



**XXXVIII CIOSTA & CIGR V
International Conference**
Rhodes, Greece | June 24-26, 2019

Sustainable Decisions in Bio-Economy



ALPHA BANK

Brunata



Day 1 - Monday, 24 June 2019

9:30 | Registration - Welcome Coffee

11:00 | Conference Opening - Welcome Note

Prof. Pietro Catania - Prof. Claus Grøn Sørensen - Prof. Dionysis Bochtis

12:00 | Keynote speech - Prof. Avital Bechar

Agricultural Robotics - Dealing With High Variances in Agricultural

12:45 | Keynote speech - Prof. Simon Pearson

A route map to robotic deployment in Agriculture

13:30 | Lunch Break

15:00 | Session 1 | Thematic Area: Production | Chairman: Remigio Berruto

Potential of agroforestry as forest landscape restoration tool to solve Sudan forest cover loss cum food security in Sennar and Gedaref States

Nasradeen A. H. Gadallah, N. A. Adewole, D. D. Ajaji

Effects of noise on mulching oil palm fusing tractor mounted mulcher blades

Bala Jahun Gambo

Enhanced visual odometry algorithm for unmanned vehicles in protected crops

Shahzad Zaman, Lorenzo Comba, Alessandro Biglia, Davide Ricauda Aimonino, Paolo Barge, Cristina Tortia, Paolo Gay

Further development and assessment of an extraction system for small-scale timber harvesting in South Africa

Clayton Prowse, Jeff Smithers, Simon Ackerman

Modelling labour time requirements of two dock control procedures in organic farming: manual digging and hot-water control

Roy Latsch, Ruedi Stark

3D Visualisation of Big Data for Precision Farming

Karel Charvat, Karel Jedlicka

16:30 | Coffee Break

17:00 | Session 2 | Thematic Area: Sustainability | Chairman: Claus G. Sørensen

Monitoring of thermal and hydric regime of soils from the Transilvanian Plain (Romania), during 2008-2017, and predict tendency in the evolution

Rusu Teodor, Bogdan Ileana, Moraru Paula Ioana, Pop Adrian Ioan

Natural Buffer Effect on Biohydrogen Production using Hot Compressed Water Pretreatment

Miftahul Choiron, Seishu Tojo, Tadashi Chosa

Who buys organic eggs?

Michael Vassalos, Marzieh Motallebi

Sediment wattle configuration and optimization of passive polymer application for turbidity reduction in channelized runoff

Calvin B. Sawyer, Charles V. Privette, William C. Bridges, James W. Berry, III

Effect of different tillage on soil sustainability under semi-arid Mediterranean conditions

Zeliha Bereket Barut, Ismail Celik

18:30 | Session 3 | Thematic Area: Sustainability | Chairman: Heinz Bernhardt

Biogas production from pistachio (Pistacia vera L.) de-hulling waste

Goksel Demirer

Estimating Arsenic Concentration using MLR and ANN Model

Majeed Safa, Nazanin Mansouri, Daniel O'Carroll

CowEnergy - Possibilities of energy management in energy self-sufficient dairy cowsheds

Martin Höhendinger, Manfred Hödl, Omar Hijazi, Maximilian Treiber, Josef Bauerdick, Lorenz Frech, Reinhard Dietrich, Hans Jürgen Krieg, Jörn Stumpfenhausen, Heinz Bernhardt

Characterization of particulate matter emissions during manure application

Tina Kabelitz, Christian Ammon, Ulrich Nübel, Nadine Thiel, Uwe Rösler, Paul Siller, Roger Funk, Steffen Münch, Thomas Amon

Intelligent Greenhouses to Reduce Environmental Imprint

Angeliki Kavga, Manolis Souliotis, George Arampatzis, Spiros Papaefthimiou

Current status of bio-based circular economy penetration in European national strategies

Charisios Achillas, Apostolos Malamakis, Stamati Kontogianni, Sofia-Natalia Boemi, Chrysanthi Kiskini, Eleni Feleki, Christos Vlachokostas, Nicolas Moussiopoulos

19:30 | Welcome Dinner

End of Day 1

Day 2 - Tuesday, 25 June 2019

10:30 | Session 4 | Thematic Area: Production | Chairman: Alessandro Sopegno

Precision weed management in vegetables utilizing artificial intelligence

Yiannis Ampatzidis, Victor Partel

Sound velocity estimation of spread spectrum sound positioning system in greenhouse

Lok Wai Jacky Tsay, Zichen Huang, Xunyue Zhao, Tomoo Shiigi, Tetsuhito Suzuki, Naoshi Kondo

Energy assessment of spring wheat production under conventional and precision farming

Darius Jovarauskas, Dainius Steponavičius, Remigijus Zinkevičius

Intelligent sensing of crop growth status for greenhouse production

Suming Chen, Kuo-Chih Tung, Chao-Yin Tsai, I-Chang Yang

Development of an easy to use drone remote sensing and image analyzing pipeline for field phenotyping

Wei Guo, Léa Tresch, Yue Mu, Atsushi Itoh, Masayuki Hirafuji, Seishi Ninomiya

Agroecological efficiency of precision fertilizer application systems in the North-West of the Russian Federation

Nadezhda Tcyganova, Aleksei Ivanov

12:00 | Coffee Break

12:30 | Session 5 | Thematic Area: Sustainability | Chairman: Pietro Catania

Development of automatic precision fodder concentrates feeding system for goat

Yi-Chih Chiu, Wei-Chih Tsai

Sustainable livestock production by ensuring optimal working conditions and processes through the use of automated systems

Stefanie Reith, Mathias Funk, Jürgen Frisch

Prediction of the local air exchange rate in animal occupied zones of a naturally ventilated barn

E. Moustapha Doumbia, Sabrina Hempel, David Janke, Amon Thomas

Manure happens: An investigation of emission abatement opportunities

Barbara Amon, Sajeew Erangu Purath Mohankumar, Wilfried Winiwarter

Image classification for anthracnose infected walnut tree canopies

Athanasios Anagnostis, Georgios Dolias, Gavriela Asimindari, Elpinkiki Papageorgiou, Dionysis Bochtis

13:30 | Lunch Break

15:00 | Session 6 | Thematic Area: Ergonomics | Chairman: Katja Heitkamper

The capabilities of people with disabilities

Sophie Kathrin Schaffernicht, Karl Moder, Elisabeth Quendler

Ergonomics of community farming for elderly and challenged people

Masakazu Komatsuzaki

Requirements for automatic feeding systems in southern German dairy farms

Fredrik Regler, Matthias Reger, Rosemarie Oberschätzl-Kopp, Jörn Stumpfenhausen, Heinz Bernhardt

Instruction and teaching in vocational trainings for farmers

Astrid Seltrecht

Large-scale Point-cloud based Global Mapping for Orchard Operations

Dimitrios Katikaridis, Vasileios Moysiadis, Dionysis Bochtis

16:30 | Coffee Break

17:00 | Session 7 | Thematic Area: Cross-cutting Themes | Chairman: Giorgos Vasileiadis

Smart Farming and Digitization of research farms – a holistic concept for science and teaching

Josef Johannes Bauerdick, Maximilian Treiber, Heinz Bernhardt

Data Transmission and Management for Wireless Sensor Networks in German Dairy Farming Environments

Maximilian Treiber, Martin Höhendinger, Harald Rupp, Josef Bauerdick, Omar Hijazi, Heinz Bernhardt

Temporal Workload on Family Farms

Katja Heitkamper, Ruedi Stark

Investigating Ways to Develop and Control a Multi Purpose and Low Cost Agricultural Robotic Vehicle, under Scale

Dimitrios Loukatos, George Tzaninis, Konstantinos G. Arvanitis, Nikolaos Armonis

APIS: App to Evaluate Agricultural Machine Use and Operation Cost

Alessandro Sopegno, Remigio Berruto, Patrizia Busato

Soil Organic Carbon Estimation with the Use of Proximal Visible Near Infrared Short Wave Infrared Soil Spectroscopy

Theodora Angelopoulou, Athanasios Balafoutis, George Zalidis, Dionysis Bochtis

18:30 | Poster Session

The impact of Common Agricultural Policy provisions on sustainable farming

Samir Mili

Development of a blast-type onion stem crusher for investigation the onion stem raising mechanism

Youngkeun Kim, Wonjae Lee, Narae Kang, Ilsoo Choi, Jeakeun Woo, Changsik Hyun, Youngtae Yun

Manufacturing and performance test of a prototype for fresh corn harvester

Ilsoo Choi, Narae Kang, Wonjae Lee, Youngkeun Kim, Jeakeun Woo, Changsik Hyun, Sungkook Kim

Analysis of design factors for soil disinfection machine

Sanghee Lee, Je Lim, Taegyong Kang, Jingu Kim, Yong Choi, Taegyong Kim, Ilsoo Choi, Changsik Hyun, Hyunjong Jun, Seunghwa Yu, Jaekeun Woo

An evaluation of the socio-economic sustainability of Italian olive growing.

Teodora Stillitano, Nathalie Iofrida, Giacomo Falcone, Giovanni Gulisano, Alfio Strano, Bruno Francesco Nicolò, Anna Irene De Luca

Mapping Chardonnay vineyard yield by GPS application

Mariangela Vallone, Pietro Catania

The assessment of plant protection equipment in Calabrian citrus orchards

Souraya Genelle, Laura Violi, Pasquale Bernarica, Giuseppe Zambalatti, Bruno Barardi

19:30 | Gala Dinner

End of Day 2

Day 3 - Wednesday, 26 June 2019

10:30 | Session 8 | Thematic Area: Production | Chairman: Yiannis Ampatzidis

Effect of extrusion conditions on the throughput of extruder for the production of pineapple pomace based fish feed

Oluwafemi Babatunde Oduntan, Adeleke Isaac Bamgboye

Effect of extruded plantain peel based fish feed diet on growth performance and nutrient utilization of Catfish (Clarias gariepinus)

Abosede Oluwakemi Oduntan, Oluwafemi Babatunde Oduntan, Rotimi Abraham Ogunmoku

Evaluating the Suitability of Balanites aegyptiaca and Khaya senegalensis Seed oils as Renewable Energy Source for Biodiesel Production.

Danladi Drambi Usman, Bala Gambo Jahun, Mohammed Hilal Kabir, James Debra

Influence of grape pressing conditions on white wines quality

Pietro Catania, Mariangela Vallone

Spatial optimization for orchards in complex field areas

Giorgos Vasileiadis, Vasileios Moysiadis, Ioannis Menexes, Dimitrios Kateris, Dionysis Bochtis

12:00 | Coffee Break

12:30 | Session 9 | Thematic Area: Ergonomics | Chairman: Tadeusz Juliszewski

Interface design of the machine for oak seed scarification

Tadeusz Juliszewski

Equipment development to terminate cover crops and transplant seedlings for small conservation systems

Ted S Kornecki

Learning motion parameters for a Mejdool-date thinning robot

Or Bar-Shira, Yosef Cohen, Tal Shaubi, Avi Sadowky, Yuval Cohen, Avital Bechar, Sigal Berman

Work study, outputs and apple quality using integrated harvest combined conveyors

Yael Salzer, Amos Naor, Eyal Yonai, Yehoshua Yechezkel, Zait Shimon

Combined UGV and UAV perception of field areas as operational environments.

Vasileios Moysiadis, Dimitrios Katikaridis, Giorgos Vasileiadis, Dionysis Bochtis

13:30 | Lunch Break

15:00 | Session 10 | Thematic Area: Agri-Chains | Chairman: Dimitrios Aidonis

Sustainable production systems of legumes in South Europe: How feasible is the substitution of imported soybeans and soy meal?

Spyros Niavis, Christina Kleisiari, Leonidas Kyrgiakos, George Vrontzos

Deep learning technique for classification of candied orange peel

Paolo Barge, Alessandro Biglia, Lorenzo Comba, Davide Ricauda Aimonino, Cristina Tortia, Paolo Gay

The role of using bioalcohol fuels in sustainable development

Róbert Magda, Sándor Szlovák, Judit Tóth

Effect of moisture content on the nutritional and anti-nutritional compositions of the bush mango (Irvingia gabonensis) kernel

Akindele Folarin Alonge, Peace M Uboh, Edidiong J Basse

Current status of bio-based circular economy penetration in European national strategies

Charisios Achillas, Apostolos Malamakis, Stamati Kontogianni, Sofia-Natalia Boemi, Chrysanthi Kiskini, Eleni Feleki, Christos Vlachokostas, Nicolas Moussiopoulos

Logistic Benefits of Innovative Scenarios for Fresh Meat Distribution

Patrizia Busato, Alessandro Sopegno, Remigio Berruto

16:30 | Coffee Break

17:00 | Session 11 | Thematic Area: Sustainability | Chairman: Charis Achillas

Sustainability of biogas production with small sized plant in South America

Omar Hijazi, Sonja Mettenleiter, Josef Bauerdick, Maximilian Treiber, Anja Größ, Heinz Bernhardt

Variation in plant nutrient and organic matter concentrations in compost products made with and without animal manure

John Perkins Chastain

Ammonia volatilization and evaporation losses during irrigation of liquid animal manure

John Perkins Chastain

Assessing Agricultural Sustainability Within a Farm Management Information System: A Review of Indicators

Maria Lampridi, Dionysis Bochtis

18:30 | End of Day 3

