30am - 10:50am Effects Of</p>	<p>Session 72: Topic 7 Animal production technology - Climate control 2 Location: Orion Room C2051 Chair: Prof. Thomas Amon</p> <p>10:30am - 10:50am Climate conditions – a</p>	<p>Session 73: Topic 4 Robotic systems for monitoring in open fields Location: Orion Room C2005 Chair: Dr. Gert Kootstra</p> <p>10:30am - 10:50am Capturing crop height over the growing season</p>	<p>Session 74: Topic 10 Post harvest product quality Location: Orion Room C2006 Chair: Prof. Heinz Bernhardt</p> <p>10:30am - 10:50am Design and calibration of a low-cost NIRS-based device for avocado ripeness assessment</p>	<p>Session 75: The future farm - Vision by New Holland Location: Orion Room C1005 Chair: Prof. Peter (P.W.G.) Groot Koerkamp</p> <p>10:30am - 12:00pm The future farm -</p>	<p>Session 76: Topic 2 New farming management systems - Traceability and decision support 1 Location: Orion Room C2035 Chair: Robert Kaufmann</p> <p>10:30am - 10:50am Development of</p>	<p>Session 77: Topic 8 Plant production technology - Spraying 2 Location: Orion Room C2030 Chair: Jan van de Zande</p> <p>10:30am - 10:50am Management of chemical residual volume</p>	<p>Session 78: Topic 5 Energy and ghg from livestock systems Location: Orion Room C1040 Chair: Dr. Andre Aarnink</p> <p>10:30am - 10:50am Analysis of the Indoor Climate and</p>	<p>Session 79: Topic 6 Soil, land and water engineering - Soil 2 and landscape Location: Orion Room C1032 Chair: Prof. Patrizia Tassinari</p> <p>10:30am - 10:50am Delivery Rates during</p>

<p>Feed And Litter Management On Odour Emission From Broilers: An Exploratory Study To Develop Mitigation Measures Nico W.M. Ogink, Hilko H. Ellen, Jan van Harn, Julio Mosquera</p> <p>10:50am - 11:10am</p> <p>Reduction of PM from aviary houses for laying hens through alternative foraging methods Jan-Willem Kortlever, Peter (P.W.G.) Groot Koerkamp, Albert Winkel</p> <p>11:10am - 11:30am</p> <p>Effect Of Odour Laboratory In The Evaluation Of Odour Removal Performance Of Air Scrubbers Nico Ogink, Roland Melse</p>	<p>status quo at dairy farms in North - East Germany Jennifer Löbel, Paul Gütschow, Clemens Fuchs, Sandra Rose-Meierhöfer</p> <p>10:50am - 11:10am</p> <p>Effects Of The Accumulation Of Heat Load Duration On The Activity Behavior Of Lactating Dairy Cows Julia Heinicke, Stephanie Ibscher, Vitaly Belik, Thomas Amon</p> <p>11:10am - 11:30am</p> <p>"Influence of Evaporative Cooling on Respiration Rate of Lactating Cows Under Hot Climate Conditions" Severino Pinto, Harel Levit, Theresa Siemens, Gundula Hoffmann, Christian Ammon, Ilan Halachmi, Wolfgang Heuwieser, Thomas Amon</p> <p>11:30am - 11:50am</p> <p>Integrated Analysis of Data Acquired by Automation Devices for Precision Dairy Farming Filippo Bonora, Patrizia Tassinari, Daniele Torreggiani, Stefano Benni</p>	<p>from UAV based LIDAR Lammert Kooistra, Harm Bartholomeus, Sander Mucher, Henk Kramer, Jappe Franke, Constantin Ivushkin, Benjamin Brede</p> <p>10:50am - 11:10am</p> <p>Development Of Autonomous Robotic Platforms For Sugar Beet Crop Phenotyping Using Artificial Vision Bernard Benet, Camille Dubos, Fabienne Maupas, Ghislain Malatesta, Roland Lenain</p> <p>11:10am - 11:30am</p> <p>Optical Sensor For The Characterization Of The Agricultural Spraying Deposit Anis Taleb Bendiab, Caroline Vigreux, Raphael Kribich, Raphael Escalier, Arnaud Ducanhez, Ryad Bendoula</p> <p>11:30am - 11:32am</p> <p>Inter-row Weed Detection of Sugar Beet Fields Using Aerial Imagery Nikolaos Mylonas, João Valente, Joris Jsselmuiden, Gert Kootstra</p>	<p>Ekatiz Martinez, Idoia Olabarrieta, Monica Gutierrez, Eduardo Saitua, Jon Mabe, Alberto Villar, Erlantz Fernandez, Gorka Arana, Jean Michel Roger, Nathalie Gorretta, Angela Melado-Herreros</p> <p>10:50am - 11:10am</p> <p>Detection of Astringent and Deastringent Persimmon Fruit Using Hyperspectral Imaging Technology Sandra Munera, Nuria Aleixos, Juan Gómez-Sanchis, Cristina Besada, Sergio Cubero, Pau Talens, Alejandra Salvador, José Blasco</p> <p>11:10am - 11:30am</p> <p>Non-destructive Assessment Of Quality Traits In Tomato Fruit By Hyperspectral Imaging Fátima Carvajal, Jos Molthoff, Yury Tikunov, Wouter Verkerke, Gerrit Polder, Arnaud Bovy</p> <p>11:30am - 11:32am</p> <p>Three Dimensional Internal Structure Analysis Using Magnetic Resonance Image Data of Agricultural Products Seongmin Kim, MyoungHo Kim</p>	<p>vision by New Holland Pim Raaben</p>	<p>a traceability system for Agri-food supply chain based on Blockchain technology Francesco Marinello, Massimo Morbiato, Marco Sozzi, Andrea Pezzuolo, Luigi Sartori</p> <p>10:50am - 11:10am</p> <p>Feedback Grading Information For Insight In Variability In Yield And Fruit Quality Of Elstar Apples At Sub Orchard Level Pieter Van Dalfsen, Peter Frans De Jong, Dirk De Hoog</p> <p>11:10am - 11:30am</p> <p>Site-Specific Management of Pastures Based on Soil Apparent Electrical Conductivity Survey João Manuel Pereira Ramalho Serrano, Shakib Shahidian, José Marques da Silva, Francisco Moral</p> <p>11:30am - 11:50am</p> <p>Virtual fence, GrazeGuide, opens possibility of new grazing routines Pieter Hogewerf, Paul Koene, Bert Ipema</p>	<p>relative to use of stationary spraying system_ case of Moroccan greenhouse crop production Abdellah El Aissouli, Larbi Kknizrou, Karim Houmy, Benaissa Bouzrari</p> <p>10:50am - 11:10am</p> <p>Effect of Nozzle Type, Pressure and Height on Spray Distribution Pattern and Droplet Characteristic Arun Kumar, Bhabani Dash</p> <p>11:10am - 11:30am</p> <p>Prognosis of leaf chlorosis in Catherina peaches based on RGB images and on the mineral composition of flowers Victoria de la Fuente, Pilar Barreiro, Lourdes Lleó, Jesús Val</p> <p>11:30am - 11:32am</p> <p>Implementation of a Step Reducing Logarithmic Sprayer Gerassimos Georgiou, Peteinatos, Benjamin Kollenda, Pei Wang, Roland Gerhards</p>	<p>Energy Use in two Animal Houses for Fattening Pigs Andrea Costantino, Lorenzo Comba, Andrea Rolfo, Paolo Cornale, Luca Battaglini, Enrico Fabrizio</p> <p>10:50am - 11:10am</p> <p>EPANHaus: Energy Performance Certification of Livestock Houses Enrico Fabrizio, Andrea Costantino, Lorenzo Comba, Paolo Cornale, Luca Battaglini</p> <p>11:10am - 11:30am</p> <p>How "CO2 Smart" is the Dutch Agri-food Sector? Vianey Kenia Xitlalic Loya Hinojos, Maria-Laura Franco-Garcia, Leonor Patricia Güereca, Michiel Heldeweg</p> <p>11:30am - 11:32am</p> <p>The Effect of Gas to Liquid Ratio on Carbon Dioxide Removal and Heat loss across a Forced Ventilated Trickling Filter in Aquaculture Davood Karimi, André Aarnink, Ep Eding, Johan Verreth</p> <p>11:32am - 11:34am</p> <p>Biomass Heating System with Kerosene Boiler for Green House Heating Yoshimichi Yamashita, Kazuhiro Takekura, Genta Kanai, Kenichi Yakushidou</p> <p>11:34am - 11:36am</p> <p>Groundwater Utilization in a Farm Heat Network Genta Kanai, Yoshimichi Yamashita</p>	<p>Retention And Transport Of Encapsulated Fertilisers In Porous Medium Fernando Rojano, Felipe Barrera-Mendez, Maria A. Luna-Velasco, Abraham Rojano</p> <p>10:50am - 11:10am</p> <p>Soil Conductivity: Detecting Slurry Injection Depth With Minimal Effort Jochen Georg Wiecha, Sascha Wörz, Heinz Bernhardt</p> <p>11:10am - 11:30am</p> <p>Effect of Sand Size and Inlet Pressure on Sand Media Filter Performance Using Reclaimed Effluents Miquel Duran-Ros, Jaume Puig-Bargués, Gerard Arbat, Joan Pujol, Francisco Ramirez de Cartagena</p> <p>11:30am - 11:32am</p> <p>NH3 Emissions From Treated Buffalo Manure Application In Mediterranean climate And Comparison To ALFAM Model Ester Scotto di Perta, Nunzio Fiorentino, Salvatore Faugno, Elena Cervelli, Stefania Pindoizzi</p> <p>11:32am - 11:34am</p> <p>Landscape fragmentation in the European context: outcomes from a comparative approach Andrea De Montis, Vittorio Serra, Antonio Ledda</p>
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										11:36am - 11:38am Simulation Model of Using the Electricity and Exhaust Gas Heat Generated from Poultry Litter Waste in Their House Mohamed Nabih Omar, Abdellateif Abdelwahab Samak, Mahmoud Hassan Keshek
12:00pm - 1:30pm	Lunch Wednesday Location: Orion Restaurant									
12:15pm - 1:15pm	Campus Tour 21	Campus Tour 22	Campus Tour 23: Carus - Research facility animal sciences	Campus Tour 24	Campus Tour 25: NIOO - Netherlands Institute of Ecology	Campus Tour 26: FrieslandCampina - Innovation centre	Campus Tour 27: ISRIC - World soil museum			
1:30pm - 3:00pm	<p>Session 81: Topic 7 Animal production technology - Odour and particulate matter 2 Location: Orion Room C2050 Chair: Dr. Piet Derikx</p> <p>1:30pm - 1:50pm Current State of Ionization Technique in Mitigation of Particulate Matter (PM) Emission from Animal Barns Amirhossein Niroumand, Sayed M. Derakhshani</p> <p>1:50pm - 2:10pm Reviewing the Current State of Particulate Matter (PM) Liberation Modelling Techniques in Poultry Houses Sayed M. Derakhshani, Nico W.M. Ogink, Peter W.G. Groot Koerkamp, Bram Bos</p> <p>2:10pm - 2:30pm Slurry Curtains For Improved Effect Of Point Extraction System In A Finishing Pig House Anders Leegaard Riis</p>	<p>Session 82: Topic 7 Animal production technology - Climate and light control matter 2 Location: Orion Room C2051 Chair: Dr. Reiner Brunsch</p> <p>1:30pm - 1:50pm Differences in light concepts of animal welfare at dairy farms in North - East Germany Jennifer Löbel, Paul Gütschow, Clemens Fuchs, Sandra Rose-Meierhöfer</p> <p>1:50pm - 2:10pm Influence of Increased Light Intensity on the Lying and Excretory Behavior of Fattening Pigs Svenja Opderbeck, Barbara Kessler, Eva Gallmann</p> <p>2:10pm - 2:30pm Sensitivity Analysis of Animal Modelling Approach on Airflow Pattern in a Pig House by Numerical Study Hao Li, Li Rong, Guoqiang Zhang</p> <p>2:30pm - 2:50pm Smart</p>	<p>Session 83: Topic 4 Robotic systems in orchards Location: Orion Room C2005 Chair: Dr. Markus Demmel</p> <p>1:30pm - 1:50pm Apple-picking robot teleoperated with gestures - A proof of principle Angel Marquez Aguilar, Joris IJsselmuiden, Peter Frans de Jong</p> <p>1:50pm - 2:10pm Preliminary Approach for the Detection of Olive Trees Infected by Xylella fastidiosa Using a Field Robot and Proximal Sensing Santiago Lopez-Alaman, Sergio Cubero, Nuria Aleixos, Vicente Alegre, Beatriz Rey, Enrique Aguilar, Jose Blasco</p> <p>2:10pm - 2:30pm Development of an Automated Apple Infield Sorting and Handling System Renfu Lu, Anand Pothula, Zhang Zhao</p> <p>2:30pm - 2:50pm UAV and Machine Learning Techniques Applied to Yield Estimation of Orange Trees O. Enrique Apolo,</p>	<p>Session 84: Topic 4 Robotic systems - General Location: Orion Room C2006 Chair: Prof. Eldert van Henten</p> <p>1:30pm - 1:50pm Soil Organic Carbon estimation using proximal and remote sensing techniques Theodora Angelopoulou, Athanasios Thoma Balafoutis, Dionysis Bochtis, George Zalidis</p> <p>1:50pm - 2:10pm PC based data acquisition, sensor fusion and data synchronisation in agriculture based on an example of measurement of soil surface roughness with a 2D LIDAR Zoltan Gobor, Robert Weinfurter, Christian Rossow, Georg Fröhlich</p> <p>2:10pm - 2:30pm Design Space Exploration in the Development of Agricultural Robots Frederik Forchhammer Foldager, Ole Balling, Martin Boel, Carl Gamble, Peter Gorm Larsen, Ole Green</p> <p>2:30pm - 2:50pm Integrated Study of a Picking Robot for Greenhouse Grown Sweet Pepper Yi-Chieh Chiu, Li-Wen Chung, Gang-Jhy Wu</p>	<p>Session 85 Location: Orion Room C1005</p>	<p>Session 86: Topic 2 New farming management systems - Traceability and decision support 2 Location: Orion Room C2035 Chair: Dr. Simon van Mourik</p> <p>1:30pm - 1:50pm Application of a modified McKendrick-von Foerster equation to predict beetle population dynamics (Xyleborus affinis) under artificial medium in growth chambers Fernando Rojano, Luis Arturo Ibarra-Juarez, Andres Lira-Noriega, Federico Escobar-Sarria, Daniel González-Tokman, Porfirio Toledo-Hernández, Brenda Tapia-Santos, Carlos A. Hernández-Linares</p> <p>1:50pm - 2:10pm A Systems and Control Approach for Integrated Pest Management Simon van Mourik, Koen van Dinther, Johan van Riel</p> <p>2:10pm - 2:30pm Performance Evaluation of Passive Radio Frequency Identification Technology in Silage Bale Application</p>	<p>Session 87 Location: Orion Room C2030</p>	<p>Session 88: Topic 5 Modelling of energy and ghg emissions Location: Orion Room C1040 Chair: Dr. Carlo Bisaglia</p> <p>1:30pm - 1:50pm Sustainability Through Digital Agriculture - Analysis Of Available Greenhouse Gas Emission Indicators In Farm Management Systems Heinz Bernhardt, Leonie Sophie Spiller, Omar Hijazi</p> <p>1:50pm - 2:10pm Comparing the Artificial Neural Networks and Multi Linear Regression Models to Predict the Energy Output of Fruit Production Amin Nikkhal, Mehdi Khojastehpour, Mahsa Royan, Abbas Rohani, Sami Ghnimi</p> <p>2:10pm - 2:30pm Integration of Principal Component Analysis and Artificial Neural Networks to Better Predict Agricultural Energy Flows</p>	<p>Session 89 Location: Orion Room C1032</p>	

	<p>Complex Ventilation for Thermal Environmental Control of Livestock Housing Guoqiang Zhang</p> <p>2:50pm - 2:52pm</p> <p>Modeling of environmental time series in livestock facilities by hybrid model of ARIMA with Wavelet Transform Roberto Besteiro Doval, Tamara Arango López, M. Dolores Fernández Rodríguez, M. Ramiro Rodríguez Rodríguez</p>	<p>Jorge Martínez-Guanter, Gregorio Egea, Manuel Pérez-Ruiz</p>		<p>Katariina Penttilä, Antti Suokannas, Ilpo Pölonen</p>	<p>Amin Nikkhal, Abbas Rohani, Sami Ghnimi</p> <p>2:30pm - 2:50pm</p> <p>Development Of In-House Lattice-Boltzmann Simulator Of Anaerobic Bioreactors For Vinasse Treatment: Preliminary Dimensionless Modelling And Sensitivity Analysis José Antonio Rabi, Fernando de Lima Caneppele, Rogers Ribeiro, Gustavo César Dacanal</p>
2:00pm - 4:30pm	<p>Agro-food mindstorms challenge - Training Location: Orion Ground floor</p>				
3:00pm - 3:30pm	<p>Coffee break Wednesday afternoon Location: Orion Restaurant</p>				
3:30pm - 4:30pm	<p>Session 91: AgEng2018 Closing session Location: Orion Room Waaiker half (Rooms 1040/2050/2051) Chair: Prof. Peter (P.W.G.) Groot Koerkamp Chair: Dr. Claus Sörensen</p> <p>3:30pm - 3:45pm</p> <p>Presentation of AgEng2020 Conference in Evora, Portugal Fatima Baptista</p>				
4:30pm - 5:30pm	<p>Agro-food mindstorms challenge - Competition Location: Orion Restaurant</p>				
5:00pm - 6:00pm	<p>AgEng2018 evaluation and AgEng2020 preparation Location: Orion Room C1032 Chair: David Tinker</p>				



AGENG CONFERENCE 2018

New engineering concepts for a valued agriculture

8 – 12 July 2018, Wageningen, the Netherlands

Conference Agenda

Session Overview

Date: Thursday, 12/Jul/2018

8:00am - 6:00pm	Field trip 1: Smart dairy farming Chair: Bert Ipema Chair: Prof. Kees Lokhorst	Field trip 2: Horticulture automation and robotics Chair: Dr. Silke Hemming Chair: Prof. Peter (P.W.G.) Groot Koerkamp	Field trip 3: Precision arable farming Chair: Dr. Corné Kempenaar Chair: Jan Kamp	Field trip 4: Innovative pig and poultry farming Chair: Dr. Karin Groenestein Chair: Maarten Vrolijk
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