



AGENG CONFERENCE 2018

New engineering concepts for a valued agriculture

8 – 12 July 2018, Wageningen, the Netherlands

Conference Agenda

Session Overview

Date: Wednesday, 11/Jul/2018

8:00am - 5:00pm	Registration Wednesday: Registration AgEng2018 conference 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, Ryozy 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 7: 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>status quo at dairy farms in North - East Germany Jennifer Löbel, Paul Gütschow, Clemens Fuchs, Sandra Rose-Meierhöfer</p>	<p>from UAV based LIDAR Lammert Kooistra, Harm Bartholomeus, Sander Mucher, Henk Kramer, Jappe Franke, Constantin Ivushkin, Benjamin Brede</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>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>relative to use of stationary spraying system_ case of Moroccan greenhouse crop production Abdellah El Aissouli, Larbi Kknizrou, Karim Houmy, Benaissa Bouzrari</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>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 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>10:50am - 11:10am 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>10:50am - 11:10am 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>10:50am - 11:10am 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>10:50am - 11:10am 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>10:50am - 11:10am 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>10:50am - 11:10am Effect of Nozzle Type, Pressure and Height on Spray Distribution Pattern and Droplet Characteristic Arun Kumar, Bhabani Dash</p>	<p>10:50am - 11:10am EPANHaus: Energy Performance Certification of Livestock Houses Enrico Fabrizio, Andrea Costantino, Lorenzo Comba, Paolo Cornale, Luca Battaglini</p>	<p>10:50am - 11:10am Soil Conductivity: Detecting Slurry Injection Depth With Minimal Effort Jochen Georg Wiecha, Sascha Wörz, Heinz Bernhardt</p>
<p>11:10am - 11:30am Effect Of Odour Laboratory In The Evaluation Of Odour Removal Performance Of Air Scrubbers Nico Ogink, Roland Melse</p>	<p>11:10am - 11:30am "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>11:10am - 11:30am Optical Sensor For The Characterization Of The Agricultural Spraying Deposit Anis Taleb Bendiab, Caroline Vigreux, Raphael Kribich, Raphael Escalier, Arnaud Ducanchez, Ryad Bendoula</p>	<p>11:10am - 11:30am 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>11:10am - 11:30am 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 - 11:32am Three Dimensional Internal Structure Analysis Using Magnetic Resonance Image Data of Agricultural Products Seongmin Kim, MyoungHo Kim</p>	<p>11:10am - 11:30am Implementation of a Step Reducing Logarithmic Sprayer Gerassimos Georgiou, Peteinatos, Benjamin Kollenda, Pei Wang, Roland Gerhards</p>	<p>11:10am - 11:30am 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>11:10am - 11:30am 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 - 11:50am Integrated Analysis of Data Acquired by Automation Devices for Precision Dairy Farming Filippo Bonora, Patrizia Tassinari, Daniele Torreggiani, Stefano Benni</p>	<p>11:30am - 11:50am Inter-row Weed Detection of Sugar Beet Fields Using Aerial Imagery Nikolaos Mylonas, João Valente, Joris Jsselmuiden, Gert Kootstra</p>	<p>11:30am - 11:32am Virtual fence, GrazeGuide, opens possibility of new grazing routines Pieter Hogewerf, Paul Koene, Bert Ipema</p>	<p>11:30am - 11:32am Virtual fence, GrazeGuide, opens possibility of new grazing routines Pieter Hogewerf, Paul Koene, Bert Ipema</p>	<p>11:30am - 11:32am Implementation of a Step Reducing Logarithmic Sprayer Gerassimos Georgiou, Peteinatos, Benjamin Kollenda, Pei Wang, Roland Gerhards</p>	<p>11:30am - 11:32am The Effect of Gas to Liquid Ratio on Carbon Dioxide Removal and Heat loss across a Forced Ventilated Trickle Filter in Aquaculture Davood Karimi, André Aarnink, Ep Eding, Johan Verreth</p>	<p>11:30am - 11:32am The Effect of Gas to Liquid Ratio on Carbon Dioxide Removal and Heat loss across a Forced Ventilated Trickle Filter in Aquaculture Davood Karimi, André Aarnink, Ep Eding, Johan Verreth</p>	<p>11:30am - 11:32am Biomass Heating System with Kerosene Boiler for Green House Heating Yoshimichi Yamashita, Kazuhiro Takekura, Genta Kanai, Kenichi Yakushidou</p>	<p>11:30am - 11:32am 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>11:34am - 11:36am Groundwater Utilization in a Farm Heat Network Genta Kanai, Yoshimichi Yamashita</p>	<p>11:34am - 11:36am Groundwater Utilization in a Farm Heat Network Genta Kanai, Yoshimichi Yamashita</p>	<p>11:32am - 11:34am Landscape fragmentation in the European context: outcomes from a comparative approach Andrea De Montis, Vittorio Serra, Antonio Ledda</p>	<p>11:32am - 11:34am Landscape fragmentation in the European context: outcomes from a comparative approach Andrea De Montis, Vittorio Serra, Antonio Ledda</p>	<p>11:32am - 11:34am Landscape fragmentation in the European context: outcomes from a comparative approach Andrea De Montis, Vittorio Serra, Antonio Ledda</p>	<p>11:32am - 11:34am Landscape fragmentation in the European context: outcomes from a comparative approach Andrea De Montis, Vittorio Serra, Antonio Ledda</p>	<p>11:32am - 11:34am Landscape fragmentation in the European context: outcomes from a comparative approach Andrea De Montis, Vittorio Serra, Antonio Ledda</p>	<p>11:32am - 11:34am Landscape fragmentation in the European context: outcomes from a comparative approach Andrea De Montis, Vittorio Serra, Antonio Ledda</p>	<p>11:32am - 11:34am Landscape fragmentation in the European context: outcomes from a comparative approach Andrea De Montis, Vittorio Serra, Antonio Ledda</p>

										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 04: 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 Martinez-Guanter, Gregorio Egea, Manuel Perez-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 Jose Antonio Rabi, Fernando de Lima Caneppele, Rogers Ribeiro, Gustavo César Dacanal</p>
2:00pm - 4:30pm	<p>Mindstorms Challenge 1: Agro-food mindstorms challenge - Training Location: Orion Ground floor</p>				
3:00pm - 3:30pm	<p>Coffee break 8: 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 Presentation of AgEng2020 Conference in Evora, Portugal Fatima Baptista</p>				
4:30pm - 5:30pm	<p>Mindstorms Challenge 2: Agro-food mindstorms challenge - Competition Location: Orion Restaurant</p>				
5:00pm - 6:00pm	<p>EurAgEng 06: AgEng2018 evaluation and AgEng2020 preparation Location: Orion Room C1032 Chair: David Tinker</p>				