INTERNATIONAL CONFERENCE OF AGRICULTURAL ENGINEERING

Valencia Conference Centre
July 8-12, 2012. Valencia. Spain

CIGR-Ageng2012

Final Programme

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On behalf of the European Society of Agricultural Engineers (EurAgEng), the International Commission of Agricultural and Biosystems Engineering (CIGR), and the Spanish Society of Agroingeniería (SEAgIng), welcome to the International Conference of Agricultural Engineering CIGR-AgEng2012 here in Valencia, Spain on July 8-12, 2012.

EurAgEng and CIGR celebrate this joint International Conference on Agricultural Engineering in 2012. In addition, a Special Parallel Conference on mechanisation and post-harvest technology in developing countries organized by UNIDO and FAO forms a part of the Congress. The Conference covers emerging research and new engineering solutions for food production and rural activities, as a means to enhance human well-being and promote social benefits. New concerns include methods of agricultural, livestock and forestry production, and the preservation of natural resources and landscape by applying modern engineering concepts. Healthier production systems need to encompass higher social and economic benefits.

The CIGR-AgEng2012 Conference is aimed at academia, industry, producers, manufacturers and service providers from all over the world for discussion about novel approaches to integrate agriculture and engineering for enhancing the quality and expectancy of life. PhD students, Delegates of CIGR and EurAgEng, Representatives of Developing Countries and Industry are especially encouraged to participate in CIGR-AgEng 2012 Conference.

I am looking forward to meeting you in July for CIGR-AgEng2012 in Valencia, Spain.

Florentino Juste
Past-President EurAgEng
President of CIGR-AgEng2012 Conference

AgEng2012 takes place in Valencia, Spain, one of the most famous cities in Europe, and known as a leading trading place since the new world was discovered. Valencia is now a university city and capital of a region with various scientific institutions. Participants will meet in a modern conference venue, adjacent to a historic city with many tourist attractions and in a region with diverse agriculture.

Diverse agriculture is characteristic of Europe too. A wide variety of advanced technologies are needed to cope with the economic conditions of farmers and with the requirements of society in industrialized countries. These requirements aim to save precious resources and produce environmentally friendly and healthy food. As technology is part of farming, engineering must contribute to the development of advanced and efficient agricultural practices.

The conference offers a wide range of topics for presentations on agricultural and biosystems engineering subjects and there will be time for discussion, for initiating collaborations and for developing ideas for innovations. EurAgEng working groups, which will be organized as part of the conference, will give additional opportunities for deeper discussion on specific fields of interest and for initiation of joint activities between European research institutions and industries.

Peter Schulze Lammers
EurAgEng President 2010-2012
The mission of CIGR is to serve the needs of humanity world-wide, by fostering mutual understanding, continuous improvement and rationalization of sustainable biological production systems. CIGR seeks to improve the quality of life for all while protecting the environment through the application and advancement of engineering and science.

Since its foundation in 1930, a primary goal of CIGR has been to foster international cooperation. The 2012 International Conference of Agricultural Engineering will play a fundamental role in support of this goal.

This conference provides a forum for engineers, scientists and associated professionals to exchange knowledge, information and experience related to new developments in agriculture and biosystems. More importantly, it provides a networking platform for professionals to establish long term working relationships that result in improvements in the quality of life of those we serve, and which support sustainability of biological production systems and related industries.

The CIGR Presidium would like to recognize EurAgEng, the organizing committee and the participants in this conference for their hard work and willingness to share knowledge and experience to the benefit of all.

Fedro S. Zazueta
President, CIGR
KEYNOTE SPEAKERS

GENERAL SESSIONS

MONDAY

Christopher WATHES
Towards livestock production in the 21st Century: a perfect storm averted?
Date: Monday 9th July 9:00-10:00
Venue: Valencia Conference Centre (VCC)
Location: Auditorio 1

Special Professor in the School of Life and Environmental Sciences, Nottingham, Head of Bioengineering Division and then Director of Science, Silsoe Research Institute (UK) and Professor of Animal Welfare, at The Royal Veterinary College, UK.

TUESDAY

John F. REID
Current and future applications of robotics and automation to agriculture
Date: Tuesday 10th July 8:00 - 9:00
Venue: Valencia Conference Centre (VCC)
Location: Auditorio 1

Dr. John F. Reid is Director, Product Technology and Innovation at the Moline Technology Innovation Centre (MTIC), John Deere. Dr. Reid received his BS ('80) and MS ('82) from Virginia Tech in Agricultural Engineering and his doctorate ('87) from Texas A&M in Agricultural Engineering.

WEDNESDAY

Geoffrey C. MREMA
The role of technology in the developing countries
Date: Wednesday 11th July 8:00 - 9:00
Venue: Valencia Conference Centre (VCC)
Location: Auditorio 1

Professor Geoffrey C. Mrema, from Tanzania, holds a B.Sc. degree in Mechanical Engineering (Hons) from the University of Nairobi; M.Sc. and PhD in Agricultural Engineering from the University of Newcastle-upon-Tyne, UK, and University College, Dublin, Ireland respectively. In February 2005, Dr. Mrema was appointed FAO's Sub-Regional Representative for Southern and Eastern Africa based in Harare, Zimbabwe. In 2006 he returned to the FAO headquarters as Director of the Rural Infrastructure and Agro-Industries Division (AGS), until his retirement in 2011. He is now based at the Department of Agricultural Engineering and Land Planning of SUA where in addition to lecturing and research, he undertakes consultancy missions for international and national agencies.
TECHNICAL SPEAKERS

MONDAY

SPECIAL PARALLEL CONFERENCE-02: First international symposium on computational fluid dynamics (CFD) applications in agriculture (ISHS working group on CFD, CIGR technical section II and ASABE committee SE-303) SESSION 111 FOOD ENGINEERING AND PROCESSING

In-Bok Lee
Date: Monday 9th, 10:20-11:55
Venue: Valencia Conference Centre (VCC)
Location: Room 2

Mr. In-Bok Lee is currently Chair of Rural Systems Engineering Department, College of Agriculture and Life Sciences of Seoul National University (SNU). Other responsibilities At present, he is Vice President of Korea Society of Agricultural Engineers (KSAE), Chair of the CFD Working Group in International Society for Horticultural Science (ISHS), Editorial member of Biosystems Engineering, and also member of professional and international organizations like ASAE and CIGR.

His laboratory (Aero-Environmental & Energy Engineering Laboratory -A3EL) works on aerodynamics and energy engineering in the agricultural field, focusing on three major fields: 1) environmental control (especially ventilation) of agricultural buildings such as greenhouses and livestock houses, 2) atmospheric dispersions of aerosol, airborne disease, and gas (odor), and 3) renewable energy and energy saving technology.

To this date, he and his team have published 45 (SCI) International journals and 31 Domestic journals publications.

SPECIAL PARALLEL CONFERENCE-07: Silos and granular materials (SIGMA) SESSION 112 SILOS LOADING

Alan Roberts
Date: Monday 9th July, 10:20-11:55
Venue: Valencia Conference Centre (VCC)
Location: Room 3

In his 50-year career, Alan Roberts has published seminal technical papers and combined a glittering academic career with practical industry problem-solving. However, despite his retirement, Alan has maintained a brisk pace of work. His research interests continue, while he teaches short courses in Australia, Canada and the US.

SPECIAL PARALLEL CONFERENCE-03: IV INTERNATIONAL WORKSHOP ON COMPUTER IMAGE ANALYSIS IN AGRICULTURE SESSION 114 PLANT INSPECTION

Bosoon Park
Date: Monday 9th, 10:20-11:55
Venue: Valencia Conference Centre (VCC)
Location: Room 8+9

Dr. Bosoon Park is a Lead Scientist at Richard B. Russell Research Center, U.S. Department of Agriculture, Agricultural Research Service in Athens, Ga. He is the author and co-author over 221 articles including patents, book chapters, peer-reviewed jour-
SPECIAL PARALLEL CONFERENCE-06: Applications of smart sensors and wireless sensor networks (WSN) in PLF
SESSION 151 Wireless Communication in Agriculture

Vahid Tarokh

Date: Monday 9th, 15:25-15:55
Venue: Valencia Conference Centre (VCC)
Location: Room 5

Vahid Tarokh received a Ph.D. degree in Electrical Engineering in 1995. He worked at AT&T Labs-Research and AT&T Wireless Services until 2000 where he was in chronological order Senior Member of Technical Staff, Principal Member of Technical Staff and Head of Department of Wireless Communications and Signal Processing.

TUESDAY

SPECIAL PARALLEL CONFERENCE-05: The Ninth International Livestock Environment Symposium (ILES IX)
SESSION 203 OVERVIEW OF MEASUREMENT AND VERIFICATION PROTOCOLS IN LIVESTOCK ENVIRONMENTS

Peter Engel

Date: Tuesday 10th July, 8:55-10:30
Venue: Valencia Conference Centre (VCC)
Location: Auditorio 2

Mr. Peter Engel has more than 17 years of professional experience within the environmental sector. In 2011 he was appointed as head of the international VERA secretariat. The secretariat is hosted in Denmark at the Danish Standard Foundation on behalf of the Danish Environmental Protection Agency. Mr. Engel has worked with environmental technology throughout his entire career both on a theoretical and a practical level.

Nico W.M. Ogink

Date: Tuesday 10th, 8:55-10:30
Venue: Valencia Conference Centre (VCC)
Location: Auditorio 2

Nico Ogink is researcher at Livestock Research of Wageningen UR. His expertise and research themes are related to livestock and environment issues, with a focus on measuring emissions from livestock operations and understanding underlying processes in the main animal categories. He is engaged in developing and eva-
lating new mitigation methods for ammonia, odour and fine dust emissions. During the last 3 years he has been leader of an extensive research program to provide practical mitigation options for fine dust emissions from poultry farms.

**Hongwei Xin**

Date: Tuesday 10th July, 8:55-10:30  
Venue: Valencia Conference Centre (VCC)  
Location: Auditorio 2

Dr. Xin is a professor in the Departments of Agricultural and Biosystems Engineering (ABE) and Animal Science at Iowa State University, ABE Associate Chair for Research, and director of the Egg Industry Center located at ISU.

**SPECIAL PARALLEL CONFERENCE-02: FIRST INTERNATIONAL SYMPOSIUM ON COMPUTATIONAL FLUID DYNAMICS (CFD) APPLICATIONS IN AGRICULTURE**

**SESSION 209 INDOOR AEROLICS I**

**Dr. Philippe Geuzaine**

Date: Tuesday 10th, 8:55-10:30  
Venue: Valencia Conference Centre (VCC)  
Location: Room 2

“Establishing quality and thrust in CFD through ERCOFTAC”.

Dr. Philippe Geuzaine is a Research and Technology Manager at Cenaero, a Belgian private research center. He received his B.S. and Ph.D. from the University of Liège, Belgium. Before joining Cenaero in 2003 as a CFD-Multiphysics Group Leader, Dr. Geuzaine has been a Postdoctoral Research Associate at the University of Colorado at Boulder, USA. With a strong background in computational fluid dynamics,
MEETINGS

SATURDAY

CIGR - Presidium Meeting
Date: Saturday 7th July 9:30 - 13:00
Venue: Hotel Melia Meeting 2

CIGR - Executive Board Meeting
Date: Saturday 7th July 15:00 - 18:00
Venue: Hotel Melia Meeting 2

SUNDAY

CIGR - Technical Board Meeting
Date: Sunday 8th July 9:00 - 11:30
Venue: Polytechnic University of Valencia (UPV) (Edificio 3P)
Location: A. 1. 02

EurAgEng - Past President Meeting
Date: Sunday 8th July 9:00 - 11:30
Venue: Polytechnic University of Valencia (UPV) (Edificio 3P)
Location: A. 1. 04

Special Meeting: Jaime Ortiz-Canavate
Date: Sunday 8th July 11:30 - 13:00
Venue: Polytechnic University of Valencia (UPV) (Edificio 3P)
Room: Salon actos ETSIAMN

CIGR SECTION MEETINGS

CIGR - Section 1: Land and Water
Date: Sunday 8th July 14:00 - 16:30
Venue: Polytechnic University of Valencia (UPV) (Edificio 3P)
Location: A. 1. 02
Coordinator: Guanhua Huang

CIGR - Section 2: Structures and Environment
Date: Sunday 8th July 14:00 - 16:30
Venue: Polytechnic University of Valencia (UPV) (Edificio 3P)
Location: A. 1. 03
Coordinator: Thomas Banhazi

CIGR - Section 3: Plant production
Date: Sunday 8th July 14:00 - 16:30
Venue: Polytechnic University of Valencia (UPV) (Edificio 3P)
Location: A. 1. 05
Coordinator: John K. Schueller

CIGR - Section 4: Energy in Agriculture
Date: Sunday 8th July 14:00 - 16:30
Venue: Polytechnic University of Valencia (UPV) (Edificio 3P)
Location: A. 1. 06
Coordinator: Janusz Piechocki

CIGR - Section 5: System Management
Date: Sunday 8th July 14:00 - 16:30
Venue: Polytechnic University of Valencia (UPV) (Edificio 3P)
Location: A. 1. 07
Coordinator: Claus Grøn Sørensen

CIGR - Section 6: Bioprocesses
Date: Sunday 8th July 14:00 - 16:30
Venue: Polytechnic University of Valencia (UPV) (Edificio 3P)
Location: A. 1. 08
Coordinator: Umezuruike Linus Opara

CIGR - Section 7: Information Technology
Date: Sunday 8th July 14:00 - 16:30
Venue: Polytechnic University of Valencia (UPV) (Edificio 3P)
Location: A. 1. 09
Coordinator: Seishi Ninomiya

EurAgEng
Council Meeting
Date: Sunday 8th July 14:00 - 16:30
Venue: Polytechnic University of Valencia (UPV) (Edificio 3P)
Location: A. 1. 04
EurAgEng
Biosystems Engineering Editorial Board Meeting
Date: Sunday 8th July 16:30 - 18:30
Venue: Polytechnic University of Valencia (UPV) (Edificio 3P)
Location: A. 1. 10
Coordinator: Bill Day

CIGR Journal meeting
Date: Sunday 8th July 16:30-18:30
Venue: Polytechnic University of València (UPV) (Edificio 3P)
Localización: A.1.11

MONDAY

CIGR General Assembly
Date: Monday 9th July 18:30 - 19:30
Venue: Valencia Conference Centre (VCC)
Location: Auditorio 2

ENGAGE: General Assembly
Date: Monday 9th July 18:30 - 19:30
Venue: Valencia Conference Centre (VCC)
Location: Room 2
Coordinator: Reiner Brunsch
ENGAGE is the strategic arm of EurAgEng. Members come from Agricultural and Biosystems Engineering Institutions all over Europe. It aims to raise the profile of this field in Brussels and beyond and facilitate cooperation on research projects etc.

EurAgEng - Eastern European Meeting
Date: Monday 9th July 19:30 - 20:30
Venue: Valencia Conference Center (VCC)
Location: Room 4
Coordinator EurAgEng: Peter Schulze Lammers
Coordinator Eastern Europe: László Fenyvesi
Delegates from Eastern Europe are invited to meet the EurAgEng Executive to find out more about the activities of EurAgEng, the benefits of joining EurAgEng and ways in which national societies participate in the organization.

TUESDAY

EurAgEng - ASABE BREAKFAST
Date: Tuesday 10th July 7:00 - 8:00
Venue: Hotel Solorolla
A brief opportunity for ASABE colleagues to meet members of the EurAgEng Executive and discuss common issues and future cooperation.

EurAgEng Open Meeting - Presidential handover
Date: Tuesday 10th July 14:00 - 15:00
Venue: Valencia Conference Centre (VCC)
Location: Auditorio 2
All delegates are welcome to attend. There will be a short review of EurAgEng activities and Professor Peter Schulze Lammers will hand over the two year presidential term of office to Robert Kaufmann, AGROSCOPE, Tänikon, Switzerland

WEDNESDAY

EurAgEng Working Group Chair’s Meeting
Date: Wednesday 11th July 14:00 – 16:00
Venue: Valencia Conference Centre (VCC)
Location: Room 1
Working Group chairmen are invited to discuss progress made within their groups and to propose ways in which to take their work forward and maintain communication between conferences.

AgEng 2014 - Conference Exchange
Date: Wednesday 11th July 18:00 - 19:00
Venue: Valencia Conference Centre (VCC)
Location: Auditorio 2
Planning is already underway for EurAgEng2014 and this meeting will enable 2012 and 2014 conference organizers and participants to exchange experiences and ideas for future conferences.
EURAGENG WORKING GROUPS

MONDAY

AP: ANIMAL PRODUCTION TECHNOLOGY

AP06: Innovative technologies for dairy farming
Date: Monday 14:30 – 15:25
Venue: Valencia Conference Center (VCC)
Location: Auditorio 3A
Coordinator: Jan Harms

PM: POWER AND MACHINERY

PM23: Sustainable Energy
Date: Monday 14:30-15:25
Venue: Valencia Conference Centre (VCC)
Location: Multipurpose 1A
Coordinator: Franz Handler

IT: INFORMATION TECHNOLOGY, AUTOMATION AND PRECISION FARMING

IT16: Information technology
Date: Monday 14:30 - 15:25
Venue: Valencia Conference Center (VCC)
Location: Room 6+7
Coordinator: Gilbert Grenier

PA07: Precision agriculture
Date: Monday 14:30-15:25
Venue: Valencia Conference Center (VCC)
Location: Multipurpose IB
Coordinator: Stefane Böttinger

PF: POST HARVEST, FOOD AND PROCESS
ENGINEERING

PF: Post Harvest, Food and Process Engineering
PH03: Post – harvest technology
Date: Monday 14:30-15:25
Venue: Valencia Conference Center (VCC)
Location: Room B+9
Coordinator: Pilar Barreiro

SE: STRUCTURES AND ENVIRONMENTAL TECHNOLOGIES

SE15: Farm building structures & environment
Date: Monday 14:30-15:25
Venue: Valencia Conference Center (VCC)
Location: Room 4
Coordinator: Vacant

SE25: Wastes engineering
Date: Monday 14:30-15:25
Venue: Valencia Conference Center (VCC)
Location: Room 2
Coordinator: Vacant

SE28: Rural buildings & landscape
Date: Monday 14:30-15:25
Venue: Valencia Conference Center (VCC)
Location: Room 5
Coordinator: Patrizia Tassinari

SW: SOIL AND WATER ENGINEERING

SW20: Soil and Water
Date: Monday 14:30-15:25
Venue: Valencia Conference Center (VCC)
Location: Auditorio 2
Coordinator: Nunzio Romano

SPC-04: 5th Automation Technology for Off-Road equipment Conference
AE09: Intelligent Automation
Date: Monday 14:30-15:25
Venue: Valencia Conference Center (VCC)
Location: Multipurpose 1C
Coordinator: Victor Alchanatis

TUESDAY

PM: POWER AND MACHINERY

PM08: Sustainable Crop Protection
Date: Tuesday 12:15 - 13:00
Venue: Valencia Conference Center (VCC)
Location: Auditorio 1
Coordinator: Paolo Balsari

WEDNESDAY

RD: RURAL DEVELOPMENT

EurAgEng working Group Chair meeting
Date: Wednesday 14:00 - 15:00
Venue: Valencia Conference Center (VCC)
Location: Room 1
Coordinator:

SE14: Air quality in animal houses
Date: Monday 9th July 18:30 - 19:30
Venue: Valencia Conference Center (VCC)
Location: Room 4
Coordinator: Gösta Gustafsson

SE22: Greenhouse system design
Date: Monday 9th July 18:30 - 19:30
Venue: Valencia Conference Center (VCC)
Location: Room 5
Coordinator: Demetres Briassoulis
## CONGRESS AT A GLANCE

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<th>Time</th>
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**WELCOME RECEPTION + BUFFET**

Edificio 3A
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<td>ORAL SESSION (101 to 114)</td>
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<td>ORAL SESSION (354 to 367)</td>
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<td>15:00</td>
<td>ORAL SESSION (153 to 165)</td>
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<td>18:00</td>
<td>The 52nd CIGR General Assembly (Auditorio 2)</td>
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SCIENTIFIC PROGRAMME

MONDAY
JULY 9

9:00-10:00 Christopher WATHES. Keynote Speaker General Session AUDITORIO1

101 SESSION 10:20 -11:55
(PM): TRACTORS
Moderator: Jaime Ortiz-Cañavate
Location: AUDITORIO I

10:20 Introduction
10:25 C-1008 ACTIVE BOGIES, CHASSIS LEVELLING AND TRANSMISSION EFFICIENCY FOR A VEHICLE OPERATING IN ROUGH TERRAIN
Marti Comellas
Marti Comellas, Jordi Pijuan Cases, Joan Roca, Xavi Potau

10:40 C-1340 OPTIMIZATION OF A THREE POINT HITCH IN AN AGRICULTURAL TRACTOR
Giovanni Molari
Giovanni Molari, Michele Mattetti, Adriano Guarnieri

10:55 C-1398 VEHICLE RIGID MOTION EFFECTS ON WHOLE BODY VIBRATION
Giovanni Molari
Giovanni Molari, Michele Mattetti, Matteo Badodi, Enrico Sedoni

11:10 C-1179 EXHAUST EMISSION CONTROL AND CO2 REDUCTION ON COMBINES AND TRACTOR IMPLEMENT COMBINATIONS
Peter Eckert
Peter Eckert, Tobias Töpfer, Jörn Seeboede, Lars Henning

11:25 C-1603 NEW CLASSIFICATION OF TRACTORS ACCORDING TO THEIR ENERGY EFFICIENCY
Jaime Ortiz-Cañavate Puig
Miguel Angel Muñoz-garcia, Jaime Ortiz-Cañavate Puig, Jacinto Gil-Sierra, Jesus Casanova, Alvaro Valle

11:40 C-2129 DEVELOPMENT AND CHARACTERIZATION TESTS OF A SMALL HYDRAULIC-POWERED TRACTOR PROTOTYPE FOR USE IN EXTREME SLOPED VINEYARDS
Fabrizio Mazzetto
Fabrizio Mazzetto, Renato Vidoni, Carlo Bisaglia, Raimondo Gallo

102 SESSION 10:20 -11:55
(SW-SPC01): EVAPOTRANSPIRATION AND IRRIGATION-REQUERIMENTS
Moderator: Alfonso Dominguez
Location: AUDITORIO 2

10:20 Introduction
10:25 C-0834 SURFACE RENEWAL ESTIMATES OF SENSIBLE HEAT FLUX: OPTIMIZATION FOR BANANA AND GRAPEVINE SCREENHOUSES
Josef Tanny
Yonathan Mekhmandarov, Moran Pirkner, Uri Dicken, Josef Tanny

10:40 C-0256 IMPACTS ON SOYBEAN SOIL WATER BALANCE AND YIELD DUE TO INCREASE IN TEMPERATURE AS SIMULATED BY CROPGRO
Rogério Faria de Teixeira
Rogério Teixeira de Faria, José Renato Zanini, Luiz Carlos Pavani

10:55 C-1648 IMPLEMENTING THE DUAL CROP COEFFICIENT APPROACH USING THE SINDUALKC MODEL FOR THE SUMMER MAIZE IN THE NORTH CHINA: MODEL CALIBRATION AND VALIDATION
Luis S. Pereira
Zhang Baozhong, Liu Yu, Xu Di, Zhao Nana, Ricardo D. Rosa, Paula Paredes, Luis S. Pereira

11:10 C-0665 FORETO: NEW SOFTWARE FOR REFERENCE EVAPOTRANSPIRATION FORECASTING
Rocio Ballesteros Gonzalez
Rocio Ballesteros Gonzalez, Jose Fernando Ortega Alvarez, Miguel Angel Moreno Hidalgo
**Session 103**

**SPC-05: FEEDING AND RESTING BEHAVIOR**
Moderator: Knut Bøe
Location: AUDITORIO 3A

- **10:20** Introduction
- **10:25** C-0790 WATER INTAKE AND DRINKING BEHAVIOR OF PREGNANT SOWS
  - Melanie Junge; Daniel Herd; Dagmar Jezierny; Eva Gallmann; Thomas Jungbluth
- **10:40** C-0754 EFFECTS OF FEEDING REGIME ON FEEDING PATTERN AND BEHAVIORS OF GROWING PIGS
  - Jun Bao; Yun-long Kang; Xin-zhi Wang
- **10:55** C-0452 NATURAL BEHAVIOR OF THE ANIMAL WHEN EATING
  - Manuel García Reyes; Abraham Rojano
- **11:10** C-1602 PASSAGEWAY PREFERENCE TESTING FOR LAYING HENS
  - Ana Paula De Assis Maia; G. Tatiana Sales; Patricia Paulausky; Angela Renee Green; Daniella Jorge De Moura
- **11:25** C-0335 COMBINED STALL SYSTEMS FOR HEIFERS IN GROUPS? A NEW CONCEPT
  - Knut Egil Bøe; Gry Færevik
- **11:40** C-1341 EFFECTS OF FLEXIBLE OR FIXED STALL DIVIDERS ON LYING BEHAVIOUR AND PREFERENCES OF DAIRY COWS
  - Lars Erik Ruud; Knut Egil Bøe, Gry Færevik

**Session 104**

**SPC-05: VENTILATION RATE ASSESSMENT**
Moderator: Rick Stowell
Location: AUDITORIO 3B

- **10:20** Introduction
- **10:25** C-0476 EVALUATION OF THE CO2 MASS BALANCE METHOD TO CALCULATE VENTILATION RATES FROM MECHANICALLY VENTILATED LIVESTOCK BUILDINGS
  - Julio Mosquera Losada; Karin Groenestein; Nico W. M. Ogink; André J. A. Aarnink
- **10:40** C-0648 HE INFLUENCE OF BUILDING EQUIPMENT AND OPERATION ON THE AIR EXCHANGE RATES THROUGHOUT A NATURALLY VENTILATED DAIRY BARN
  - Alaa Kiwan; Werner Berg; Hans-joachim Müller; Manfred Gläser; Merike Fiedler; Kristina von Bobrutzki; Christian Ammon; Mohamed Samer; Reiner Brunsch
- **10:55** C-0079 A COMPARISON STUDY AMONG H2O-BALANCE, HEATBALANCE, CO2-BALANCE AND TRACER GAS TECHNIQUE FOR AIRFLOW RATES MEASUREMENT IN NATURALLY VENTILATED DAIRY BARNS
  - Mohamed Samer

**Session 105**

**EN: ENERGY EFFICIENCY IN AGRICULTURE I**
Moderator: Claudia Lutsyuk
Location: MULTIPURPOSE IA

- **10:20** Introduction
- **10:25** Presentation of AGREE
- **10:40** Keynote Speaker
- **10:55** C-2124 ENERGY ANALYSIS METHODOLOGY FOR AGRICULTURAL FIELD CROPS - PRINCIPLES AND NEEDS FOR STANDARDIZATION
  - Hannu Juhani Mikkola; Hannu Juhani Mikkola; Jukka Ahokas; Mari Rajaniemi; Tapani Jokiniemi
CONTROL OF GREENHOUSE GAS EMISSIONS IN A SHORT ROTATION COPPICE BY REDUCED NITROGEN FERTILISATION

Jürgen KERN
Jürgen KERN, Antje Balasus

A STUDY ON THE INFLUENCE WHEN BIOFUEL BE INTRODUCED TO TOKACHI PLAIN IN JAPAN? THE VALUATION OF ENVIRONMENTAL CAPACITY AND AMOUNT OF ENERGY ON INPUT-OUTPUT ANALYSIS

Xin Wang
Xin Wang, Youichi Shibata, Marlowe Edgar Burce, Takashi Kataoka, Hiroshi Okamoto

ENERGY EFFICIENCY INVESTIGATION IN ALFALFA, CORNSILAGE AND SOME OTHER FODDER PRODUCTION IN MOGHAN PLAIN IN IRAN

Mohammadali Maysami
Mohammadali Maysami, Werner Berg, Abdolhossein Chavoshpour

NEW METHOD FOR BIOMASS BALES COUPLING AND ROLLING THEM ON BOGGY TERRAIN, ESPECIALLY IN NATIONAL PARKS AND NATURE 2000 PROTECTED AREAS

Adam P. Dubowski
Adam Dubowski Piotr, Krzysztof Zembrowski, Sylwester Weymann, Radoslaw Karbowski, Aleksander Rakowicz, Agnieszka Potykowski, Lukasz Wojnilowicz, Jürgen Vangeyte

DEVELOPMENT OF A MOBILE STRAW PELLETIZING MACHINE

Koen Deprez
Koen Deprez, Paul Haems, Luc Vande Riviere, Philippe VanOverbeke, Jürgen Vangeyte

SESSION 107

10:20 -11:55

(EN): BIOMASS HARVESTING

Moderator: Borja Velázquez-Martí
Location: MULTIPURPOSE IB

INTRODUCTION

10:20

HARVESTERS FOR SHORT ROTATION COPPICES: CURRENT STATUS AND NEW SOLUTIONS

Detlef Ehlert
Detlef Ehlert, Ralf Pecenka

10:40

ESTIMATION AND COMPARISON OF PRUNED BIOMASS DEPENDING ON LOCATION AND PRUNING PRACTICE APPLIED IN URBAN MORUS ALBA TREES

Borja Velázquez-Martí
Magdalena Sajdak, Borja Velázquez-Martí

10:55

INVESTIGATION OF THE MAIZE STALK GATHERING FOR ENERGETIC USE

Laszlo Kocsis
Laszlo Kocsis, Zoltán Hudoba, Tibor Vojtela

11:10

COLLECTING AND USE OF CEREAL CHAFF

Fritz Marti
Fritz Marti, Nicole Berger, Bernhard Streit

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### Session 108 (IT): Robotic Platform I

**Moderator:** Gilles Rabatel  
**Location:** ROOM 6+7

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| 10:25 | C-2059 | Developing a Field Robotic Test Platform Using LEGO® MINDSTORM® NXT  
Gareth Edwards, Dionysis Bochtis, Claus G Sørensen |
| 10:40 | C-1395 | Optimal Motion Planning of a Cartesian Manipulator for Maximum Melon Harvesting  
Itzhak Shmulevich, Moshe Mann, Dror Rubinstein, Itzhak Shmulevich, Boaz Zion |
Pilar Barreiro, Juan Duque Rodriguez, Pilar Barreiro Elorza, Javier Gutierrez Lopez, David Gomez-Ullate Otazua, Valeriano Mendez Fuentes, Carlos MejiaMonasterio |
| 11:10 | C-2095 | Robotic Solutions for Pot-Plant Nurseries  
Paolo Gay, Lorenzo Comba, Paolo Gay, Davide Ricauda Aimonino |
| 11:25 | C-0232 | A Multi-Arms Robotic Harvester for 2-D Crops  
Boaz Zion, Boaz Zion, Daniel Levin |

### Session 109 (PF): Non-Destructive Techniques

**Moderator:** Bert Verlinden  
**Location:** ROOM 1

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| 10:25 | C-1812 | Non-Destructive Determination of Amylose Content of Rice by Combined Use of a Near-Infrared Spectrometer and a Visible Light Grain Segregator  
Sakiko Fujikawa, Shusaku Kawamura, Rui Li, Takamasa Dohi |

### Session 110 (PF): Food Technology

**Moderator:** Maria Luisa Amodio  
**Location:** ROOM 4

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| 10:25 | C-1891 | Effect of Fermentation by Lactobacillus Plantarum and Lactobacillus Acidofilus on Functional Properties of Pomegranate Juice  
Zeinab Mousavi, Zeinab Mousavi, Seyed Mohammad Mousavi, Seyed Hadi Razavi, Zahra Emam-Djomeh, Mehr Hadi, Mojgan Mirzapour |
| 10:40 | C-1108 | Purification of Marine Fish Oils Using Pilot Scale Adsorption Column  
Subramaniam Sathivel, Subramaniam Sathivel, Huaixia Yin, Peter J. Bechtel |
11:55  C-0522  PROPERTIES OF THE WATER CONTAINING NANOBUBBLES AS A NEW TECHNOLOGY OF THE ACCELERATION OF PHYSIOLOGICAL ACTIVITY
Shu Liu
Shu Liu, Masatoshi Enari, Yoshinori Kawagoe, Yoshino Makino, Seiichi Oshita

11:10  C-1685  CONTROLLING THE ATMOSPHERE IN THE MALAXATION MACHINE HEADSPACE IN ORDER TO IMPROVE THE QUALITY OF SICILIAN EXTRA VIRGIN OLIVE OILS
Pietro Catania
Pietro Catania, Felice Pipitone, Marco Salvia, Mariangela Vallone

10:20 - 11:55  (SPC02): FOOD ENGINEERING AND PROCESSING
Moderator: Tomas Norton
Location: ROOM 2

10:20  Introduction
10:25  TRENDS ON CFD APPLICATIONS IN AGRICULTURE
Technical speaker: In-Bok Lee
10:55  C-0247  FLOW AND SCALAR EXCHANGE FOR HORTICULTURAL PRODUCTS WITH CFD: PERFORMANCE OF TURBULENCE AND BOUNDARY-LAYER MODELLING APPROACHES
Thijs Defraeye
Thijs Defraeye, Els Herremans, Pieter Verboken, Jan Carmeliet, Bart Nicolai

11:10  C-1066  COMPUTATIONAL FLUID DYNAMICS-BASED THREE DIMENSIONAL MODELING AND SIMULATION OF HEAT AND MASS TRANSFER PROCESS IN A GRAIN MASS OF MAIZE STORED IN A FLAT BIN
José Helvecio Martins
Keller Sullivan Oliveira Rocha, José Helvecio Martins, Marcio Arêdes Martins, Adílio Flauzino Lacerda Filho, Paulo Marcos de Barros Monteiro

11:25  C-1362  NUMERICAL SIMULATION OF AIRFLOW DISTRIBUTION IN A MIXED FLOW DRYER
Holger Scaar Uwe
Holger Scaar, Fabian Weigler, Jochen Mellemann

10:20 - 11:55  (SPC07): SILO LOADING
Moderator: Francisco Ayuga
Location: ROOM 3

10:20  Introduction
10:25  C-0016  REVIEW OF SILO LOADINGS ASSOCIATED WITH THE STORAGE OF BULK GRANULAR MATERIALS
Technical Speaker: Alan W. Roberts
10:55  C-0488  A NOTE ON LOAD COMBINATIONS FOR SILOS
Jørgen Nielsen
Jørgen Nielsen, Jørgen Nielsen, J. Michel Rotter, John Dalsgaard Sorensen

11:10  C-0450  AN ARCH-BASED MODEL FOR PREDICTING DYNAMIC PRESSURES DURING SILO DISCHARGE
Qiang Zhang
Xuduo Cheng, Qiang Zhang

11:25  C-1406  EXPERIMENTAL STUDY OF THE PRESSURES EXERTED BY THE WHEAT STORED IN SLENDER CYLINDRICAL SILOS. COMPARISON WITH EUROCONE 1 PART 4
Pedro Aguado Rodríguez
Angel Couto, Pedro Aguado Rodríguez, Angel Ruiz, Alberto Tascón

10:20 - 11:55  (ED): EDUCATION AND CURRICULA
Moderator: Carlos Alvarez
Location: ROOM 5

10:20  Introduction
10:25  C-0055  EVALUATING THE EFFICIENCY OF APPLIED AGRICULTURAL SCIENCE EDUCATION IN PRODUCTIVITY OF PRODUCERS AND SUPPLIERS OF MEDICINAL PLANTS IN IRAN
Seyed Abbas Mirjalili
Seyed Abbas Mirjalili

10:40  C-0142  TEACHING INNOVATION THROUGH INTERNATIONAL STAFF MOBILITY AT THE TECHNICAL UNIVERSITY OF VALENCIA
Nemesio Fernández Martinez
Nemesio Fernández Martinez, Vicente Castell Zeising, Rosa Puchades Pla, Debra Westall, Penny Macdonald, Claudio Benavent Montoliu

10:55  C-0976  NEW REQUIREMENTS FOR AGRICULTURAL ENGINEERING TRAINING IN GALICIA (SPAIN)
Carlos J. Álvarez
Marta Cardín, Manuel F. Marey, Tomas S Cuesta, Carlos J. Alvarez
11:10 C-2346 AN OPEN-ACCESS CAN-BASED SYSTEM FOR TEACHING ELECTRO-HYDRAULICS AND OTHER MOBILE CONTROL
Dennis Buckmaster
Dennis Buckmaster, John Michel, Shawn Ehlers, Daniel Skelton, Noah Freeman, D Skelton, Kyle Brune, Josh Heber

11:25 C-1358 DETECTION OF OVERLAPPING PLANTS USING ACTIVE SHAPE MODELS.
Julio César Pastrana Pérez
Julio César Pastrana Pérez, Thomas Rath

11:40 C-2315 A METHOD FOR PLANT LEAF AREA MEASUREMENT BY USING STEREO VISION
Vincent Leemans Vincent Leemans
Benjamin Dumont, Marie-France Destain, Françoise Vancutsem, Bernard Bodson

11:55-13:30 (SW-SPC01): CROP RESPONSE TO THE IRRIGATION REGION
Moderator: Luis Santos Pereira
Location: AUDITORIO 2

11:55 Introduction

12:00 C-1971 REGULATED DEFICIT IRRIGATION. A USEFUL TOOL FOR IMPROVING ON-FARM IRRIGATION EFFICIENCY
Diego Intrigliolo
Diego S. Intrigliolo, Luis Bonet, Carlos Ballester, Juan Ramón Castel

12:15 C-0953 EFFECT OF DIFFERENT IRRIGATION STRATEGIES ON POTATO (SOLANUM TUBEROUSUM L.) CROP YIELD
Juan Ignacio Corcoles Tendero
Juan Ignacio Corcoles Tendero, Debora Costa, Francisco Montoya Alfonso Dominguez, Jose Maria Tarjuelo Martin -Benito, Jose Fernando Ortega Alvarez

12:30 C-2108 ECONOMIC IMPACTS ASSESSMENT OF DEFICIT IRRIGATION AND COMMODITY PRICES IN SOUTHERN BRAZIL

12:15 C-1256 ANALYSIS OF AN ALTERNATIVE CUTTING PRINCIPLE IN A DISC MOWER TO REDUCE THE POWER REQUIREMENTS
Sebastian Kemper
Sebastian Kemper, Thorsten Lang

12:30 C-0099 OPTIMIZING THE PERFORMANCE OF TRACTORS IN DISC HARROW SYSTEMS
João Manuel Serrano
João Manuel Serrano, José Peça, Shakib Shahidian, José Marques da Silva

12:45 C-2290 MODELING AND PREDICTION OF SOIL CUTTING BEHAVIOR BY A PLOW
Takashi Okayasu
Takashi Okayasu, Ken Morishita, Haruki Terao, Muneshimitsuoka, Eiji Inoue, Koichiro Fukami

12:45 C-1373 OPTIMIZED REGULATED DEFICIT IRRIGATION STRATEGIES FOR MAIZE (ZEA MAYS L.) IN A SEMIARID ENVIRONMENT
Alfonso Dominguez Padilla
Alfonso Dominguez, Jose Arturo De Juan, Jose Mariatarjuelo, Roberto Simon Martinez, Angel Martinez
117 SESSION

11:55 - 13:30

(SPC-05): LIGHT, SOUND AND HANDLING ENVIRONMENT
Moderator: Angela Green
Location: AUDITORIO 3A

11:55 Introduction

12:00 In-room break

12:15 C-1409 SOUND LEVELS IN A WEAN-TO-FINISH FACILITY IN BRAZIL (NOISE LEVELS IN A WEAN-TO-FINISH FACILITY IN BRAZIL)
Brenda Medeiros
Brenda B. L. Medeiros, Juliana M. Massari, Ana Paula de Assis Maia, Rojane M. Kletecke, Rimen A. Vercellino, Juliana Sarubbi, Daniella J. Moura

12:30 C-0394 EFFECT OF LIGHT COLOR ON GROWTH AND WASTE EMISSION OF BROILERS
Jingsong Jiang
Jingsong Jiang, Jimmin Pan, Yue Wang, Zhangying Ye, Yibin Ying

12:45 C-1766 DIFFERENT LIGHT INTENSITY ON THE BEHAVIOR AND WELFARE OF COMMERCIAL BROILER CHICKS
Rimen A. Vercellino Amaral
Rimen A. Vercellino Amaral; Daniella Jorge De Moura; Ana Paula De Assis Maia; Brenda Batista Medeiros; Thayla R. Morandi De Carvalho; Douglas D’alejandro Salgado; Ireneza De Alencar Naãs

13:00 C-1687 IMPROVING LOADING FACILITIES AND METHODS TO MINIMIZE STRESS INDUCING FACTORS ON ANIMALS DURING TRANSPORT
Girma Gebresenbet
Girma Gebresenbet

13:15 C-2015 AGGRESSIVENESS TEST IN BREEDING DOES
Irene Olivas
Irene Olivas; Aránzazu Villagrá

118 SESSION

11:55 - 13:30

(SPC-05): AIR QUALITY MEASUREMENT
Moderator: Ken Casey
Location: AUDITORIO 3B

11:55 Introduction

12:00 In-room break

12:15 C-1239 - AIR VELOCITY DISTRIBUTION IN A COMMERCIAL BROILER HOUSE
Brian Luck
Jeremiah D. Davis, Joseph L. Purswell, Johnathan Olsen, Emile Koury

12:30 C-1572 DETERMINING DAILY AVERAGE CONCENTRATIONS OF AMMONIA IN LIVESTOCK BUILDINGS USING A PHOTOACOUSTIC MONITOR AND ACID WET TRAPS
Fernando Estellés Barber
Fernando Estellés Barber, Irene Olivas Cáceres, Milagro Borrás Llopis, Salvador Calvet Sanz

12:45 C-1263 COMPARISON BETWEEN LIGHT SCATTERING AND GRAVIMETRIC DEVICES FOR SAMPLING PM10 MASS CONCENTRATION IN LIVESTOCK HOUSES
Maria Cambra-López
Maria Cambra-López, Albert Winkel, Julio Mosquera, Nico W. M. Ogink, André J. A. Aarnink

13:00 C-1538 AGILITE: A 3-WAVELENGTH LIDAR SYSTEM FOR QUANTITATIVE ASSESSMENT OF AGRICULTURAL AIR QUALITY AND WHOLE FACILITY EMISSIONS
Kori Moore
Michael Wojcik, Jerry Hatfield, Randy Martin, Kori Moore, Richard Pfeiffer, John Prueger

13:15 C-1158 PHOTO ACOUSTIC SPECTROSCOPY IN LIVESTOCK BUILDINGS: INTERFERENCE EFFECTS ON AMMONIA, NITROUS OXIDE AND METHANE CONCENTRATIONS.
Mélynda Hassouna
Mélynda Hassouna, Mélynda Hassouna, Paul Robin, Alicia Charpiot, Nadège Edouard, Bertrand Méda

119 SESSION

11:55 - 13:30

(EN): ENERGY EFFICIENCY IN AGRICULTURE II
Moderator: Chris de Visser
Location: MULTIPURPOSE 1A

11:55 Introduction

12:00 C-0700 IMPLICATIONS OF ENERGY EFFICIENCY MEASURES IN WHEAT PRODUCTION
Andreas Meyer-Aurich
Andreas Meyer-Aurich, Thomas Ziegler, Hasan Jubaer, Lukas Scholz, Tommy Dalgaard

12:15 C-1873 HANDLING, TREATMENT AND SPREADING OF PELLETED AGRICULTURAL WASTES FOR ORGANIC FERTILIZATION
Elio Romano
Elio Romano, Massimo Brambilla, Carlo Bisgalla, Eugenio Cavallo, Niccolò Pampuro, Ester Foppa Pedretti

12:30 C-1873 THE TREND OF ENERGY CONSUMPTION FOR SUGAR BEET PRODUCTION IN DIFFERENT LEVELS OF CULTIVATED AREA
Mohammad Gahderi
Mohammad Gahderi, Morteza Almasi, Masoud Nezamoleslami, Mohammad Hasan Ebrahimi, Babak Pourmehdi, Seyed Alireza Ghadimi, Mohsen Shanazari
12:45 C-1238 DETERMINATION OF ENERGY INDEXES FOR MACHINE-BASED OPERATION IN AGRICULTURAL PRODUCTION (AGRONOMY AND HORTICULTURE) IN IRAN
Mohammad Ghahderijani
Hasan Moradi; Seyed Alireza Ghadimi; Reza Eshaghi; Mohammad Ghahderijani; Mehran Hesarak; Raouf Hazinia; Vahid Jafari

13:00 C-0920 AIR HEATING SOLAR COLLECTORS FOR AGRICULTURAL PRODUCTION DRYING
Aivars Aboltins
Aivars Aboltins; Guntis Ruskis; Janis Palabinskis

11:55 -13:30 (EN): BIOMASS LOGISTICS
Moderator: Márcio Aredes Martins
Location: MULTIPURPOSE 1B

11:55 Introduction
12:00 C-0156 GENERIC DATA MODEL TO REPRESENT THE BIOMASS-TO BIOENERGY SUPPLY CHAIN LOGISTICS
Annelies De Meyer
Annelies De Meyer, Dirk Cattrysse, Monique Snoeck, Jos VanOrshoven
12:15 C-0689 OPTIMIZATION OF BIOMASS LOGISTICS FOR AGRICULTURAL RESIDUE USAGE IN WESTERN CANADA
Joy Agnew
Joy Agnew, Carrie Sampson
12:30 C-1026 MILP MODELS FOR BIOMASS SUPPLY CHAINS OPTIMIZATION: APPLICATIONS TO DISTRICT HEATING IN RESIDENTIAL AREAS
Antonio Pantaleo
Antonio Pantaleo, Sara Giarola, Achille Pellerano, Nilay Shah
12:45 C-1243 OPTIMIZATION OF HARVEST AND STORAGE TECHNOLOGY FOR EFFICIENT PRODUCTION OF BIOENERGY FROM SHORT ROTATION COPPICE ON FARMLAND
Ralf Pecenka
Ralf Pecenka, Christine Idler, Hannes Lenz, Volkhard Scholz, Jürgen Kern, Jürgen Kern
13:00 C-2254 A MACHINERY ALLOCATION AND SCHEDULING TOOL FOR THE BIOMASS COLLECTION CHAIN
Dionysis Bochtis
Anna Orfanou, Dionysis Bochtis, Dimitris Pavlou, Gareth Edwards, Claus Sørensen

11:55 -13:30 (IT): ANIMAL MONITORING II
Moderator: Morris Villarroel
Location: MULTIPURPOSE 1C

11:55 Introduction
12:00 C-1935 PRECISION DAIRY MANAGEMENT BASED ON ONLINE SYNERGISTIC CONTROL
Tjebbe Huybrechts
Tjebbe Huybrechts, Kristof Mertens, Bart De Ketelaere, Josse DeBaerdemaeker, Wouter Saeyes
12:15 C-0667 ADAPTIVE FILTER FOR DENOISING COWS EEG MEASUREMENTS BASED ON EMG SIGNAL
Matti Pastell
Matti Pastell, Emma Ternman, Per Peetz Nielsen, Sigrid Agenas, Laura Hänninen
12:30 C-2071 EFFECTS OF CHICKEN EMBRYOS INCUBATED UNDER HIGH CO2 LEVEL DURING LAST 3 DAYS OF INCUBATION
Qin Tong
Qin Tong, Imelda McGonnell, Carlos Eduardo Bittes Romanini, Daniel Berckmans, Hakim Bergoug, Nancy Roulston, Pascal Garain, Theo Demmers
12:45 C-0986 DUST CONCENTRATION MEASUREMENT IN CONFINED LAYING HEN HOUSES USING DIGITAL IMAGE PROCESSING TECHNOLOGY
Ligen Yu
Ligen Yu, Guanghui Teng, Baoming Li, Chao Zong, Yingying Li
13:00 C-0591 AN INTEGRATED WARNING SYSTEM FOR IMPROVED LIVESTOCK PRODUCTION BASED ON MULTIVARIATE SYNERGISTIC CONTROL
Kristof Mertens
Kristof Mertens, Tjebbe Huybrechts, Bart Kemps, Josse DeBaerdemaeker, Wouter Saeyes, Bart De Ketelaere

11:55 -13:30 (IT): ROBOTIC PLATFORM II
Moderator: Jan Bontsema
Location: ROOM 6+7

11:55 Introduction
12:00 C-0234 MECHANICAL DESIGN AND DEVELOPMENT OF AN ELECTRIC MOBILE ROBOT FOR AGRICULTURAL TASKS IN GREENHOUSES
Julían Sánchez-Hermosilla
Julían Sánchez-Hermosilla López, Francisco Cesar Paez Cano, Víctor. Rincón Cervera, Julian García Donaire
12:15  C-0795  PRESERVING STABILITY OF HUGE AGRICULTURE MACHINES WITH INTERNAL MOBILITIES: APPLICATION TO A GRAPE HARVESTER.  
Michel Berducat  
Djeumet Denis, Benoit Thuilot, Lenain Roland, Michel Berducat

12:30  C-0864  MONITORING THE PERFORMANCE OF GRAIN DRILL ON-THE GO FOR ROBOTIC TRACTORS  
Ahmad Al-Mallahi  
Ahmad Al-Mallahi, Takashi Kataoka

12:45  C-1165  ICT-AGRI: EFFORTS AND PROGRESS ON HARMONIZING EUROPEAN AGRICULTURAL RESEARCH IN ICT AND ROBOTICS AND RELATED ENVIRONMENTAL ISSUES  
Mertens Koen C.  
Mertens Koen C., Jürgen Vangeyte, Stephanie Van Weyenbergen, Annett Latsch, Martin Holpp, Anais Wermeille, Per Mogensen, Iver Thysen

13:00  C-1449  ELECTRIC AGRICULTURAL ROBOT WITH MULTI-LAYERCONTROL  
Hans W. Griepentrog  
Hans W. Griepentrog, Claes L. Jaeger-Hansen, Karina Dühring

13:15  C-2196  FARM MACHINERY MANAGEMENT INFORMATION SYSTEM  
Spyros Fountas  
Spyros Fountas, Zisis Tsiropoulos, Chris Kavalaris, Vasilis Liakos, Anna Vatsanidou, Claus Sorensen, Theofanis Gemtos, Simon Blackmore

12:30  C-1183  MULTISPECTRAL IMAGING TECHNIQUE FOR DETECTION OFFUNGI-INFECTED SEED POTATOES BASED ON HYPERSPECTRAL IMAGERY  
Dae-Yong Kim  
Dae-Yong Kim, Byoung-Kwan Cho, Yoon-Su Lee

12:45  C-1804  CLASSIFICATION FOR THE RIPENESS OF PAPAYAS BY HYPERSPECTRAL IMAGING  
Xuan Wei  
Xuan Wei, Yong He, Lei Feng, Le He

13:00  C-1833  DETERMINATION OF LAMB MEAT TENDERNESS BY NIR HYPERSPECTRAL IMAGING  
Mohammed Kamruzzaman  
Mohammed Kamruzzaman, Gamal M. Elmasry, Da-Wen Sun, Paul Allen

13:15  C-0994  DETECTION AND CHARACTERIZATION OF FOODBORNE PATHOGENIC BACTERIA WITH HYPERSPECTRAL MICROSCOPE IMAGING  
Bossoon Park  
Bossoon Park, Jaya Sundaram, Arthur Hinton, Jr., Seung-Chul Yoon, Kurt Lawrence, William Windham

124  SESSION  
11:55 -13:30  
(PF): NON DESTRUCUTIVE TECHNIQUES II  
Moderator: Da-Wen Sun  
Location: ROOM 1

11:55  Introduction

12:00  C-2092  HYPERSEPECTRAL VISION FOR EARLY DETECTION OF YEAST PRESENCE IN ORGANIC MEDIUM (AGAR)  
Belen Diezma Iglesias  
Lourdes Lleó, Laura Naranjo, Eva Mª Rivas, Eva Cristina Correa, Jean-Michel Roger, Belén Diezma, Mª Isabel de Silóniz, José Martínez Peinado, Pilar Barreiro Elorza

12:15  C-1164  PREDICTION OF DEGRADATION RATE OF BROCCOLI DURING STORAGE BY HYPER SPECTRAL IMAGING  
Ayumi Hosaka  
Ayumi Hosaka, Yoshio Makino, Yoshinori Kawagoe, Seiichi Osita

12:30  C-1183  MULTISPECTRAL IMAGING TECHNIQUE FOR DETECTION OFFUNGI-INFECTED SEED POTATOES BASED ON HYPERSPECTRAL IMAGERY  
Dae-Yong Kim  
Dae-Yong Kim, Byoung-Kwan Cho, Yoon-Su Lee

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Bossoon Park  
Bossoon Park, Jaya Sundaram, Arthur Hinton, Jr., Seung-Chul Yoon, Kurt Lawrence, William Windham

125  SESSION  
11:55 -13:30  
(SPC02): MACHINE DESIGN AND PERFORMANCE I  
Moderator: Christopher Choi  
Location: ROOM 2

11:55  Introduction

12:00  C-0088  THE INFLUENCE OF CALCIUM CHLORIDE AND CALCIUM NITRATE TREATMENT ON THE ZIZIPHUS.SPP FRUIT QUALITY  
Mansooré Shamili  
Mansooré Shamili, Iman Haji

12:15  C-2104  EFFECT OF DIFFERENT TREATMENTS ON COLOR AND VITAMIN C RETENTION IN OSMO DEHYDROFROZEN PLUMS  
Reihaneh Ahmazadeh Ghavidel  
Reihaneh Ahmazadeh Ghavidel, Mehdi Ghiafeh Davoodi, Parastou Karimifar

12:30  C-0966  EFFECT OF ULTRASOUND IRRADIATION ON THE CONVECTIVE HEAT TRANSFER RATE DURING IMMERSION COOLING OF A STATIONARY SPHERE  
Hossein Kiani  
Hossein Kiani, Da-Wen Sun, Zhihang Zhang
12:00 C-1836 HOMOGENIZATION OF AIRFLOW IN A FIXED-BED DRYER FOR MEDICINAL PLANTS BASED ON COMPUTATIONAL FLUID DYNAMICS (CFD) Holger Scaar, Uwe Teodorov Dimov, Holger Scaar, Thomas Ziegler, Jochen Mellmann

12:15 C-1129 CFD SIMULATION OF INTEGRATED MECHANICAL MIXING AND GAS SPARGING IN ANAEROBIC DIGESTERS Binxin Wu, Todd Hutchinson

12:30 C-1443 EFFECTS OF RADIATION SHIELDS AND CONDUCTIVE COOLING TO REDUCE HEAT STRESS IN DAIRY CATTLE Christopher Choi, Mario Mondaca

12:45 C-1879 CFD-ANALYSIS OF HEAT EXCHANGE AROUND CHICKEN EGGS IN AN INCUBATOR Elvira Galiullina, Vasileios Exadaktylos, Ali Yousef, Daniel Berckmans

13:00 C-2117 USING CFD TO OPTIMIZE THE DESIGN OF ONE LAYER STORAGE SYSTEM FOR TULIP BULBS Athanasios Sapounas, Jeroen Wildschut


1:00 C-1629 DISTRETE ELEMENT SIMULATION OF BOTTLENECK FLOW WITH OBSTACLE Fernando Alonso-Marroquin, Charmila Sathanandan

1:15 C-0823 DETERMINATION OF THE MECHANICAL PROPERTIES OF BIOMASS PELLETS FOR USE IN DEM SIMULATIONS Francisco Ayuga, Carlos González-Montellano, Álvaro Ramírez-Gómez, Eutiquio Gallego, Francisco Ayuga

1:30 C-2117 USING CFD TO OPTIMIZE THE DESIGN OF ONE LAYER STORAGE SYSTEM FOR TULIP BULBS Athanasios Sapounas, Jeroen Wildschut


12:00 C-1186 WEEDS-WHEAT DISCRIMINATION USING HYPERSPECTRAL IMAGERY Xavier Hadoux, Nathalie Gorretta, Gilles Rabatel

12:15 C-2209 CLASSIFICATION BETWEEN VEGETATION AND NON VEGETATION USING HYPERSPECTRAL SENSING Efthimio Vitzrabin, Victor Alchanatis, Yael Edan

12:30 C-1496 USING THE WIENER PREDICTIVE FILTER APPROACH TO IMPROVE MEASUREMENTS OF SOIL DENSITY OBTAINED WITH AN X-RAY COMPUTED TOMOGRAPHY SCANNER Paulo Cruvinel Estevao, Mauricio F. Lima Pereira

12:45 C-1122 GETTING SIMULTANEOUS RED AND NEAR INFRARED BANDS FROM A SINGLE DIGITAL CAMERA FOR PLANT MONITORING APPLICATIONS Gilles Rabatel, Nathalie Gorretta, Sylvain Labbe

14:30 -15:25 (PM): POWER AND MACHINERY-POSTER SESSION Location: POSTERS ROOM

P-0319 DESIGN, DEVELOPMENT, AND EVALUATION OF AMECHATRONICS TRANSMISSION SYSTEM FOR UPGRADE PERFORMANCE OF A ROW CROP PLANTER Saadat Kamgar, Mohammad Javad Esfandi

P-0412 EXAMINATION OF ROLLING LOSSES ON LOAMY SAND Laszlo Mathes Laszlo Mathes
P-0508 TRACTION FORCE IN ARABLE FARMING: AGRONOMIC AND ENVIRONMENTAL ASPECTS AFTER FIELD DATA ACQUISITION AND MODELLING
Thomas Anken
Etienne Diserens, Anken Thomas, Andrea Battiato

P-0587 PERFORMANCE OF VACUUM SEED METERING IN LONGITUDINAL DISTRIBUTION OF COTTON SEEDS
Otávio Dias da Costa Machado
Airton dos Santos Alonço, Otávio Dias da Costa Machado, Mateus Potrich Bellé, Fernando Pissetti Rossato, Kátia Maria Cardinali, Hendrigo Alberto Torchelsen da Silveira

P-0611 SAFETY ANALYSIS OF THE POWER HARROW THROUGH SIMULATION BASED ON THE CHARACTERISTICS OF THE SOIL
Jae Wan Lee
Jae Wan Lee, Young Joo Kim, Seong Il Kang, Joonyong Kim

P-0844 OPTIMAL SELECTION OF FARM POWER AND MACHINERY SIZE BY MIXED INTEGER LINEAR PROGRAMMING
Rajab Tondro
Rajab Tondro, Hasan Aghel, Mahdi Hashemjastepour, Arash Dourandish

P-0855 DEVELOPMENT AND TESTING OF INNOVATIVE DEVICES TO REDUCE THE DRIFT OF ABRASION POWDER DURING THE SOWING OF DRESSED SEEDS WITH PNEUMATIC DRILLS
Marcello Biocca
Daniele Pochi, Marcello Biocca, Roberto Fanigliulo, Pietro Gallo, Patrizio Pulcini

P-0929 CROP-LIVESTOCK INTEGRATION: EVALUATION OPERATING PERFORMANCE ON INTERCROPPED OF MAIZE STRAW WITH FORAGES
Carlos Chideroli Alessandro
Carlos Alessandro Chideroli, Carlos Eduardo Angeli Furlani, Rafael Henrique de Freitas Noronha, Rafael Scabello Bertonha, Ariel Muncio Compagnon

P-0943 KINEMATIC ANALYSIS OF FINGERED TYPE MOUNTED MOWER CRANK MECHANISM BY USING MSC ADAMS SOFTWARE
Abdullah Beyaz
Abdullah Beyaz, Ugur Yegul

P-0981 MAIZE SEEDING IN CROP-LIVESTOCK INTEGRATION SYSTEM IN THE SECOND CROP YEAR
Carlos Chideroli Alessandro
Carlos Alessandro Chideroli, Carlos Eduardo Angeli Furlani, Marcelo Boamortete Raveli, Marcelo Tufailde Cassia, Fábio Alexandre Cavichioi

P-0988 NON-LINEAR STRESS ANALYSIS FOR THE BOLT CONNECTIONS OF A CHISEL TINE USING FINITE ELEMENT METHOD
H. Kursat Celik
H. Kursat Celik, Allan. E. W. Rennie, Ibrahim Akinci

P-0992 POPULATION OF PLANTS IN MAIZE STRAW INTERCROPPED WITH FORAGES IN THE CROP-LIVESTOCK INTEGRATION
Carlos Eduardo Angeli Furlani
Carlos Eduardo Angeli Furlani, José Maria do Nascimento, Carlos Alessandro Chideroli, Rafael Scabello Bertonha, Fábio Alexandre Cavichioi

P-1133 SEEDER PERFORMANCE FOR RAPESEED
Arlindo Almeida
Arlindo Almeida, Ângelo Rodrigues

P-1229 EVALUATION OF ENERGY REQUIREMENTS AND RESIDUE BURIAL EFFICIENCY OF THREE PRIMARY TILLAGE METHODS IN A HEAVY CLAY SOIL
Marcello Biocca
Roberto Fanigliulo, Marcello Biocca, Marco Fedrizzi, Mauro Pagano, Daniele Pochi

P-1437 INVESTIGATION OF THE SOIL-TOOL INTERACTION BY SPH (SMOOTH PARTICLE HYDRODYNAMICS) BASED SIMULATION
György Kerényi
Márton Urbán, Krisztian Kotroczi, György Kerényi

P-1513 PERFORMANCE OF TWO PLANTERS PROTOTYPES OF DIRECT SEEDING (NO-TILL)
Vilnei Dias
Vilnei Dias, Airton dos Santos Alonço

P-1535 USING EARNING VALUE MANAGEMENT (EVM) TO EVALUATE THE QUALITY OF FARMING OPERATIONS
Marcelo Dodson Sans
Marcelo Dodson

P-1589 INVESTIGATION THE EFFECTS OF MOISTURE CONTENT, TRAFFIC AND LOADING ON THE SOIL SINKAGE
Reza Tabatabaekoor
Reza Tabatabaekoor, Seyed Reza Mousavi Seyedi

P-1615 MATHEMATICAL MODELING OF THE MOTION RESISTANCE RATIO OF TOWED PNEUMATIC AND RIGID CYCLE WHEELS ON DEFORMABLE SURFACES
Fatai Akande Bukola
Fatai Akande Bukola, Desa Ahmad

P-1634 EFFECT OF VIBRATORY AND NON-VIBRATORY SUBSOILING ON THE SOIL ENGINEERING PROPERTIES
Reza Tabatabaekoor
Reza Tabatabaekoor, Seyed Reza Mousavi Seyedi
P-1785 DESIGN AND EVALUATION OF A PAIRED ROW NO-TILL SEEDING SYSTEM
F. Javier López Díez
F. Javier López Díez, Pablo Pastrana

P-1807 INNOVATIVE METHOD AND MATERIALS FOR TYRE FOOTPRINT EVALUATION ON SURFACE CAPABLE OF BEING DEFORMED
Carlo Bisaglia
Elio Romano, Maurizio Cutini, Carlo Bisaglia

P-1830 SPECIFIC ENERGY CONSUMPTION AND FIELD PERFORMANCE AND IN PLOUGHING AND CULTIVATING
Gerhard Moitzi
Gerhard Moitzi, Martin Haas, Helmut Wagentristl, Josef Boxberger, Andreas Gronauer

P-2025 EFFECTS OF TILLAGE METHODS ON ENERGY USE FOR WHEAT IN MEDITERRANEAN COASTAL OF TURKEY
Zeliha Barut Bereket
Zeliha Barut Bereket, Ismail Çelik, M. Murat Turgut

P-2033 EFFECT OF TILLAGE EQUIPMENT ON CO2 EMISSION FROMSOIL
Zeliha Barut Bereket
Zeliha Barut Bereket, M. Murat Turgut, Davut Akbolat, Ismail Çelik

P-2168 EVALUATION OF ELECTRICAL PRUNING SHEARS IN GRAVEPINE
Carmen Jaren
Carmen Jaren, Gaizka Jaurregi, Jesus Mangado, Pedro Arnal, Ainara López, Silvia Arazuri

P-2238 SPEED SEEDING AND SOIL RESISTANCE PENETRATION IN DIRECT SOWING IN SAO PAULO STATE -BRAZIL
Wilson José Oliveira de Souza
Wilson José Oliveira de Souza, Samuel Ferrari, Elza Alves, CésarHenrique De Jesus, Alexandre Tsuyoshi Yamamoto

P-2349 AGROBACTERIUM-MEDIATED GENETIC TRANSFORMATION OF CHRYSANTHEMUM (CHRYSANTHEMUM MORIFOLIUM RAMAT.) WITH AN APHDICIDAL GENE, GCS (GAMMA-CADINENESYNTASE)
Mahmood Valizadeh
Mahmood Valizadeh, Seyed Kamal Kaze-mitabar, Maarten A. Jongsm

P-2358 MODELING THE EFFECT OF NARROW BLADE GEOMETRY ON SOIL FAILURE AND DRAFT FORCE USING DISCRETE ELEMENT METHOD
Gholamhosein Shahgoli
Gholamhosein Shahgoli, Naser Shahi

P-2359 GENOMIC AND FUNCTIONAL STUDY OF RHIZOSPHERIC BACTERIAL COMMUNITIES OF PINUS ROXBURGHII AND THEIR POTENTIAL USE IN AGRICULTURE
Muhammad Faisal
Tayyaba Younis, Muhammad Faisal

P-0617 EFFECT OF TRACTOR TRAFFIC ON SOIL PHYSICAL PROPERTIES AND PERFORMANCE
Ali Raza Shah Sayed

P-1709 EFFECT OF MACRO SHAPE BLADE GEOMETRY ON DRAINT FORCE AND SOIL REDISTRIBUTION
Seth Manuwa Idowu

P-1048 IMPROVING MAIZE IRRIGATION MANAGEMENT BY CSM-CERESMAIZE MODEL
Maliheh Rabie
Maliheh Rabie, Mehdi Gheysari, Seyed Majid Mirlatif

P-0462 IMPACT OF CLIMATE VARIABILITY ON IRRIGATION REQUIREMENTS FOR TWO CROPS AND RUN OFF EFFECTS INCORDIA; ENTRE R _OS, ARGENTINA
Alejandro Panunzio
Alejandro Panunzio, Pamela Norma Texeira Soria, Lida Borello

P-0272 SOIL WATER MANAGEMENT STRATEGIES FOR ENHANCED CROP WATER PRODUCTIVITY IN DRY SEASON FARMING ON INLAND VALLEY SWAMPS OF THE TROPICS
Samuel Agele Ohikhena

P-1053 EUCALYPTUS IRRIGATION USING FACULTATIVE STABILIZATION POND EFFLUENT: POST TREATMENT EFFICIENCY OF THE SOIL-PLANT SYSTEM
Denis Roston Miguel
Denis Roston Miguel, Alex Henrique Veronez, Bruno Coraucci Filho, Ronaldo Stefanutti

P-1810 WATER PRODUCTIVITY AT FARM-SCALE AS A FUNCTION OF EVAPOTRANSPIRATION IN PRODUCTION SYSTEMS USING THE EXAMPLE OF BRANDENBURG, GERMANY
Daniela Müller
Daniela Müller, Katrin Drastig, Annette Prochnow, Judy Libra

P-1193 RELATIONSHIP BETWEEN CITRUS PRODUCTIVITY AND INDICATORS OF UNIFORMITY IN TRICKLE IRRIGATION SYSTEM.
João Carlos Saad Cury
João Carlos Saad Cury, Helio Moreira Da Silva Junior

P-0012 GROWING MORE WITH LESS IN THE WESTLANDS WATER DISTRICT IN THE SAN JOAQUIN VALLEY, CALIFORNIA
James Ayars
James Ayars, Bakhodir Mirzaev
P-0024 DAILY PENMAN-MONTEITH SENSITIVITY ANALYSIS IN MANY SUBCLASSES CLIMATE OF KERMAN BASED ON EXTENDED MARTONNE CLASSIFICATION
Bahram Bakhtiari
Bahram Bakhtiari, Amin Baghizadeh

P-0025 RECOGNITION AND ESTIMATION OF EFFECTIVE RAINFALL AS A DROUGHT MANAGEMENT STRATEGY IN RAINFED AGRICULTURE.
Jaber Rahimi
Jaber Rahimi

P-0062 PRODUCTION OF HYBRID PAPAYA CULTIVATED UNDER DIFFERENT IRRIGATION LEVELS.
Juarez Pedroza Paz
Juarez Pedroza Paz

P-0070 SEMINAL ROOT OF MAIZE VARIETIES IN RELATION TO REDUCTION IN THE SUBSTRATES MOISTURE CONTENT
Asad Shah
Asad Shah

P-0211 MORPHOLOGICAL RESPONSES OF EUCALYPTUS GRANDIS SEEDLINGS SUBMITTED TO DIFFERENT WATER STRESS LEVELS DURING HARDENING
Magali Silva Ribeiro da
Magali Ribeiro da Silva, Antonio Carlos Nogueira, Carlos Marchesi de Carvalho, Danilo Simões

P-0215 TRANSPERSION OF EUCALYPTUS SPP. SEEDLINGS SUBMITTED TO DIFFERENT FERTIGATION MANAGEMENTS
Magali Silva Ribeiro da
Magali Ribeiro da Silva, Simone Fernandes Ciavatta, Danilo Simões

P-0255 ADEQUACY OF THE PENMAN-MONTEITH METHOD TOIRRIGATED SURFACE WITH DIFFERENT EXPOSURES AND DECLIVITY
José Eduardo Pitelli Turco
José Eduardo Pittelli Turco, Adhemar Pitelli Milani, Edemo João Fernandes

P-0249 EVAPOTRANSPIRATION AND CROP COEFFICIENT OF ONION (ALLIUM CEPA L.) UNDER THE MULCH OF PLASTIC FILM IN ANARID REGION, NORTHWEST CHINA
Jianhua zheng
Jianhua Zheng, Guanhua Huang, Jun Wang, Quanzhong Huang

P-0244 IRRIGATION AND BIOFERTILIZER EFFECTS ON GROWTH OF GARLIC
João Galbiatti Antonio
João Galbiatti Antonio, Aline Rombega Tito Rosa, Barbara Barofaldiri Ariguchi

P-0246 THE BENEFITS OF LENTIL AUTUMN SOWING
SeyedSaeid Hojjat
SeyedSaeid Hojjat

P-0428 EFFECT OF SEED SIZE ON SEED GERMINATION BEHAVIOR OF LENTIL GENOTYPES (LENS CULINARIS MEDIK.)
SeyedSaeid Hojjat
SeyedSaeid Hojjat

P-0600 RESPONSE OF MELON (CUCUMIS MELO L.) YIELD AND QUALITY TO WATER UNDER FURROW IRRIGATION IN AN ARID REGION OF NORTHWEST CHINA
Guanhua Huang
Guanhua Huang, Jianhua Zheng, Quanzhong Huang, Haijun Liu

P-0710 YIELD AND BEAN SIZE OF COFFEE ARABICA (CV CATUAICULTIVATED UNDER DIFFERENT POPULATION ARRANGEMENTS AND WATER AVAILABILITY
Eduardo Agenlos Barbosa Augusto
Eduardo Agenlos Barbosa Augusto, Emilio Sakai, Jane Maria Carvalho Silveira, Regina Célia de Matos Pires

P-0739 AGRICULTURAL WATER FOOTPRINT OF ETHANOL AND SUGAR FROM SUGAR CANE UNDER FERTIGATION PRODUCTION SYSTEM
Aderson Soares Andrade Junior
Aderson Soares Andrade Junior, Edson Alves Bastos, Antenor Oliveira Aguiar Netto, Darian Leao Braga, Maria Eveline da Silva, Donavan Holanda Nolet

P-0756 SUGARCANE FERTIRRGATED WITH MINERAL FERTILIZER AND Vinasse UNDER SUBSURFACE DRIP IRRIGATION DURING FOUR YEARS
Eduardo Agenlos Barbosa Augusto
Eduardo Agenlos Barbosa Augusto, Flávio Bussmeyer Arruda, Regina Célia de Matos Pires, Tonny Jose de Araujo Silva, Emilio Sakai

P-0779 ESTIMATION OF CROP WATER PRODUCTIVITY IN THE ZAYANDEHRUD BASIN BASED ON FIELD INVESTIGATION (CASE STUDY: ABSHAR RIGHT IRRIGATION NETWORK)
Vahid Rezavandinejad
Vahid Rezavandinejad, Hojjat Ahmadi, Sina Besharat

P-0826 CALIBRATION OF HARGREAVES EQUATION FOR ESTIMATING THE REFERENCE EVAPOTRANSPIRATION IN THE SOUTHEAST OF SPAIN
Antonio Ruiz Canales
Antonio Ruiz Canales, José Miguel Molina Martínez, Daniel G Fernández-Pacheco, Herminia Puerto Molina, Ramón Lópezurrea

P-1061 PRODUCTIVE PERFORMANCE OF MAIZE GENOTYPES UNDER WATER DEFICIT IN TEREISINA, PIAUI STATE, BRAZIL
Edson Bastos Alves
Edson Bastos Alves, Milton Jose Cardoso, Ricardo Silva de Sousa, Aderson Soares De Andrade Júnior, Valdenir Queiroz Ribeiro, Ramilos Rodrigues de Brito
P-1063 SIMULATION OF WATER FLOW WITH ROOT WATER UPTAKE PROPOSED THE NEW SOFTWARE SWMRUM
Sina Besharat

Sina Besharat

P-1291 ACCUMULATION OF THE CHLORIDE AND SODIUM IN PRECOCIOUS DWARF CASHEW IRRIGATED WITH SALINE WATER DURING THE FRUITING STAGE
Arlington Ricardo Ribeiro De Oliveira
Arlington Ricardo Ribeiro De Oliveira, Ronaldo Nascimento, Maiene De Fátima Cordeiro Queiroga, Hugo Orlando Carvalho Guerra

P-1328 ENHANCEMENTS OF USING RTD INSTEAD OF THERMOCOUPLES FOR ESTIMATING EVAPOTRANSPIRATION BY MEANS OF ENERGY BALANCE METHOD
José Miguel Molina Martínez
David Escarabajal Henarejos, José Miguel Molina Martínez, Daniel García Fernandez-Pacheco, Antonio Ruiz-Canelas, Ramón López-Urrea

P-1365 EVALUATING CLIMATE CHANGE IMPACT ON IRRIGATION VULNERABILITY IN SOUTH KOREA
Min-Won Jang
Min-Won Jang, Soo-Jin Kim, Dae-Sik Kim, Sang-Min Kim

P-1444 IMPROVEMENT OF ICEBERG LETTUCE IRRIGATION IN THE ‘CAMPO DE CARTAGENA’ AREA
Hermínia Puerto Molina
Hermínia Puerto Molina, Javier Juárez López, Antonio Ruiz Canelas, José Miguel Molina Martínez

P-1628 WIND-INDUCED FLOW IN A CLOSED WATER BODY WITH FLOATING CULTURE SYSTEM
Kunihiko Hamagami
Kunihiko Hamagami, Masayuki Fujihara, Ken Mori, Hidekazu Yoshioka

P-1712 DRIP IRRIGATION BASED ON PAN EVAPORATION VALUES FOR MUSKMELON (CUCUMIS MELO L) IN PLASTIC GREENHOUSE
Bao-Zhong Yuan
Bao-Zhong Yuan, Jie Sun, Zhi-Long Bie, Yaohu Kang

P-1880 SURFACE ENERGY BALANCE TO ESTIMATE EVAPOTRANSPIRATION OF IRRIGATED ORANGE ORCHARDS UNDER MEDITERRANEAN SEMI-ARID CONDITIONS
Rita Papa
Simona Consoli, Rita Papa

P-1882 ON THE TRUE ORIGINS OF THE HEAT PROPAGATION MODEL FOR THE PREDICTION OF SUBTERRANEAN TEMPERATURES
Fernando Ruiz-Mazarrón
José Francisco Romero-García, Ignacio Cañas Guerrero, Fernando Ruiz-Mazarrón

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A Three-Point Hitch Dynamometer for Load Measurements Between Tillage Implements and Agricultural Tractors During Operation

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Conservation Agriculture in Dry Areas of Morocco: Rational for Agricultural Sustainability Under Climate and Socio-Economic Change

Effect of Organic and Inorganic Nitrogen Amendments and Crop Rotation on Tillage Energy in a Clay Loam Soil

The Effect of Plant Growth Promoting Rhizobacter Strain on Wheat Yield and Quality Parameters

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(SWP-SPC01): PLANT WATER RELATIONSHIPS
Moderator: Diego Intrigliolo
Location: AUDITORIO 2

15:25
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15:30 C-1620 MODELS OF CROP GROWTH AND REMOTE SENSING FOR ESTIMATING CROP YIELD IN IRRIGATED AGRICULTURE
Enrique Palacios-Vélez
Enrique Palacios-Vélez, Luis Alberto Palacios-Sánchez, Enrique Mejía-Saenz

15:45 C-2065 EFFECT OF SUBSURFACE DRIP IRRIGATION ON MOISTURE DISTRIBUTION, ROOT GROWTH AND PRODUCTION OF CAULIFLOWER
Uday Khodke
Uday Khodke, D. B. Patil

16:00 C-1224 WICK IRRIGATION SYSTEM USING SELF-COMPENSATED BENCHES FOR LETTUCE PRODUCTION
Rhuannito Soranz Ferrarezi
Rhuannito Soranz Ferrarezi, Roberto Testezlaf

16:15 C-1536 IRRIGATION MANAGEMENT SYSTEM FOR OLIVE ORCHARDS AND VINEYARDS
Samuel Ortega-Farias
Samuel Ortega-Farias, Marcos Carrasco, Fernando Flores

16:30 C-2263 EFFECT OF CONSERVATION TILLAGE AND IRRIGATION METHODS ON THE CROP YIELD AND WATER USE EFFICIENCY IN WHEAT-CORN ROTATION
Sadegh Afzalinia
Sadegh Afzalinia, Ebrahim Dehghanian

15:25 - 17:00
(SPC-05): BIOAEROSOLS AND AIRBORNE PATHOGENS
Moderator: Eileen Wheeler
Location: AUDITORIO 3A

15:25
Introduction

15:30 C-1300 DETECTION OF AIRBORNE SALMONELLA SPP. IN POULTRY FARMS USING IMPINGEMENT: CULTURE-DEPENDENT VS. CULTURE-INDEPENDENT METHODS
Maria Cambra-López
Elisa Adell, Verónica Moset, Yang Zhao, Ana Jiménez, Alba Cerisuelo, Maria Cambra-López

15:45 C-0998 SHEDDING AND EMISSION OF AIRBORNE VIRAL MICROORGANISMS FROM ANIMAL HOUSES
Yang Zhao
Yang Zhao, André J. A. Aarnink, Maria Cambra-López, Teun Fabri

16:00 C-1281 ASSESSMENT OF INSTRUMENTATION EFFICIENCY FOR DETECTING AIRBORNE VIRUS
Taehwan Ha
Taehwan Ha, In-bok Lee

15:25 - 17:00
(SPC05): AMMONIA EMISSIONS FROM ANIMAL HOUSING
Moderator: Salvador Calvet
Location: AUDITORIO 3B

15:25
Introduction

15:30 C-2246 EMISSIONS CALCULATED FROM PARTICULATE MATTER AND GASEOUS AMMONIA MEASUREMENTS FROM A COMMERCIAL DAIRY IN CALIFORNIA, USA
Kori Moore
Kori Moore, Christian Marchant, Randy Martin, Michael Wojcik, Emyrei Young, Richard Pfeiffer, John Prueger, Jerry Hatfield

15:45 C-2245 AMMONIA EMISSIONS FROM A PIG BREEDER FACILITY IN THE OKLAHOMA PANHANDLE
Ken Casey
Ken Casey, Erin Cortus, Al Heber, Al Caramanica

15:25
Introduction
16:00 C-0965 COMPARISON OF AMMONIA EMISSIONS FROM POULTRY HOUSES BASED ON DIURNAL INTEGRATION VS. DAILY MEANS OF GAS CONCENTRATION AND BUILDING VENTILATION RATE
Yongxing Chen
Yongxing Chen, Hongwei Xin, Hong Li, Tim Shepherd, Morgan Hayes, John Stinn, Robert Burns, Richard S. Gates, Hongmin Dong

16:15 C-0699 SPATIAL VARIABILITY OF AMMONIA IN THE VICINITY OF A BROILER FARM
Kristina von Bobrutzki
Kristina von Bobrutzki, Werner Berg, Menike Fiedler, Alaa Kiwan

16:30 C-1375 AMMONIA EMISSIONS FROM CHOPPED WILLOW VS. PINE SHAVINGS AS BEDDING FOR BROILER CHICKENS
Michael Hile
M. L. Hile, Eileen F. Wheeler, Paul H. Patterson

16:45 C-1338 EVALUATION OF ENZYME FEED ADDITIVE ON AMMONIA EMISSION FROM BROILERS
Hong Li
Hong Li, Stephen Collier, Williams Brown, Jeannine Harter-Dennis

15:25 - 17:00 (EN): ENERGY EFFICIENCY IN AGRICULTURE III
Moderator: Fatima Batista
Location: MULTIPURPOSE IA

15:25 Introduction
15:30 C-0822 ENERGY BALANCE OF CEREALS UNDER MOROCCAN CONDITIONS
Mohamed Ramah
Ramah Mohamed Ramah, El Houssain Baali

15:45 C-0112 METHODOLOGY FOR ENERGY AND MATERIAL EMBODIMENT DETERMINATION IN THE LIFE CYCLE OF AGRICULTURAL MACHINERY
Thiago Liborio Romanelli
Thiago Liborio Romanelli, Edemilson José Mantoam

16:00 C-0456 ENERGY CONSUMPTION BY CONVENTIONAL RURAL TECHNOLOGIES & FEASIBILITY STUDY FOR SUPERSEDEENCE OF THESE RESOURCES WITH RENEWABLE SOURCES OF ENERGY
Yaser Sahebi
Yaser Sahebi, Morteza Amassi, Mohammad J. Sheikhdavoodi, Hushang Bahrami, Hosseyn Bakhoda, Nima Nasirian

16:15 C-0623 COMPARISON OF DIFFERENT WORK PROCESSES FOR HARVEST LOGISTICS OF SILAGE MAIZE
Katja Heitkämper
Katja Heitkämper, Andrea Wagner, Matthias Schick

16:30 C-0634 ELECTRIC DRIVES IN AGRICULTURAL MACHINERY
Juergen Karner
Juergen Karner, Heinrich Prankl, Florian Kogler

15:25 - 17:00 (EN): LIQUID BIOFUELS
Moderator: Xin Wang
Location: MULTIPURPOSE IB

15:25 Introduction
15:30 C-0185 OPTIMIZATION OF BIODIESEL PRODUCTION FROM HAEMATOCOCCUS PLUVIALIS USING RESPONSE SURFACE
Lanfang Zhang
Jiajie Xu, Antonio Galan, Jun Zhou, Shujun Li, Fengmin Zhao, Xiurong Su

15:45 C-0209 USING CARTHAMUS OXYACANTHA OIL METHYL ESTER AS BIODIESEL IN IRAN
Hamid Mashhadimeyghani
Hamid Mashhadimeyghani, Morteza Almasi, Alimohammad Borghesi, Javad Azizian, Abdolvahed Khanahmadzade

16:00 C-0283 ANIMAL FATS BIODIESEL USES AS HEATING FUEL FOR AGRICULTURAL HOT AIR HEATER
Youngjung Kim
Youngjung Kim, Youngjin Kim, Seokho Park

16:15 C-1187 CLIMATE CHANGE IMPLICATIONS OF CROPPING PATTERN AND LAND USE CHANGES FOR ACHIEVING 15 BILLION GALLONS OF CORN ETHANOL
Kyo Suh
Kyo Suh, Taegon Kim, Sangwon Suh, Timothy Smith

15:25 - 17:00 (IT): AUTOMATIC GUIDANCE I
Moderator: Michel Berducat
Location: MULTIPURPOSE TC

15:25 Introduction
15:30 C-1429 AUTOMATION OF HYDROPONIC INSTALLATIONS USING A ROBOT WITH POSITION BASED VISUAL FEEDBACK
Niels Tanke
Niels Tanke, Guoming Long, Dhruv Agrawal, Abhinav Valada, George Kantor
15:45  C-0685  AUTOMATIC GUIDANCE OF AN OFF-ROAD MOBILE ROBOT WITH A TRAILER APPLICATION TO THE CONTROL OF AGRICULTURAL PASSIVE TOWED IMPLEMENTS
Christophe Cariou
Christophe Cariou, Roland Lenain, Benoit Thuilot, Michel Berducat

16:00  C-0314  DESIGN OF AN AUTOMATIC SPRAYER IN GREENHOUSES CONDITION
Hamid Mashhadimeyghani
Hamid Mashhadimeyghani, Davood kalantari, Ali reza Rafigh

16:15  C-1455  GNSS RTK NETWORKS IN SELF-GUIDED SYSTEMS FOR AGRICULTURAL
Angel Felipe Pulido Moreno
Juan Morillo Barragán, Angel Felipe Pulido Moreno, Julio Hernández Blanco

16:30  C-1978  AUTOMATION OF UNLOADING WORK SEARCHING AND DETECTING A GRAIN CONTAINER AND PROPER POSITIONING OF A HARVESTER’S SPOUT
Hiroki Kurita
Hiroki Kurita, Michihisa Iida, Masahiko Suguri

15:25  - 17:00  (IT): SOIL PARAMETERS
Moderator: Thomas Anken
Location: ROOM 6+7

15:25  Introduction

15:30  C-0411  FIELD SCALE MAPPING OF SOIL FERTILITY PARAMETERS BY COMBINATION OF PROXIMAL SOIL SENSORS
Michael Schirrmann
Michael Schirrmann, Kramer Eckart, Robin Gebbers

15:45  C-0155  BENEFITS OF VRA TECHNOLOGY BASED ON MOLE SOIL MAPS
Eddie Loonstra
Eddie Loonstra

16:00  C-1660  MEASUREMENT OF WATER VAPOUR EVAPORATION FROM SOIL SURFACE
Mikko Hakojärvi
Mikko Hautala, Mikko Hakojärvi, Laura Alakukku

16:15  C-1054  OPEN-SOURCE MODELLICA-BASED MODELING AND SIMULATION FOR MEASURING SOIL MOISTURE CONTENT
Alan Kardek Rêgo Segundo
Alan Kardek Rêgo Segundo, José Helvecio Martins, Paulo Marcos de Barros Monteiro

15:25  - 17:00  (PF): QUALITY DETECTION
Moderator: Josse De Baerdemaeker
Location: ROOM 1

15:25  Introduction

15:30  C-1908  DEVELOPING OF AN AUTOMATED QUALITY FOOD CLASSIFIER FOR ?HALLULLA? CHILEAN BREAD TYPE BY COMBINING SENSORIAL EVALUATION AND COMPUTER VISION TECHNIQUES
Franco Pedreschi Plasencia
Franco Pedreschi Plasencia, Salome Mariotti, Ivan Lillo, Natalia Quezada, Andrea Bunger

15:45  C-0220  MACHINE VISION PROTOTYPE FOR ORANGE GRADING USING PHOTOTRANSISTOR
Ayman Amer Eissa Hafiz
Ayman Hafiz Amer Eissa

16:00  C-0661  AUTOMATED PARTICLE LENGTH DISTRIBUTION ANALYSIS OF FORAGE MATERIALS BY MEANS OF COMPUTER VISION
Christian Rechberger
Christian Rechberger, Johann Prankl, Gerhard Obernberger, Heinrich Prankl, Franz Handler

16:15  C-0305  NONDESTRUCTIVE DETECTION OF PESTICIDES ON FRUITS AND VEGETABLES USING A UV CAMERA SYSTEM
Yoshio Makino
Yoshio Makino, Mei lan Li, Seiichi Oshita, Yoshinori Kawagoe, Toshiaki Matsuoka, Kenji Hashimoto, Kazuo Arai

15:25  - 17:00  (PF) FOOD TECHNOLOGY III
Moderator: Milagros Mateo
Location: ROOM 4

15:25  Introduction

15:30  C-1119  EFFECT OF CYTOCHALASIN B ON BIOSPECKLE ACTIVITY IN APPLE TISSUE
Andrzej Kurenda
Andrzej Kurenda, Artur Zdunek

15:45  C-1223  THE ROLE OF CHLOROPHYLL AND STARCH CONTENT IN BIOSPECKLE ACTIVITY OF APPLES
Artur Zdunek
Artur Zdunek, Werner B. Herppich, Justyna Cybulska
16:00 C-2158 CHEMOMETRIC STUDY OF CELL WALL COMPOSITION OF DIFFERENT VEGETABLES
Monika Szymanska-Chargot
Monika Szymanska-Chargot, Artur Zdunek

16:15 C-2009 EFFECT OF HIGH HYDROSTATIC PRESSURE ON LACTIC BACTERIA GROWTH IN TURKEY HAM STORED AT NORMAL AND ABUSIVE REFRIGERATION TEMPERATURES
Amauri Rosenthal
Simone Pereira Mathias, Amauri Rosenthal, Arlene Gaspar, Glaucia M.F. Aragao

15:25 - 17:00
**(SPC02): MACHINE DESIGN AND PERFORMANCE II**
Moderator: In-Bok Lee
Location: ROOM 2

15:25 Introduction

15:30 C-1085 AIR-SEEDS FLOW ANALYSIS IN A DISTRIBUTOR HEAD OF AN AIR DRILL SEEDER
Medina Mabel Azucena
Gastón Bourges, Gustavo Fabian Nardón, Mabel Azucena Medina

15:45 C-1236 CFD ANALYSIS ON THE PERFORMANCE OF AN OVERTURNABLE WATER GATE FOR RESERVOIR SPILLWAY
In-bok Lee
Se-woon Hong, In-bok Lee, Hyun-seob Hwang, Il-hwan Seo, Jessie Pascual Bitog Piog, Kyeong-seok Kwon

16:00 C-0963 COMPUTATIONAL FLUID DYNAMICS MODELLING OF ORCHARD SPRAYER PERFORMANCE: MACHINE TYPE AND OPERATIONAL PARAMETERS CHARACTERIZATION
Ashenaфи Tilahun Duga
Ashenaфи Tilahun Duga, Ayenew Melese Endalew, Nico Hendrickx, Tim Goossens, Donald Dekeyser, David Nuyttens, Bart Nicolaï, Pieter Verboven

16:15 C-1226 APPLICATION OF SMALL-SCALE WIND POWER SYSTEM IN LIVESTOCK BUILDINGS
Se-Woon Hong
Se-Woon Hong, In-bok Lee, Hyun-seob Hwang, Il-hwan Seo, Jessie Pascual Bitog Piog, Kyeong-seok Kwon

16:30 C-1265 OPTIMUM DESIGN OF MICROALGAE CULTIVATION SYSTEM USING BUBBLE-COLUMN PHOTO-BIOREACTOR
Il-hwan Seo
Il-hwan Seo, In-bok Lee, Hyun-seob Hwang, Se-woon Hwang, Jessie Pascual Bitog Piog, Kyeong-seok Kwon

16:45 C-0382 INVESTIGATION OF THE INFLUENCE OF METHANE IN CORN DUST EXPLOSION USING CFD.
Janaína de Andrade Silva
Janaína de Andrade Silva, Francisco Carlos Gomes, Jefferson Luiz Gomes Correa

16:45 C-0371 DUST EXPLOSION RISK DURING GRAPHITE-MODERATED REACTORS DECOMMISSIONING
Sophie Trelat

16:50 C-0461 ANALYSIS OF THE PRESSURE EFFECTS IN CORN DUST EXPLOSION USING COMPUTATIONAL FLUID DYNAMICS
Janaína de Andrade Silva
Janaína de Andrade Silva, Francisco Carlos Gomes, Jefferson Luiz Gomes Correa

16:30 C-0143 EFFECTIVE TRANSFER CHUTE DESIGN INCLUDING DUST CONTROL FOR HANDLING GRAINS AND OTHER PRODUCTS
Tim Donohue
Tim Donohue, Alan Roberts, Craig Wheeler, Dusan Ilic, Andre Katterfeld

16:45 C-1894 EXPLOSION PROTECTION IN GRAIN HANDLING FACILITIES: FROM COUNT MOR0220 TO COMPUTATIONAL FLUID DYNAMICS.
Trygve Skjold

15:25 - 17:00
**(SPC06): WIRELESS COMMUNICATION IN AGRICULTURE**
Moderator: Esmaeil Nadimi
Location: ROOM 5

15:25 Introduction

15:30
Technical speaker: Tarokh Vahid
16:10  C1561  ASSESSING THE DYNAMIC BEHAVIOR OF WSN MOTES AND RFID SEMI-PASSIVE TAGS FOR TEMPERATURE MONITORING

16:25  C-0333  BASE STATION DESIGN AND ARCHITECTURE FOR WIRELESS SENSOR NETWORKS
David Kohanbash
David Kohanbash, Abhinav Valada, George Kantor

16:40  Round table I: Vahid Tarokh, Enrique Molto, Esmaeil Nadimi

152 SESSION
15:25 -17:00
(SPC03): IMAGING OUTDOORS
Moderator: David Slaughter
Location: ROOM 8+9

15:25  Introduction

15:30  C-0380  RECOGNITION OF IMMATURE GREEN CITRUS FRUIT UNDER DIFFERENT OUTDOOR CONDITIONS
Won Suk Lee
Subhajit Sengupta, Won Suk Lee

15:45  C-0150  AUTOMATIC DETECTION OF TULIP BREAKING VIRUS (TBV) IN TULIP FIELDS USING MACHINE VISION
Gerrit Polder
Gerrit Polder, Gerie (W.A.M.) van der Heijden, Joop van Doorn, Ton (A. H. M. C.) Baltissen

16:00  C-0954  CHARACTERIZATION OF VINEYARD’S CANOPY THROUGH FUZZY CLUSTERING AND SVM OVER COLOR IMAGES
Christian Correa Farías
Christian Correa, Constantino Valero, Pilar Barreiro Elorza

16:15  C-1417  MULTISPECTRAL IMAGE ANALYSIS FOR GRAPEVINE’S DISEASES AUTOMATIC DETECTION IN FIELD CONDITIONS
Roberto Oberti
Paolo Tirelli, Massimo Marchi, N. Alberto Borghese, roberto oberti

16:30  C-0360  FRUIT DETECTABILITY ANALYSIS FOR DIFFERENT CAMERA POSITIONS IN SWEET-PEPPER
Jochen Hemming
Jochen Hemming, Jos Ruizendaal, Jan Willem Hofstee, Eldert J. van Henten

16:45  C-2353  IMAGE ANALYSIS TECHNIQUES APPLIED TO CANOPIES, BERRIES, PLANT TISSUES AND LEAVES.
Sigfredo Fuentes
Sigfredo Fuentes, Roberta De Bei, Stephen D. Tyerman

153 SESSION
17:25-19:00
(PM): CONSERVATION TILLAGE I
Moderator: Joan Roca
Location: AUDITORIO 1

17:25  Introduction

17:30  C-0298  A POWERED ROLLER/CRIMPER FOR WALK-BEHIND TRACTORS TO TERMINATE COVER CROPS IN CONSERVATION AGRICULTURE
Ted Kornecki S.
Ted Kornecki S.

17:45  C-0523  TRACTORS AND MACHINERIES FOR CONSERVATIVE SOIL TILLAGE IN CLIMATE CHANGE CONDITIONS
Simone Bergonzoli
Pieranna Servadio, Simone Bergonzoli

18:00  C-1257  COMPARING CONSERVATION AND CONVENTIONAL TILLAGE METHODS IN CORN-WHEAT ROTATION
Sadegh Afzalinia
Sadegh Afzalinia, Alidad Karami, Mansoor Alavimash

155 SESSION
17:25-19:00
(SPC-05): ANIMAL HEAT & MOISTURE EXCHANGE
Moderator: Tami Brown-Brandl
Location: AUDITORIO 3A

17:25  Introduction

17:30  C-1478  Heat and Moisture Production of Commercial Broilers under Pad Cooling or Surface Wetting in Summer
Yi Liang
Yi Liang

17:45  C-1481  BIOENERGETICS OF HY-LINE BROWN HENS IN AVIARY HOUSES
Morgan Hayes
Morgan Hayes, Hongwei Xin, Hong Li, Timothy Shepherd, Yongxing Chen, Yang Zhao, John Stinn,

18:00  C-2234  THERMOREGULATORY RESPONSES OF DAY-OLD CHICKENS SUBMITTED TO SIMULATED TRANSPORT CONDITION: 2. EFFECT OF EXPOSURE TIME UNDER DIFFERENT THERMAL RANGES
Frederico Vieira
Frederico Vieira, Iria Silva, Késia Silva, Aérica Cirqueira Nazaren, Juliano Camargo, Afrânio Vieira

18:15  C-1450  HEAT LOSS IN LACTATING SOWS UNDER DIFFERENT VENTILATION SYSTEMS AND DIETS DURING SUMMER
Eliene Justino
Eliene Justino, Irenilza De Alencar Naas, Diego Pereira Neves, Douglas D’alessandro Salgado
17:25 Session Opening

17:30 C-1323 Simultaneous Monitoring & Control of Pig Growth and Ammonia Emissions
Theo Demmers
Theo Demmers, Yi Cao, Sophie Gauss, David Parsons, Christopher Wathes

17:45 C-1216 Sensitivity Analysis of a Mechanistic Model for the Ammonia Emission of Dairy Cow Houses
Dennis Snoek
Dennis Snoek, Nico W. M. Ogink, P. w. g. Groot Koerkamp

18:00 C-0959 Ammonia Emission Factors Modelling for a Naturally Ventilated Dairy Housing System with Cubicles, Solid Floors and an Outdoor Exercise Area
Sabine Schrade
Sabine Schrade, Lorenz Gygax, Margret Keck

18:15 C-0673 Residential Exposure to Outdoor Air Pollution from Livestock Operations and Perceived Annoyance Among Citizens
Victoria Blanes-Vidal
Victoria Blanes-Vidal, Helen Suh, Esmaeil S. Nadimi, Per Lofstrom, Thomas Erellmann, Helle Andersen, Joel Schwartz

17:25 Session Opening

17:30 C-1510 Renewable Oil from Solid Jojoba Biomass Waste
Mohamed Y. E. Selim
Mohamed Y. E. Selim, Yousef Haik, Salah A. B. Al-Omari, Habib Abdelrahman

17:45 C-1917 The Effects of Different Sowing Times on Some Agricultural Properties of Sunflower Varieties (C. Tinctorius L.) and Biodiesel Quality
Fikret Akincerdem
Ebru Günes, Fikret Akincerdem

18:00 C-0974 Degradation Kinetics of Fibre Components of Grass Silage in the Fermentation Process and Effects of Enzyme Application
Claudia Demmig
Claudia Demmig; Dirk Banemann; Michael Nelles

18:15 C-0531 Blends from Biodiesel, Diesel Fuel and Alcohols to Prevent Chemical Interactions Between Fuel Components
Axel Munack
Jürgen Krahl; Lasse Schmidt; Olaf Schröder; Kevin Schaper; Christoph Pabst; Axel Munack

17:25 Session Opening

17:30 C-0196 Laser-Based Guiding System for an Autonomous Mobile Robot Working in Greenhouses
Julian Garcia Donaire
Julian Garcia Donaire, Ramón González Sánchez, Francisco Rodriguez Díaz, Andrzej Pawlowski

17:45 C-1090 A Human-Robot Interface for a Vineyard Sprayer
Ron Berenstein
Ron Berenstein, Yael Edan

18:00 C-1103 Multi-Sensor Simulation Method for Outdoor Plant Phenotyping Based on Autonomous Field Robots
Vadim Tsukor
Vadim Tsukor, Arno Ruckelshausen, Ralph Klose

18:15 C-1599 First Operating Experiences with a Prototype for Automated Attachment of the Supporting Wires That the Hop Vines Grow on in High-Trellis Hop Gardens
Zoltan Gobor
Zoltan Gobor, Georg Fröhlich, Harald Soiler, Johann Portner

17:25 Session Opening

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Zoltan Gobor
Zoltan Gobor, Georg Fröhlich, Harald Soiler, Johann Portner
17:30 C-0939 PREDICTION OF POULTRY EGG FRESHNESS USING ULTRASOUND TECHNIQUE
Mohammad Aboonajmi
Mohammad Aboonajmi, S.Kamaledin Setaredan, Takahishi Nishizu, Naoshi Kondo

17:45 C-0131 CHANGES OF ULTRASOUND CHARACTERISTICS OF MANGO JUICE DURING FRUIT RIPENING
Marc Valente
Marc Valente, Didier Laux, Alexia Prades

18:00 C-1020 BIOLOGICAL ACTIVITY OF THE EGYPTIAN MORINGA PEREGRINA SEED OIL
Hanaa Abd El Baky Hanaa H Abd El Baky
Hanaa Abd El Baky, Gamal El Baroty, Prof. Dr. Gamal S El Baroty El Baroty

18:15 C-1575 ONLINE SORTING OF WHITE ASPARAGUS USING ACOUSTIC RESONANCE ANALYSIS
Martin Geyer
Julia Foerster, Ingo Truppel, Martin Geyer

17:25-19:00 (PF) FOOD TECHNOLOGY IV
Moderator: Alejandra Salvador
Location: ROOM 4

17:30 C-1212 THE WETTABILITY AND SURFACE FREE ENERGY OF THE WHITE SORGHUM STARCHES GELS ISOLATED BY ALKALINE AND ENZYMATIC METHODS.
Paula Correia Reis
Paula Correia, Susete Gonçalves

17:45 C-1963 EFFECT OF SEED PRIMING PROLINE CONTENT OF DIFFERENT WINTER BREAD WHEAT (TRITICUM AESTIVUM) CULTIVARS
Elif Ozdemir
Elif Ozdemir, Bayram Sade, Süleyman Soylu, Mehmet Hamurcu, Emine Atalay

18:00 C-0454 EVALUATION OF THE EFFECT OF YEAST-SALT METHOD ON DOUGH YIELD, BREAD YIELD AND ORGANOLEPTIC PROPERTIES IRANIAN LAVASH BREAD
Hossein Ahmadichenarbon
Sara Movahed, Ghasem Rooshenas, Hossein Ahmadichenarbon

17:25-19:00 (SPC07): SILO STRUCTURES
Moderator: Jorgen Nielsen
Location: ROOM 3

17:25 Introduction
17:30 C-2002 SAFE STORAGE TIME OF CEREAL GRAIN SUMMARIZED IN A MATHEMATICAL MODEL
Nils Jonsson Erik
Nils Jonsson Erik, Pernilla Johnsson, Aldo Ritzzo, Monica Olsen, Leif Gustafsson

17:45 C-1578 THE HOUSEHOLD METAL SILO: A HELPFUL TECHNOLOGY FOR FOOD SECURITY
Danilo Mejia Lorio

17:25-19:00 (SPC06): WIRELESS SENSORS IN AGRICULTURE
Moderator: Luis Ruiz
Location: ROOM 5

17:25 Introduction
17:30 C1276 SIMULTANEOUS IDENTIFICATION OF FATTENING PIGS USING UHF RFID TECHNOLOGY
Eva Gallmann
Tobias Stekeler; Eva Gallmann; Daniel Herd; Thomas Jungbluth

17:45 C-0372 WIRELESS SENSOR NETWORKS LOCALIZATION IN HETEROGENEOUS TRANSMISSION MEDIUM
Esmaeil S. Nadimi
Esmaeil S. Nadimi, Jakob Juul Larsen, Ole Green, Victoria Blanes-Vidal, Pilar Barreiro Elorza, Thomas Skjodeberg Toftegaard

18:00 Round table II: Victoria Blanes Vidal, Luis Ruiz, Thomas Toftegaard

17:25-19:00 (RD): SUSTAINABILITY 2
Moderator: Manuel Moya
Location: ROOM 6+7

17:25 Introduction
17:30 C2084 SUSTAINABILITY INDICATORS FOR AGRICULTURAL SYSTEMS
Victoria Blanes-Vidal
Victoria Blanes-Vidal, Luis Ruiz, Thomas Toftegaard
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**INTERNATIONAL CONFERENCE OF AGRICULTURAL ENGINEERING**

**17:30 C-1848** THE LIFE QUALITY AND THE PRODUCTION SYSTEMS: A RESEARCH IN RURAL SETTLEMENTS OF THE SAO PAULO STATE - BRAZIL
- Taísa Marotta Brosler
- Taisa Marotta Brosler, Sonia Maria Pessoa Pereira Bergamasco, Erika de Souza Oliveira, Juliesta Teresa Aier de Oliveira, Fernando Rabello Paes de Andrade

**17:45 C-2212** THE EFFECT OF SHEEP MANAGEMENT ON NITROUS OXIDE EMISSIONS AND NATURAL STEPPE IN ARID AND SEMI ARID ZONES
- Omar Hijazi
- Omar Hijazi, Werner Berg, Samouil Moussa, Reiner Brunsch

**18:00 C-0562** THE ROLE OF INDIGENOUS KNOWLEDGE AND BIODIVERSITY IN RURAL DEVELOPMENT IN IRAN
- Masoud nezamoleslmi
- Masoud Nezamoleslami, Mohammad Hasan Ebrahimi, Babak Pourmehdi zanbouri, Alireza Golnaraghi, Seyed Alireza Ghadimi, Mohammad Reza Behzadi, Mohammad Mehdi Amiri khorie,

**18:15 C-1163** PARTICIPATION OF LOCAL ADMINISTRATIVE ORGANIZATION IN COMMUNITY CONFLICT RESOLUTION: A CASE STUDY OF PONGNOI VILLAGE, MUANG DISTRICT, CHIANG MAI, THAILAND
- Jukkaphong Poung-ngamchuen
- Jukkaphong Poung-ngamchuen, Ratchanon somboonchai, Kamonwan Srijareonjit, Suthima Kanoonthong

**18:30 C-0606** DIAGNOSTIC AND SUSTAINABLE MANAGEMENT PROPOSALS FOR THE FAMILY SELF-SUFFICIENCY IN THE SEMIARID REGION OF EL PARQUE CHACQUEÑO (ARGENTINE)
- Manuel Moya Ignacio
- Manuel Moya Ignacio, Alicia Calvo, Nórfol Rios, Elena García

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**TUESDAY JULY 10**

8:00-9:00 John F. Reid. Keynote Speaker General Session AUDITORIO1

**08:55 - 10:30** (PM): CONSERVATION TILLAGE II
- Moderator: Ted Kornecki
- Location: AUDITORIO 1

**08:55** Introduction

**09:00 C-0996** ESTABLISHMENT OF A LONG TERM EXPERIMENT INTO TILLAGE AND TRAFFIC MANAGEMENT. PART ONE: EXPERIMENTAL DESIGN AND FIELD EQUIPMENT
- Emily Smith
- Emily Smith, Koloman Kristof, Paula A. Misiewicz, Keith Chaney, David White, Richard John Godwin

**09:15 C-1024** ESTABLISHMENT OF A LONG TERM EXPERIMENT INTO TILLAGE AND TRAFFIC MANAGEMENT. PART TWO: EVALUATION OF SPATIAL HETEROGENEITY FOR THE DESIGN AND LAYOUT OF EXPERIMENTAL SITES
- Koloman Kristof
- Koloman Kristof, Emily Smith, Paula A. Misiewicz, Milan Kroulik, David White, Richard John Godwin

**09:30 C-1990** STRIP TILLAGE FOR CORN AND SUGAR BEET - RESULTS OF A THREE YEAR INVESTIGATION ON THREE LOCATIONS
- Markus Demmel Richard
- Markus Demmel, Robert Brandhuber, Hans Kirchmeier

**09:45 C-1403** MODEL FOR PREDICTION OF THE BUILD-UP HEAP EFFECT DURING BULLDOZING OPERATION? EXPERIMENTAL VERIFICATION
- Itzhak Shmulevich
- Dror Rubinstein, Itzhak Shmulevich, Yaron France, Yuval Hikind
10:00 C-1482 REMOTE MONITORING OF OPERATIONS IN CONSERVATION PLUS PRECISION AGRICULTURE, RESPECT CONVENTIONAL TILLAGE AS A METHOD TO STUDY THE REDUCTION OF GREENHOUSE GASES EMISSION Francisco Márquez García Jesus Antonio Gil Ribes, Juan Agüera Vega, Francisco Márquez García, Emilio González-Sánchez, Gregorio Lorenzo Blanco Roldán

10:15 C-2032 TESTS TO DETERMINE SOME PARAMETERS THAT CHARACTERIZE TILLAGE FARMING OPERATIONS Mariano Suarez de Cepeda Martinez Mariano Suarez de Cepeda Martinez, Raimundo Romero

08:55 -10:30 (SW-SPC01): IRRIGATION MANAGEMENT Moderator: Carmen Rocamora Location: AUDITORIO 3A

08:55 Introduction

09:00 C-1989 IRRIGATION PERFORMANCE IN A WATER USE ASSOCIATION IN VALENCIA, SPAIN. ENGINEERING AND PHYSIOLOGICAL INDICATORS. Diego Intrigliolo Ester López, Miguel Ángel Jiménez-Bello, Juan Manzano, Virginia Palau, Álvaro Royuela, Diego S. Intrigliolo

09:15 C-1727 WEB-BASED DECISION SUPPORT SYSTEM IRRIGATION DESIGN: MODELS INTEGRATION FOR SURFACE AND SET SPRINKLER SYSTEMS José Manuel Monteiro Gonçalves José Manuel Gonçalves, André Muga, Gonçalo C. Rodrigues, Paula Paredes, Hanaa Darouich, Luis Santos Pereira

09:30 C-1595 AUTOMATIC PROGRAMMERS FOR SOLID SET SPRINKLER IRRIGATION SYSTEMS Nery Zapata Nery Zapata, Raquel Salvador, José cavero, Sergio Recina, Enrique Playán

09:45 C-1412 PERFORMANCE ASSESSMENT OF A MONITORING SYSTEM FOR IRRIGATION SCHEDULING IN A COMMERCIAL VINEYARD Herminia Puerto Molina Herminia Puerto Molina, Antonio Ruiz Canales, José Miguel Molina Martínez

10:00 C-2007 ADAPTATION TO WATER SCARCITY? THE CASE OF THE REAL ACEQUIA DE MONCADA Mar Violeta Ortega-Reig Mar Violeta Ottega-Reig, Vicente Sales-Martinez, Antonio Calatayud-Clerigues, Francisco Sanchez-Sada, Marta Garcia, Guillermo Palau-Salvador

10:15 C-0364 FILTERED VOLUME AND OUTLET PARAMETERS PREDICTION WITH NEURAL NETWORKS IN A MICRO IRRIGATION SAND FILTER USING EFFLUENTS Gerard Arbat Pujolras Jaume Puig-Barqués, Miquel Duran-Ros, Gerard Arbat, Javier Barragán, Francisco Ramirez de Cartagena

08:55 -10:30 (SPC-05): OVERVIEW OF MEASUREMENT AND VERIFICATION PROTOCOLS IN LIVESTOCK ENVIRONMENTS Moderator: Richard Gates and Maria Cambra-López Location: AUDITORIO 2

08:55 ILES KEYNOTE: Peter ENGEL, Nico W.M. Ogink, Hongwei XIN

08:55 -10:30 (EN): ENERGY EFFICIENCY IN AGRICULTURE V Moderator: Andreas Meyer-Aurich Location: MULTIPURPOSE IA

08:55 Introduction

09:00 C-0961 EFFICIENT USE OF AGRICULTURAL LAND IN PRODUCTION OF ENERGY: NATURAL INSULATION VERSUS BIO-ENERGY Daniel-Calin Ola Daniel-Calin Ola, Ralf Pecenka, Hans-Jörg Gusovius, Jörn Budde, Christian Fürl

09:15 C-1242 ACOUSTICAL PROPERTIES OF DENSIFIED COMPOST DERIVED FROM SWINE SOLID FRACTION Christian Preti Christian Preti, Niccolò Pampuro, Alessio Facello, Eugenio Cavallo

09:30 C-1277 ENERGY CONSUMPTION IN BROILER PRODUCTION Mari Rajaniemi Mari Rajaniemi, Jukka Ahokas

09:45 C-1764 DEVELOPMENTS TOWARDS ENERGY EFFICIENCY IN AGRICULTURAL DRYING Thomas Ziegler Thomas Ziegler, Jochen Mellmann, Hasan Jubaer, Fabian Weigler

10:00 C-1977 ENERGY CONSUMPTION MEASUREMENTS IN GRAIN DRYING Tapani Jokiniemi Tapani Jokiniemi, Jukka Ahokas
## 205 Session 08:55 - 10:30
### (EN): SOLAR ENERGY
**Moderator:** Veerle Van Linden  
**Location:** MULTIPURPOSE 1B

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| 09:00      | C-1644 FEASIBILITY ASSESSMENT OF PHOTOVOLTAIC PUMPING FOR IRRIGATION IN WEST BENGAL, INDIA  
*Shamaila Zia*  
Shamaila Zia, Thorben Andersen, Sudipta Lai, Klaus Spohrer, Wolfram Spreer, Rabindra Kumar Panda, Joachim Müller, |
| 09:15      | C-1920 SIMULATION OF PHOTOVOLTAIC RATION METHODOLOGY FOR THE PLANNING AND OPERATION OF ELECTRICAL ENERGY SYSTEMS  
*Olga Moraes Toledo*  
Olga Moraes Toledo, Delly Oliveira Filho, Antonia Sonia Alves Cardoso Diniz, Maria Helena Murta Vale, Jose Helvecio Martins |
| 09:30      | C-1926 POLICIES FOR PHOTOVOLTAIC SOLAR ENERGY USE IN THE WORLD AND PROSPECTS FOR BRAZIL  
*Delly Oliveira Filho*  
Gustavo Azevedo Xavier, Delly Oliveira Filho, Joyce Corren Carlo |

## 206 Session 08:55 - 10:30
### (IT): CONTROL METHODS
**Moderator:** Claus Sorensen  
**Location:** MULTIPURPOSE 1C

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| 09:00      | C-1252 KNOWLEDGE BASED METHODS FOR SPATIAL DATA INTEGRATION IN AGRICULTURE: CASE OF AUTOMATED COMPLIANCE CONTROL  
*Raimo Nikkilä*  
Raimo Nikkilä, Jens Wiebensohn, Ilkka Seilonen, Kari Koskinen |
| 09:15      | C-1392 HYBRID MODELING AND CONTROL OF GREENHOUSE TEMPERATURE THROUGH AERIAL-PIPES AND AIR-FAN HEATER SYSTEMS  
*Jorge Antonio Sánchez Molina*  
Ana Paola Montoya, Francisco Rodríguez, Jose Luis Guzman, Jorge Antonio Sánchez |
| 09:30      | C-1802 DEVELOPMENT OF AN ATTACHABLE YIELD MONITORING SYSTEM AND AN EVALUATION OF A REDUCED NITROGEN INPUT  
*Tadashi Chosa*  
Tadashi Chosa, Eiji Morimoto, Shogo Takemoto |
| 09:45      | C-2182 SYSTEM OF AUTOMATIC CONTROL OF TEMPERATURE AND AIRFLOW FOR DRYING OF AGRICULTURAL PRODUCTS WITH RECYCLING OF THE DRYING AIR  
*Cristiano Lúcio Cardoso Rodrigues*  
Cristiano Lúcio Cardoso Rodrigues, José Helvecio Martins, Paulo Marcos de Barros Monteiro, Evandro de Castro Melo, José Eduardo Carvalho Monte |

## 207 Session 08:55 - 10:30
### (IT): FERTILIZER AND PESTICIDE APPLICATIONS
**Moderator:** Rafael Argilés  
**Location:** AUDITORIO 3B

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| 09:00      | C-1391 FIRST RESULTS USING TERRESTRIAL LIDAR SENSOR FOR DRIFT DETECTION IN VINEYARD SPRAYING  
*Jordi Llorens Calveras*  
Jordi Llorens, Emilio Gil, Sònia Duarte, Jordi Llop |
| 09:15      | C-1387 ANALYSIS OF ERROR IN THE APPLICATION OF VARIABLE RATE FERTILIZER COMPARING THREE SPEEDS OF OPERATION  
*Raniére Vieira Rodrigues*  
Casimiro Dias Gadanha Junior, Mateus Marraton Nicolosi, Edmar Casarin Zambianco, Marco Aurélio Polim Milan, Raniére Rodrigues Vieira |
| 09:30      | C-1681 DOSAFRUT, PESTICIDE DOSE ADJUSTMENT SYSTEM IN INTENSIVE FRUIT ORCHARDS  
*Santiago Planas de Marti*  
Santiago Planas de Marti, Ferran Camp, Francesc Solanelles, Alexandre Escolà, Ricardo Sanz, Joan Ramón Rosell-polo |
| 09:45      | C-0904 AN ADD-ON MINI- YIELD SENSOR ON GRAIN COMBINES ACCURATELY AND STABLY ESTIMATES TOTAL GRAIN WEIGHT UNDER VARYING THROUGHPUT OF THE CROP  
*Koichi Shoji*  
Koichi Shoji, Munenori Miyamoto |
| 10:00      | C-0242 VARIABLE RATE OF AERIAL RELEASE OF STERILE INSECTS IN AREA-WIDE PEST MANAGEMENT PROGRAMS  
*Rafael Argilés*  
Marta Briasco; Daniel Larrosa; Gustavo Salvador; Javier Montesa; Rafael Argilés |
08:55 - 10:30
(PF): NON-DESTRUCTIVE TECHNIQUES IV
Moderator: Park Bosson
Location: ROOM I

08:55 Introduction

09:00 C-2034 DETECTION OF AFLATOXINS B1, B2, G1, G2 IN NUTMEG EXTRACT USING FLUORESCENCE FINGERPRINT
Junichi Sugiyama
Junichi Sugiyama, Kaori Fujita, Mizuki Tsuta, Mario Shibata, Mito Kokawa, Hiroyuki Onda, Takehito Sagawa

09:15 C-2058 DEVELOPMENT OF RAPID ESTIMATION METHOD OF AEROBIC BACTERIA POPULATION ON BEEF SURFACE BY FLUORESCENCE FINGERPRINTS
Masatoshi Yoshimura
Masatoshi Yoshimura, Mizuki Tsuta, Mario Shibata, Kaori Fujita, Mito Kokawa, Junichi Sugiyama

09:30 C-2244 A FEASIBILITY STUDY OF FAST AND NON-DESTRUCTIVE ESTIMATION OF DIASTASE ACTIVITY OF HONEY
Xiaoli Li
Chu Zhang, Xiaoli Li, Yidan Bao, Yong He

09:45 C-0837 APPLICATION OF BIOSPECKLE METHOD FOR MONITORING THE BULLS EYE ROT DEVELOPMENT AND QUALITY CHANGES OF APPLES AFTER VARIOUS STORAGE METHODS
Anna Adamiak
Anna Adamiak, Artur Zdunek, Andrzej Kurenda, Krzysztof Rutkowski

10:00 C-1415 QUALITY CONTROL IN GRAIN STORES BY USE OF IN BEDDED WIRELESS SENSORS
Erik Fløjgaard Kristensen
Erik Fløjgaard Kristensen, Jakob Juul Larsen, Johannes Ravn Jørgensen, Margrethe Balling Hostgaard, Ole Greer

09:30 C-0809 CFD MODELLING OF AIR COOLING OF MULTIPLE BEEF CARCASSES USING 3D GEOMETRICAL MODELS
Kumsa Delessa Kufii
Kumsa Delessa Kufii, Thija Defraeye, Erwin Koninckx, Stofaan Lescothier, Bart M. Nicolai, Stofaan De Smet, Annemie Geeraerd, Pieter Verboven

09:45 C-0860 CFD BASED ANALYSIS OF THE 3D SPATIAL AND TEMPORAL DISTRIBUTION OF 1-METHYLCYCLOPROPENE IN APPLE FRUIT STORAGE
Alemayehu Ambaw Tsige
Alemayehu Ambaw Tsige, Pieter Verboven, Mulugeta Admasu Delele, Thija Defraeye, Engieltbert Tijakens, Ann Schen, Bart Nicolai

10:00 C-1170 CLIMATE DISTRIBUTION IN A FAN AND PAD EVAPORATIVE COOLED GREENHOUSE: A CFD APPROACH
Thomas Bartzanas
Thomas Bartzanas, Dimitrios Fidaros, Caterina Baxevanou, Constantinos Kittas

10:15 C-0711 3-DIMENSIONAL THERMAL ANALYSIS OF A SCREENHOUSE WITH PLANE AND MULTISPAN ROOF BY USING COMPUTATIONAL FLUID DYNAMICS (CFD)
Jorge Flores
Jorge Flores, Enrique Mejia, Abraham Rojano, Irnee L. Lopez, Juan Ignacio Montero, Armando Hernandez Mendoza, Oscar Alberto Kemfener, Miguel Mendozza Campos

08:55 - 10:30
(SE): LOADS AND STRUCTURES
Moderator: Quiang Zhang
Location: ROOM 3

08:55 Introduction

09:00 C-0414 COLLAPSES AND DAMAGES ON SWEDISH FARM BUILDINGS DUE TO SNOW LOADS
Christer Nilsson
Christer Nilsson, Olof Friberg

09:15 C-1445 OPEN SOURCE SPREADSHEET FOR OPTIMIZING PORTAL FRAMED SINGLE-STOREY STEEL BUILDINGS
Jorge Lampurlanes Castel
Jorge Lampurlanes Castel, Carlos Grau Masias, Lluis Puigdomenech Franquessa, Jorge Lampurlanes Castel

09:30 C-1153 AN ESTIMATION OF VERTICAL STRESSES AND SETTLEMENTS IN RESERVOIRS UNDER A LINEAR ELASTIC BEHAVIOR
Miguel Redon Santafe
Miguel Redon Santafe, Jose Javier Ferran Gozalvez, Carlos Manuel Ferrer Gisbert, Francisco Javier Sanchez Romeu, Juan Bautista Torregrosa Soler
08:55 - 10:30

**SESSION 212**

**(SPC06): APPLICATIONS OF WSN IN AGRICULTURE, PRIVATE SECTOR I**

*Moderator: Enrique Molto*

*Location: ROOM 5*

08:55  Introduction
09:00  Company (WebsTech)
09:30  C-0876  THE EFFECT ON WIRELESS SENSOR NETWORK COMMUNICATION WHEN EMBEDDED IN BIOMASS
         Jakob Larsen
         Jakob Juul Larsen, Ole Green, Esmaeil S. Nadimi, Thomas Skjodeberg Toftegaard
09:45  Hands on

08:55 - 10:30

**SESSION 213**

**(RD): LANDSCAPE 1**

*Moderator: Brian G. Sims*

*Location: ROOM 6+7*

08:55  Introduction
09:00  C-0496  3D MODELING OF LANDSCAPE ENVIRONMENTS FOR THE INTEGRATION OF BUILDINGS INTO THE LANDSCAPE
         Julio Hernández Blanco
         Jacinto Garrido Valarde, Julio Hernández, Lorenzo García, María Jesús Montero Parejo
09:15  C-0871  THE ROLE OF VEGETATION AS A VISUAL TOOL FOR INTEGRATION OF RURAL BUILDINGS. A CASE OF STUDY IN THE BIOSPHERE RESERVE "SIERRA DE FRANCIA"
         Julio Hernández Blanco
         Julio Hernández Blanco, Elena Carabias, Jacinto Garrido
09:30  C-0829  A GIS FOR RURAL LANDSCAPE SAMPLING
         Patrizia Tassinari
         Daniele Torreggiani, Stefano Benni, Maroussa Zagoraiou, Elisabetta Carfagna, Patrizia Tassinari

08:55 - 10:30

**SESSION 214**

**(SPC03): COLOR ANALYSIS**

*Moderator: Wonsuk Daniel Lee*

*Location: ROOM 8+9*

08:55  Introduction

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**SESSION 211**

**(SPC04): AUTOMATED NAVIGATION OF FARM EQUIPMENT**

*Moderator: Francisco Rovira*

*Location: ROOM 4*

08:55  Introduction
09:00  THE ATOE CONFERENCES: PAST, PRESENT, AND FUTURE
         Qin Zhang
09:15  C-0315  EMBEDDED CONTROL SYSTEM FOR LARGE SCALE UNMANNED TRACTOR
         Timo Oksanen
         Timo Oksanen
09:30  C-1498  PATH FOLLOWING ALGORITHM FOR FOUR WHEEL INDEPENDENT STEERED TRACTOR
         Timo Oksanen
         Timo Oksanen
09:45  C-0018  DEVELOPMENT OF A COMBINE HARVESTER MODEL FOR NAVIGATION SIMULATION
         Ze Zhang
         Ze Zhang; Noboru Noguchi; Kazunobu Ishii
10:00  C-2317  A PROJECT ON DEVELOPMENT OF AGRICULTURAL TRACTOR AUTOMATIC STEERING SYSTEM ((SYSTEM ARCHITECTURE AND LABORATORY TESTS)
         Bahattin Akdemir
         Bahattin Akdemir, Ahmet Urusan, Erdogan Kesici
09:00  C-1957  QUANTITATIVE COLOR APPEARANCE EVALUATION BASED ON SPECTRAL INFORMATION OF NATURAL LIGHTING
Atsushi Hashimoto
Atsushi Hashimoto, Kentarou Furusawa, Ken-ichi Suehara, Takaharu Kameoka

09:15  C-2120  A NOVEL OPTICAL APPROACH TO MONITOR COLOR CHANGES OF MANGO PEEL FOR MACHINE-VISION APPLICATIONS
Marcus Nagle
Marcus Nagle, Giuseppe Romano, Kiatkamjon Intani, Wolfram Spreer, Busarakorn Mahayothee, Vichai Sardsud, Hansjoachim Müller

09:30  C-2197  ANALYSIS OF HUE SPECTRA DURING STORAGE OF PEPPER (CAPSICUM ANNUUM)
Laszlo Baranyai
Laszlo Baranyai, Denes Lajos Denes, Jozsef Felfoldi

09:45  C-2231  A CHROMATIC IMAGE ANALYSIS FOR EVALUATING APPEARANCE OF AGRICULTURAL PRODUCTS USING COLOR DISTRIBUTION ENTROPY
Takaharu Kameoka
Kyoisuke Yamamoto, Takashi Togami, Atsushi Hashimoto, Yousuke Yoshioka, Seishi Ninomiya, Takaharu Kameoka

10:00  C-2266  ORANGE GRADING BASED ON VISUAL TEXTURE FEATURES USING MACHINE VISION
Abdolabas Jafari
Abdolabas Jafari, Mohammad Reza Zarezadeh, Atefeh Fazayeli

10:55  C-0499  SIMULATING COV FROM NOZZLES SPRAY DISTRIBUTION: A NECESSITY TO INVESTIGATE SPRAY DISTRIBUTION QUALITY WITH DRIFT REDUCING SURFACTANTS.
Jean Paul Douzals
Jean Paul Douzals, Antoine Porte, Pierre Fernandez

11:00  C-1364  DETERMINATION OF DRIFT POTENTIAL VALUE (DPV) FOR DIFFERENT FLAT FAN NOZZLES USING A HORIZONTAL DRIFT TEST BENCH
Emilio Gil
Emilio Gil, Montserrat Gallart, Jordi Llorens, Jordi Llop

11:00  C-0369  CLASSICAL AND QUANTUM MECHANICAL ANALYSIS OF WATER DROPLET BALLISTICS IN SPRINKLER IRRIGATION SYSTEMS
Daniele De Wrachien
Daniele De Wrachien, Giulio Lorenzini, Stefano Mambretti

11:15  C-1073  DESIGN OF MICROIRRIGATION SUBUNITS WITH MINIMUM COST AND PROPER OPERATION. APPLICATION AT PEPPER AND VINEYARD IN SPAIN
José Mª Tarjuelo Martin-Benito
José María Tarjuelo, Francisco Carrión, Amaro de Castillo, Miguel Angel Moreno Hidalgo

11:15  C-1144  WATER DISTRIBUTION UNIFORMITY IMPROVEMENT OF MICROTUBE-TYPE AND BUTTON-TYPE DRIP IRRIGATION SYSTEM USING ADJUSTABLE PRESSURE-LOSS LATERAL TAKEOFF VALVES
Victor Ella
Victor Ella, Jack Keller, Manuel Reyes, Bob Yoder

11:15  C-0891  POWER SUPPLY QUALITY AND HARMONIC GENERATION IN PUMPING STATIONS FOR IRRIGATION
Juan Ignacio Corcoles Tendero
Juan Ignacio Corcoles Tendero, Jose Fernando Ortega Alvarez, Pedro Carrion, Arturo De Juan Valero, Jose Maria Tarjuelo Martin - Benito, Miguel Angel Moreno

11:15  C-1144  WATER DISTRIBUTION UNIFORMITY IMPROVEMENT OF MICROTUBE-TYPE AND BUTTON-TYPE DRIP IRRIGATION SYSTEM USING ADJUSTABLE PRESSURE-LOSS LATERAL TAKEOFF VALVES
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Juan Ignacio Corcoles Tendero, Jose Fernando Ortega Alvarez, Pedro Carrion, Arturo De Juan Valero, Jose Maria Tarjuelo Martin - Benito, Miguel Angel Moreno
12:00 C-1824 ASSESSMENT OF HYDRAULIC BEHAVIOR OF REGULATED DRIP EMITTERS IN LABORATORY
   Alvaro Royuela, Jose V. Turegano

12:15 C-1091 ENERGY MANAGEMENT SYSTEM FOR WATER USERS? ASSOCIATIONS
   Carmen Rocamora Osorio, Ricardo Abadía Sánchez, Jorge Vera Morales

12:30 C-0989 ASSESSMENT OF LOCAL HEAD LOSSES FOR DIFFERENT LATERAL INSERTIONS IN MANIFOLDS
   Alvaro Royuela, Pau Martí, Manuel Zarzo, Jose V. Turegano

12:15 C-1647 NITROGEN FLOW CHARACTERISATION OF LAYING HEN PRODUCTION SYSTEMS: A MASS BALANCE APPROACH
   Frederic Pelletier, Stephane Godbout, Martin Belzile, Matthieu Girard

12:30 C-0921 ENVIRONMENTAL CONSEQUENCES OF SEGREGATING PIG URINE AND FAECES - A LIFE CYCLE PERSPECTIVE
   Jerke W De Vries, André J. A. Aarnink, P.w.g. Groot Koerkamp, I.J.M. De Boer

12:45 C-0945 METHODOLOGICAL ASPECTS OF ENVIRONMENTAL ASSESSMENT OF LIVESTOCK PRODUCTION BY LCA (LIFE CYCLE ASSESSMENT)
   Lorie Hamelin, Henrik Wenzel

10:55-13:00 (SPC05): MULTI-PERSPECTIVE & HOLISTIC ASSESSMENT OF SYSTEMS
   Moderator: André Aarnink
   Location: AUDITORIO 2

10:55 Introduction

11:00 C-0198 VENTILATION RATE, BALANCE TEMPERATURE AND SUPPLEMENTAL HEAT NEED IN ALTERNATIVE VS. CONVENTIONAL LAYING-HEN HOUSING SYSTEMS
   Yang Zhao, Hongwei Xin, Tim Shepherd, Morgan Hayes, John Stinn

11:15 C-1268 ELECTRICITY AND FUEL USAGE OF AVIARY LAYING-HEN HOUSES IN THE MIDWESTERN UNITED STATES
   Tim Shepherd, Morgan Hayes, Hongwei Xin, Hong Li, Tim Shepherd, John Stinn

11:30 C-1457 AMMONIA EMISSION AND PRODUCTIVITY OF LAYING HENS FED DIETS CONTAINING DISTILLER DRIED GRAINS

11:45 C-0528 TOP LAYER HUMIDIFICATION OF BEDDING MATERIAL OF LAYING HEN HOUSES TO MITIGATE DUST EMISSIONS: EFFECTS OF WATER SPRAYING LEVELS ON DUST, AMMONIA AND ODOUR EMISSIONS
   Nico Ogink, Nico W. M. Ogink, Jan van Harn, Rick van Emous, Hilko Ellen

12:00 C-0083 IMPACT OF THE REDUCTION OF STRAW ON AMMONIA, GHG AND ODORS EMITTED BY FATTENING PIGS HOUSED IN A DEEP-LITTER SYSTEM
   Nadine Guingand, Alexandre Rugani

10:55-13:00 (EN): AGREE PROYECT MEETING
   Location: MULTIPURPOSE IA

10:55 AGREE MEETING

10:55-13:00 (EN): BIOMASS TREATMENT
   Moderator: Algirdas Jasinskas
   Location: MULTIPURPOSE IB

10:55 Introduction

11:00 C-1333 DETERMINATION OF ENERGY PLANTS CHOPPING QUALITY WHILE BIOFUEL PREPARATION
   Algirdas Jasinskas

11:15 C-1574 EFFECTS OF COMPRESSIVE FORCE, PARTICLE SIZE AND MOISTURE CONTENT ON MECHANICAL PROPERTIES OF WORMY COMPOST PELLETS
   Mohammad Hossein Kianmehr, Hadi Rahmanzadeh Bahram, Seyed Reza Hassan-Beygi, Iman Valaei, Hossein Ali Alikhani

11:30 C-1814 PERFORMANCE EVALUATION OF A SMALL CHIPPER USING AN INNOVATIVE CUTTING SYSTEM
   Alessio Facello, Eugenio Cavallo, Raffaele Spinelli
11:45 C-2294 BIOGAS PRODUCTION USING STRONG LIGNIFIED HAY - OPTIMIZATION OF THE TIME TEMPERATURE COMBINATION USING STEAM EXPLOSION FOR PRE-TREATMENT
Franz Theuretzbacher
Franz Theuretzbacher, Alexander Bauer, Thomas Amon, Barbara Amon

12:00 C-2299 ENERGY USE AND CARBON DIOXIDE EMISSIONS ASSOCIATED WITH THE COMPRESSION OF OILSEED RAPE STRAW
Leticia Chico Santamarta
Leticia Chico Santamarta, Angel Ramirez, Richard John Godwin, Keith Chaney, David White, Andrea Humphries

10:55-13:00 (IT): SENSORS I
Moderator: Mahdi Alavi
Location: MULTIPURPOSE IC

10:55 Introduction

11:00 C-1888 DETECTION OF RICE PLANT LODGING USING CAMERA AND LASER RANGE FINDER
Ryohei Masuda
Ryohei Masuda, Kauo Nomura, Michiisa lida, Masahiko Suguri

11:15 C-1817 EXPERIMENTAL METHOD TO ESTIMATE CROP DENSITY BY LASER BEAM
Ali Farmanesh
Ali Farmanesh, Mohsen Shamsi

11:30 C-0445 NON-DESTRUCTIVE MEASURING OF ROOT CROP PROPERTIES USING UWB-RADAR
Christian Peveling-Oberhag
Christian Peveling-Oberhag, Peter Schulte Lammers

11:45 C-0406 SEEDLING DISCRIMINATION USING SHAPE FEATURES DERIVED FROM A DISTANCE TRANSFORM
Rasmus Nyholm Jørgensen
Thomas Moesgaard Giselsson, Henrik Skov Midtiby, Rasmus Nyholm Jorgensen

12:00 C-0439 GREENHOUSE PLANT SEGMENTATION USING POINT DISTRIBUTION MODEL
Medhat Moussa
Asmaa Ali, Medhat Moussa

12:15 C-0485 INVESTIGATION OF CONTINUOUS IMAGING ANALYSIS OF GRAIN QUALITY ON A COMBINE HARVESTER
Janine Berberich
Janine Berberich, Hilke Risius, Markus Huth, Jürgen Hahn

12:30 C-0838 PLANTS DISCRIMINATION IN MAIZE FIELDS APPLYING HUMAN PERCEPTION TO DIGITAL IMAGES
Juan Romeo Granados
juan romeo granados, Diego Oliva, Jose Miguel Guerrero, Martin Montalvo Martinez, Maria Guijarro, Gonzalo Pajares

12:45 C-0985 ASSESSMENT OF PESTICIDE APPLICATION METHOD EFFICIENCY USING HIGH-SPEED IMAGE ANALYSIS
Mathieu Massinon
Mathieu Massinon, Thierry Denis, Benjamin Perriot, Marie-France Destain, Frédéric Lebeau

10:55-13:00 (IT): WEED CONTROL
Moderator: David C. Slaughter
Location: AUDITORIO 3B

10:55 Introduction

11:00 C-1178 MECHANICAL WEED MANAGEMENT BASED ON AN ACCURATE ODOMETRY TECHNIQUES
David Slaughter
Manuel Perez Ruiz, David C. Slaughter, Fadi Fathallah, Chris Gliever, Brandon Miller

11:15 C-1016 MODICOVI - MONOCOT AND DICOT COVERAGE RATIO VISION BASED METHOD FOR REAL TIME ESTIMATION CANOPY COVERAGE RATIO BETWEEN CEREAL CROPS AND DICOTYLEDON WEEDS
Morten Laursen Stigaard
Morten Laursen Stigaard, Henrik Skov Midtiby, Norbert Krüger, Rasmus Nyholm Jorgensen

11:30 C-2125 WEED DETECTION AND DISCRIMINATION IN MAIZE FIELDS USING ULTRASONIC AND LIDAR SENSORS
Alexandre Escola
Alexandre Escola, Dionisio Andújar, José Dorado, César Fernández-Quintanilla, Joan R. Rosell-Polo

11:45 C-2019 A NON-SUPERVISED STRATEGY FOR IDENTIFYING WEEDS IN AGRICULTURAL AERIAL IMAGES
Pedro Javier Herrera Caro
P. Javier Herrera, Ana I. de Castro, Francisca López-Granados, Montserrat Jurado-Expósito, Angela Ribeiro

12:00 C-0780 ESTIMATION OF WEED CONTROL THRESHOLD FOR INTELLIGENT SPRAYER BOOM
Asif Ali
Asif Ali, Christian Andreasen, Jens C. Streibig, Svend Christensen
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<td>10:55</td>
<td>Introduction</td>
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<td>11:00</td>
<td>C-0608 PREDICTION OF LIVESTOCK ODOUR DISPERSION OVER COMPLEX TERRAIN USING CFD TECHNOLOGY Se-Woon Hong Se-Woon Hong, In-Bok Lee, Il-Hwan Seo, Jessie P. Bitog, Kyeong-Soek Kwon</td>
<td>11:00</td>
<td>C-0484 THERMAL CONDUCTIVITY OF ENVIRONMENTALLY FRIENDLY PARTICLEBOARDS FROM ARUNDO DONAX BONDED WITH DIFFERENT STARCHES Teresa García Ortúño Teresa García Ortúño, María Teresa Ferrández García, Javier Andreu Rodríguez, Clara Eugenia Ferrández García, Manuel Ferrández-Villena García</td>
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<td>11:30</td>
<td>C-0619 ATOMIZATION MODELING: AN EULERIAN APPROACH Ariane Vallet Ariane Vallet, Abdelhak Belhadeff</td>
<td>11:30</td>
<td>C-0361 CEMENT MORTARS NANOMATERIALS FOR USE IN LIVESTOCK FACILITIES Elvira Sanchez Espinosa Jordi Massana Guitart, Rebeca Antón, Arancha Hueso Dobladó, Elvira Sánchez Espinosa</td>
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<td>12:00</td>
<td>C-1260 CFD APPLICATION FOR ESTIMATION OF AIRBORNE SPREAD OF HPAI (HIGHLY PATHOGENIC AVIAN INFLUENZA) Il-Hwan Seo Il-hwan Seo, In-bok Lee, Hyun-seob Hwang, Se-woon Hong, Jessie Pascual Bitog Piog, Kyeong-soek Kwon</td>
<td>12:00</td>
<td>C-1320 INFLUENCE OF POLYVINYL ALCOHOL AND KERATIN ON MECHANICAL PROPERTIES OF THERMOPLASTIC STARCH (TPS) Bozena Gladyszewska Bozena Gladyszewska, Anna Ciupak, Dariusz Choczyk, Leszek Moscički, Andrzej Rejak, Krzysztof Golacki</td>
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<td>12:15</td>
<td>C-1823 AIRFLOW AROUND ARTIFICIAL WINDBREAKS WITH ELASTIC SUPPORT Antonis Mistriotis Anastasios Giannoulis, Antonis Mistriotis, Nikolaos Papadaki, Demetres Briassoulis</td>
<td>12:15</td>
<td>C-1156 MANUFACTURE AND PROPERTIES OF THREE-LAYERED LOW DENSITY PARTICLEBOARD FROM GIANT REED Clara Eugenia Ferrández García Clara Eugenia Ferrández García, Manuel Ferrández-Villena García, Juan Cuartero, Teresa García Ortúño, María Teresa Ferrández García, Javier Andreu Rodríguez</td>
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<td>12:45</td>
<td>C-0363 HYDRODYNAMIC BEHAVIOUR OF THE UNDERDRAINS IN A MICROIRRIGATION SAND FILTER USING CFD SOFTWARE Gerard Arbat Pujolàs Gerard Arbat, Toni Pujol, Jaume Puig-Bargués, Miguel Durán-Ros, Javier Barragán, Lino Montoro, Francisco Ramírez de Cartagena,</td>
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### SESSION 225

**10:55-13:00**

**(SPC04): PERCEPTION FOR INTELLIGENT VEHICLES AND FARM EQUIPMENT**

**Moderator:** Shufeng Han  
**Location:** ROOM 4

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<td>11:00</td>
<td>C-0991 REAL TIME PERCEPTION AND CLASSIFICATION OF RELEVANT OBJECTS IN RURAL ENVIRONMENT TO REACH SAFE AUTONOMOUS PILOTING OF A COMMERCIAL TRACTOR</td>
<td>Maria C. Garcia-Alegre, David Martin, D. Miguel Guinea, Domingo Guinea</td>
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<td>11:15</td>
<td>C-2288 DEVELOPMENT OF A REAL TIME MULTI-LENS BASED OMNI-DIRECTIONAL STEREO VISION SYSTEM</td>
<td>Liangliang Yang, Noboru Noguchi, Kazunobu Ishii</td>
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<td>11:30</td>
<td>C-1302 3D SIMULATION WITH VIRTUAL STEREO RIG FOR OPTIMIZING CENTRIFUGAL FERTILIZER SPREADING.</td>
<td>Jürgen Vangeyte, Bilal Hijazi, Jürgen Vangeyte, Frédéric Cointault, Michel Paindavoine, Jan G. Pieters</td>
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<td>11:45</td>
<td>C-0345 MEASURING OLIVE LEAF MINERAL CONCENTRATION USING VIS_NIR SPECTRAL REFLECTANCE</td>
<td>Ze'ev Schmilovitch, Nativ Rotbart, Ya'ifié Choen, Victor Alchanatis, Uri Yermiyahu</td>
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<td>12:00</td>
<td>C-1304 3D TIME-OF-FLIGHT CAMERA-BASED SENSOR SYSTEM FOR AUTOMATIC CROP HEIGHT MONITORING FOR PLANT PHENOTYPING</td>
<td>Christian Scholz, Ralph Klose, Christian Scholz, Arno Ruckelshausen</td>
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<td>12:15</td>
<td>C-0560 SELECTIVE WEED CONTROL BY MEANS OF IMAGE ANALYSIS AND LASER APPLICATION</td>
<td>Christian Marx, Julio César Pastrana Pérez, Michael Hustedt, Heinz Haferkamp, Stephan Barcikowski, Thomas Rath</td>
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### SESSION 226

**10:55-13:00**

**SPC06): APPLICATIONS OF WSN IN AGRICULTURE, PRIVATE SECTOR II**

**Moderator:** Ole Green  
**Location:** ROOM 5

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<td>11:00</td>
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<td>11:30</td>
<td>C-0373 PLANT WATER STATUS IN VINEYARDS COMBINING SENSORS IN SOIL AND Plant</td>
<td>Javier J. Cancela, Maria Fandiño; Emma M. Martinez; Benjamin J. Rey, Javier J. Cancela</td>
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<td>11:45</td>
<td>C-0817 WIRELESS SENSOR NETWORKS TO MONITOR MICROCLIMATE VARIABILITY FOR PRECISION VITICULTURE IN CASTILLA-LAMANCHA</td>
<td>Francisco Montero García, Francisco Montero García, Antonio Brasa Ramos, Francisco Montero Riquelme</td>
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### SESSION 227

**10:55-13:00**

**(RD): SUSTAINABILITY I**

**Moderator:** John H Lumkes  
**Location:** ROOM 6+7

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<td>11:00</td>
<td>C-0645 SURVEY OF STRATEGIES METHOD FOR CONSERVATION AGRICULTURE DEVELOPMENT TOWARD SUSTAINABILITY IN IRAN RURAL SOCIETY</td>
<td>Masoud Nezamoleslami, Mohammad Emami, Mohammad Hasan Ebrahimi, Babak Pourmehd Izanbouri, Masoud Nezamoleslami, Hadi Tajeddin khoozani, Mohammad Ghaderjani, Mohammad Mehdi Amiri khorie</td>
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<td>11:15</td>
<td>C-1104 THE PARAMO ECOSYSTEM, FOREST AND WETLANDS IN THE RIVER BASIN OF RIO GRANDE ANTOIOQUIA (COLOMBIA) IN A PROPOSAL OF SUSTAINABLE WATER MANAGEMENT.</td>
<td>Eugenia González Castrillón, Eugenia González Castrillón</td>
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<td>11:30</td>
<td>C-1167 ASSESSMENT OF SYSTEM SUSTAINABILITY INDEX FOR IRRIGATED RICE DOMAIN - A QUANTITATIVE APPROACH</td>
<td>Abu Ahmed Mokammel Haque, Abu Ahmed Mokammel Haque, Hla Myo Thwe</td>
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<td>11:45</td>
<td>C-1205 SMALL SCALE RURAL INFRASTRUCTURE FOR SUSTAINABLE AGRICULTURAL DEVELOPMENT IN AFRICA</td>
<td>Josef Kienzle, Muhammad Akhtar Bhatti, Josef Kienzle</td>
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<td>12:00</td>
<td>C-2343 DESIGN OF A SUSTAINABLE, LOCALLY MANUFACTURABLE, AGRICULTURAL UTILITY VEHICLE FOR DEVELOPING COUNTRIES</td>
<td>John H. Lumkes Jr., John H Lumkes</td>
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12:15  C-1486 DEVELOPMENT OF AGRICULTURAL MECHANIZATION FOR RICE PRODUCTION IN THAILAND
Phakwipha Sutthiwaree, Minli Yang

12:30  C-1160 SOIL QUALITY MONITORING AND EVALUATION UNDER CONVENTIONAL PLOW-BASED AND CONSERVATION AGRICULTURE PRODUCTION SYSTEMS IN SOUTHERN PHILIPPINES
Victor Ella, Manuel Reyes, Agustin Mercado

10:55-13:00  SESSION
Moderator: Manuela Zude
Location: ROOM 8+9

10:55  Introduction

11:00  C-2214 WATER STRESS DETECTION BASED ON OPTICAL MULTISENSOR FUSION WITH A LEAST SQUARES SUPPORT VECTOR MACHINE CLASSIFIER
Dimitrios Moshou, Dimitrios Moshou, Ioannis Gravalos, Dimitrios Kateris, Xanthoula-Eirini Pantazi

11:15  C-0318 MONITORING PHYSICAL PARAMETERS OF TROPICAL FRUITS DURING DRYING BY APPLICATION OF LASER LIGHT IN THE VIS/NIR SPECTRUM
Giuseppe Romano, Marcus Nagle, Hans-joachim Müller

11:30  C-1583 NONDESTRUCTIVE MEASUREMENT OF FRUIT QUALITY BY MEANS OF NIR SPECTROSCOPIC AND HYPERSONAL IMAGING TECHNOLOGY
Yanchao Zhang, Yanchao Zhang, Yidan Bao, Yong He, Jiansong Yao

11:45  C-1775 USING SPECTRAL MEASUREMENTS TO DIFFERENTIATE BETWEEN ANTHOCYANIN AND BETACYANIN CONTAINING PLANT SPECIES
Reisha Peters, Reisha Peters, Scott Noble

12:00  C-2309 COMPARISON OF FOUR NONDESTRUCTIVE SENSORS FOR FIRMMNESS ASSESSMENT OF APPLES
Renfu Lu, Renfu Lu, Fernando Mendoza

12:15  C-0571 FUSARIUM DETECTION AND DEOXYVINOLENOL CONTENT DETERMINATION IN WHEAT USING FOURIER TRANSFORM INFRARED SPECTROSCOPY
Jitendra Paliwal, Karen Starr, Jitendra Paliwal

14:00-14:55  (PM) POSTERS SESSION
Location: POSTERS ROOM

P-0021 SPRAYING CITRUS ORCHARDS WITH ANTIDRIFT NOZZLES
Luis Val Manterola, Lucia dolera, rosa vercher, Cruz Garcia, Figueroa, Jose Mª Soler, Luis val

P-0237 EFFECTS OF DISC PLOUGHING ON THE MORPHOLOGICAL AND PHYSICAL PROPERTIES OF SOILS IN MUBI SOUTH LOCAL GOVERNMENT AREA, ADAMAWA STATE, NIGERIA
Mohammed Abubakar, Mohammed Abubakar, M Ahmed, A. I. Zata

P-0402 ESTIMATION OF LEAF AREA INDEX (LAI) IN GREENHOUSE TOMATO CROP TO DETERMINE THE VOLUME RATE TO SPRAY
Julian Sanchez-Hermosilla, Victor J. Rincón Cervera, Francisco Cesar Paez Cano, Julian Sanchez-Hermosilla, Lopez, Jose Perez Alonso, Angel Callejon Ferre

P-1235 EFFICIENCY OF HYDROPNEUMATIC SPRAYERS FOR PHYTOSANITARY TREATMENT OF FRUIT CROPS GROWN IN THE CUYO REGION, ARGENTINA
Marcos Montoya, Raúl del Monte, Alejandro Ambrogetti

P-1245 INFLUENCE OF AIR FLOW VARIATION ON SPRAYING AND POWER DEMAND OF HYDROPNEUMATIC SPRAYERS
Marcos Montoya, Raúl del Monte, Alejandro Ambrogetti

P-1501 ASYMMETRIC CLASSIFICATION OF DRIFT REDUCING NOZZLES CONSIDERING FRONTAL OR LATERAL WIND CONDITIONS
Jean Paul Douzals

P-1621 EVALUATION OF SPRAY NOZZLES FOR CONTROL OF FUSARIUM HEAD BLIGHT IN WHEAT CROPS
Juan Jose Olivet Martinez, Juan Jose Olivet Martinez, Juana Villalba, João Paulo Cunha, Jorge Volpi

P-1639 A MACHINE PROTOTYPE FOR THE CHESTNUT MECHANICAL HARVEST IN STEEP ZONE
Andrea Formato, Andrea Formato, Domenico Guida, Antonio Lenza, Carlo Palcone, Giampiero Scaglione
P-1665 TECHNO-ECONOMIC EVALUATION OF MECHANICAL WEEDERS IN THE PADDY FIELD
Mohammad Reza Alizadeh

P-1722 CHEMICAL THINNING RESPONSE OF ‘WILLIAMS’ BON CHRETIEN’ PEARS TO VOLUME RATE AND SURFACTANT
Jorge Magdalena Carlos
Jorge Carlos Magdalena, Mariela Curetti, Rodolfo Rodriguez

P-1731 EFFECT OF A CROSS FLOW SPRAYER AND AN AIR-CARRIER, AXIAL-FAN SPRAYER ON THE QUALITY DISTRIBUTION, PEST CONTROL AND DRIFT IN AN APPLE ORCHARD
Jorge Magdalena Carlos
Jorge Carlos Magdalena, Luis Val Mante-rola, Alcides Di Prinzio, Sergio Behmer

P-1749 CHARACTERIZATION OF MANUAL SPRAY GUNS FOR PHYTOSANITARY TREATMENT OF PROTECTED HORTICULTURAL CROPS. TYPOLOGY AND OPERATIONAL PARAMETERS.
Francisco C. Páez Cano
Francisco Cesar Paez Cano, Victor J. Rincóncervera, Miguel Giménez, Milagros Fernández, Julián Sánchez-Hermosilla López

P-1854 PHYSICAL WEED CONTROL IN URBAN HARD SURFACES AND TURFGRASSES
Luisa Martelloni
Andrea Peruzzi, Christian Frasconi, Luisa Martelloni, Marco Fontanelli, Michele Raffaelli

P-1864 EFFECT OF SPACE ON DROPLETS ELECTRICAL CHARGE DURING ELECTROSTATIC SPRAYING
Robson Shigueaki Sasaki
Robson Shigueaki Sasaki, Mauri Teixeira Martins, Haroldo Carlos Fernandes, Paulo Marcos de Barros Monteiro, Denilson Eduardo Rodrigues, Cleiton Batista de Alvarenga

P-1875 EFFECT OF WATER VAPOR PRESSURE DEFICIT ON DROPLETS SPECTRUM DURING AN AIR-ASSISTED SPRAY
Robson Shigueaki Sasaki
Cleiton Batista de Alvarenga, Mauri Teixeira Martins, Sérgio Zolnier, Paulo Roberto Ceccon, Robson Shigueaki Sasaki

P-1895 EFFECT OF DROPLET SIZE IN THE CONTROL OF YELLOW LEAF SPOT IN WHEAT
Juan José Olivet Martínez
Juan José Olivet Martinez, Juana Villaba, Jorge Volpia

P-2360 THE EFFECT OF NITROGEN AND POTASSIUM FERTILIZER ON YIELD, QUALITY AND SOME QUANTITATIVE CHARACTERISTICS OF FLUE-CURED TOBACCO CV. COKER 347
Ali Reza Farrok
Ali Reza. Farrokh, Ibrahim Azizov, Atoosa Farrokh, Masoud Esfahani, Mehdi Rangbar Chobeh, Masoud Kavoosi

P-0029 SOIL MOISTURE AND TEMPERATURE MONITORING FOR SUSTAINABLE LAND AND WATER MANAGEMENT IN TRANSylvanian Plain, Romania
Teodor Rusu
Teodor Rusu, Paula Moraru, Mara Sopte-rean, Adrian Pop, Ileana Bogdan

P-0030 SOIL TILLAGE CONSERVATION AND ITS EFFECT ON SOIL MANAGEMENT AND CLIMATIC CHANGES
Teodor Rusu
Paula Moraru, Teodor Rusu

P-0064 RECOURSE AND MANAGEMENT OF WATER IN THE WORLDS
Mohammad Sharrifmoghaddasi
Mohammad Sharrifmoghaddasi

P-0182 EFFECTS OF THE NITROGEN FERTILIZER AND AZOTOBACTER ON FLOWER YIELD AND CAROTENOID CONTENTS OF MARIGOLD (CALENDULA OFFICINALIS)
Mohammad Reza Haj Seyed Hadi
Mohammad Reza Haj Seyed Hadi, Mohammad Taghi Darzi, Zohreh Ghandehari-lavijeh, Gholamhossein Riazi

P-0483 THE SPATIO-TEMPORAL ANALYSIS OF SOIL VOLUMETRIC MOISTURE CONTENT
Yujian Yang

P-0505 EXPERIMENTAL ASSESSMENT OF ARTIFICIAL MONOLAYERS IN REDUCING EVAPORATION FROM WATER STORAGES
Victoriano Martinez-Alvarez
Victoriano Martinez-Alvarez, Belen Gallego-Elvira, Bernardo Martín-Górriz, Pam Pittaway, Gavin Brink

P-0527 ANALYSIS OF LEVELS OF LAND DEGRADATION USING LANDSAT-5, MUNICIPALITIES OF ARARIPINA (PE) CRATO AND BARBALHA (CE) AND MARCóLANDIA (PI), BRAZIL
Maria De Fátima Fernandes Fátima
Maria De Fátima Fernandes Fátima, Marx Prestes Barbosa, João Miguel Moraes
P-0559 WATER TECHNOLOGY IMPROVEMENTS AND THEIR EFFECT ON THE PROFITABILITY OF MEDITERRANEAN WOODY CROPS UNDER DIFFERENT WATER PRICING POLICIES
Maria Dolores de Miguel Gómez
Maria Dolores de Miguel Gómez, Alcon Provencio francisco José, Fernández Zamudio Mª Angeles

P-0589 LAND SUITABILITY EVALUATION BASED ON THE PARAMETRIC EVALUATION APPROACH IN DOSALEGH PLAIN
Mohammad Albaji
Saeed Boroomand Nasab, Mohammad Albaji

P-1241 COMPARISON BETWEEN CURVE NUMBER EMPIRICAL VALUES AND CURVE NUMBER OBTAINED BY HANDBOOK TABLES AT BASIN SCALE IN SICILY, ITALY
Francesco D’Asaro
Francesco D’Asaro, Giovanni Grillone, Giorgio Baiamonte

P-1250 EMPIRICAL METHODS TO DETERMINE AVERAGE ANNUAL RUNOFF COEFFICIENT IN SICILIAN BASINS
Francesco D’Asaro
Giorgio Baiamonte, Francesco D’Asaro, Giovanni Grillone

P-1384 EFFECT OF SUGAR CANE HARVEST MACHINERY TRAFFIC ON SOIL COMPACTION IN SUGARCANE FIELDS
Heydar Mohammad Ghasem Nejad Maleki
Heydar Mohammad-Ghasem Nejad Maleki

P-1408 RESPONSE OF SUGAR CANE CROP TO IRRIGATION SPROUTING AND USE OF ORGANIC MULCH IN SOIL COVER IN THE CERRADO REGION, BRAZIL.
José Alves Junior
Patrick Francino Campos, José Alves Jr, Pedro Henrique Pinto Ribeiro, Rogério Augusto Bremm Soares, Udo Rosenfeld, Adão W. Pego Evangelista, Derblai Casaroli

P-1517 PAPAYA SEEDLINGS PRODUCTION FROM SOIL GROUP AND FORMOSA GENOTIPS UNDER WATER LEVELS IN SOIL
Lucia Chaves Helena Garofalo
Lucia Helena Garofalo Chaves, Evandro Franklin de Mesquita Mosquita, Lucia Helena Garofalo Chaves, Flaviana De Andrade Vieira

P-1559 APPLICATION OF TREATED DOMESTIC SEWAGE IN THE SOIL FOR DESIGN THE SUBSURFACE DIRT IRRIGATION
Marcelo Leite Conde Elaiuy Elaiuy
Marcelo Elaiuy Leite Conde, Allan Charles Mendes de Sousa, Leonardo Nazário Silva dos Santos, Edson Eiji Matsura

P-1576 EFFECT OF MACHINE TRAFFIC ON SOIL COMPACTION DURING THE SEMI-MECHANIZED PLANTING PROCESS OF SUGAR CANE
Adriano Bastos
Adriano Bastos Chaves, Henrique Silveira, Francelino Rodrigues Junior, Marcelo José Silva, Paulo S. Graziano Magalhães

P-1593 A STUDY ON THE STREAM MANAGEMENT FLOW SUPPLY FOR THE RESTORATION OF RURAL STREAM ENVIRONMENT AND PREVENTION OF RURAL STREAM DRYING
Sang Min Kim
Sang Min Kim, Sung Jae Kim, Sung Min Kim
P-1790 DEVELOPMENT OF A CONCEPTUAL MODEL FOR DROUGHT ANALYSIS
Hamid Babaei
Hamid Babaei, Shahab Araghinejad

P-1861 APPLICATION OF MECHANICAL SHAKERS FOR COFFEE HARVESTING
Duncan Mbuge Onyango
Duncan Mbuge Onyango, Philip Langat

P-1898 DEMAND SIDE MANAGEMENT IN IRRIGATED PERIMETER USING FREQUENCY INVERTER
André Luis Carvalho Mendes
André Luis Carvalho Mendes, Jorge Henrique A. C. Damiao, Maria Joselma Moraes, Dolly Oliveira Filho, Gerson Ovidio Luz Pedruzzi

P-1905 EFFECTS OF WATER MANAGEMENT PRACTICES ON PADDY RICE YIELD AND EMISSION OF GREENHOUSE GASES
Kosuke Noborio
Kosuke Noborio, Yuki Kudo, Takashi Kato, Naoto Shimoozo

P-1966 FIELD CONSERVATION OF RAINWATER WITH ROCK FRAGMENTS
Majed Abu-zreig

P-1996 IDENTIFICATION OF FREE-FORM PARAMETERIZED SOIL HYDRAULIC PROPERTIES IN NON-ISOTHERMAL Sub-SURFACE WATER FLOW USING INVERSE TECHNIQUE
Tomoki Izumi
Tomoki Izumi, Masayuki Fujihara

P-2014 ENVIRONMENTAL PLANNING USE OF LAND RESOURCES IN WATERSHEDS, BATATAIS COUNTY, SAO PAULO STATE, BRAZIL
Teresa Cristina Pissarra Tarlé
Teresa Cristina Pissarra Tarlé, Marcelo Zanata, Sergio Campos, Kati White Migliaccio, Christiano Luna Arraes

P-2056 COAGULATION USING MORINDA OLEIFERA AND FILTRATION TO REMOVE OOCYSTS OF CRYPTOSPORIDIUM SPP THROUGH SIMULATION WITH POLYSTYRENE MICROSPHERES
Jose Euclides Paterniani
Adriana Ribeiro Francisco, Marcelo Jacomini Moreira Silva, Jose Euclides Paterniani

P-2064 MULTIVARIATE STATISTICAL OF PRINCIPAL COMPONENTS AND CLUSTER ANALYSIS IN THE STUDY SUPPORT OF REGIONALIZATION OF FLOW
Demetrius David Silva
Abrahao Alexandre Alden Elesbon, Demetrius David Silva, Gilberto Chohaku Sedyama, Carlos Antonio Alves Soares Ribeiro

P-2161 WATER MONITORING AND CHARACTERIZATION OF WATERSHEDS AS REFLECTION OF SOIL USAGE AND OCCUPATION
Michele Claudia da Silva Michele
Michele Claudia Da Silva, Rodrigo Garcia Brunini, Teresa Cristina Tarlé Pissarra

P-2198 Emitter Clogging Under Low Head DRIP Irrigation With Unfiltered Nile River Water
Mohamed Rashad Abouzeid
Mohamed A. Rashad, Mohmmed W. M. Elwan, Khalid E. Abd El-Hamed, Samy A. M. Abd El-Azeem

P-2201 ASSESSMENT OF Emitter DISCHARGE IN LOW HEAD DRIP IRRIGATION SYSTEM AS AFFECTED BY GREYWATER
Mohamed Rashad Abouzeid
Mohamed A. Rashad, Khalid E. Abd El-Hamed, Mohmmed W. M. Elwan, Samy A. M. Abd El-Azeem

P-2256 A NEW APPROACH TO DERIVE AND ASSESS SOIL WETTING FRONT MAP UNDER TRICKLE IRRIGATION
El-Sayed E. Omran
El-Sayed Omran Ewis, Gamal M. Elmasry, Mohamed A. Rashad

P-2278 BENCHMARKING OF IRRIGATED AGRICULTURE: THE CASE OF THESSALY-GREECE
Evangelini Kitta
Constantinos Kittas, Thomas Bartzanas, Nikos Katsoulas, Evangelini Kitta, Adriano Batilliani

P-231 SESSION
14:00-14:55
(SPc-05) POSTERS SESSION
Location: POSTERS ROOM

P-0214 PRELIMINARY FINDINGS ON SEASONAL HEAT STRESS OF SHEEP
Thomas Bartzanas
D. K. Papanastasiou, Thomas Bartzanas, P. Panagakis, Constantinos Kittas

P-0437 EVALUATING EFFECTIVENESS OF SPRAYING SYSTEMS TO REDUCE HEAT STRESS ON DAIRY COWS
Hao Li
Hao Li, Zheng Xiang Shi, Chao Yuan Wang, Tao Ding, Linjia Fan, Dinglei Yan, Lihu Bian, Xiaodong He, Ligen Yu

P-0599 EFFECTS OF DIETARY TYPES OR CONCENTRATE-TO-FORAGE RATIOS ON RUMEN METHANE EMISSIONS OF SHEEP
Liu Chong Liu Chong
Chong Liu, Zhu Zhiping Zhu, Bin Shang, Chen yongxing Chen, Guo Tongjun Guo, Luo Yongming Luo, Hongmin Dong,
P-0694 MAPPING THERMAL ENVIRONMENT INSIDE BROILER BARNs FOR THE DIAGNOSIS OF COLD STRESS AT BIRD INITIAL GROWING STAGE

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P-1946 SOLID-LIQUID EXTRACTION TO OPTIMIZATION OF BIOACTIVE COMPOUNDS RECOVERY FROM GRAPE POMACE. Suely Freitas Pereira, Ana Paula Gil Cruz, Alexandre Torres, Flávia Gomes, Lourdes Maria Correa Cabral

P-1949 HASS AVOCADO OIL: EFFECT OF PROCESSING ON EXTRACTION PARAMETERS Suely Freitas Pereira, Isabelle Santana, Lourdes Maria Correa Cabral, Alexandre Guedes Torres, Suely Freitas Pereira

P-1995 EVALUATION OF POLYHENOL EXTRACTION METHODS FROM APPLE POMACE Beatrix Szabó-Notín, Beatrix Szabó-Nótin, Réka Juhász, Mónika Stéger-Máté, József Barta, Dalma Radványi

P-2068 DETERMINATION OF RISKY MICROORGANISMS IN FROZEN READY-TO-EAT SEAFOOD SOLD IN ISTANBUL MARKET Suhendan Möl, Suhendan Möl, Didem Ucok Alakavuk

P-2079 EFFECT OF CITRAL CONCENTRATION AND TEMPERATURE ON ESCHERICHIA COLI K12 GROWTH Clara Miracle Belda Galbis, Antonio Martínez, Dolores Rodrigo

P-2091 PROTECTIVE EFFECT OF GRAPE SEED EXTRACT TREATMENT BEFORE AND AFTER FREEZING ON LIPIDS OF BONITO Pinar Yerlikaya, Pinar Yerlikaya, Nalan Gokoglu

P-2130 APPLICATION OF A CENTRAL COMPOSITE DESIGN APPROACH TO OPTIMIZE HEAT TREATMENTS FOR THE EXTENSION OF FRESH-CUT PEACH ES QUALITY Maria Luisa Amudio, Maria Luisa Amudio, Fedele Colantuono, Giancarlo Colelli

P-2164 CHEMICAL CHARACTERIZATION OF RHIZOMES AND FLOUR OF ORGANIC SWEETPOTATO (IPOMOEA BATATAS L.). Maria Ivone Barbosa Martins Jacintho, Kamila de Oliveira do Nascimento, Daniel Guimarães Corrêa Moreira Rocha, José Lucena Barbosa Júnior, Maria Ivone Martins Jacintho Barbosa

P-2240 OPTIMIZATION OF THE EXTRACTION SYSTEM AND METHOD OF HYDROLYSIS FOR INDIRECT QUANTIFICATION OF CYANOGENIC GLYCOSIDES IN FLAXSEED MEAL Alaa El-din Bekhit, Teguh Jodjaja, Alaa El-din Bekhit, Adnan Bekhit

P-2257 INVESTIGATION OF OXIDATIVE CHANGES OF EMULSION ENRICHED WITH ANCHOVY OIL AND PLANT EXTRACTS Nalan Gokoglu, Nalan Gokoglu, Pinar Yerlikaya

P-2310 DEVELOPMENT OF A MULTI-PURPOSE OPTICAL INSTRUMENT FOR MEASURING SPECTRAL ABSORPTION AND SCATTERING PROPERTIES OF FOOD AND BIOLOGICAL MATERIALS Renfu Lu, Renfu Lu, Haiyan Cen, Diwan Ariana

P-2341 DEVELOPMENT AND THERMAL CHARACTERIZATION OF A-TOCOFEROL NANOCAPSULES Veronica Santacruz-Vazquez, Verónica Santacruz-Vázquez, Claudia Santacruz-Vázquez, Jose Oscar Laguna-Cortés
P-2363 NUTRITIONAL AND BIOLOGICAL VALUES OF BEE POLLEN AND BEEBREAD HARVESTED FROM ROMANIA
Oltica Stanciu
Oltica Stanciu, Liviu Al. Marghitas, Daniel Dezmiran

P-2367 AN INDIVIDUAL-BASED TWO-LOCUS MODELLING OF PEST CONTROL IN A SPATIALLY HETEROGENEOUS STORAGE FACILITY WITH PEST IMMIGRATION.
Mingren Shi
Mingren Shi, Michael RENTON

P-2368 PHOSPHINE MORTALITY ESTIMATION FOR SIMULATION OF CONTROLLING PEST OF STORED GRAIN: LESSER GRAIN BORER (RHYZOPERTHA DOMINICA)
Mingren Shi
Mingren Shi, Michael RENTON

P-2369 INFLUENCE OF ADDITIVES ON FUNCTIONAL PROPERTIES OF COMMON CARP SURIMI GEL
Ali Jafarpour
Ali Jafarpour

P-2370 FUNCTIONAL PROPERTIES OF FREEZE-DRIED FISH PROTEIN POWDER PREPARED FROM COMMON CARP SURIMI
Ali Jafarpour
Ali Jafarpour

P-1135 WIND PRESSURE COEFFICIENT OF PLASTIC GREENHOUSE BY WIND TUNNEL TEST AND CFD SIMULATION
Namkyu Yun
Namkyu Yun, Yee Paek, Jongkil Jeon, In-Bok Lee

P-1192 MODELING OF ISOLATED WETTED SOIL VOLUME UNDER SURFACE DRIP IRRIGATION USING FINITE VOLUME METHOD
Sérgio Luiz Aguilar Leven
Luiz Ailton de Araújo Souza, Sérgio Luiz Aguilar Leven, Andre Herman Freire Bezerra

P-1218 MODELING OF WETTED STRIP UNDER SURFACE DRIP IRRIGATION USING FINITE VOLUME METHOD
Sérgio Luiz Aguilar Leven
Luiz Ailton de Araújo Souza, Sérgio Luiz Aguilar Leven, Andre Herman Freire Bezerra

P-1653 NUMERICAL SIMULATION OF THE AIRFLOW AND TEMPERATURE DISTRIBUTION IN A CLOSED VENLO GREENHOUSE UNDER HOT AND ARID CLIMATE
Pierre-Emmanuel Bournet
Kamel Mesmoudi, Pierre Emmanuel Bournet, Bariza Zitouni, Toufik Outtas

P-1670 OPTIMIZATION OF AIR FLOW CIRCULATION SYSTEM WITH BRANCHING PERFORATED DUCTS
Ryuta Ibuki
Ryuta Ibuki, Masud Behnia

P-2298 CFD MODEL OF THE EFFECT OF CANOPY ON AIR VELOCITY IN AIR-ASSISTED TREATMENTS IN MANDARIN ORCHARDS
Ramon Salcedo Cidoncha
Ramon Salcedo, Cruz Garcia Figueroa, Rafael Granell, Guillermo Palau, Molto Enrique, Patricia Chueca

P-0647 A CASE STUDY OF AIRFLOW PATTERNS AROUND AN ARCHED TYPE AGRICULTURAL BUILDING: INVESTIGATING MESH CONVERGENCE OF DIFFERENT TURBULENCE MODELS
Chao Zong
Chao Zong, Wentao Wu, Guoqiang Zhang, Xiong Shen, George Ntinas

P-0900 A SIMULATION FLOW MODEL IN A WHIRLPOOL TANK WITH DOUBLED FILLING INLETS
Marek Jakubowski
Marek Jakubowski

P-0903 MODELING OF SOIL WATER FLOW WITH ROOT WATER UPTAKE AND EVAPORATION IN SURFACE DRIP IRRIGATION
Andre Herman Bezerra Freire
Andre Herman Bezerra Freire, Sérgio Luiz Leven

P-0928 THE SIMULATION OF THE MULTIPHASE MIXTURE FLOW IN THE SINGLE TRUCK SMOKING CHAMBER WITH A MODIFIED DISTRIBUTION OF BLOW-OUT SPRAYS
Mariusz S. Kubiak
Mariusz Kubiak, Marek Jakubowski

P-0013 AN INVESTIGATION ON THE EFFECTS OF ELEVATED CO2 AND TEMPERATURE ON CHICKPEA YIELD IN ZANJAN DISTRICT, IRAN (USING SSM SIMULATION MODEL)
Behnam Kamkar
Nasim Meghdadi, A Soltani, Behnam Kamkar

P-0068 ENGINEERING SOIL AND COAL ASH BASED GROWTH MEDIA FOR CROP PLANTS
Jerzy Bilski
Jerzy Bilski
P-0248 IRON OXIDE MAGNETIC NANO PARTICLES WITH BIOCOMPATIBLE COATING FOR POTENTIAL APPLICATION IN AGRICULTURAL AND FOOD INDUSTRY Alla Zablotskaya Alla Zablotskaya, Izolda Segal, Mikhail Mairov, Vizma Nikolajeva

P-0293 MARKING THE CONTENT OF PAHS IN SELECTED MEAT PRODUCTS PROCESSED BY INDUSTRIAL SMOKING Mariusz S. Kubiak

P-0325 MANUFACTURE AND PROPERTIES OF PARTICLEBOARD MADE FROM MULBERRY PRUNING WASTE Clara Eugenia Ferrández García Clara Eugenia Ferrández García, Teresa Garcia Ortuño, Javier Andreu Rodríguez, Manuel Ferrández-Villena García, María Teresa Ferrández García

P-0331 RECURSOS PARA SUSTENTAR LA PRESENCIA DE LAS MARIPASAS (INSECTA: LEPIDOPTERA) EN AGROECOSISTEMAS DEL OCCIDENTE DE CUBA Maria Cristina Escandón Arbolay Maria Cristina Escandón Arbolay; María Cristina Escandón Arbolay

P-0381 EFFECT OF SUBSTRATE ON THE INITIAL DEVELOPMENT OF CEDRELÁ FISSILIS VELL. (MELIACEAE) SEEDLING Kever Bruno Paradelo Gomes Kever Bruno Paradelo Gomes, Rosana Carvalho Cristos Martins, Maria de Lourdes Gomes Vilarino, Valdevino Pereira Silva, Ana Carolina Ferraro

P-0420 THERMAL BEHAVIOR OF MATERIALS USED IN ROOF COVERAGE OF HUSBANDRY BUILDINGS Adhemar Pitelli Milani Adhemar Pitelli Milani, Fernando Augusto de Souza, José Eduardo Pitelli Turco, Eduardo Alves de Almeida

P-0516 DESIGN AND OPTIMIZATION OF A WIND CHANNEL FOR NATURAL VENTILATION STUDY Xiong Shen Xiong Shen, Guoqiang Zhang, Jan Ove Johnsen

P-0566 PREDICTION OF FOOTINGS SETTLEMENT ON SANDS BY FINITE ELEMENT METHOD José Requena Pérez José Requena Pérez, Jesús Ayuso, José R. Jiménez, Francisco Agrafel

P-0568 EVALUATION OF THE STRUCTURAL STABILITY OF A 9M-WIDE SINGLE-SPAN GREENHOUSE WITH THE HIGH EAVES Sung-hyun Yum Sung-hyun Yum, Seoung-hee Kim, Sang-bong Lee, Min-young Kim, Jin-oh Kim

P-0571 SYNCHROTRON RADIATION ANALYSIS OF SUGAR CANE ASH AND THEIR CEMENT PASTES BLENDS Margaret Franco Margaret Franco, Michelle Santos Rodrigues, Sergio Francisco Dos Santos, António Ludovico Beraldo, Heloisa Nunes Bordallo, Laurie Aldridge, Fabiano Yokaiyhi

P-0638 RECYCLED CONCRETE BEHAVIOR AS A FUNCTION OF TYPE OF NATURAL AGGREGATES USED IN THE MIXTURE Santiago Laserna Arcas Santiago Laserna Arcas, Jesús Montero Martínez, Rosario Sánchez Gómez, Pablo Galletto Montero

P-0650 STUDY OF CDW’S PRODUCTION IN CASTILLA-LA MANCHA. ESTIMATION METHOD AND VIABILITY OF THE TREATMENT PLANTS Santiago Laserna Arcas Santiago Laserna Arcas, Rosario Sánchez Gómez, Jesús Montero Martinez

P-0678 DEVELOPMENT OF HYDROLYZED PROTEIN DERIVATIVES FOR BIODEGRADABLE SPRAY MULCHING COATINGS Giuliano Vox Eovalia Schettini; Luciana Sartore; Marzia Barbaglio; Giuliano Vox

P-0725 BOUSSINESQ PROBLEM IN A VENLO TYPE GREENHOUSE Abraham Rojano Abraham Rojano, Raquel Salazar, Jorge Flores, Teodoro Espinosa, Waldo Ojeda

P-0955 PRACTICAL EXPERIENCES WITH 3 FLOATING COVERS FOR SLURRY STORAGES IN SPAIN Maite Aguilar Ramírez Maite Aguilar Ramírez, Albert Abaigar Ainc, Elena Irujo Baigorri, Pilar Merino Pereda, Salvador Calvet Sanz

P-0977 HYDROTHERMAL MODELING OF LIME HEMP MIXES USED AS BUILDING MATERIALS AND INDOOR CLIMATE REGULATION PERFORMANCE CHARACTERIZATION Samuel Dubois Samuel Dubois, Samuel Dubois, Frédéric Lebeau, Arnaud Evrard

P-1046 SIZE EFFECT ON THE MECHANICAL PROPERTIES OF COMPRESSED EARTH BLOCK Walid Ahmed Foud Abd Elhai Edris Walid Ahmed Foud Abd Elhai Edris; Gonzalo Ruiz López; Zhang Xiao Xin; Ignacio Cañas Guerrero; Mario Desantos
P-1107 EVALUATION OF THE EFFICIENCY OF HUMIC ACID, FULVIC ACID, HYDROLYZED FISH AND COMPLEX BACTERIAL, APPLIED IN TRANSPLANTATION OF EUCALYPTUS (EUCALYPTUS SPP) SAMPLES TO THE FIELD
Luiz Gustavo Fernandes Julião Fernandes Julião
Luiz Gustavo Fernandes Julião, Evandro Luiz Correa De Souza, Jose Teixeira Filho, Luiz Lonardoni Foloni

P-1180 ASSESSMENT OF CLAY SOILS PRESENT IN EARTHEN RESERVOIRS IN JAéN (SPAIN)
Carlos Manuel Ferrer Gisbert
Carlos Manuel Ferrer Gisbert, Jose Javier Ferran Gozalvez, Miguel Redon Santafe, Francisco Javier Sanchez Romero, Juan Bautista Torregrosa Soler, Jose Manuel Carrillo Cañizares

P-1181 FARM WINERIES DESIGN: PRELIMINARY INDICATIONS FOR INTEGRATING ENERGY EFFICIENCY IN BUILDING MODELING
Stefano Benni
Patrizia Tassinari, Alberto Barbarei, Stefano Benni, Daniele Torreggiani

P-1266 LIDAR TECHNOLOGY APPLICATION TO AUTOMATIC DETECTION OF THE OLIVE TREE AND YIELD ESTIMATION
Alejandro Sáenz Echeverría
Alejandro Saenz Echeverria, Carmen Marin, Cristina Velilla Lucini

P-1335 COMPARISON OF LEAVE AREA ESTIMATIONS VIA LASER-SCANNER READINGS AND IMAGE ANALYSIS
Jana Käthner
Jana Käthner, Uwe Richter, Florian Pforte, Joern Selbeck

P-1356 RHEA PROJECT ACHIEVEMENT: AN INNOVATIVE SPRAY CONCEPT FOR PESTICIDE APPLICATION TO TREE CROPS EQUIPPING A FLEET OF AUTONOMOUS ROBOTS.
Marco Vieri
marco vieri, Daniele Sarri, Marco Rmediotti, Riccardo Lisci, Andrea Peruzzi, Michele Raffaelli, Marco Fontanelli, Christian Frasconi, Luisa Martelloni, Marco Rmediotti, Riccardo Lisci, Andrea Peruzzi, Michele Raffaelli, Marco Fontanelli, Christian Frasconi, Luisa Martelloni

P-2010 ROUTE PLANNING FOR AUTONOMOUS AND AUTOMATED FIELD MACHINES; AN EVALUATION ON DIFFERENT OPTIMISATION CRITERIA
Dionysis Bochtis

P-2132 MACHINE LEARNING AND FUZZY COGNITIVE MAP LEARNING APPROACHES FOR YIELD PREDICTION IN APPLES
Elpiniki Papageorgiou
Elpiniki Papageorgiou, Katerina Aggeiopoulou, Nikolaos Liolios, Theofanis Gentos, George Nanos

P-2289 HIGH ACCURACY ROBOT TRACTOR NAVIGATION USING LEX SIGNAL OF QZSS
Liangliang Yang
Liangliang Yang, Noboru Noguchi, Ryo-suke Takai, Ze Zhang

P-2308 A LASER SCANNER-BASED CROP ROW DETECTION METHOD FOR AUTOMATIC GUIDANCE OF COMBINE HARVESTER
Jongmin Choi
Jongmin Choi, Noboru Noguchi, Kazuno-bu Ishii
P-0117 PERFORMANCE OF NAANDANJAIN 435 SPRINKLER USING THE DEFLECTOR POSITION
Ana Paula P. M. Guirra
Ana Paula P. M. Guirra, Ana Paula Pires
Maciel Guirra, Jose Renato Zanini

P-0249 SELF-BUILDING SILO FOR AFRICA RURAL VILLAGES
Matteo Barbari
Matteo Barbari; Massimo Monti; Giuseppe Rossi; Stefano Simonini; Francesco Sorbetti Guerri

P-0354 BACILLUS THURINGIENSIS-BASED INSECTICIDES RESIDUES IN BROWN FOREST SOILS AND THEIR INFLUENCE ON SOILINHABITING AMMONIFIERS
Hasmik Movsesyan
Masis Sargsyan, Hasmik Movsesyan, Naira Ghazaryan, Arevik Sargsyan, Hasmik Mesropyan

P-0416 SAVE AND GROW, A NEW PARADIGM FOR SUSTAINABLE INTENSIFICATION AND ITS IMPLICATIONS FOR AGRICULTURAL MECHANIZATION
Josef Kienzle
Theodor Friedrich, Josef Kienzle, Amir Kassam

P-0497 DEVELOPMENT OF GALICIAN POTATO PRODUCTS BEARING PROTECTED GEOGRAPHICAL INDICATION AS AN EXAMPLE OF AN ACTION FOR RURAL DEVELOPMENT
Enrique Arbones
Enrique Arbones; Manuel Gómez; Ines Piñeiro; Julio Gómez; Ricardo Losada; Florentino Díaz; Jose Chao; Luis Saa

P-0520 DYNAMICS OF ENVIRONMENTAL DEGRADATION IN THE BASIN OF THE SOLEDADE PB
João Miguel Moraes Neto
João Miguel Moraes Neto; Miguel José Silva

P-0644 DEVELOPMENT OF MOTORCYCLE TRANSPORT DEVICE
Kayode Simonyan Joshua
Kayode Simonyan Joshua, Olabode Abe

P-0752 SUSTAINABLE DEVELOPMENT PATTERN OF LIVABLE AND HABITABLE RURAL AREAS FOR CHINESE PEARL RIVER DELTA REGION (PRD) BASED ON REGIONAL CHARACTERISTICS
Huibin Zhu
Huibin Zhu

P-0757 CHARACTERIZATION OF CARBON DIOXIDE EMISSIONS DURING CONSTRUCTING OF RESERVOIR EMBANKMENT USING LIFE-CYCLE ASSESSMENT METHOD
Sookack Noh
Sookack Noh, Young-hwan Son, Jae-sung Park, Tae-ho Bong, Woo-seok Choi

P-0759 RESEARCH ON THE TREATMENT AND RECYCLING METHODS OF THE DREDGED MATERIALS FROM SMALL STREAMS AND RESERVOIRS IN RURAL AREA OF SOUTH KOREA
Joon Heo
Joon Heo, Seong-Pil Kim, SangHoon Lee, Young-Hwan Son, Tae-ho Bong

P-0772 CONDITIONS AND TECHNOLOGY FOR REINTRODUCTION OF SERICULTURE INDUSTRY INTO THE EASTERN AFGHANISTAN - VIABILITY STUDY
Pavel Burian
Pavel Burian, Vladimir Krepl, Martin Hejral

P-0925 THE POTENTIAL FOR INCREASING LOCAL EMPLOYMENT AND LAND OWNERS INCOME FROM WILD HARVESTED NATURAL RESOURCES THROUGH SUSTAINABLE FARMING PRACTICES
Charles Laubscher
Charles Laubscher, Robin Koehorst

P-0972 SURVEY THE EFFECT OF ON MEDICINAL PLANTS CULTIVATION ON RURAL ECONOMIC IN IRAN
Mohammad Mehdi Amiri khorie
Mohammad Ghahderijani, Mohammad Mehdi Amiri khorie, Masoud Nezamoleslami, Farzaneh Azizadeh, Shiva Azadbakht

P-1040 PLANNING RESEARCH FOR CULTURAL TOURISM ROUTE IN CHUANDIXIA VILLAGE, BEIJING
Shan Xu
Shan Xu; Huibin Zhu; Xiaoming Liu; Yujun Zhang

P-1274 PROBABILITY OF MAXIMUM REFERENCE EVAPOTRANSPIRATION IN MOSSORORN, BRAZIL, USING THE GUMBEL PROBABILISTIC DISTRIBUTION MODEL
Andre Herman Bezerra Freire
Andre Herman Bezerra Freire, Sergio Luiz Leiven

P-1329 SURVEY OF AGRICULTURAL MECHANIZATION ECONOMY IN THE STRATEGIC CROPS IN IRAN
Mohammad Mehdi Amiri khorie
Mohammad Ghahderijani, Hasan Moradi, Babak Beheshti, Mohammad Mehdi Amiri khorie, Mehdi Moghadam kouhi

P-1432 ASSESSMENT TOOL FOR SOIL CHISING IN LAYERS SIMULTANEOUSLY
José Renê Gassen Freitas
José Renê Gassen Freitas, José Renê Gassen Freitas, Airton dos Santos Alonco, Vilney Dias, Ulisses Baumhardt Benedetti
P-1592 AN ACTIVATION PLANNING OF THE VILLAGE FESTIVALS WITH THE 24 SEASONAL DIVISIONS OF THE YEAR Yi Song Shinho Rhee, Yi Song

P-1652 CALCULATION METHOD OF CLIMATIC MODIFICATION AND ITS APPLICATION; THE CASE OF PADDY FIELDS, JAPAN Shin-ichi Takeshita Shin-ichi Takeshita

P-1689 SITUATION OF PESTICIDES IN SEAFOOD OF TURKEY Safak Ulusoy Safak Ulusoy

P-1728 MATING SYSTEM OF HANDROANTHUS HEPTAPHYLLUS SUBPOPULATIONS BY MICROSATELITE MOLECULAR MARKERS Neide Tomita Mori Neide Tomita Mori, Caroline Midori Mori, Márcio Luiz Teixeira De Moraes, Edson Seizo Mori

P-1771 ALLEY CROPPING AS A DURABLE ALTERNATIVE FOR PASTURE LAND DEVELOPMENT IN DROUGHT PRONE MEDITERRANEAN REGION Youssef Chebli Youssef Chebli

P-1834 CUSTOM HIRING OF FARM MACHINERIES AND EQUIPMENT AS A BUSINESS MODEL Praveen C Bargale Praveen C Bargale; Radhye Singh

P-1934 SOLID WASTE MANAGEMENT IN THE RURAL COMMUNITIES LUCAS AND ESTREITO IN THE MUNICIPALITY OF CAMPINA GRANDE / PB. Luiza Eugênia da Mota Rocha Cirne Luiza Eugênia da Mota Rocha Cirne, Marx Prestes Barbosa

P-2029 EVALUATION AND COMPARISON OF STATISTICAL POTENTIALS AND POTENTIALS OF MECHANIZATION IN DEVELOPING COUNTRIES: FOUR CASE STUDIES WITH GIS MAPPING FROM NEPAL, RWANDA, MONGOLIA AND LAO PDR. Hemantha P W Jayasuriya

P-2049 FERTILIZATION LEVELS OF COMMON BEAN EUCALYPTUS INTERCROPPED WITH NEWLY PLANTED Abner Carvalho Abner Carvalho, José Eustáquio De Souza Carneiro, Paulo Henrique Barbosa, Marcos Gleidon Santos, Hugo Thiago Amaro, Vanet Souza

P-2142 MAPPING OF LAND USE CONFLICTS IN AREAS OF PERMANENT PRESERVATION IN THE BARRA BONITA Francienne Oliveira Gois Francienne Oliveira Gois, Odivaldo José Seraphim, Valdemir Antonio Rodrigues

P-2307 WOMEN AND WATER FOR DEVELOPMENT: A PRACTICAL JOURNEY TO FOOD SECURITY AND POVERTY REDUCTION IN AFRICA

P-0034 EFFECT OF SQUASH ROOTSTOCKS ON THE YIELD AND SOME YIELD COMPONENTS AND QUALITY OF WATERMELON Hayrettin Kuscu Hayrettin Kuscu, Ahmet Turhan, Nese Ozmen, Vedat Seniz, Stikl Serbeci

P-0104 A COMPARATIVE STUDY OF OLIVE REMOVAL TECHNIQUES AND THEIR EFFECTS ON HARVEST PRODUCTIVITY Zahra Youssefi Zahra Youssefi; Morteza Almassi; Ali Asgar Zeinanloo; Reza Moghadasi; Ahmad Golan

P-1064 DEVELOPMENT OF AN INDUSTRY FOCUSED ON THE PRODUCTION OF SPICE SAFFRON Alfonso Dominguez Padilla Francisco Montoya Sevillia, José Arturo De Juan, Horacio López, Alfonso Domínguez

P-1159 TECHNICAL AND ECONOMIC EFFICIENCY OF ORGANIC AND CONVENTIONAL DRIED APRICOTS PRODUCTION: CASE STUDY OF TURKEY Gamze Saner Gamze Saner, Hakan Adanacioglu

P-1232 QUANTIFYING SUBJECTIVE RURAL DEVELOPMENT POTENTIAL WITH OBJECTIVE MEASURE; LOCAL INFORMATION CONTENT

P-1267 ANALYSIS OF THE VALUE CHAIN OF ALPACA FIBER IN AYMARA COMMUNITIES OF PUNO (PERU) Susana Sastre Susana Sastre, Daniel Hernandez, Xavier Negrillo, Ignacio de los Rios

P-1324 LANDSCAPE DEVELOPMENT SCENARIO ANALYSIS BY PANDORA MODEL: AN APPLICATION IN UMBRIA REGION (ITALY) Raffaele Pelorosso Raffaele Pelorosso, Federica Gobattoni, Maria Elena Menconi, Marco Vizzari, David Grohmann, Maria Nicolina Ripa, Antonio Leone

P-1347 IMPROVEMENTS OF STATISTICAL MECHANICS OF MONEY CONSIDERING UNCERTAINTY OF ECONOMIC AGENT Sangkyu Eun Sangkyu Eun, Jeong-jae Lee, Yeonjoung Bae

P-1371 ANALYSIS OF THE MILKING WORK ON SERRANA GOAT FARMS IN NE PORTUGAL, IN ORDER TO IMPROVE GOAT BREEDING AND MILK PRODUCTION, IN THIS REGION José Carlos Barbosa José Carlos Barbosa, Francisco Pereira, Vasco Fitas da Cruz
P-1841 PRELIMINARY OUTCOMES FOR THE IMPLEMENTATION OF INTEGRATED COMPUTER-BASED INFORMATION SYSTEMS FOR SUPPLY-CHAIN TRACEABILITY OF CERTIFIED PLANTS
Giovanni Cascone
Simona M. C. Porto, Claudia Arcidiacono, Umberto Anguzza, Giovanni Cascone

P-2118 BIODIVERSITY SURVEY OF THE RIBEIRÃO LAVAPÉS IN LAGEADO FARM
Francienne Oliveira Gois
Francienne Oliveira Gois, Odivaldo José Seraphim, Valdemir Antonio Rodrigues, Ana Maria Ruoco, Ligia Linardi, Odemir Freitas Junior, Heloísa Rebello

P-0334 FUNCTIONALIZATION AND CHARACTERIZATION OF CANTILEVERS AS MICRO-BIOSENSORS FOR THE DETECTION OF PROBIOTICS MICROORGANISMS BY MEANS OF MICROSCOPY AND SPECTROSCOPY TECHNIQUES
José Jorge Chanona Pérez
Angélica Gabriela Mendoza-Madrigal, José Jorge Chanona Pérez, Humberto Hernández-Sánchez, Eduardo Palacios González, Vicente Garibay Febles, Georigna Calderón Domínguez, Juan Vicente Méndez Méndez,

P-1029 APPLICATION OF VIS/NIR SPECTROSCOPY FOR A QUICK QUALITY EVALUATION OF CRAFT BEERS
Roberto Beghi
Valentina Giovenzana, Roberto Beghi, Riccardo Guidetti

P-1214 APPLICATION OF HYPERSPECTRAL IMAGING TECHNIQUE FOR NON-DESTRUCTIVE PH PREDICTION IN SALMON FILLETS
Di Wu
Hong-Ju He, Di Wu, Da-Wen Sun

P-1269 POTENTIAL APPLICATION OF HYPERSPECTRAL IMAGING FOR DETERMINING OVERRIPE BERRIES OF JAPANESE BLUE HONEYSUCKLE
Longsheng Fu
Longsheng Fu, Hiroshi Okamoto

P-1541 AN APPROACH OF LASER-INDUCED BACKSCATTERING IMAGING FOR DETECTING CHILLING INJURY IN BANANAS
Manuela Zude
Manuela Zude, norhashila hashim, Michael Pflanz, Christian Regen, Rimfiel B. Janius, Russly Abdul Rahman, Azizah Osman, Mahendran Shitan

P-1747 MEASUREMENT OF THE COLOUR INDEX OF EARLY-SEASON CITRUS FRUITS USING COMPUTER VISION
Pau Talens Oliag
Anna Vidal, José Blasco Ivars, José Manuel Prats, Sergio Cubero, Nuria Aleixos Borrás, Florentino Juste, Pau Talens

P-1763 DIRECT QUANTIFICATION OF ENTEROBACTERIAEAE IN CHICKEN FILLETS BY NIR HYPERSPECTRAL IMAGING AND SUPPORT VECTOR REGRESSION
Yao-Ze Feng
Yao-Ze Feng, Da-Wen Sun, Gamal M. Elmasry, Noha Morcy

P-1876 HYPERSPECTRAL QUALIFICATION OF AGED BEEF SIRLOIN
Ferenc Firtha
Ferenc Firtha, Anita Jasper, László Friedrich, József Felföldi

P-1988 THE POTENTIAL OF NEAR INFRARED SPECTROSCOPY AS A METHOD OF DETERMINATION OF THE FAT CONTENT IN YOGURT
Ainara López
Carmen Jarén, Ainara López Maesrestas, Mercedes Gago, Silvia Araujo, Ainara López, Nerea Arias, Paulo César Correa, Ana Cristina Aguilheiro

P-2003 PRELIMINARY APPROACH TO IMAGE STANDARDIZATION FOR THE ELECTRONIC MARKETS ALONG THE FLORICULTURAL PRODUCT CHAIN
Paolo Menesatti
Paolo Menesatti, Stefano Giorgi, Federico Pallottino, Emilio Canali, Francesca Antonucci, Corrado Costa

P-2011 DEVELOPMENT AND VALIDATION OF THE CALIBRATION MODEL FOR VIS-NIR SPECTROMETER USED FOR THE EVALUATION OF THE DON CONTENT IN WHEAT GRAIN DIRECTLY DURING COMBINE HARVEST.
Miroslaw Czechlowski
Miroslaw Czechlowski, Magdalena Laskowska

P-2038 EVALUATION OF SPANISH COOKED HAM BY NIR HYPERSPECTRAL IMAGING
Douglas Fernandes Barbin
Pau Talens, Leticia Mora, Noha Morsy, Douglas Fernandes Barbin, Gamal M. Elmasry, Da-Wen Sun

14:55-16:30
(PM): DRIF AND PLANT PROTECTION
Moderator: Grzegorz Doruchowski
Location: AUDITORIO 1
15:00 C-1613 STUDY OF A TEST METHODOLOGY TO ASSESS POTENTIAL SPRAY DRIFT GENERATED BY AIR-ASSISTED SPRayers FOR ARBOREAL CROPS
Paolo Marucco
Paolo Marucco, Paolo Balsari, Mario Tamagnone

15:15 C-1374 DROPLET CHARACTERISTICS FOR LOW DRIFT NOZZLES: SINGLE AND DOUBLE FLAT FAN NOZZLES.
Ariane Vallet
Ariane Vallet, Cyril Tinet

15:30 C-1991 MEASURED AND PREDICTED DRIFT IN PESTICIDE APPLICATIONS OF CITRUS IN SPAIN
Molto Enrique
Cruz García Figueroa, Joao Paulo Cunha, Enrique Molto, Patricia Chueca

15:45 C-0332 IMPROVED CONTROL OF IMMATURE AND ADULT INSECTS BY COMBINED AIR BLOWING AND SUCTION DRAG FORCES
Samuel Gan-Mor
Samuel Gan-Mor, Rafi Regev, David Ben-Yakir

16:00 C-1420 PERFORMANCE OF AN ELECTROSTATIC SPRAYING SYSTEM WITH AIR ASSISTANCE ON SPRAY DRIFT, FUNGICIDE DEPOSITION AND SOYBEAN RUST CONTROL
Ulisses Rocha Antuniassi
Ulisses Rocha Antuniassi, Maria Aparecida Peres Oliveira, Rone Batista Oliveira, Edivaldo Dominguez Velini, Fabiano Victor Siquier, Cristiano O. Pontelli, Luiz G. F. Beltramello, Samir E. Zaidan

14:55-16:30 (SW-SPC01): LAND AND WATER MANAGEMENT
Moderator: Gerrit J. Carsjens
Location: AUDITORIO 2

14:55 Introduction
Gerrit J. Carsjens

15:00 C-0287 A SCENARIO STUDY ON THE INFLUENCE OF LAND USE CHANGE ON SOIL REDISTRIBUTION: A CASE STUDY FOR THE ALORA REGION, SPAIN
Gerrit J. Carsjens
Sanne Diek, Luc H.M.A. Joosten, Jeroen M. Schoorl, Martha M. Bakker, Gerrit J. Carsjens

15:15 C-1149 DETERMINATION OF THE WATER PRODUCTIVITY IN LIVESTOCK OPERATIONS: THE INFLUENCE OF FEEDING STRATEGIES IN DAIRY FARMING
Michael Krauß
Michael Krauß, Simone Kraatz, Annette Prochnow, Katrin Drastig

15:30 C-1815 SOIL MOISTURE CONTENT AND TEMPERATURE AFFECTED BY DIFFERENT MANAGEMENT TECHNIQUES IN SLOPING VINEYARD AND IMPLICATIONS ON RUNOFF
Francesca Opsi
Francesca Opsi, Marcella Biddoccu, Eugenio Cavallo

15:45 C-1740 ENVIRONMENTAL ASSESSMENT OF MANURE SPREADERS: A METHODOLOGY FOR AMMONIA EMISSIONS EVALUATION
Elio Dinuccio
Elio Dinuccio, Paolo Balsari

16:00 C-1987 CONTROLLED TRAFFIC FARMING IN GERMANY - TECHNICAL AND ORGANISATIONAL REALISATION AND FIRST RESULTS
Markus Demmel Richard
Markus Demmel, Robert Brandhuber, Hans Kirchmeier, Martin Mueller, Marc Marx

14:55-16:30 (SPC-05): ASSESSING THERMAL STATUS & COMFORT
Moderator: Daniella Jorge de Moura
Location: AUDITORIO 3A

14:55 Introduction

15:00 C-1433 DETERMINING HEAT TOLERANCE OF FINISHING PIGS USING THERMAL IMAGING
Tami M. Brown-Brandl
Tami Brown-Brandl, Roger A. Eigenberg, Joseph L. Purswell, Gary A. Rohrer

15:15 C-0908 THE USE OF THERMAL IMAGES FOR IDENTIFYING STRESS CONDITION IN PIGLETS
Alexandra Cordeiro
Alexandra Cordeiro, Irenilza De Alencar Naas, Flavia Jacob, Diego Pereira Neves

15:30 C-2242 INSTRUMENTATION SYSTEM FOR THERMAL ENVIRONMENT OF SWINE TRANSPORT TRAILERS
Yijie Xiong, Jingwei Su, Weichao Zheng, Angela R. Green, Richard S. Gates

15:45 C-0265 EFFECT OF TEMPERATURE-HUMIDITY INDEX ON LIVE PERFORMANCE IN BROILER CHICKENS GROWN FROM 49 TO 63 DAYS OF AGE
Joseph Purswell

16:00 C-0748 CLUSTER INDEX FOR ACCESSING THERMAL COMFORT FOR BROILER BREEDERS
Irenilza De Alencar Naas
Danilo Pereira, Irenilza De Alencar Naas, Luis Roberto Almeida, Gabriel Filho, Mario Mollo Neto
16:15 C-1253 DATA MINING APPLIED TO HORSE THERMAL COMFORT
Ana Paula de Assis Maia
Ana Paula de Assis Maia, Brenda Batista
Lemos Medeiros, Rimena do Amaral Vercellino, Juliana Sarubbi,
Stanley Robson de Medeiros Oliveira, Paulo Roberto Griska, Daniella
Jorge de Moura

14:55-16:30 (SPC-05): GREENHOUSE GAS EMISSIONS FROM ANIMAL HOUSING
Moderator: Saqib Mukhtar
Location: AUDITORIO 3B

14:55 Introduction
15:00 C-0731 GASEOUS EMISSIONS FROM AVIARIES AND NITROGEN AND PHOSPHORUS LOSSES IN THE OUTDOOR RUN OF ORGANIC LAYING HENS
Peter Groot Koerkamp
Sanne Dekker, P.w.g. Groot Koerkamp, André J. A. Aarnink, Imke de Boer
15:15 C-1480 AMMONIA, GREENHOUSE GAS, AND PARTICULATE MATTER CONCENTRATIONS AND EMISSIONS OF AVIARY LAYER HOUSES IN
Morgan Hayes
Morgan Hayes; Hongwei Xin; Hong Li; Timothy Shepherd; Yongxing Chen; Yang Zhao; John Stinn
15:30 C-1134 GREENHOUSE GAS EMISSIONS FROM A LARGE COMMERCIAL U.S. DAIRY FARM
Teng Lim
Teng Lim, Yaomin Jin, Ji-Qin Ni, Albert J. Heber, Ruqiang Liu
15:45 C-0432 MEASUREMENT AND ESTIMATION OF GREENHOUSE GAS EMISSION FROM NATURALLY VENTILATED DAIRY CATTLE BUILDINGS
Chaoyuan Wang
Chao Yuan Wang, Guoqiang Zhang, Zheng Xiang Shi, Wei Cao, Baoming Li
16:00 C-1014 AMMONIA AND GREENHOUSE GAS CONCENTRATIONS AND EMISSIONS OF A SWINE BREEDING-GESTATION-FARROWING FACILITY IN THE MIDWESTERN USA
John Stinn
John Stinn, Hongwei Xin, Timothy Shepherd, Hong Li, Robert Burns
16:15 C-0902 NITROUS OXIDE EMISSIONS FROM AN EXPERIMENTAL PIG HOUSE WITH STRAW BEDDING
Sven Nimmermark
Sven Nimmermark, Knut-Håkan Jeppsson, Ngwa Martin Ngwabie

14:55-16:30 (EN): GASEOUS BIOFUELS I
Moderator: Fikret Akinerdem
Location: MULTIPURPOSE IA

14:55 Introduction
15:00 C-0880 ORGANIC LOADING RATE EFFECT ON ANAEROBIC DIGESTION: CASE STUDY ON CO-DIGESTION OF LIGNOCELLULOSIC PRETREATED MATERIAL WITH COW MANURE.
Maria Magdalena Estevez Rego
Maria Magdalena Estevez Rego, John Morken, Roar Linjordet
15:15 C-0894 EFFECT OF DIFFERENT THERMAL PRE-TREATMENT TECHNIQUES ON BIOGAS PRODUCTION FROM LIGNOCELLULOSIC BIOMASS: WHEAT STRAW AND SALIX
Zehra Sapci
Zehra Sapci, Maria M. Estevez, Roar Linjordet, John Morken
15:30 C-1068 PILOT SCALE TWO-STAGE PLANT FOR BIOHYDROGEN AND BIOMETHANE PRODUCTION FROM THERMOPHILIC CODIGESTION OF WASTES
Alberto Tenca
Alberto Tenca, Francesca Parazzolo, Ezio Naldi, Giorgio Provolo, Luigi Bodria, Roberto Oberti
15:45 C-1708 ANAEROBIC SLUDGE ADAPTATION TO PIG SLURRY: METHANE YIELD, CHEMICAL COMPOSITION AND SCANNING ELECTRON MICROSCOPY CHARACTERIZATION
Verónica Moset
Verónica Moset, Pablo Ferrer, Alba Corisuelo, Antonio G. Torres, Maria Cambra-López
16:00 C-2054 ENHANCEMENT OF BIOHYDROGEN PRODUCTION FROM WASTE SUGAR BY VARIOUS STIRRING SPEEDS
Nima Nasirian
Nima Nasirian, Morteza Almassi

14:55-16:30 (IT): PRECISION AGRICULTURE I
Moderator: Santiago Planas
Location: MULTIPURPOSE IB

14:55 Introduction
15:00 C-0567 MOBILE UNIT FOR WIRELESS SENSOR NETWORKS DESIGNED FOR PRECISION AGRICULTURE
Petre Junie
Petre Junie; Octavian Dinu; Risantea Gagedu; Cristian Eremia; Dan Stefanoiu
15:15 C-1842 AN INNOVATIVE AUTONOMOUS GROUND MOBILE UNIT FOR THE PRECISION PHYSICAL WEED CONTROL
Marco Fontanelli
Andrea Peruzzi, Michele Raffaelli, Christian Frasconi, Luisa Martelloni, Marco Fontanelli, Daniele Sarri, Riccardo Lisci, Marco Rimediotti, Marco Vieri

15:30 C-2134 SMARTPHONES AND TABLETS INTEGRATION INTO AGRICULTURAL MACHINERIES
Lorenzo Fantesini
Lorenzo Fantesini, Stefano Marzani, Luca Minin, Alan Pastorelli, Marco Ferretti

15:45 C-2171 DEVELOPING A SMALL AUTONOMOUS ROBOT FOR CROP INSPECTION
Jesus Conesa Muñoz
Jose María Bengochea-Guevara, Jesús Conesa Muñoz, Angela Ribeiro

16:00 C-0098 EVALUATION OF LONG-TERM USE OF PRECISION AGRICULTURE TECHNIQUES IN PERMANENT PASTURES IN ALENEJO
João manuel Serrano
Anotação: São referidos os trabalhos de João Manuel Serrano, José Peça, Shakib Shahidian, José Marques da Silva

16:15 C-0153 IPC MONITORING AND CONTROLLING SYSTEM OF HIGH-Quality TEA PRODUCTION LINE
Lanfang Zhang
Qinghua Han, Shujun Li, Yifan Li, Xiao Li, Jin Wang

15:30 C-1367 IMPROVEMENT POSSIBILITIES OF SITE SPECIFIC AGRICULTURAL PRODUCTION WITH HYPERSPECTRAL IMAGING AND REFLECTION SPECTROSCOPY
Kornél Szalay
Kornél D. Szalay, József Deák, Ferenc Firtha, Ádám Csorba, Imre Tolner, László Fenyvesi

15:45 C-2073 AN EMPIRICAL STUDY ON THE VIABILITY OF THE APPLICATION OF SIFT ALGORITHM TO VIDEO STABILIZATION IN CROP FIELDS
Nadir Sainz Costa
Nadir Sainz-Costa, Xavier P. Burgos-Artizzu, P. Javier Herrera, Angela Ribeiro

16:00 C-0390 AN AUTOMATIC AND COST FREE METHOD FOR PADDY AREA CLASSIFICATION BY THE WAVELET ANALYSIS OF NDVI DATA SERIES
Ramadhona Saville
Ramadhona Saville, Katsumori Hatanaka

16:15 C-1306 PREDICTION OF SOIL ORGANIC CARBON AND CALCIUM CARBONATE CONTENT BASED ON REFLECTANCE SPECTROSCOPY AND MULTIVARIATE MODELING METHODS
Adam Csorba
Ádám Csorba, Vince Láng, Kornél D. Szalay, Erika Michéli, László Fenyvesi
14:55-16:30

**SE: ANIMAL HOUSING**
*Moderator: Christer Nilson*
*Location: ROOM 3*

**14:55**
**Introduction**

**15:00**
**C-1213**
**ASSESSMENT OF VENTILATION PERFORMANCE IN AGRICULTURAL FACILITIES USING AGE-OF-AIR CONCEPT AND CFD TECHNOLOGY**
*Kyeong-seok Kwon*
*Kyeong-seok Kwon, In-bok Lee*

**15:15**
**C-1189**
**CONCEPT OF A LOW-ENERGY DAIRY BARN WITH FORCED VENTILATION**
*Kristina von Bobrutzki*
*Kristina von Bobrutzki, Werner Berg, Jochen Mellmann, Reiner Brunsch*

**15:30**
**C-1492**
**BUILDING COSTS FOR DAIRY BARNS WITH DIFFERENT HERD SIZE, LAYOUT AND BUILDING CONSTRUCTIONS.**
*Geir Naess*
*Geir Naess, Grete Stokstad*

**15:45**
**C-0892**
**CORRELATION ANALYSES OF HIGH RESOLUTION 3D SOIL ELECTRICAL CONDUCTIVITY AND TIME SERIES OF FRUIT QUALITY FEATURES**
*Jana Käthner*
*Jana Käthner, Paolo Rozzi, Manuela Zude*

**16:00**
**C-0899**
**TOWARDS PRECISION MANAGEMENT OF ORCHARDS: USING AUTOMATED MONITORING TO BUILD A GIS-BASED SPATIAL DECISION SUPPORT SYSTEM**
*Amots Hetzroni*
*Amots Hetzroni, Aviva Peeters, Alon Ben-Gal*

**16:15**
**C-1078**
**COMPARISON OF RADIO PATH LOSS MODELS FOR WIRELESS SENSOR NETWORKS IN ORCHARD ENVIRONMENTS**
*Manuela Zude*
*Stavros Vougioukas, Hristos Anastasiou, Christian Regen, Manuela Zude*
15:45  C-1332  NON-DESTRUCTIVE OPTICAL ASSESSMENT OF PHOTON PATH LENGTHS IN FRUIT DURING RIPENING: IMPLICATIONS ON DESIGN OF CONTINUOUS-WAVE SENSORS
Alessandro Torricelli, Lorenzo Spinelli, Jana Kaethner, Joern Selbeck, Alberto Franceschini, Paolo Rozzi, Manuela Zude

16:00  C-1500  NAVIGATION AND TREE MAPPING IN ORCHARDS
Hans W. Griepentrog
Claes L. Jaeger-Hansen, Hans W. Griepentrog, Jens C. Andersen

16:15  C-1663  THE RHEA PROJECT: USING A ROBOT FLEET FOR A HIGHLY EFFECTIVE CROP PROTECTION
Pablo Gonzalez-de-Santos
Pablo Gonzalez-de Santos, Cesar Fernandez-Quintanilla, Angela Ribeiro

14:55-16:30  SESSION 252
 Moderators:  
1455  C-0551  SMART FUZZY CONTROL OF A SOLAR DRYER THROUGH USING LOW-COST MODEL-BASED SENSORS
Heidi Tatiana Jimenez Ariza
Alik Abakarow, Heidi Tatiana Jiménez, Eva Cristina Correa Hernando, Belén Diezma, Francisco Javier Arranz, Javier García Hierro, José Ignacio Robla Villalba, Pilar Barreiro Elorza

Introduction
16:00  C-0551  SMART FUZZY CONTROL OF A SOLAR DRYER THROUGH USING LOW-COST MODEL-BASED SENSORS
Heidi Tatiana Jimenez Ariza
Alik Abakarow, Heidi Tatiana Jiménez, Eva Cristina Correa Hernando, Belén Diezma, Francisco Javier Arranz, Javier García Hierro, José Ignacio Robla Villalba, Pilar Barreiro Elorza

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Moderators:
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Heidi Tatiana Jimenez Ariza
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Introduction
15:00  C-0221  SELECTION OF OPTIMAL WAVELENGTH FEATURES FOR DECAY DETECTION IN CITRUS FRUIT USING THE ROC CURVE
Delia Lorente Garrido
Delia Lorente, Juan Gómez-Sanchis, Nuria Alexios Borrás, Sergio Cubero, Oscar Leonardo Garcia-Navarrete, Antonio Serrano, Emilio Soria, Jose Blasco Ivars

15:15  C-0304  HYPERSONTICAL IMAGING OF INTACT BELL PEPPERS
Zeev Schmilovitch
Zeev Schmilovitch, Timea Ignat, Victor Alchanatis, Jozsef Felfoldi

15:30  C-1200  PREDICTION OF BEEF CHEMICAL COMPOSITION BY NIR HYPERSONTICAL IMAGING
Gamal M. ElMasry
Gamal M. Elmasry, Da-Wen Sun, Paul Allen

15:45  C-1636  NIR HYPERSONTICAL IMAGING FOR FAT QUANTIFICATION IN MINCED PORK
Douglas Fernandes Barbín
Douglas Fernandes Barbín, Gamal M. Elmasry, Da-Wen Sun, Paul Allen

16:00  C-0596  SPATIAL MAPPING OF MOISTURE CONTENT IN TOMATO FRUITS USING HYPERSONTICAL IMAGING AND ARTIFICIAL NEURAL NETWORKS
Kaveh Mollazade
Kaveh Mollazade, Mahmoud Omid, Fardin Akhlaghian Tab, Sayed Saeid Mohtasebi, Manuela Zude

15:45  C-1568  SPRAYING QUALITY ASSESSMENT OF SPRAYERS DEVOTED TO MOSQUITO CONTROL.
Vincent De Rudnicki
Vincent De Rudnicki, Jean Paul Douzals, Michel Tolosa, Nicolas Sidos, Eric Cotteux

16:00  C-1614  DEVELOPMENT OF A NEW SPRAYER FOR PPP APPLICATION IN KIWIFRUIT "PERGOLA" TRAINED
Paolo Marucco
Paolo Balsari, Mario Tamagnone, Gianluca Oggero, Paolo Marucco

14:55-16:30  (PM): SPRAYERS AND DOSES
Moderator: Samuel Gan Mor
Location: AUDITORIO 1

14:55  Introduction

15:00  C-0391  A SPRAYING SYSTEM DEVELOPED FOR VARIABLE PESTICIDE DOSAGE WITHOUT USING PESTICIDE INJECTION METHODS
Nils Bjugstad
Nils Bjugstad, Tore Ensby, Espen Hugo Holth, Ole Kristian Moen, Henrik F Thorstensen

15:15  C-2334  QUALITY OF APRICOT ORCHARD PROTECTION BASED ON THE TYPE OF AIR ASSISTED SPRAYERS AND APPLICATION RATES
Aleksandar Sedlar
Aleksandar Sedlar, Rajko Bugarin

15:30  C-1547  AIR VELOCITY DISTRIBUTIONS FROM A VARIABLE-RATE AIR-ASSISTED SPRAYER FOR TREE APPLICATIONS
Heping Zhu
Heping Zhu

16:55-18:30  (SW-SPC01): SOIL WATER RELATIONSHIPS
Moderator: Nery Zapata
Location: AUDITORIO 2

16:55  Introduction

17:00  C-0058  ESTIMATION OF REFERENCE EVAPOTRANSPIRATION FROM CLIMATIC DATA IN KURDISTAN REGION-IRAQ
Mohammed Azeez Saeed
Mohammed Saeed Azeez

17:15  C-2273  EVALUATION OF THE MICRO-SCALE ADVECTION EFFECT ON THE SOIL WATER MOVEMENT IN MICRO-IRRIGATION SYSTEMS
Sina Besharat
Sina Besharat, Neda Khanmohammadi, Hossein Rezaie, Javad Behmanesh

16:55-18:30  (SPC-05): ENHANCING THERMAL ENVIRONMENT
Moderator: Hongwei Xin
Location: AUDITORIO 3A

16:55  Introduction

17:00  C-0316  THE USE OF OUTDOOR YARDS BY SHEEP DURING WINTER
Grete Helen Jørgensen Meisfjord
Grete Helen Jørgensen Meisfjord, Knut Egi Boe

17:15  C-1421  EFFECTS OF DIFFERENT PIG HOUSES ON INDOOR ENVIRONMENTAL PARAMETERS AND GROWTH PERFORMANCE OF GROWING AND FINISHING PIGS
Anguo Chen
Anguo Chen, Xuping Wang, Guoqi Liang, Qihua Hong, Caimei Yang
17:30 C-1866 COMPARISON OF DIFFERENT AIR SUPPLY AND COOLING SYSTEMS IN PIG FATTENING HOUSES
Joachim Threm
Joachim Threm; Eva Gallmann; Wilhelm Pflanz; Thomas Jungbluth

17:45 C-1549 COOLING COWS: THE UDDER WAY
Kifle Gebremedhin
Kifle Gebremedhin, Chin Lee, Jamie Larson, Jeremiah D. Davis

18:00 C-1069 DEVELOPMENT OF A SMART PHONE APP FOR HEAT STRESS DETECTION AND MITIGATION IN LIVESTOCK
Donald Spiers
Donald Spiers, Brad Scharf, Peggy Ann Eichen

18:15 C-0683 ODOUR AND AMMONIA REDUCTIONS IN VENTILATION AIR FROM A UNIT WITH GROWING-FINISHING PIGS USING A 3-STEP AIR CLEANER
Anders Leegaard Riis
Anders Leegaard Riis

16:55-18:30 (SPC-05): EMISSIONS ABATEMENT & CONTROL
Moderator: Christopher Wathes
Location: AUDITORIO 3B

16:55 Introduction
17:00 C-0368 METHODS TO REDUCE AIRBORNE DUST CONCENTRATIONS IN A LOOSE-HOUSING SYSTEM FOR LAYING HENS
Gosta Gustafsson
Gosta Gustafsson, Eva Von Wachenfelt

17:15 C-0833 POSSIBLE MEANS OF REDUCTION OF AIRBORNE POLLUTANTS IN AND FROM POULTRY HOUSES
Stefan Linke
Stefan Linke, Torsten Hinz, Karl-Heinz Krause, Jochen Hahne, Tatjana Winter

17:30 C-0405 REMOVAL EFFICIENCY OF A WIRE-TO-PLATE ELECTROSTATIC PRECIPITATOR FOR ABATEMENT OF PARTICULATE MATTER EMISSIONS FROM POULTRY HOUSES
Albert Winkel
Albert Winkel, Julio Mosquera, Nico W. M. Ogink

17:45 C-1507 USE OF ZINC OXIDE NANO PARTICLES TO CONTROL HYDROGEN SULPHIDE, AMMONIA AND ODOUR EMISSIONS FROM PIG BARNS
Bernardo Predicala
Bernardo Predicala, Bernardo Predicala, Alvin Alvarado, Daisy Asis

18:00 C-1714 QUANTIFICATION OF THE NH3 ADSORPTION ON DUST AND ITS CONSEQUENCES ON THE DESIGN OF BIOFILTERS FOR THE REMOVAL OF AERIAL POLLUTANTS IN PIGGIES
Lomig Hamon
Lomig Hamon, Solène Lagadec, Eric Dumont, Brigitte Landrain, Paul Landrain, Yves Andrés

17:00 C-1298 ANAEROBIC DIGESTION IN NORTHERN ITALY: THE SITUATION IN PIEMONTE REGION
Fabrizio Gioelli
Fabrizio Gioelli, Paolo Balsari, Elio Dinuccio

17:15 C-2157 HOW EFFICIENT ARE AGITATORS IN BIOGAS DIGESTERS? DETERMINATION OF THE EFFICIENCY OF SUBMERSIBLE MOTOR MIXERS AND INCLINE AGITATORS BY MEASURING THE NUTRIENT DISTRIBUTION IN BIOGAS DIGESTERS
Hans-Joachim Nägele Naegele
Hans-Joachim Nägele Naegele

17:30 C-1446 DESIGN AND IMPLEMENTATION OF ON-SITE PILOT SCALE IBR ANAEROBIC DIGESTERS
Shaun Dustin
Shaun Dustin, Zhongtang Yu, Conly Hansen

17:00 C-1806 POTENTIAL TECHNOLOGIES TO MEASURE SUGARCANE QUALITY IN THE FIELD
Nazmi Mat Nawi
Nazmi Mat Nawi, Troy Jensen, Guangnan Chen, Craig Baillie

17:15 C-0475 GEOLOCATION AND INFORMATION MANAGEMENT OF FARMS WEB BASED: VISUALNACERT, THE SEEKER OF AGRICULTURE
Mercedes Iborra Brosetqa
Mercedes Iborra Brosetqa, Elisa Peñalvo
GIS ANALYSIS FOR THE STUDY OF RURAL DEPOPULATION: THE KINGDOM OF VALENCIA (TOMAS LOPEZ 1789)
Carlos San-Antonio Gomez
Carlos San-Antonio Gomez, Francisco Manzano-Agugliaro, Josefina Martinez-Garcia

WIRELESS SELF-POWERED TRANSPORTERS AND MULTI-SENSING UNIT TO ENABLE ISOBUS IDENTIFICATION OF MECHANICAL IMPLEMENTS
Lorenzo Fantesini
Gino Mainardi, Marco Ferretti, Stefano Marzani, Stefano Scorcioni, Alessandro Bertacchini, Luca Larcher, Denis Dondi, Lorenzo Fantesini

A CFD ANALYSIS OF A FULLY-STOCKED VENTILATED LIVESTOCK VEHICLE DURING DIFFERENT MODES OF TRANSPORTATION
Tomas Norton
Tomas Norton, Jairo Saraz, Malcolm Mitchell, Peter Kettlewell

NATURAL VENTILATION OF COMMERCIAL DAIRY COW HOUSES: SIMULATING THE EFFECT OF ROOF SHAPE USING CFD
Athanasios Sapounas
Athanasios Sapounas, Hendrik Jan van Dooren, Michel Smits

CFD ANALYSES OF TEMPERATURE DISTRIBUTION IN A HYBRID VENTILATED PIG UNIT
Bjarne Bjerg
Bjarne Bjerg, Peter Hansen, Erling Friis Petersen

COMPUTATIONAL MODELLING AND SCALE MODEL VALIDATION OF AIRFLOW PATTERNS IN NATURALLY VENTILATED BARNs
Merlijn De Paepe
Merlijn De Paepe, Jan G. Pieters, Bart Merci, Wim M. Cornelis, Donald Gabriels, Peter Demeyer

REUSE OF VACANT AGRO-INDUSTRIAL BUILDINGS. THE CASE OF THE PUBLIC SLAUGHTERHOUSES IN SPAIN
José María Fuentes Pardo
José María Fuentes, Ana Isabel García, Carlos González-Montellano, Eutiquio Gallego, Francisco Ayuga

SPACE-TIME ANALYSIS OF THE URBAN-RURAL GRADIENT IN THE METROPOLITAN AREA OF MADRID AND ITS SURROUNDINGS (GUADALAJARA AND TOLEDO)
Ana Isabel García
Susana Díaz-Palacios, Francisco Ayuga, Ana Isabel García

INTEGRATING LANDSCAPE QUALITY IN FARM BUILDING DESIGN: ASSESSMENT OF THE MAIN MORPHOLOGICAL FEATURES OF RURAL BUILDINGS
Patrizia Tassinari
Stefano Benni, Daniele Torreggiani, Enrica Dall’Ara, Patrizia Tassinari
17:45 C-1904 RESEARCH OF DIMENSIONING CRITERIA FOR FARM WINERY DESIGN: ANALYSIS OF SPATIAL LAYOUTS IN A STUDY AREA
Stefano Benni
Patrizia Tassinari, Daniele Torreggiani, Stefano Benni, Valentina Corzani

18:00 C-1675 HYDROSEEDING FOR REVEGETATION IN A SEMIARID MEDITERRANEAN ENVIRONMENT
Mariangela Vallone
Pietro Catania, Marco Salvia, Mariangela Vallone

263 [SESSION]
16:55-18:30 (SPC04): PRECISION AGRICULTURE FOR ORCHARD
Moderator: Qim Zhang
Location: ROOM 4

16:55 Introduction
17:00 C-0181 DEVELOPMENT OF A PLANT WATER STRESS MODEL, BASED ON INFRARED THERMOGRAPHY, AND THEIR APPLICATION IN AN OLIVE OIL ORCHARD
Stanley Best Sepulveda
Stanley Best, Lorenzo Leon, Rodrigo Quintana

17:15 C-0253 COMPARATIVE STUDY OF ARCHITECTURES FOR AUTOMATIC SENSING OF VINE VIGOR
Verónica Sáiz Rubio
Verónica Sáiz Rubio, Francisco Rovira Más

17:30 C-1915 EARLY ESTIMATION OF VINEYARD YIELD: SITE SPECIFIC COUNTING OF BERRIES BY USING A SMARTPHONE
Gilbert Grenier
Mathieu Grossête, Yann Berthoumieux, Jean Pierre Da costa, Christian Germain, Olivier Lavialle, Gilbert Grenier

17:45 C-0518 GRASP AFFORDANCE FOR ROBOTIC SELECTIVE HARVESTING BASED ON HUMAN DEMONSTRATIONS
Maayan Yaacobovich
Maayan Yaacobovich, Danny Eizicovits, Sigal Berman

264 [SESSION]
16:55-18:30 (SPC06): WSN IN ENVIRONMENTAL MONITORING II
Moderator: Thomas Toftegaard
Location: ROOM 5

16:55 Introduction
17:00 C-1700 SPECTRAL PREDICTION OF APPLE QUALITY FOR TWO DANISH CULTIVARS
Mabel Virginia Martínez Vega
Mabel Virginia Martínez Vega; Dvoralai Wulffsohn; Torben Toldam-andersen

17:15 C-1999 KEY TECHNOLOGICAL FACTORS FOR SUCCESSFUL RFID SYSTEM APPLICATION IN FOOD SUPPLY CHAIN MANAGEMENT
Cristina Tortia
Cristina Tortia, Paolo Gay, Paolo Barge, Valentina Merlino, Sara Serale, Claudio Gandini

17:30 C-2121 POSSIBILITY AND EFFECTIVENESS OF WEB-BASED SENSOR NETWORK SYSTEM TO PERFORM AGRICULTURAL APPLICATIONS USING IMAGE DATA
Tokihiro Fukatsu
Tokihiro Fukatsu, Masayuki Hirafuji, Takuji Kiura

17:45 C-0350 DEVELOPMENT OF LOW COST PHOTOVOLTAIC SENSOR FOR OVER-TREE RADIATION ASSESSMENT
Miguel Angel Muñoz-García
Miguel Angel Muñoz-garcia, Angela Milado, Pilar Barreiro Elorza, José-lorenzo Balenategui

18:00 C1452 CHILDREN AS FIELD SENSORS - A TRIAL IN VIETNAM
Seishi Ninomiya
Seishi Ninomiya, Yumi Mori, Toshiya Takasaki, Tranthin Hoa, Y. Okano, Takanaru Kameoka, S. Togami; A. Takezaki, R Ikeda, R. Ishida

18:15 Round table V (Vahid Tarokh, Pilar Barreiro, Esmaeil Nadimi, Victoria Blanes Vidal, Thomas Toftegaard)

265 [SESSION]
16:55-18:30 (RD): ECONOMIC ASPECTS
Moderator: María Jesús Montero
Location: ROOM 6+7

16:55 Introduction
17:00 C-1701 INNOVATION AND EMPLOYMENT: THE CASE OF COFFEE PRODUCTION IN BRAZIL
Marco Ospina Patino
Marco Ospina Patino, Millia Reis de Alcantara, Geraldo Tavares do Nascimento, Marina Falascina

17:15 C-0307 ROLE OF PUBLIC-PRIVATE PARTNERSHIPS BY MARKETING OF MOUNTAIN FOOD PRODUCTS
Andreja Borec
Jernej Prisenk, Andreja Borec, Karmen Pazez
17:30 C-1705 ANALYSIS AND FORECASTING OF SOYBEAN STORAGE NEEDS IN BRAZIL
Marco Ospina Patino
Marco Ospina Patino, Marina Falascina, Geraldo Tavares do Nascimento, Milla Reis de Alcantara

17:45 C-0048 A STUDY OF THE LIVING CONDITIONS OF FARMERS IN IRAN, IMMIGRATION MOTIVES AND AGRICULTURAL METHODS FOR RURAL DEVELOPMENT IN IRAN
Seyed Abbas Mirjalili
Seyed Abbas Mirjalili, Elahe Poorazizi

18:00 C-0379 DIAGNOSIS OF COLOUR COTTON PRODUCTIVE CHAIN AT PARAIBA STATE, BRAZIL
Kever Bruno Paradelo Gomes
Kever Bruno Paradelo Gomes, Gabriel Henrique Horta De Oliveira, Andreia Maria da Fonseca Boechat

16:55-18:30 (ES): EVALUATION OF WORK ENVIRONMENT
Moderator: Eugenio Cavallo
Location: MULTIPURPOSE IB

16:55 Introduction
17:00 C-0593 QUALITY AND SECURITY WORK ENVIRONMENT. RISK EVALUATION OF A FEEDLOT FARM
Antonio Monteiro Cardoso
Andreia Graça, Ana Vieira, Paula Correia, Antonio Monteiro Cardoso

17:15 C-0791 ANALYSIS OF UV EXPOSURE FOR FARMERS: FIRST EXPERIMENTAL RESULTS
Giorgia Nardini
Giorgia Nardini, Massimo Paroncini, Daniela Candido, Massimiliano Della Pasqua

17:30 C-1683 ERGONOMIC EVALUATION OF LOGGING MACHINE OPERATION
Roberto Abrahão Funes
Roberto Funes Abrahão, Almeida Simone Formigone, Tereso Mauro José Andrade

17:45 C-2081 PEST RISK PERCEPTION ASSESSMENT OF VINEYARD WORKERS
Boissonnot Romain
Boissonnot Romain, Grimbuhler Soni

16:55-18:30 (SPC03): HYPERSPECTRAL IMAGING II
Moderator: Victor Alchanatis
Location: ROOM 8+9

16:55 Introduction
WEDNESDAY, JULY 11

8:00-9:00 Geoffrey C. MREMA. Keynote Speaker General Session AUDITORIO 1

301 SESSION
08:55 -10:30 (PM): FIELD PERFORMANCE
Moderator: Emilio Gil
Location: AUDITORIO 1

8:55 Introduction

9:00 C-1704 PERFORMANCE CHARACTERISTICS OF A GASOLINE GENERATOR ENGINE USING E10 AND E20 MIXING RATIOS FOR ETHANOL GASOLINE FUEL
Babajide Adelekan

9:15 C-1768 ENERGY CONSUMPTION OF AGRICULTURAL TRANSPORTS AND INFLUENCING FACTORS
Heinz Bernhardt

9:30 C-1767 IMPROVEMENT OF ORGANIC SPREADER DESIGN: THE USE OF SPREAD PATTERNS MODELLING
Jean-Christophe Roux

9:45 C-0278 MECHANICAL CONTROL OF PURPLE NUTSEDGE (CYPERUS ROTUNDUS)
Boaz Zion; Aharon Weissblum; Nachshon Shamir; Evgeni Smirnov; Gui Achdary; Joseph Hershenhorn

302 SESSION
08:55 -10:30 (SW-SPC01): SOIL ATER RELATIONSHIPS
Moderator: Samuel Ortega Farias
Location: AUDITORIO 2

8:55 Introduction

9:00 C-0646 FEASIBILITY STUDY ON COMBINING FREQUENCY DOMAIN REFLECTOMETRY AND VISIBLE AND NEAR INFRARED SPECTROSCOPY FOR MEASUREMENT OF SOIL COMPACTION
Abdul Mounem Mouazen

9:15 C-0760 REGRESSION ANALYSES AND AMELIORATION PROCEDURES FOR SUSPENDED SEDIMENT LOAD ESTIMATION IN AGRICULTURAL RIVERS
Edward Lapong

9:30 C-0349 EXPANDING CALIBRATION OF AN ON-LINE MEASUREMENT SYSTEM OF TOPSOIL COMPACTION TO CLAY SOILS.
Mohammed Zakkaullah Quraishi

9:45 C-2335 THE ROLE OF BIOENGINEERING TECHNOLOGIES FOR SOIL AND WATER CONSERVATION
Jose Luis Rubio

303 SESSION
08:55 -10:30 (AP): AQUACULTURE PRODUCTION SYSTEMS
Moderator: Morris Villarroel
Location: AUDITORIO 3A

8:55 Introduction

9:00 C-0229 SENSORS FOR PREDICTING CAVIAR MATURITY IN FARMED STURGEON
Michael Delwiche

9:15 C-0664 FARMED FISH PRODUCTION COST IN RELATION TO THEIR NEUROENDOCRINOLOGICAL FUNCTIONS: A REVIEW
Sofronios Papoutsoglou

9:30 C-1953 HOW DOES FASTING BEFORE LAUGHTER AFFECT TROUT (ONCORYNCHUS MYKISS) WELFARE?
Morris Villarroel Robinson

9:45 C-1953 HOW DOES FASTING BEFORE LAUGHTER AFFECT TROUT (ONCORYNCHUS MYKISS) WELFARE?
Morris Villarroel Robinson; Javier López Luna; Fernando Torrent Bravo; Lucena Vásquez
SESSION 08:55 -10:30 (AP): MANURE MANAGEMENT SYSTEMS I
Moderator: Yanhui Zhang
Location: AUDITORIO 3B

8:55 Introduction

9:00 C-1225 ENVIRONMENTAL CHALLENGES IN MANURE MANAGEMENT
Vladimir Popov, Dmitry Maximov, Alexander Bryukhanov

9:15 C-1222 EMISSIONS FROM PIG UNITS - EFFECTS OF THE AGE OF SLURRY
Kristoffer E.N. Jonassen

9:30 C-2277 EXPERIMENTAL EVALUATION OF MANURE EVAPORATION IN THE PADDOCK FOR A MANAGEMENT ALGORITHM DEVELOPMENT
Lorenzo Boccia
Stefania Pindozzi, Salvatore Faugno, Collins Okello, Lorenzo Boccia

9:45 C-1172 STORAGE OF SLURRY IN EARTH-BANKED LINED BASINS IN FINLAND
Maarit Hellstedt
Maarit Hellstedt; Teemu Ala-kleme

10:00 C-1694 INTEGRATING ENVIRONMENT-ENHANCING ENERGY INTO LIVESTOCK PRODUCTION SYSTEM
Yuanhui Zhang
Yuanhui Zhang, Lance Schideman, Guo Yu, Yan Zhou

10:15 C-0557 IMPROVING THE AGRO-ENVIRONMENTAL VALUE OF CATTLE STRAW MANURE
Ghulam Abbas Shah
Ghulam Abbas Shah, Peter W. G. Groot Koerkamp, Jeroen C.J. Groot, Egbert A. Lantinga

SESSION 08:55 -10:30 (EN): SOLID BIOMASS
Moderator: Joy Agnew
Location: MULTIPURPOSE IA

8:55 Introduction

9:00 C-0367 BIOMASS-BASED SYSTEM DESIGN FOR HEATING AND CO2 STORAGE
Jorge Antonio Sanchez Molina
Jorge Antonio Sanchez, Francisco Rodriguez, Jose Luis Guzman, Francisco Gabriel Acien, Juan Carlos Lopez

9:15 C-0399 INFLUENCE OF AIR MASS FLOW AND FEEDING RATE ON COMBUSTION PERFORMANCE OF JATROPA CURCAS SEED SHELLS AND PRESS CAKE IN TILTING FURNACE WITH BOWL BURNER
Shkelqim Karaj
Shkelqim Karaj, Phillip Schneider, Joachim Muller

9:30 C-0471 EFFECT OF PLANTING DENSITY ON THE MECHANICAL PROPERTIES OF SUNFLOWER STEM
Ryota Murai
Ryota Murai, Haruka Tsuchiya, Seishu Tojo, Tadashi Chosa, Hitoshi Kato

9:45 C-1646 COMBUSTION OF AGRICULTURAL BIOMASSES: MASS BALANCE OF PRINCIPAL ELEMENTS
Stephane Godbout
Stephane Godbout, Joaohn H. Palacios, Patrick Brassard, Jean-Pierre Larouche, Frederic Pelletier, Stephane P. Lemay, Denis Bussieres, Matthieu Girard

SESSION 08:55 -10:30 (IT): QUALITY PRODUCTION I
Moderator: Gilber Grenier
Location: MULTIPURPOSE IC

8:55 Introduction

9:00 C-0324 BENEFITS OF CONTROLLED TRAFFIC FARMING IN EUROPE
Thomas Anken
Martin Holpp, Thomas Anken, Monika Sauter, Jan Rek, Rene Reiser, Hans-Rudolf Oberholzer, Peter Weisskopf, Oliver Hensel

9:15 C-0910 ICT FOR TRACEABILITY OF SUGAR CANE HARVESTING OPERATION IN SMALL FARMS
Jean-Pierre Chaten
Dany Deurveilher, Frederic Chiroleu, Myriam Chaten, Jean-Pierre Chaten, Daniel Boffety

9:30 C-0937 EFFECTS OF DIFFERENT SOIL MANAGEMENT PRACTICES ON SOIL MECHANIC RESISTANCE AND SEED DEPTH PLACEMENT IN A MAIZE CROP IN ALENTEJO, PORTUGAL MEDITERRANEAN REGION
Luís Conceição Alcino
Luís Conceição Alcino, Pilar Barreiro Elorza, Ricardo Freixial, Susana Dias, Garrido Miguel, Valero Constantino

9:45 C-0266 USING LEAF NUTRIENTS TO MODEL SUGAR CANE QUALITY PARAMETERS
Francelino Rodrigues Jr.
Francelino A. Rodrigues Jr., Paulo S. Graziano Magalhães, Henrique C. J. Franco, Domingos G. P. Cerri
10:00 C-1000 PRELIMINARY STUDIES ON SPATIALLY VARIABLE NITROGEN APPLICATION FOR FORAGE MAIZE IN COMMERCIAL FIELDS IN THE UK
Evandro Mantovani Chartuni
Evandro Chartuni Mantovani, Evandro Chartuni Mantovani, Paula A. Misiwicz, David R. White, Richard John Godwin

8:55 - 10:30 (PF): PACKAGING THE TECHNIQUES
Moderator: Umezuruike Linus Opara
Location: ROOM 1
8:55 Introduction
9:00 C-0771 EFFECTS OF NANO COMPOSITE COATING ON THE LEMON QUALITY
Jafar Hashemi
Jafar Hashemi, Ebrahim Taghinezhad, Jafar Hashemi
9:15 C-0781 MODIFIED ATMOSPHERE PACKAGING TO EXTEND COLD STORAGE OF POMEGRANATE CV. `MOLLAR DE ELCHE`
Maria B. Perez Gago
Atef Ibn Laribi, Luis Palou Valls, Verónica Taberner, María B. Pérez-Gago
9:30 C-1967 HERMETIC STORAGE OF ARTIFICIALLY DRIED COCOA BEANS IN HOT-SEALED PLASTIC BAGS
Dennis Oke
Dennis Oke, Kayode Foluso Omotayo
9:45 C-2314 STUDY ON THE EFFECT OF ACTIVE PACKAGING ON PASSION FRUIT POSTHARVEST QUALITY
Phonkrit Maniwara
Phonkrit Maniwara, Kazuhiro Nakano, Danai Boonyakiat, Pichaya B.Poonlarp, Juggapong Natwichai, Shintaroh Ohashi

9:15 C-1094 CHARACTERIZATION OF EDIBLE FILMS OF ZEIN AND CHITOSAN ADDED WITH OILS USING NANO TECHNOLOGY TECHNIQUES.
Monserrat Escamilla-García
Monserrat Escamilla-García, Georgina Calderón Dominguez, Reynold Ramón Farrera-rebollo, José Jorge Chanona Pérez, Juan Vicente Méndez-Méndez, Adrián Martínez-Rivas

9:30 C-1973 FUNCTIONAL EFFECTS OF DIFFERENT HUMECTANTS ON DOUGH RHEOLOGY AND BARBARI FLAT BREAD QUALITY
Bahareh Sahraian
Fariba Naghipoor, Bahareh Sahraian, Mahdi Karimi, Mohammad Bagher Habibi Najafi, Mohammad Hossein Haddad Khodaparast, Zahra Sheikholeslami

9:45 C-1116 STEROID OF SANDFISH POWDER (HOLOTHURIA SCRABA) AS HORMONE REPLACEMENT THERAPY ON MENOPAUSE
Etty Riani
Etty Riani, Nastiti Kusumorini, Syarifah Nurjanah, Muhammad Reza Cordova

10:00 C-1086 CHARACTERIZATION OF CARBOHYDRATE-PROTEIN EDIBLE FILMS USING MICRO AND NANO TECHNOLOGY TECHNIQUES
Georgina Calderón-Dominguez
Monserrat Escamilla-García, Reynold Ramón Farrera-rebollo, Adrian Martínez-Rivas, Georgina Calderón Dominguez

8:55 AET: WORKSHOP
Location: ROOM 2
8:55 AET: WORKSHOP

8:55 - 10:30 (SE): ENVIRONMENT IN CROP PRODUCTION
Moderator: Fatima Baptista
Location: ROOM 3
8:55 Introduction
9:00 C-0603 ROOT TEMPERATURE INFLUENCES GROWTH OF BLUEBERRY STEMS
Rei Kikuchi
Rei Kikuchi, Tadashi Chosa, Seishu Tojo
9:15 C-1378  A CLIMATE CONTROL STRATEGY FOR NATURALLY VENTILATED GREENHOUSE WITH VARIABLE HIGH PRESSURE FOGGING: EVALUATING ENERGY AND WATER SAVINGS, CLIMATE UNIFORMITY
Murat Kacira
Federico Villarreal-Guerrero, Murat Kaciara, Efren Fitz-Rodriguez, Gene Giacomelli, Chieri Kubota

9:30 C-1816  MATHEMATICAL SIMULATION OF THE DEHUMIDIFIER OF SEAWATER GREENHOUSE
Abdulrahim Al-Ismaili
Abdulrahim Al-Ismaili, Edward Keith Weatherhead, Hemantha P W Jayasuriya

9:45 C-0575  INFLUENCE ON VINE PRODUCTION OF INNOVATIVE COVERING PLASTIC FILMS
Evelia Schettini
Giuliano Vox, Evelia Schettini, Giacomo Scarascia Mugnozza, Laura De Palma, Luigi Tarricone, Giovanni Gentileesco

8:55 - 10:30 (SPC04): GNSS, SENSORS AND OFF-ROAD VEHICLE ARCHITECTURES
Moderator: John Schueller
Location: ROOM 4

8:55 Introduction

9:00 C-0194  GPS-BASED INTRA-ROW WEED CONTROL SYSTEM: PERFORMANCE AND LABOR SAVINGS
David Slaughter
David C. Slaughter, Manuel Pérez Ruiz, Fadi Fathallah, Shrin Upadhyaya, Chris Gliever, Brandon Miller

9:15 C-0105  DEVELOPMENT OF A MODEL BASED APPLICATION CONTROL SYSTEM FOR PESTICIDE SPRAYERS
Heike Froeschle
Heike Froeschle, Markus Stroebel, Karlheinz Koeller

9:30 C-0628  THE QUAD-AV PROJECT: MULTI-SENSOR APPROACH FOR OBSTACLE DETECTION IN AGRICULTURAL AUTONOMOUS ROBOTICS
Raphaël Rouveure
Raphaël Rouveure, Michael Nielsen, Anders Petersen, Giulio Reina, Mario M. Foglia, Rainer Worst, Sami Seyed-Sadri, Morten Rufus Blas, Patrice Faure, Kasper Lykkegård

9:45 C-0113  THE DEVELOPMENT OF A NEAR-REAL TIME VISION BASED VARIABLE RATE APPLICATOR
Chee-Wan Chan
Chee-Wan Chan, Arina Mohd Noh, Mohd Zamri Khairi Abdullah, Othman Omar, Kasron Ahmad

10:00 C-1993  FUSION OF CROP DATA FROM A MULTISENSOR PLATFORM
Christoph Zecha
Christoph Zecha, Johanna Link, Wilhelm Clauep

312 SESSION

311 SESSION

8:55 Introduction

9:00 C-0084  TESTING AND EVALUATION OF FARM MACHINES: AN ESSENTIAL STEP FOR DEVELOPING MECHANIZATION IN AFRICA
Chakib Jenane
Chakib Jenane

9:15 C-0116  FORMULATION OF A NATIONAL AGRICULTURE MECHANIZATION STRATEGY FOR MOROCCO
El Hassane Bourarach
El Hassane Bourarach, Si bennasseur Alaoui, Asmaa Hamzaoui, John Ashburner, Josef Kienzle

9:45 C-0393  AGRICULTURAL MECHANIZATION DEVELOPMENT IN INDIA- LESSONS FOR DEVELOPING COUNTRIES
Gajendra Singh
Gajendra Singh

10:00 C-0573  DEVELOPMENT OF MECHANIZATION OPTIONS FOR SMALLHOLDER FARMERS; EXAMPLES OF LOCAL MANUFACTURING OPPORTUNITIES FOR SUB-SAHARAN AFRICA
Brian Sims
Brian Sims, Muhammad Akhtar Bhatti, Saidi Mkomwa, Josef Kienzle

313 SESSION

08:55 - 10:30 (SPC08)
Moderator: Chakib Jenane
Location: ROOM 5

8:55 Introduction

9:00 C-0982  OPERATOR-MACHINE INTERACTION: ERGONOMIC EVALUATION OF A VINEYARD TELEOPERATED MACHINE
Ester Ferrari
Ester Ferrari, Eugenio Cavallo
9:15 C-1307 POWER TILLER VIBRATION TRANSMITTED TO HAND AND BODY OF OPERATOR IN TRANSPORTATION MODE ON ASPHALT RURAL ROAD
Seyed Reza Hassan-Beygi
Seyed Reza Hassan-Beygi, Hossein Ahmadian, Barat Ghabadian

9:30 C-1376 COMPARISON OF POSTURAL DISCOMFORT DURING HOEING OPERATION WITH TWO DIFFERENT MACHINERY COMBINATIONS
Ugur Yegul
M.Baris Eminoglu, Ugur Yegul, Ramazan Ozturk

9:45 C-1471 ERGONOMIC EXPOSURE ASSESSMENT OF POSTURE AND MUSCLE ACTIVITY AMONG DAIRY PARLOR WORKERS IN LARGE HERD OPERATIONS
John Rosecrance
John Rosecrance

10:00 C-1505 THE RISK OF CARPAL TUNNEL SYNDROME AMONG MILKING PARLOR WORKERS
John Rosecrance
John Rosecrance, David Douphrate

10:15 C-2098 ERGONOMIC ANALYSIS OF PESTICIDE SPRAYING IN VINEYARDS: REDUCING PHYSICAL AND TEMPORAL CONSTRAINTS, A CHALLENGE FOR REDUCING EXPOSURE.
Mandy Lambert
Mandy Lambert, James Richardson, Sonia Grimbuhler

10:55-13:00 (PM): HARVESTING
Moderator: Jaime Ortiz-Cañavate
Location: AUDITORIO 1

10:55 Introduction

11:00 C-1972 LOAD DISPLACEMENT IN GRAPE HARVESTERS: DISCRETE ELEMENT ANALYSIS
Carlos Gonzalez Montellano
Carlos Gonzalez Montellano, Eva M. Baguena Isiegas, Álvaro Ramírez Gómez, Pilar Barreiro Elorza

11:15 C-2271 TABLE OLIVE FRUIT AND TREE SUITABILITY TO MECHANICAL HARVESTING
Sergio Castro-Garcia
Sergio Castro-Garcia, Gregorio Lorenzo Blanco Roldán, Francisco Jimenez-Jime nez, Rafael Muñoz-Tejada, Jesús Antonio Gil Ribes

11:30 C-0149 SELECTIVE HARVESTING OF FRESH MARKET VALENCIA ORANGES BY MECHANICAL SHAKING
Coral Ortiz Sánchez
Coral Ortiz, Andrés Cuenca, Bernardo Martin, Antonio Torregrosa Mira

11:45 C-0957 KINEMATIC ANALYSIS OF ELECTRO-PNEUMATIC ONION SORTING SIMULATOR
Ramazan Ozturk
Ramazan Ozturk, Abdullah Beyaz, Caner Koc, Ali Ihsan Acar
12:00 C-1959 STUDY OF THE SOUND INSULATION IMPACT ON COMBINE HARVESTER’S CABIN
Chiho Kim
Chiho Kim, Hyeontae Kim, Myeonghun Kim, Gyeongyun Baek
12:15 C-0120 WHEN HANDLING ROUND BALES AFTER STRETCH FILM APPLICATION
Torsten Hördahl
Torsten Hördahl, Rolf Spörndly, Rainer Nylund, Per-Anders Algerbo

10:55-13:00 (SW-SPC01): WATER QUALITY AND IRRIGATION
Moderator: Guanhua Huang
Location: AUDITORIO 2

10:55 Introduction
11:00 C-2293 OUTBREAK OF FOOT-AND-MOUTH DISEASE TRANSPORTED BY YELLOW SAND AND SPREAD BY LOCAL SURFACE WIND FROM MARCH TO JULY 2010 IN MIYAZAKI, JAPAN
Taichi Maki
11:15 C-1404 OBTAINING POTASSIUM TRANSPORT PARAMETERS USING STANMOD MODEL
Livia da Silva Previatello
Rafaelly S. Santos, Livia da Silva Previatello, Járboas Honorio De Miranda
11:30 C-1326 UNBURNED SUGARCANE IRRIGATED WITH TREATED SEWAGE: EFFECTS ON CARBON AND NITROGEN EXPORTATION AND CROP YIELD
Alessandra Monteiro de Paula
Alessandra Monteiro de Paula, Sandra Furlan Nogueira, Célia Regina Montes, Adolpho José Melfi
11:45 C-0948 LAND USE AND CLIMATE AGGRESSIVENESS (R-USLE) IN THE EVALUATION OF PHOSPHORUS EXPORT FROM NON-POINT SOURCES IN THE LAKE VICO BASIN (CENTRAL ITALY)
Fabio Recanatesi
Fabio Recanatesi, Maria Nicolina Ripa, Antonio Leone
12:00 C-0999 PREDICTION OF NITRATE CONCENTRATION IN GROUNDWATER USING AN ARTIFICIAL NEURAL NETWORK (ANN) APPROACH
Maria Laura Foddis
Maria Laura Foddis

10:55-13:00 (AP): MANURE MANAGEMENT SYSTEMS II
Moderator: Henrik Møller
Location: AUDITORIO 3B

10:55 Introduction
11:00 C-0724 THE ANAEROBIC SEQUENCING BATCH REACTOR (ASBR), AN ADVANCED ANAEROBIC DIGESTER FOR DILUTE LIVE SWINE PRODUCTION BYPRODUCTS
Douglas Hamilton
Douglas Hamilton
11:15 C-1466 ANALYSIS CHARACTERISTIC OF DIGESTED EFFLUENT FROM FOUR LARGE-MEDIUM SCALE BIOGAS DIGESTER
Zhiping Zhu
Zhiping Zhu, Hongmin Dong, Bin Shang
11:30 C-1577 RAPESEED MEAL IN GROWING-FINISHING PIG DIETS: EFFECTS ON GROWTH PERFORMANCE, DIGESTIBILITY AND METHANE PRODUCTION FROM FECES.
Alba Cerisuelo
Verónica Moset, Pablo Ferrer, Alberto Torres-Pitaruch, María Cambra-López, Elisaa Adell, Mariam Pascual, Paula Serrano, Alba Cerisuelo

11:45 C-0927 EFFECTS OF ANAEROBICALLY DIGESTED PIG SLURRY ON IN VITRO GROWTH OF CROP PATHOGENIC FUNGI: A LABORATORY STUDY
Xiuping Tao
Xiuping Tao, Bin Shang, Hongmin Dong, Yongxing Chen, Hongkun Huang

12:00 C-1353 MICROBIAL COMMUNITY ANALYSIS ON LIQUID SWINE MANURE FROM FOAMING AND NON-FOAMING DEEP-PITS
Laura Pepple
Laura Pepple, Richard S. Gates, Ted Funk, Angela Kent

12:15 C-0506 FULL SCALE PRODUCTION OF MINERAL CONCENTRATES FROM PIG SLURRY USING REVERSE OSMOSIS
Paul Hoeksma
Paul Hoeksma, Fridtjof de Buissonjé, André J. A. Aarnink

12:30 C-1451 STREAMLINED AMMONIA REMOVAL FROM WASTEWATER USING BIOLOGICAL DEAMMONIFICATION PROCESS
Matias Vanotti
Matias Vanotti, Jose Martinez, Albert Magri, Ariel Szogi, Takao Fuji

10:55-13:00 (EN): GASEOUS BIOFUELS III
Moderator: Marcio Arêdes Martins
Location: MULTIPURPOSE IA

11:00 C-0327 QUANTIFICATION OF METHANE PRODUCTION AND EMISSION FROM ANAEROBIC DIGESTION OF CATTLE MANURE DERIVED FROM DIFFERENT FEEDING
Henrik Bjarne Møller
Henrik Bjarne Møller, Shiplu Sarker, Anne Louise Fryndahl Hellwing, Martin Riis Weisbjerg, Alastair James Ward

11:15 C-0510 NEAR INFRARED SPECTROSCOPY CALIBRATIONS FOR THE ESTIMATION OF PROCESS PARAMETERS OF ANAEROBIC DIGESTION OF ENERGY CROPS AND LIVESTOCK RESIDUES
Christian Krapf
Christian Krapf, Andreas Gronauer, Urs Schmidhalter, Hauke Heuwinkel

11:30 C-0553 THE EFFECTIVENESS OF TWO MINERAL ADDITIVES DURING ANAEROBIC FERMENTATION OF TWO MIXTURES OF ENERGY CROPS
Diana Andrade Montalegre
Diana Andrade, Florian Ebersteder, Tim Metzner, Andreas Gronauer, Manfred Bischoff, Hauke Heuwinkel

11:45 C-0604 ENERGY SOLUTIONS FOR UNIT PROCESSING MEAT OF CHICKEN WITH THE USE OF BIOGAS
Adriano Henrique Ferrarez
Adriano Henrique Ferrarez, Delly Oliveira Filho, Adilio Flauzio de Lacerda Filho, José Márcio Costa, Fabricio Segui Parisi

12:00 C-0680 THERMOPHILIC ANAEROBIC DIGESTION OF THE SOLID FRACTION OF ACIDIFIED DAIRY COW MANURE
Sutaryo Sutaryo
Sutaryo Sutaryo, Alastair James Ward, Henrik Bjarne Moller

12:15 C-0835 INFLUENCE OF DIGESTATE RECIRCULATION ON A TWO-PHASE ANAEROBIC DIGESTION OF MAIZE SILAGE
Vasilis Dandikas
Vasilis Dandikas, Carmen Marin Pérez, Konrad Koch, Michael Lebuhn, Andreas Gronauer

12:30 C-0254 MODEL BASED OPTIMIZATION OF BIO-METHANE PLANTS
Piotr Biernacki
Piotr Biernacki, Sven Steinigeweg, Axel Borchert, Eike Siefert, Frank Uhlenhut, Ingo Stein

10:55-13:00 (IT): IRRIGATION CONTROL
Moderator: Ferdo Zazueta
Location: MULTIPURPOSE IC

10:55 Introduction

11:00 C-0352 WIRELESS SENSOR NETWORK FOR PRECISION IRRIGATION CONTROL IN HORTICULTURAL CROPS
Michael Delwiche
Robert Coates, Michael Delwiche, Alan Broad, Mark Holler, Richard Evans, Lorence Oki, Linda Dodge

11:15 C-0766 DEVELOPMENT OF A FULLY CONTROLLED PLANT FACTORY FOR MOSS MAT PRODUCTION - APPLICATION OF INTELLIGENT IRRIGATION SYSTEM, ROBOT TRANSPORTER, AND PRECISION ARTIFICIAL LIGHTING SYSTEM
Yusuf Hendrawan
Yusuf Hendrawan, Bangbang Dwi Argo, M. Bagus Hermanto, Song Zhang, Haruhiko Murase
11:30 C-2365 METHODOLOGY TO ASSESS THE MAXIMUM IRRIGATION RATES AT REGIONAL SCALE USING GEOSTATISTICS AND GIS
Jose Miguel de Paz Becares

11:45 C-0569 EXPERIMENTAL VALIDATION OF A SYSTEM BASED ON PARTICLE TRACKING VELOCIMETRY (PTV)
Pablo González-Altozano
Federico Ibáñez, Pablo González-Altozano, María Gasque, Pau Martí

12:00 C-0707 AUTOMATIC SYSTEM FOR MANAGEMENT OF IRRIGATION USING IRRIGÂMETRO MICROCONTROLLERS
Paulo Raimundo Pinto
Paulo Raimundo Pinto

12:15 C-1227 DIFFERENT WATER HEIGHTS INFLUENCE SUBSTRATE SOIL MOISTURE IN SUBIRRIGATION
Rhuanito Soranz Ferrarezi
Rhuanito Soranz Ferrarezi, Marc W. van Iersel, Roberto Testezlaf

12:30 C-2203 USE OF CONTACT MODELS AND VALUE OF PARAMETER IDENTIFICATIONS FOR THE FREE FLOW OF RAPE SEEDS
Piotr Frankowski
Piotr Frankowski

10:55-13:00 (PF): PHYSICAL PROPERTIES I
Moderator: Pilar Barreiro
Location: ROOM 1

10:55 Introduction

11:00 C-1247 DETERMINING THE CUTTING PROPERTIES OF AGRICULTURAL PRODUCTS
Andrej Batos
Andrej Batos, Andreas Jahr, Alex Pillmann, Sascha Hoppe, Dennis Diett

11:15 C-1357 NONLINEAR VISCOELASTIC PROPERTIES OF APPLE TISSUE FROM EXPERIMENTAL MEASUREMENT AND CONSTITUTIVE MODELING
Wondwosen Abebe Aregawi
Wondwosen Abebe Aregawi, Thijs Defracney, Pieter Verboven, Guido De Roeck, Bart Nicolai

11:30 PH03. POSTHARVEST TECHNOLOGY, Working Group

10:55-13:00 (PF): DRYING TECHNOLOGY II
Moderator: Barbara Sturm
Location: ROOM 6+7

10:55 Introduction

11:00 C-0102 OPTIMUM DRYING CONDITION FOR THREE SELECTED VARIETIES OF OSMOTICALLY PRE-TREATED TOMATO (LYCOPERSICUM ESCULENTUM) IN THE SOUTH-WESTERN NIGERIA
Kehinde Folake Jaiyeoba
Kehinde Folake Jaiyeoba, Abdulganiy Raji O

11:15 C-1569 INFLUENCE OF AIR VELOCITY ON DRYING KINETICS AND PRODUCT QUALITY IN DRYING OF APPLES
Barbara Sturm
Barbara Sturm, Anna Nunez-Vega, Werner Hofacker, Oliver Hensel

11:30 C-0175 EFFECT OF HIGH TEMPERATURE AND SHORT TIME PRE-TREATMENTS ON DRYING AND REHYDRATION OF CARROTS SLICES
Carolina Maria Sánchez Sáenz
Carolina Maria Sánchez Sáenz, Rafael Augustus de Oliveira, Kil Jin Park

11:45 C-0773 EFFECTS OF TEMPERATURE AND MOISTURE ADDITION ON THE MASS TRANSFER KINETICS AND EFFECTIVE DIFFUSIVITIES DURING COCOA ROASTING
Ching Lik Hii
Ching Lik Hii, Yousra Ahmed Baghdadi

12:00 C-0422 STUDY OF CHEMICAL AND PHYSICAL PROPERTIES OF APPLES DRIED IN A CONVECTIVE DRIER
Raquel Guiné
Raquel Guiné, Ana Cruz, João Carlos Gonçalves, Ana Cristina Correia

12:15 C-2126 INFORMATION SYSTEM SUPPORTING IDENTIFICATION AND ANALYSIS OF GEOMETRIC, THERMAL AND MECHANICAL PROPERTIES OF AGRO-FOOD PRODUCTS
Jerzy Weres
Jerzy Weres, Wieslaw Olesk, Sebastian Kujawa, Michal Siatkowski

12:30 C-1759 AN AUTOMATED SYSTEM FOR THE DETERMINATION OF MOISTURE SORPTION ISOTHERMS
Dimitrios Argyropoulos
Dimitrios Argyropoulos, Joachim Müller

12:45 C-1612 MEDIUM SCALE DIRECT MODE NATURAL CONVECTION SOLAR TOMATO DRIER FOR NIGERIAN FARMERS
Akachukwu Eke Ben
Akachukwu Eke Ben, Akindele Folarin Alonge
10:55 AET: WORKSHOP

324 SESSION
10:55-13:00
(SE): WASTE ENGINEERING
Moderator: Demetres Briassoulis
Location: ROOM 3

10:55  SESSION 10:55-13:00
AET: WORKSHOP

10:55 Introduction

11:00 C-0296 DESIGN PRINCIPLES OF A EUROPEAN SYSTEM FOR THE MANAGEMENT OF AGROCHEMICALS PLASTIC PACKAGING WASTE
Demetres Briassoulis
Demetres Briassoulis, Miltiades Hiskakis, Chris Briassoulis

11:15 C-0023 CHALLENGES OF CLIMATE CHANGE ON AGRICULTURAL PRODUCTIVITY IN SUB-SAHRAN AFRICA
Mohammed Abubakar
Mohammed Abubakar

11:30 C-1207 RECYCLING OF CERAMIC FRACTION OF CONSTRUCTION AND DEMOLITION WASTE AS COARSE AGGREGATE FOR RECYCLED CONCRETE PRODUCTION.
Desirée Rodriguez Robles
Desirée Rodriguez Robles, Julia García González, Andrés Juan Valdés, Julia María Morán Del Pozo, Manuel Ignacio Guerra Romero

11:45 C-1121 ECO-FRIENDLY GALLON DESIGN
Tegar Hastya Prabawa
Tegar Hastya Prabawa

325 SESSION
10:55-13:00
(SPC04): ROBOTIC SOLUTIONS FOR AGRICULTURE
Moderator: John F. Reid
Location: ROOM 4

10:55 Introduction

11:00 C-0778 MOTION CONTROL OF A HETEROGENEOUS FLEET OF MOBILE ROBOTS: FORMATION CONTROL FOR ACHIEVING AGRICULTURE TASK
Roland Lenain
Pierre Cartade, Roland Lenain, Benoit Thuilot, Bernard Benet, Michel Berducat

11:15 C-1208 FORBOMIND, PROPOSING A CONCEPTUAL ARCHITECTURE FOR FIELD ROBOTS
Kjeld Jensen
Kjeld Jensen, Soren H. Nielsen, Anders Bogild, Morten Larsen, Ole Green, Rasmus Nyholm Jørgensen

11:30 C-0075 THE DESIGN AND APPLICATION STUDY ON KEY ASSEMBLY OF SILORATOR
Manquan Zhao
Manquan Zhao

11:45 C-1113 STRATOS: OPEN SYSTEM FOR TRACTOR AUTONOMOUS OPERATIONS
Cesare Fantuzzi
Cesare Fantuzzi, P.O. Gutman, I. Kaitovic, L. Larcher, S. Marzani, M. Ruggeri, V. Zagurskis,

12:00 C-0789 PRESERVATION OF STABILITY OF AUTOMATED OFF-ROAD ROBOTS: APPLICATION TO ADAPTIVE AND PREDICTIVE SPEED MANAGEMENT
Roland Lenain
Mathieu Richier, Roland Lenain, Benoit Thuilot, Christophe Debin

12:15 C-0964 OBJECT LOCALIZATION ON AGRICULTURAL AREAS USING AN AUTONOMOUS TEAM OF COOPERATING GROUND AND AIR ROBOTS
Lars Kuhnert
Lars Kuhnert, Klaus Müller, Markus Ax, Klaus-Dieter Kuhnert

12:30 C-2283 CRAWLER-TYPE ROBOT TRACTOR USING MULTI-GNSS WITH QZSS
Noboru Noguchi
Ryosuke Takai, Noboru Noguchi

326 SESSION
10:55-13:00
SPC-08
Moderator: Josef Kienzle
Location: ROOM 5

10:55 C-0574 HEIGHTENED IMPACTS OF AGRICULTURAL ENGINEERING IN RAISING THE PRODUCTIVITY OF NIGERIAN AGRICULTURE.
Babajide Adelekan
Babajide Adelekan

11:00 C-1782 AGRICULTURAL MECHANIZATION INTERVENTIONS TO INCREASE THE PRODUCTIVITY OF SMALLHOLDER IRRIGATION SCHEMES IN ZIMBABWE
Thubelihle Thebe
Thubelihle Thebe, Tirivangani Koza

11:15 C-0962 EFFECT OF GIBBERELLIC ACID (GA3) ON THE PHYSICAL AND MECHANICAL PROPERTIES FOR SOME POTATO VARIETIES
Mohamed Ibrahim Mahmoud
Mohamed Ibrahim Mahmoud, Mostafa Abdelazeeem

11:30 C-1719 RICE MECHANIZATION IN SUB-SAHARAN AFRICA BY PROMOTING BETTER ENABLING ENVIRONMENTS THROUGH PRIVATE-PUBLIC-PARTNERSHIP
Kunihiro Tokida
Kunihiro Tokida, Joseph Rickman, Hiroshi Hiraoka, Kazuyuki Fujiwara

11:45 C-1571 POSTHARVEST LOSSES OF HORTICULTURAL PRODUCTS IN LATIN AMERICA AND THE CARIBBEAN: INTEGRATING ANALYSES WITH SOLUTIONS
Jorge M Fonseca
Jorge M Fonseca, Divine N Njie
SESSION 10:55-13:00 (ES): INNOVATION IN WORK SCIENCE
Moderator: Hannu E.S. Haapala
Location: MULTIPURPOSE IB

10:55 Introduction

11:00 C-0094 THE POTENTIAL OF USER-CENTERED DESIGN TO MAKE RADICAL AGRICULTURAL INNOVATIONS
Hannu Haapala

11:15 C-0524 INNOVATIVE TECHNOLOGY IN ORGANIC HORTICULTURE
Mauro José Andrade Tereso, Roberto Nunes Abravão, Sandra Francisca Bezerra Gemma, Ivan Augusto Vall Ribeiro

11:30 C-0550 STUDY OF A DEVICE FOR REDUCING THE DUST CONCENTRATION DURING MECHANIZED HARVESTING OF HAZELNUTS
Massimo Cecchini, Danilo Monarca, Andrea Colantoni, Fulvio Cavariani, Loredana Bedini, De Rossi Marcello, Mauro Pagano, Marco Fedrizzi, Mirko Guerrero

11:45 C-0857 USING A MODELING LANGUAGE FOR A BETTER INTEGRATION OF HUMAN SAFETY AT THE EARLY DESIGN PHASE BASED ON EXPERIENCE FEEDBACK ANALYSIS
Ieyla Sadeghi, Luc Mathieu, Nicolas Tricot, Lama Al Bassit

12:00 C-1197 WORKING TIME MEASUREMENT BY A REAL-TIME LOCATION SYSTEM - AUTOMATED DETECTION AND AUTOMATIC TIME MEASUREMENT OF A YARD LOADER’S WORK
Stefanie Beyer, Bernhard Haidn

12:15 C-2180 EFFECTIVENESS OF INNOVATIVE MATERIALS FOR THE PROTECTION OF DRIVER OF AGRICULTURAL TRACTORS AGAINST FALLING OBJECTS RISK
Eugenio Cavallo, Alessio Facello

12:30 C-1527 DRIFT RISK DIAGNOSIS (DRD) - A DECISION SUPPORT TOOL TO HELP DIAGNOSE AND MITIGATE SPRAY DRIFT FOR FIELD APPLICATIONS IN PRACTICE
Grzegorz Dorochowski, Manfred Roettele, Andreas Herbst, Paolo Balsari

SESSION 10:55-13:00 (SPC03): AUTOMATIC INSPECTION II
Moderator: Enrique Moltó
Location: ROOM 8+9

10:55 Introduction

11:00 C-1459 OPTICAL FLOW PROFILING METHODS USED FOR VISUALIZATION AND EVALUATION OF FLOW DISTURBANCES IN AGRICULTURAL PNEUMATIC CONVEYANCE SYSTEMS.
Tyrone Keep, Scott Noble

11:15 C-0704 DEVELOPMENT OF A COMPACT QUALITY SORTING MACHINE FOR CHERRY TOMATOES BASED ON REAL-TIME COLOR IMAGE PROCESSING
Byoung-Kwan Cho, In-Seek Baek, Young-Sik Kim

11:30 C-1994 DEVELOPMENT OF POTATO AND CLOD SEPARATING MECHANISM BASED ON MACHINE VISION
Ahmad Al-Mallahi, Takashi Kataoka, Hiroshi Okamoto

11:45 C-2215 IMAGE PROCESSING BASED METHOD FOR CHARACTERIZATION OF THE FAT/MEAT RATIO AND FAT DISTRIBUTION OF PORK AND BEEF SAMPLES
Jozsef Felföldi, László Baranyai, Ferenc Firtha, László Friedrich, Csaba Balla

12:00 C-2357 AUTOMATIC VISUAL INSPECTION OF CORN KERNELS USING PRINCIPAL COMPONENT ANALYSIS
José Miguel Valiente González, Paulus Potter, José Miguel Valiente, Gabriela Andreu-Garcia

12:15 CIGR Working Group on Image Analysis for Agricultural Products and Processes

SESSION 14:00-14:55 (PM) POSTERS SESSION
Location: POSTERS ROOM

P-0078 INFLUENCING AMPLITUDE AND ACCELERATION OF SHAKEN FRUIT TREES USING TWO UNBALANCED MASSES
Zoltán Láng, László Csorba

P-0133 EFFECTS OF MECHANIZATION TECHNOLOGY IN SOUTH OF IRAN
Syamak Pishbin
P-0154 A HAND-HELD MECHANICAL BLOSSOM AND POST-BLOOM THINNING DEVICE FOR PEACH TREES
Bernardo Martin-Gorriz
Bernardo Martin-Gorriz, Antonio Torregrosa Mira, Jesús García Brunton, Regino Aragon Pallares

P-0289 DETACHMENT OF CITRUS FRUITS WITH A LOW FREQUENCY AND HIGH AMPLITUDE SHAKER
Antonio Torregrosa Mira
Antonio Torregrosa Mira, Coral Ortiz Sánchez, Andrés Cuenca

P-0465 FIELD PERFORMANCE OF A PNEUMATIC ROW CROP PLANTER WITH ACTIVE TOOTHED COULTER FOR DIRECT PLANTING OF CORN IN WHEAT RESIDUE
Mohammad Hossein Raoufat

P-0468 DESIGN, DEVELOPMENT AND EVALUATION OF A PROTOTYPE CHICKPEA HARVESTER BY USING FEEDER AND CUTTER MECHANISM
Saadat Kamgar
Saadat Kamgar, Hossein Mostafavand

P-0622 COMPARISON OF GRAIN-COMBINE AND PICKER-HUSKER HARVESTING SYSTEM IN SEED CORN HARVESTING OPERATION BASED ON THEIR HARVESTING LOSSES
Seyyed Hassan Pishgar-komleh
Seyyed Hassan Pishgar-komleh; Ali Reza Keyhani; Mohammad Reza Mostofisarkar; Ali Safari

P-0631 THE RELATIONSHIP BETWEEN GRAIN-COMBINE TRAVEL AND CYLINDER SPEED IN SEED CORN HARVESTING OPERATION BY APPLYING ARTIFICIAL NEURAL NETWORKS
Seyyed Hassan Pishgar-komleh
Seyyed Hassan Pishgar-komleh; Ali Reza Keyhani; Mohammad Reza Mostofisarkar; Ali Safari

P-0660 DETERMINATION OF THE USAGE COMBINE HARVESTER: A CASE STUDY FOR ANTALYA REGION
Deniz Yılmaz
Deniz Yılmaz, Murad Canakci, Ibrahim Akinci

P-0714 SEED COATING EFFECTS ON PERFORMANCE OF PRECISION VACUUM SEEDER
Davut Karayel
Davut Karayel, Murad Canakci, Fatih Hacıyusufoglu, Ibrahim Akinci, Mehmet Topakci

P-0722 REGULARITY OF DISTRIBUTION OF SUNFLOWERS SEEDS BY PNEUMATIC SEED METERING
Airtón dos Santos Alonço
Airtón dos Santos Alonço, Mateus Potrich Bellé, Otávio Dias da Costa Machado, Kátia Maria Cardinal, Fernando Pissetti Rossato, Hendrigo Alberto Torkelsen da Silveira

P-1270 MAIZE HYBRIDS FOR SILAGE VS SPEED OF SEEDER
Marcelo Boamorte Raveli
Marcelo Boamorte Raveli, Carlos Eduardo Angelí Furlani, Rafael Scabellio Bertonha, Fábio Alexandre Cavichioli, Carlos Alessandro Chioderoli

P-1284 LOSSES OF MECHANICAL HARVESTING IN MAIZE ACCORDING TO COVER CROP MANAGEMENT
Marcelo Boamorte Raveli
Marcelo Boamorte Raveli, Rouverson Pereira da Silva, Ariel Muncio Compagnon, Marcelo Tufaile Cassia, Antônio Maurício Loureiro Júnior

P-1315 ACCREDITATION OF CRATING AGRICULTURAL MACHINERY TEST LABORATORY IN ACCORDANCE WITH EN ISO/IEC 17025:2005
Roberto Fanigliulo
Roberto Fanigliulo, Daniele Pochi, Renato Grilli, Laura Fornaciari, Gennaro Vassalini

P-1419 QUALITY SPATIAL VARIABILITY OF ARABICA COFFEE AND ITS RELATIONSHIP WITH BRIX DEGREE AND FRUIT REFLECTANCE
Daniel Marçal De Queiroz
Samuel de Assis Silva, Daniel Marçal De Queiroz, Francisco de Assis De Carvalho Pinto, Nerilson Terra Santos

P-1461 ANALYSIS OF COFFEE FRUIT-STEM VIBRATION USING SIMULATION OF FLEXIBLE MULTIBODY SYSTEMS
Daniel Queiroz Marcal de Geice Paula Villibor, Daniel Marçal De Queiroz, Fabio Lucio Santos, Joseph Kalil Khoury Junior, Francisco de Assis Carvalho Pinto

P-1506 DESIGN AND EVALUATION OF MECHANICAL AID HARVESTING TOOLS FOR MANGO FRUITS
Youssef Sharobeem
Youssef Sharobeem, M Iraqi, S El Khawaga

P-1533 SPACIAL VARIABILITY IN PEANUT MECHANIZED HARVESTING
Rouverson da Silva Pereira
Rouverson da Silva Pereira, Rouverson Pereira da Silva, Rogério de Souza Medeiros, Edvaldo Pereira dos Santos

P-1537 AN ANALYSIS OF WORKING QUALITY OF A SUGAR BEET HARVESTER
Natalia Mioduszewska Mioduszewska
Natalia Mioduszewska, Jacek Przybyl

P-1852 USE OF STEAM AND EXOTHERMIC COMPOUNDS FOR WEED SEED-BANK CONTROL IN BANDS (BAND-STEAMING)
Marco Fontanelli
Andrea Peruzzi, Christian Frasconi, Luisa Martelloni, Marco Fontanelli, Michele Raffaelli
P-1970 CONCEPTION OF A NON-STOP VARIABLE CHAMBER ROUND BALER
Mojtaba Ahmadi
Mojtaba Ahmadi, Ali Zomorrodian, Hamid Sharifi, Erfan Borazjani, Mohammad Loghavi

P-2143 INFLUENCE OF SAMPLING AREA IN THE VARIABILITY IN LOSSES AT SOYBEANS MECHANICAL HARVEST
Antônio Maurício Loureiro Júnior
Rouverson Pereira da Silva, Antônio Mauricio Loureiro Junior, Marcelo Tufaile Cassia, Ariel Muncio Compagnon, Murilo Aparecido Voltarelli

P-2193 THE DESIGN OF A SOIL BIN USING CAD SOFTWARE
Robert Birch
Robert Birch, Travis Ramdath

P-2235 INFLUENCE OF SPEED OF SEEDING IN THE MAIZE SEEDLINGS EMERGENCE IN SOUTHWEST REGION OF SAO PAULO STATE/BRAZIL
Wilson Jose Oliveira De Souza
Wilson Jose Oliveira De Souza, Elza Alves, Samuel Ferrari, Eduardor Nardini Gomes, César Henrique De Jesus, Tamires Tangerino

P-2253 DEVELOPMENT AND EVALUATION OF IMPROVED WINGED SUBSOILER AND MAIZE CROP RESPONSE TO SUBSOILING
Arun Kumar
Arun Kumar; T C Thakur

P-2269 SALT STRESS ON THE PHOTOSYNTHETIC PIGMENT CONTENT COWPEA INOCULATED WITH RHIZOBIA
Ronaldo Nascimento
Ronaldo Nascimento, Jailma Ribeiro De Andrade, Francisco Valfisio da Silva Silva, Aryadne Ellen Vilar De Alencar, Bruna Vieira De Freitas, José Wilson Da Silva Barbosa

P-0410 NUTRIENT RETENTION IN WETLAND USING ORNAMENTAL PLANTS
Rojane M. Kletecke
Rojane M. Kletecke, Michelle Piccolli, Jose Teixeira Filho

P-0415 IMPORTANCE OF THE DRY MASS GENERATED BY SUNFLOWER CULTURE INCORPORATED INTO THE SOIL
Rosa Helena Aguiar
Rosa Helena Aguiar; Durval Rodrigues De Paula Junior; Artur Batista De Oliveira Rocha

P-0509 PHYSICAL, CHEMICAL AND MICROBIOLOGICAL EFFECTS OF SUSPENDED SHADE CLOTH COVERS ON STORED WATER FOR IRRIGATION
Victoriano Martinez-Alvarez
Victoriano Martinez-Alvarez, José F. Maestre-Valero, Emilio Nicolas Nicolas

P-0514 WATER TREATMENT USING POWDER OF MORINGA OLEIFERA SEEDS IN SACHS AS COAGULANT
Jose Euclides Paterniani
Gabriela Kurokawa Silva, Camila Clementina Arantes, Jose Euclides Paterniani, Ana Moreno de La Fuente

P-0519 RESEARCH ON METHODS OF GROUNDWATER VULNERABILITY EVALUATION
Guanhua Huang
Lipeng Yu, Quanzhong Huang, Guanhua Huang

P-0769 EFFECT OF ANISOTROPY IN SOIL PROPERTIES ON CONTAMINANT TRANSPORT IN MULTILAYER SOILS
Hojat Ahmad
Hojat Ahmad, Sina Besharat, Vahid Reza Verdinejad

P-0792 CHARACTERISTICS OF HEAVY METAL CONTENTS IN MARINE SEDIMENT AND PADDY SOIL OF SOUTH KOREA
Jaesung Park
Jaesung Park, Young-Hwan Son, Sookack Noh, Tae-ho Bong
P-0803 EMPHASIZING AWARENESS TO MAKE GOOD QUALITY LIFE BY APPLYING SOME METHODS OF WASTE WATER PROCESSING
Ikhsan Bani Bukhori Bani
Ikhsan Bani Bukhori Cipto

P-0851 STOCHASTIC MODELLING OF CONTAMINANTS TRANSPORT THROUGH GROUND WATER USING A MOVING LEAST SQUARES RESPONSE SURFACE METHOD WITH HERMITE POLYNOMIAL
Taeho Bong
Tae-ho Bong, Young-Hwan Son, Sookack Noh, Jaesung Park, Seong-Pil Kim, Joon Heo

P-0854 CHARACTERISTICS OF VEGETATIONS APPLIED ON VFS (VEGETATED FILTER STRIP) SYSTEMS
Kyung-Sook Choi
Kyung-Soook Choi, Jeong-Ryeol Jang

P-0913 RELATIONSHIP BETWEEN COMPACTION, MOISTURE AND PENETRATION RESISTANCE IN HORTICULTURAL SOIL
Carlos Gracia López
Carlos Gracia, Estela Alemany, Inmaculada Bautista

P-1041 SIMULATION OF NITROGEN LEACHING WITH THE DSSAT MODEL UNDER DIFFERENT LEVELS OF NITROGEN AND WATER APPLICATION
Maliheh Rabie
Maliheh Rabie, Mehdı Gheyarsi, Seyed Majid Mirlati, Gerrit Hoogenboom

P-1070 TREATMENT OF MILKING PARLOR EFFLUENT: STABILIZATION PONDS FOLLOWED BY CONSTRUCTED WETLAND
Denis Roston Miguel
Denis Roston Miguel, Edu Max da Silva

P-1155 APPLICATION OF SURFACE COVER AND SOIL AMENDMENT FOR REDUCTION OF SOIL EROSION FROM SLOPING FIELD IN KOREA
Suin Lee Soo
Suin Lee Soo, Chul-Hee Won, Min-Hwan Shin, Woon Ji Park, Yonghun Choi, Jae-Young Shin, Joongdae Choi

P-1196 INDIRECT REUSE OF RECLAIMED WASTEWATER FOR AGRICULTURE IN KOREA
Hanseok Jeong
Hanseok Jeong, Taeil Jang, Cheong Hyun Seong, Seung Woo Park

P-1277 WASTEWATER IRRIGATION IN URBAN GHANA: BALANCING RISKS AND BENEFITS
Razak Seidu
Razak Seidu, Amina Abubakar, Hans Overgaard, Robert Abaidoo, Arve Heistad, Thor Axel Stenstrom

P-1431 EFFECT OF PRODUCTION SYSTEMS ON WATER QUALITY IN WATERSHEDS
Rodrigo Brunini
Michele Cláudia Silva, Teresa Cristina Tarlé Pissarra, Rodrigo Brunini

P-1462 MODELING OF WATER QUALITY PARAMETERS OF DISSOLVED OXYGEN AND BIOCHEMICAL OXYGEN DEMAND IN THE SUBBASIN OF POXIM RIVER, BRAZIL
Anderson Nascimento do Vasco

P-1465 EFFECT OF RICE STRAW MULCH ON RUNOFF AND NPS POLLUTION DISCHARGES FROM A VEGETABLE FIELD
Joongdae Choi
Joongdae Choi, Min-Hwan Shin, Ji-Seong Yoon

P-1519 DESORPTIONS, EXTRACTABLES AND BOUND RESIDUES OF ALACHLOR IN SOIL WITH THE ADDITION OF ORGANIC MATTER FROM SWINE WASTEWATER
Silvio Sampaio Cesar
Tatiana Cristina Dal Bosco, Silvio Cesar Sampaio, Silvia Renata Machado Coelho, Natássia Jersak Cosmann, Marcos Hiroiugi Kunita, Morgana Suszek Gonçalves

P-1641 HIDROLOGICAL PROCESS IN DIFFERENTS COVERS OF SOIL
Valdemir Antonio Rodrigues

P-1658 PEDOGENIC BACKGROUND CONCENTRATION (PBC) OF POTENTIALLY TOXIC ELEMENTS (PTE) IN SOILS TREATED WITH CIVIL/INDUSTRIAL SEWAGE SLUDGE.
Ilaria Cinzia Galiano
Ilaria Cinzia Galiano, Gian Franco Capra, Sergio Vaccà

P-1690 SURVEY DATA AND CHARACTERISTICS OF PRECIPITATION MORPHOMETRIC WATERSHED MODELING WITH THE USE OF SWAT (SOIL AND WATER ASSESSMENT TOOL)
Flavia Mazzer Rodrigues
Flavia Mazzer Rodrigues, Teresa Cristina Tarlé Pissarra, Michele Claudia da Silva
P-1868 VARIABILITY OF WATER QUALITY IN A LAKE RECEIVING DRAINAGE WATER FROM HETAO IRRIGATION SYSTEM, IN YELLOW RIVER BASIN, CHINA
Biao Sun
Biao Sun, Changyou Li, Claudia M d S Cordovil, Keli Jia, Sheng Zhang, Amarilis de Varennes, Luis S. Pereira, Paula Paredes,

P-1892 FINDING LOCATION FOR NITRATE SOURCES ALONG KITAKAMI RIVER, JAPAN USING THE NATURAL ABUNDANCE OF NITROGEN ISOTOPE
Kosuke Noborio
Kosuke Noborio, Chitoshi Mizota, Koji Harashina, Mitsuomi Orisaka

P-1897 ANTIBIOTIC RESISTANCE MONITORING IN WATER SUPPLY SYSTEMS
Paula Amador
Paula amador pinto, Ruben Fernandes, Isabel Duarte, Luisa Brito, Mário Barreto, Cristina Prudêncio

P-1964 GIS MAPPING OF SOIL COMPACTION AND MOISTURE DISTRIBUTION FOR TILLAGE AND IRRIGATION MANAGEMENT
Seif Salim Al-Adawi
Seif Salim Al-Adawi, Hemantha P W Jayasuriya

P-2045 TRANSNATIONAL AND NATIONAL ASPECTS OF THE ECOLOGICAL CATASTROPHE IN ARAL SEA REGION, ITS CAUSES AND SUGGESTIONS
Radek Malis
Radek Malis

P-2075 MODELING SOIL WATER AND SOLUTE DISTRIBUTION UNDER VARIABLY SATURATED CROP ROOTZONE
Uday Khodke
Uday Khodke, Rabindra Kumar Panda, S. Tripathy

P-2175 DIMENSIONS AND PERFORMANCE OF THE CYLINDRICAL SPECIMENS USED IN UNIAXIAL CONSOLIDATION TESTS
Reginaldo Da Silva Barboza
Reginaldo Da Silva Barboza, Piero Iori, Pedro Antonio Martins

P-2329 POSSIBLE IMPACT OF CLIMATE CHANGE ON SOIL EROSION
Ramesh Pall Rudra Ramesh
Pall Rudra Ramesh, Trevor Dickinson, Syed Imran Ahmed, Greg Wall

P-2344 SIMULATION GEOLOGICAL ENVIRONMENTAL SHORTAGE WATER OF GROUNDWATER AND THE POSSIBILITY OF ACTIVITY EARTHQUAKE JAFARAH BASIN NW LIBYA
Elosta Fathi Abu - Ehia
Elosta Fathi

P-0231 ECONOMIC AND ECOLOGICAL FACTORS OF USING THE NEW PROTEIN CONCENTRATE IN RED DEER FEEDING
Liga Proskina
Liga Proskina

P-0404 EFFECT OF VACUUM LEVEL ON MILKING TIMES IN MEDITERRANEAN ITALIAN BUFFALO COW
Leilia Murgia
Maria Cara, Carlo Boselli, Leilia Murgia, Remo Rosati, Antonio Pazzona

P-0442 ANALYSIS OF THE SURFACE THE STRAW LITTER PROCESSED MICROWAVE
Anatoly Gulyaev
Maksim Moskovskiy, Anatoly Gulyaev, Viktor Pakhomov

P-0580 RESEARCH ON THE BEHAVIOR AND EGG FERTILIZATION RATE OF NONGDA III DWARF LAYERS AND WHITE LEGHORNS CHICKENS FED IN FLOOR-REARING SYSTEM
Long Liu
Long Liu, Zhonghua Ning

P-0639 EFFECTS AND EXPENSES OF SPRUCE NEEDLES EXTRACTIVES IN BROILER CHICKEN FEEDING
Sallija Cerina
Sallija Cerina

P-0653 MEASURING THE EFFECT OF LAMENESS ON FEED INTAKE AND ACTIVITY IN DAIRY COWS
Matt Pastell
Johanna Häggman, Heli Simojoki, Marianne Norring, Petro Tamminen, Matt Pastell

P-0670 EFFECTS OF CELLULOSE DECOMPOSITION MICROBIAL INOCULUM ON PHYSICO-CHEMICAL PROPERTIES OF CATTLE MANURE COMPOST
Shuyuan Ji
Shuyuan Ji, Yujie Lou, Haizhu Zhou, Yanbo Bao

P-0687 CONJUGATE CULTIVATION TOWARD SUSTAINABLE AGRICULTURE (PRODUCTION OF FISH IN PADDY FIELD FARMS IN THE NORTH OF IRAN)
Nasim Khodakaramian
Nasim Khodakaramian, Shiva Mohammad hoseynzadeh, Mohsen Karimi, Sadaf Ghasemi, Elham Norouzian, Mohammad Ghahterijani
P-0832  THE TRIBOLOGICAL BEHAVIOR OF POULTRY LITTER ON EQUIPMENT WALLS
Seyed Reza Hassan-Beygi
Seyed Reza Hassan-Beygi, Mohammad Hossein Kiamnehr, Iman Valaei, Hadi Rahmazadeh Bahram

P-0863  SELECTING THE MOST SUITABLE ELECTROLYTE BALANCE DIET FOR LACTATING SOWS USING MUTICRITERIAL ANALYSIS
Eliene Justino
Eliene Justino, Diego Pereira Neves, Douglas D’alessandro Salgado, Irenilza De Alencar Naas

P-0875  RELATIONSHIP BETWEEN OPERATIONAL PARAMETERS OF MILKING MACHINES AND HYGIENIC QUALITY OF MILK IN 632 GALICIAN DAIRY FARMS.
José Pereira
Antonio Lenza, José Manuel Pereira

P-0882  ASSESSMENT OF MILKING MACHINES ON GALICIAN DAIRY FARMS AND ITS RELATIONSHIP WITH THE STATE OF ANIMAL SPHINCTER.
José Pereira
Ines López, Angel Castro, Antonio Lenza, José Manuel Pereira

P-0883  THE EFFECT OF LIGHTING PROGRAMS ON EGG PRODUCTION AND QUALITY OF BEIJING YOU-CHICKEN
Li Shen
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P-0960  GRAZING EFFECT IN RADIAL PASTURE FROM THE WATERING POINT IN BEEF CATTLE MANAGEMENT OF JAPAN
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Maria Amalia Brunini
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Serpi Sahin, Gulum Sumnu, Ferihan Tunaboyu

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Hossein Kiani, Da-Wen Sun, Zhihang Zhang

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Audirene Santana Amorim
Audirene Santana Amorim, Gustavo Kazuo Fugita, Louise Emu Kurozawa, Rafael Augustus De Oliveira, KIl Jin Park

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Salvador Castillo Garcia

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Audirene Santana Amorim
Audirene Santana Amorim, Gustavo Kazuo Fugita, Louise Emu Kurozawa, Rafael Augustus De Oliveira, KIl Jin Park

P-1022 CONVEXTIVE DRYING OF PINEAPPLE AFTER OSMOTIC DEHYDRATION

Rosa Helena Aguair
Audirene Amorim Santan, Gabriel Pereira Martin Luiz, Rosa Helena Aguair, Rafael Augustus de Oliveira, KIl Jin Park

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Seyed Mehdi Nassiri
Seyed Mehdi Nassiri, Mehdi Heydari

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Morgana Zimmermann
Morgana Zimmermann, Donald Schaffner, Gláucia Maria Falcão de Aragão

P-1290 MONTE CARLO DOSE IRRADIATION PLANNING FOR COMPLEX SHAPED FOODS TREATMENT

Belen Juste
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P-1992 THE SHAPE IMPORTANCE IN THE AGRIFOOD FRAMEWORK P-2036 ATOMIZATION OF CHICORY ROOTS EXTRACT ON A SPRAY DRYER
Corrado Costa
Francesca Antonucci, Federico Pallottino; Paolo Menesatti, Carrado Costa

P-2036 ATOMIZATION OF CHICORY ROOTS EXTRACT ON A SPRAY DRYER
Rafael Augustus De Oliveira
Rafael Augustus De Oliveira; Aline Muta Vivas; Kil Jin Park

P-2066 ASCORBIC ACID COMPORTAMENT IN LETTUCE VARIETY MIMOSA DURING COOLING STORAGE SUBJECTED AT TWO RAPID COOLING TREATMENTS
Rodolpho Cesar dos Reis Tinini
Rodolpho Cesar dos Reis Tinini, Barbara Janet Teruel Med eros

P-2082 DESIGN, DEVELOPMENT AND EVALUATION OF A VARIABLE RATE SPRINKLER BASED ON SENSOR FOR SOLID SET IRRIGATION SYSTEM
Jalil Razavi
Jalil Razavi; Ali Rezaee Shahraki; Mehdi Gheyasari

P-2083 INFLUENCE OF DRYING METHOD ON THE SORPTION CHARACTERISTICS OF DATE POWDER
Morteza Sadeghi
Morteza Sadeghi, Esmaeil Arragastea, Jalil Razavi, Khaled Gomar

P-2176 INFLUENCE OF OSMOTIC DEHYDRATION AND DRYING THUNDERSTORM ORGANIC ORANGE SWEET POTATO
Maria Ivone Barbosa Martins Jacintho
Kamila de Oliveira do Nascimento, José Lucena Barbosa Juníor, Maria Ivone Barbosa Martins Jacintho
CIGR-Ageng2012

P-2247  OXYGEN PERMEABILITY MEASUREMENT IN BIAXIALLY-ORIENTED POLYESTER AND CO-EXTRUDED POLYPROPYLENE FILMS
Umezuruike Linus Opara
Oluwafemi J. Caleb; Umezuruike Linus Opara; Pramod V. Mahajan

P-2252  INVESTIGATION IN THE EFFECT OF DIFFERENT PACKAGING FILM ON EXTENSION OF BREAD SHELF LIFE
Mahdi Karimi
Mahdi Karimi, Zahra Sheikhholeslami, Mahdi Ghiafesh Davoodi, Fariba Naghipoor, Bahareh Sahraiyan

P-2272  MEASUREMENT OF STRUCTURAL CHANGES TO A FOOD MATERIAL DURING DEHYDRATION
Wijitha Senadeera

P-2339  OSMOTIC DEHYDRATION AND CONVECTIVE DRYING OF FIG FRUITS (FICUS CARICA)
Claudia Santacruz-Vazquez
Claudia Santacruz-Vázquez, Verónica Santacruz-Vázquez

P-2340  EFFECTS OF OZONATED WATER ON SHELF LIFE AND QUALITY CHARACTERISTICS OF FRESH PAPALO (POROPHYLLUM RUDERALE)
Claudia Santacruz-Vazquez
Claudia Santacruz-Vázquez, Santacruz-Vázquez Verónica

P-2342  SHELF LIFE OF COATED PRICKLY PEARS (OPUNTIA FICUS VAR. INDICA)
Verónica Santacruz-Vazquez
Verónica Santacruz-Vázquez, Claudia Santacruz-Vázquez, Victor Manuel Huerta-Espinosa

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SESSION
14:00 -14:55
(SE) POSTERS SESSION
Location: POSTERS ROOM

P-0014  USING SSM SIMULATION MODEL TO ASSESS THE EFFECTS OF VARYING TEMPERATURE AND REDUCED PRECIPITATION ON CHICKPEA YIELD (A CASE STUDY IN ZANJAN DISTINCT, IRAN)
Nasim Meghdadi
Nasim Meghdadi, A Soltani, Behnam Kamkar

P-014  EFFECT OF ETHOPHON ON TIME OF OLIVE OIL (ZARD CULTIVAR) HARVESTING
Zahra Yousefi
Morteza Almassi, Zahra Yousefi, Ali Asgar Zeinianloo, Reza Moghadasi, Ahmad Golian

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P-1246  MFS BASED STRUCTURAL TOPOLOGY OPTIMIZATION
Sungyong Lee
Sungyong Lee; Taegon Kim; Jeong-jae Lee

P-1402  STRUCTURAL MODEL OF PARTICLE BOARD AND WOOD FOR USE IN CATTLE HANDLING FACILITIES
Diogo Sartori de Lucca
Diogo de Lucca Sartori, Juliano Fiorelli, Holmer Savastano Junior, Julio Cesar Cravo, Nubia Garzon Barrero

P-1413  MODELS VALIDATION TO ESTIMATE POTASSIUM’S CONCENTRATION USING TDR ON UNSATURATED SOIL COLUMN
Isaac Ponciano De Matos
Isaac Ponciano De Matos; Jarbas Horno De Miranda; Alisson Jadavi Pereira Da Silva; Eugénio Ferreira Coelho; Gabriel Gomes Porto

P-1463  THE PHYSICAL AND GEOMETRICAL CHARACTERISTICS OF CERAMIC BRICKS WITH EIGHT HOLES.
Fernando Augusto Souza
Fernando Souza Augusto, Ashemar Pitelli Milani, Renato Luis Furlan, Raquel Lunedo, Paulo Roberto de Oliveira Carneiro, Paula Toró-Velasquez

P-1467  POTENTIAL APPLICATION OF SILICATE MATERIALS FOR SOIL AND WATER QUALITY IN AGRICULTURE
Emelie Ablaza Casayuran
Emelie Ablaza, Katsumi Ishikawa, Midori Hikashi, Daisuke Yasutake

P-1469  VISCOSITY AND ION CONCENTRATION ON WATER STRUCTURE FOR HIGH QUALITY VEGETABLE PRODUCTION IN HYDROPONICS
Midori Hikashi
Midori Hikashi, Katsumi Ishikawa, Yasuomi Hamazu, Emelie Ablaza, Makito Mori

P-1470  EFFECTS OF SEDIMENTARY ROCK IN IMPROVING YIELD AND QUALITY OF WHEAT VARIETIES FOR LATE SUMMER CULTIVATION
Emelie Ablaza Casayuran
Emelie Ablaza, Katsumi Ishikawa, Hikashi Midori, Makito Mori

P-1473  THE STRUCTURAL CONTROL OF WATER AND NUTRIENT SOLUTION BY ELECTROKINETIC TREATMENT WITH SILICATE MINERAL CERAMICS FOR GREENHOUSE SYSTEMS
Midori Hikashi
Katsumi Ishikawa, Midori Hikashi, Emelie Ablaza, Daisuke Yasutake

P-1552  ENERGY SAVING STRATEGIES IN RIOJA WINE INDUSTRY
Javier Gómez Garrido
Javier Gómez Garrido; Alberto Tascón
P-1667 DETERMINATION OF SOME RHEOLOGICAL PARAMETERS OF MUNICIPAL COMPOST WASTE FOR EXTRUSION PROCESSING
Nabi Allah Keshvari
Nabi Allah Keshvari; Mohammad Hossein Kianmehr; Akbar Arab Mohammad Hosseini; Heman Amiri

P-1753 BULK SOLIDS PROPERTIES AND FLOW PATTERN INVESTIGATIONS
José Wallace Barbosa Nascimento
José Pinheiro Lopes Neto; José Wallace Barbosa Nascimento

P-1760 APPROXIMATION TO EARTH MATERIAL FROM INTERNATIONAL NORMATIVE
Jaime Cid Falceto
Jaime Cid Falceto, Pablo Mosquera Arancibia, Francisco Marcos, Cruz Calleja Peruco, Ignacio Cañas Guerrero

P-1761 VERIFICATION MEASUREMENT PROCEDURE IN THERMOGRAPHIC INFRARED CAMERAS
César Porras Amores
César Porras Amores; Fernando Ruiz Mazzaron; Jose Luis Benito Roldan; Ignacio Cañas Guerrero

P-1774 STATIONARY VERSUS MOBILE RECYCLING PLANTS: CHARACTERIZATION OF MIXED RECYCLED AGGREGATE FOLLOWING STRUCTURAL CONCRETE SPANISH STANDARD EHE-08
Julia García González
Julia García González, Desirée Rodríguez Robles, Andrés Juan Valdés, Julia María Morán Del Pozo, Manuel Ignacio Guerra Romero

P-1845 TOMATO SEEDLINGS PROTECTED CULTIVATION IN DIFFERENT TRAYS AND GENOTYPES
Cristiane Guiselini
Cristiane Guiselini, Sávio Duarte Lopes Cavalcanti, Dimas Menezes, Héilton Pandomori, Ricardo Brauer Vigoderis, Roberto de A. Melo

P-1924 IMPROVED VERSATILE HIGH-POWER SOLID-STATE LIGHTING EQUIPMENT FOR PLANT GROWING IN PHYTOTRON
Algirdas Novickovas
Algirdas Novickovas, Ausra Brazaityte, Giedre Samuolienė, Ramunas Sirtautas, Laurynas Dabasinskas, Pavelas Duchovskis

P-1928 HEMP AS IMPROVEMENT ELEMENT FOR EARTH CONSTRUCTION
Ignacio Cañas Guerrero Guerrero
Jaime Cid Falceto, Ignacio Cañas Guerrero, Monika Brümmer, Pablo Mosquera Arancibia

P-1939 PHYSICOMECHANICAL EVALUATION OF CEMENTITIOUS MATRICES WITH PORTLAND CEMENT REPLACEMENT BY RICE HUSK ASH
Michelle Rodrigues Santos
Michelle Rodrigues Santos, Gisleiva Ferreira, Leandro Shiroma, Antonio Ludovico Beraldo, Hernandez de Leon Bento

P-1976 EFFECTS OF STABILIZATION METHOD ON PHYTOAVAILABILITY OF HEAVY METALS IN MINING IMPACTED FARMLAND AND THEIR ACCUMULATION IN CROP PLANTS AS EVALUATED BY A FIELD EXPERIMENT
Sung-Wook Yun
Sung-Wook Yun, Ha-Jin Kim, Chan Yu

P-2087 TREATMENT EFFECTS OF LIMESTONE AND STEEL REFINING SLAG FOR STABILIZATION OF ARSENIC AND HEAVY METAL IN THE FARMLAND SOILS NEAR BY ABANDONED METAL MINE
Sung-Wook Yun
Sung-Wook Yun, Ha-Jin Kim, Chan Yu

P-2227 TAILINGS IN THE MELIORATION OF RESIDUAL KAOLIN AS POZZOLANIC MATERIAL IN DRY CONCRETES
Maria Luiza Souza Rezende
Maria Luiza Souza Rezende, José Wallace Barbosa do Nascimento, Gelmires Araújo Neves

P-2228 FACILITIES OF POULTRY MANURE PROCESSING AND UTILIZATION WITH ENVIRONMENTAL TECHNOLOGIES
Anita Csiba
Anita Csiba

P-2259 PERFORMANCE EVALUATION OF GIANT REED PANELS IN SUSTAINABLE AGRICULTURAL BUILDINGS
Carmelo Riccardo Fichera
Carmelo Riccardo Fichera, Francesco Barreca

P-2280 USE OF POLYETHYLENE FILMS WITH HIGH REFLECTION TO NIR AND LOW TRANSMISSION TO IR IN GREENHOUSES: EFFECTS ON MICROCLIMATE, ENERGY SAVING AND CROP PRODUCTION
Evangelini Kitta
Nikos Katsoulas, Thomas Bartzanas, Christos Nikolaou, Dimitrios Anagnostopoulos, Constantinos Kittas

P-2348 RETROSPECTIVE ANALYSIS AND PERFORMANCE EVALUATION OF HISTORIC OIL MILLS IN A MEDITERRANEAN REGION IN VIEW OF SUSTAINABLE MANAGEMENT AND DESIGN
Salvatore Di Fazio
Salvatore Di Fazio, Luigi Lamberto
P-0054  AGRICULTURE-INDUSTRY LINKAGE AND INEQUITIES IN INDIA
Shailendra Kumar Singh Bablu Thakur
Shailendra Kumar Singh Bablu Thakur

P-0396  FOOD LOSS REDUCTION AND VALUE ADDITION THROUGH PROMOTING AGRO-INDUSTRIES DEVELOPMENT IN DEVELOPING COUNTRIES
Divine Nganje Njie

P-0397  FAO’S INFORMATION NETWORK ON POST-HARVEST OPERATIONS (INPHO) PORTAL
Divine Nganje Njie
Divine Nganje Njie, Danilo Mejia, Jorge Fonseca

P-1273  INVESTIGATION OF EFFECTIVE PARAMETERS ON MECHANIZATION COOPERATIVE SUCCESSFUL TOWARD SUSTAINABLE AGRICULTURE IN IRAN
Mohammad Ghahterijani
Mohammad Ghahterijani; Babak Beheshti; Mehdi Moghadam Kouhi; Rauf Hazineia; Mahboob Behzad

P-1565  THE SEARCH FOR HIGHLY QUALITY AND AFFORDABLE FISH FEED IN NIGERIA
Folasayo Fayose Titilola
Folasayo Fayose Titilola

P-1837  THERMAL PROCESSING USING MICROWAVE AND EXTRUSION FOR SOYFLOUR
Ramabhu Patil
Praveen C Bargale, Ramabhu Patil, Punit Chandra

P-2005  EFFECT OF IMPACT ON SOME PHYSICAL PROPERTIES OF ORANGE FRUIT
Babak Beheshti

P-0207  ANALYSIS OF ERGONOMIC ASPECTS DURING PRODUCTION OF CUTTINGS EUCALYPTUS
Danilo Simões
Danilo Simões, Magali Ribeiro da Silva, Juliana Assenjo Rosa, Paulo Torres Fenner

P-0208  CHARACTERIZATION OF THE OCCUPATIONAL VIBRATION LEVEL UNDER REAL CONDITIONS OF SEMI-MECHANIZED FOREST HARVESTING IN BRAZIL
Danilo Simões
Danilo Simões, Paulo Torres Fenner, Magali Ribeiro da Silva

P-0417  ERGONOMICS CONTRIBUTIONS ON WORK OF ORGANIC SMALL-SCALE FARMERS
Sandra Gemma Francisca Bezerra
Sandra Francisca Bezerra Gemma, Mauro José Andrade Tereso, Roberto Funes Abrahão

P-0487  A NEW APPROACH TO ASSESS LABOUR TIME REQUIREMENT, WORK SAFETY, WORK LOAD AND JOB SATISFACTION ON FLEMISH DAIRY FARMS
Robin De Sutter
Robin De Sutter

P-0544  ANALYSE THE PULVERIZATION EQUIPMENTS MAINTENANCE AMONG SMALL AND MEDIUM PRODUCERS IN ARARAS, SPS SOUTHEAST REGION OF BRAZIL.
Patricia Monquero Andrea
Patricia Monquero Andrea

P-0552  A STUDY ON RESPONSE OF SOME BIO-MECHANICAL MODELS OF SEAT-DRIVER BODY EXPOSED TO VERTICAL VIBRATION USING FINITE ELEMENT METHOD
Ali Maleki
Ali Maleki; Hamed Shahmirzaei

P-0663  MORTALITY ANALYSIS IN GALICIAN AGRICULTURAL SECTOR FROM 2004 TO 2010
Martin Barrasa Rioja
Martin Barrasa Rioja, Santiago Lamosa Quinteiro, José Manuel Pererira González, Jesús Maciñeiras Abelleira

P-0666  STUDY OF THE WORK ACCIDENTS IN THE AGRARIAN GALICIAN SECTOR. SEVERITY AND INJURIES
Martin Barrasa Rioja
Martin Barrasa Rioja, Santiago Lamosa Quinteiro, Jesús Maciñeiras Abelleira

P-0692  DECREMENT OF SOUND LEVELS BY RESONATORS
Ali Maleki
Ali Maleki, Meysam Rezvani, Mohammad Moradi

P-0702  THE EFFECT OF ENGINE R.P.M AND TRANSMISSION GEAR RATIOS ON SOUND LEVEL OF JOHN DEER HARVESTING COMBINE
Fariba Manuchehri
Ali Maleki, Fariba Manuchehri, Davood Ghanbarian
P-0705 ACOUSTICAL STUDY OF TWO COMMON USED TRACTORS IN IRAN WHILE TRAVELLING IN RURAL ROADS
Fariba Manuchehri
Ali Maleki, Fariba Manuchehri, Davood Ghanbarian

P-0706 BIOMECHANICAL MODELS OF DRIVER KNEE (REVIEW)
Seyed Mohammad Abdollahi
Ali Maleki, Seyed Mohammad Abdollahi

P-0716 DEVELOPMENT OF TOOL TO AID THE ERGONOMIC DESIGN OF SELF-PROPELLED SPRAY CABINS
Ulisses Benedetti Baumhardt
Ulisses Baumhardt Benedetti, Airton dos Santos Alonço, Rafael Martins Alves, Rodrigo Martins Alves, Mateus Cereza Brandão, Paulo Roberto Bedin

P-0896 JD 3140 TRACTOR NOISE POLLUTION DURING TRANSPORT IN RURAL Safoura Sepehri
Ali Maleki; Safoura Sepehri

P-1174 FACTORS INFLUENCING THE OCCURRENCE OF AGRICULTURAL MACHINERY ACCIDENT
Byounggap Kim
Byounggap Kim, Seung-yeoub Shin, Yuyong Kim, Hyeong-kwon Kim

P-1202 INHALABLE DUST EMISSION IN THE MECHANICAL HARVESTING OF HAZELNUTS: FIRST COMPARATIVE TEST
Marco Fedrizzi
Marco Fedrizzi, Marco Fedrizzi, Mauro Pagano, Cinzia Perrino, Massimo Cecchini, Mirko Guerrieri, Pietro Gallo, Marcello Biocca

P-1314 MODELLING WORKING TIME REQUIREMENT AND WORK PERFORMANCE ON THE EXAMPLE OF MOWING
Andrea Wagner
Andrea Wagner; Beyer Stefanie; Matthias Schick

P-1325 LEVELS OF NOISE AND VIBRATIONS TRANSMITTED TO THE DRIVER OF A MEDIUM-HIGH POWER AGRICULTURAL TRACTOR, UNDER OPERATIVE CONDITIONS
Roberto Fanigliulo
Daniele Pochi, Laura Fornaciari, Gennaro Vassalini, Cesare Cervellini, Gino Brannetti, Roberto Fanigliulo

P-1497 SAFETY FUNCTIONAL REQUIREMENTS FOR ROBOT FLEETS FOR HIGHLY EFFECTIVE AGRICULTURE AND FORESTRY MANAGEMENT (RHEA)
Miguel Garrido Izard
Miguel Garrido Izard; Angela Ribeiro; Pilar Barreiro Elorza; Benoît Debilde; Patrick Balmer; Jacob Carballedo Del Rey; Adolfo Moya Gonzalez; Constantino Valero; Nicola Tomatis; Bart Missotten

P-1557 ANALYSIS OF ACCIDENTS WITH CIRCULAR SAWS OF EMPLOYEES IN AGRICULTURE
Kössler Katharina
Kössler Katharina; Elisabeth Quendler; Josef Boxbberger

P-1607 LABOUR INPUT ON BAVARIAN DAIRY FARMS WITH CONVENTIONAL OR AUTOMATIC MILKING.
Juliana Macuhoa
Juliana Macuhoa, Bernhard Haidn

P-1625 REDUCTION OF THE RISKS RELATED TO FALLING FROM HEIGHTS IN PROCESSES OF GREENHOUSES ROOF MAINTENANCE
Angel Carreño Ortega
Angel Carreño Ortega, Javier Vazquez Cabrera, María del Carmen Galera Quijotes, Guadalupe Lopez Díaz

P-1649 CHARACTERIZATION AND FUNCTIONALIZATION OF MULTIWALL CARBON NANOTUBES AS NANOBIOSENSORS IN FOODS
Hilda María Hernández Hernández
Leonor Guadarrama Fernández, Hilda María Hernández Hernández, José Jorge Chanona Pérez, Adrián Martínez Rivas, Jaime Ortiz López, Vicente Garibay Febriles, Georgina Calderón Dominguez

P-1899 PROTECTION GLOVES EVALUATION FOR PRUNING WITH PNEUMATIC AND ELECTRIC SHEARS
Carmen Jaren
Carmen Jaren, Pedro Arnal, Jesus Mangado, Ainara López, Silvia Arazuri

P-2044 PHYSICAL LOAD OF THE WORKERS IN SHEDS BROILER BREEDERS
Cinara Carvalho da Cunha Siqueira
Cinara Carvalho da Cunha Siqueira, Ilda de Fátima Ferreira Tinôce, Irene Menegalli, Maria de Fátima Vieira

P-2052 DESIGN AND VALIDATION OF AN ACTIVE WARNING DEVICE FOR THE AGRICULTURAL TRACTOR ROLLOVER.
Juan Luis Gamarra Diezma
Gregorio Lorenzo Blanco Roldán, Juan Luis Gamarra Diezma, Jesus Antonio Gil Ribes

P-2153 EVALUATION OF THE NOISE LEVELS OF AGRICULTURAL MACHINES DURING MAINTENANCE WORKS ON THE CAMPUS OF FCA/UNESP
Octávio Plaster Barbosa
Octávio Barbosa Plaster, Paulo Torres Penner, Julian Haas

P-2199 THE HEALTH RISK OF THE AGRICULTURAL PRODUCTS GROWN IN POTENTIALLY CONTAMINATED SITES: PROPOSAL OF THE ENVIRONMENTAL-HEALTH RISK ANALYSIS
Giuseppe Verdiani
Giovanni Russo, Giuseppe Verdiani
A SYSTEM FOR DETECTING HAND-ARM VIBRATION IN THE USE OF PORTABLE SHAKERS FOR OLIVES HARVESTING
Pietro Catania
Giuseppe Aiello, Pietro Catania, Giada La Scalia, Mariangela Vallone

INVESTIGATION OF ANTHRACNOSE INFECTION IN MANGO FRUITS USING UV-LIGHT FOR COMPUTER VISION-BASED SORTING APPLICATIONS
Marcus Nagle
Marcus Nagle, Giuseppe Romano, Kiatka-mjon Intani, Busarakorn Mahayothee, Vicha Sardsud, Hans-joachim Müller

EVALUATION OF INSECT DAMAGE ON WHEAT USING IMAGE PROCESSING TECHNOLOGY
Hasan Murat Velioglu
Ozgur Saglam, Hasan Murat Velioglu

IN-LINE INSPECTION OF THE SHAPE OF POTATOES BY COMPUTER-INTEGRATED MACHINE VISION
Nuria Aleixos
Gamal M. Elmasry, Sherief Radwan, Nuria Aleixos Borrás, Pau Talens, Enrique Moltó, José Blasco Ivars

SIMULATION OF GRAIN-STRAW SEPARATION BY A DISCRETE ELEMENT APPROACH WITH BENDABLE STRAW PARTICLES
Bart Lenaerts
Bart Lenaerts, Engelbert Tijskens, Josse De Baerdemaeker, Wouter Saeyes

THE DETERMINATION OF STRAIGHT EDGE BLADES SHARPNESS CHANGE OF AGRICULTURAL MACHINE BLADES AT AGRICULTURAL WORKS BY USING IMAGE ANALYSIS TECHNIQUE
Abdullah Beyaz
Abdullah Beyaz

RELATING THE POWER USED BY THE HARRINGTON SEED DESTRUCTOR’S (CAGE MILL) TO THE GRAIN AND CHAFF THROUGHPUT
Nicholas Berry
Nicholas Berry, Chris Saunders, John Fielke

MECHANICAL WEEDING OF RUMEX OBTUSIFOLIUS IN PERMANENT GRASSLAND BY REMOVAL OF ROOTS VIA A MACHINERY PROCESS
Joachim Sauter
Joachim Sauter, Roy Latsch, Monika Sauter, Walter Odermatt
14:55–16:30  
(SW-SPC01): WATER AND SOIL POLLUTION  
Moderator: Jose M. Goncalves  
Location: AUDITORIO 2

14:55  
Introduction

15:00  
C-0657  
RISK-BASED CHARACTERISATION OF HYDROCARBON CONTAMINATION IN SOILS WITH VISIBLE AND NEAR-INFRARED DIFFUSE REFLECTANCE SPECTROCOPY  
Abdul Mounem Mouazen  
Reuben N. Okparanma, Abdul Mounem Mouazen

15:15  
C-0761  
THE VALUE OF WASTEWATER IN A WATER-STRESSED SUB-CATCHMENT OF ZIMBABWE  
Thubelihle Thebe

15:30  
C-1139  
DETERMINATION OF HEAVY METALS CONTENT IN SOIL AND RICE PLANT AFTER THREE YEARS APPLICATION OF MUNICIPAL SOLID WASTE COMPOST (MSWC)  
Mohammad Ali Bahmanyar  
Mohammad Ali Bahmanyar, Elahe Hasanzade, Arezoo Mohammadi

15:45  
C-1491  
HOW DO BARN LAYOUT AND MECHANISATION LEVEL INFLUENCE ON LABOUR INPUT IN DAIRY BARNS?  
Geir Naess  
Geir Naess, Knut Egil Bøe

16:00  
C-1827  
ANALYSIS AND SIMULATION OF DRIVING TIMES FOR LARGE DAIRY FARMS  
Heinz Bernhardt  
Heinz Bernhardt, Claudia Leicher, Martin Hanauer, Jochen Simon

14:55–16:30  
(AP): DAIRY CATTLE MANAGEMENT AND MILKING SYSTEMS  
Moderator: Jan Harms  
Location: AUDITORIO 3A

14:55  
Introduction

15:00  
C-0563  
NEW SOFTWARE FOR CALCULATING AND TESTING MILKING MACHINE INSTALLATIONS FOR DAIRY COWS ACCORDING TO ISO STANDARDS  
Enrique Arbones  
Enrique Arbones, Francisco González

15:15  
C-0690  
EFFECT OF SINGLE TUBE GUIDING MILKING SYSTEM AND PERIODIC AIR INLET ON THE CONCENTRATION OF FREE FATTY ACIDS IN CONVENTIONAL MILKING PARLOUR  
Sandra Rose-Meierhoefer  
Sandra Rose-meierhoefer, Susanne Demba, Hülya Öz, Ulrich Ströbel, Gundula Hoffmann, Reiner Brunsch

15:30  
C-0967  
EVALUATION OF THE TEAT-END VACUUM BEHAVIOUR IN DIFFERENT AUTOMATIC MILKING SYSTEMS  
Ulrich Ströbel  
Ulrich Ströbel, Sandra Rose-meierhoefer, Hülya Öz, Ann-Christin Entorf, Ludwig Popp, Reiner Brunsch

15:45  
C-1491  
HOW DO BARN LAYOUT AND MECHANISATION LEVEL INFLUENCE ON LABOUR INPUT IN DAIRY BARNS?  
Geir Naess  
Geir Naess, Knut Egil Bøe

16:00  
C-1827  
ANALYSIS AND SIMULATION OF DRIVING TIMES FOR LARGE DAIRY FARMS  
Heinz Bernhardt  
Heinz Bernhardt, Claudia Leicher, Martin Hanauer, Jochen Simon

14:55–16:30  
(AP): NOVEL ANIMAL HOUSING SYSTEMS  
Moderator: Peter Groot Koerkamp  
Location: AUDITORIO 3B

14:55  
Introduction

15:00  
C-0975  
NEW DESIGNS TO FACILITATE A TRANSITION TOWARDS SUSTAINABLE EGG PRODUCTION  
Ellen van Weeghel  
Ellen van Weeghel, P.w.g. Groot Koerkamp, Jessica Cornelissen

15:15  
C-0979  
AUTOMATIC VS. CONVENTIONAL FEEDING SYSTEMS IN ROBOTIC MILKING DAIRY FARMS: A SURVEY IN THE NETHERLANDS  
Carlo Bisaglia  
Carlo Bisaglia, Zacharie Belle, Gijsbert Van Den Berg, Johanna (J.C.A.M.) Pompe

15:30  
C-0521  
A MODEL DAIRY FARM INTEGRATED SYSTEM: MORE THAN A FARM  
Vanessa Guillamón Enguidanos  
Vanessa Guillamón Enguidanos

15:45  
C-1503  
A GREEN BARN DESIGN TO REDUCE THE ENVIRONMENTAL FOOTPRINT OF PORK PRODUCTION IN THE MIDWESTERN U.S.  
Larry Jacobson  
Larry Jacobson

14:55–16:30  
(EN): BIOENERGY POLICY  
Moderator: Borja Velázquez-Martí  
Location: MULTIPURPOSE IA

14:55  
Introduction

15:00  
C-0848  
BIOENERGY INDUSTRY DEVELOPMENT IN UKRAINE  
Valeriy Dubrovin  
Valeriy Dubrovin, Maksym Melnychuk

15:15  
C-2361  
ESTIMATE OF THE SORTS AND QUANTITY OF BIOMASS FOR PRODUCTION ENERGY IN SERBIA  
Miladin Brkic  
Miladin Brkic, Todor Janic
15:30 C-1141 EFFECT OF DIFFERENT MUNICIPAL WASTE COMPOST APPLICATIONS ON YIELD AND COMPONENT YIELD OF SOYBEAN (GLYCINE MAX L.)
Hematollah Pirdashti
Sedigheh Vafaie Rostami, Hemmatollah Pirdashti, Mohammad Ali Bahmanyar, Alaleh Motaghian

15:45 C-1211 ASSESSMENT OF PALM OIL BIO-WASTE WITH COWDUNG FOR COMPOST PRODUCTION
Abu Ahmed Mokammel Haque
Mohammad taghi Vakili, Abu Ahmed Mokammel Haque

16:00 C-2285 THE BIOENERGY FARM PROJECT: WEB APPLICATIONS TO ASSESS THE FEASIBILITY OF BIOENERGY EXPLOITATION AT FARM LEVEL
Remigio Berruto
Remigio Berruto, Patrizia Busato

14:55–16:30 (IT): QUALITY DETECTION
Moderator: Zeev Schmilovitch
Location: MULTIPURPOSE IC

14:55 Introduction

15:00 C-2255 ADVANCES IN DEVELOPING WEB-BASED DSS ARCHITECTURE FOR DESIGNING AND MANAGING CEREAL GRAIN DRYING AND STORAGE
Jerzy Weres
Tomasz Kluda, Przemyslaw Jan Nowak, Jerzy Weres

15:15 C-2268 TREE-SCANNER SYSTEM WITH RTK-GPS, LIDAR DATA AND IMU
Alexandre Escolà
Ignacio Del-Moral-Marinez, Joan R. Rosell-Polo, Alexandre Escolà, Joan Masip-Vilalta, Ricardo Sanz-Cortiella, Jaume Arnó-Satorra

15:30 C-1096 THERMAL EVALUATION OF CAUTERIZED PRICKE PEARS BY AN INDUSTRIAL MACHINE
Fedeico Hahn Schlam
Federico Hahn, Nahela Salvador Eugenio, Juan Arce, Juan Arce

15:45 C-1203 A FIRST STEP TOWARDS A REAL-TIME PREDICTIVE SUPPORT SYSTEM OF WHEAT YIELD
Benjamin Dumont
Benjamin Dumont, Vincent Leemans, Salvador Ferrandis, Françoise Vancutsem, Benoit Seutin, Bernard Bodson, Jean-Pierre Destain, Marie-France Dostain

16:00 C-2062 FORAGE QUALITY ASSESSMENT IN BALERS
Karl Wild
Karl Wild, Veit Walther, Karoline Heinrich

14:55–16:30 (PF): FOOD MANAGEMENT
Moderator: Veerle Van Linden
Location: ROOM 1

14:55 Introduction

15:00 C-0453 MOISTURE SORPTION ISOTHERMS OF ROSEMARY (ROSMARINUS OFFICINALIS L.) FLOWERS AT THREE TEMPERATURES
Hossein Ahmadichenarbon
Hossein Ahmadichenarbon, Sara Movahed, Seyedeh Masoomeh Hasheminia

15:15 C-0444 OPTIMAL WORK METHOD IN A FLOWERS' DISTRIBUTION CENTER TO ACHIEVE ON TIME DELIVERY
Gad Vitner
Gad Vitner, Avital Bechar

15:30 C-1203 FOOD LOSSES IN PRIMARY PRODUCTION: THE CASE OF FLANDERS
Jürgen Vangeyte
Kris Roels, Jürgen Vangeyte, Veerle Van Linden, Dirk Van Gijseghem

15:45 C-1240 ECONOMICAL EVALUATION OF THE PRODUCTS PHYSICAL LOSSES IN FEED MILLS DURING THE PROCESSING
Paulo Carteri Coradi
Paulo Carteri Coradi, Adilio Flauzino Lacerda Filho, José Benício Paes Chaves

16:00 C-1986 PRODUCTION OF EGGLESS CAKE
Fariba Naghipoor
Bahareh Sahrman, Fariba Naghipoor, Mohammad Bagher Habibi Najafi, Mahdi Karimi, Mehdi Ghiafeh Davoodi, Mohammad Hossein Haddad Khodaparast

14:55–16:30 (PF): DRYING TECHNOLOGY III
Moderator: Raquel Guiné
Location: ROOM 6+7

14:55 Introduction

15:00 C-2364 CONVECTIVE AND MICROWAVE DRYING CHARACTERISTICS OF GARDEN CRESS LEAVES (LEPIDIUM SATIVUM L.)
Turhan Koyuncu
Turhan Koyuncu, Fuat Lule, Kaan E. Engin

15:15 C-2194 THIN LAYER DRYING KINETICS AND QUALITY OF AFRICAN BAOBAB LEAF (ADANSONIA DIGITATA)
AbdulGaniy RAJI O
Abdulganiy Raji O, Abigael ADEYEMI
15:30 C-0347 DRYING OF CHAMOMILE USING A DEVELOPED HYBRID SOLAR DRYER
Baher Amer
Baher Amer, Klaus Gottschlak

15:45 C-0807 DEVELOPMENT AND EVALUATION OF SMALL SCALE DIRECT MODE PASSIVE SOLAR TOMATO DRYERS
Akachukwu Eke Ben
Akachukwu Eke Ben, Kayode Simonyan

16:00 C-1100 STUDY OF DRYING KINETICS OF QUINCE
Maria João Barroca
Maria João Barroca, Raquel Guiné

16:15 C-1874 DESIGN, DEVELOPMENT AND TESTING OF A CHOPPING-EXPRESSION DEVICE FOR PINEAPPLE JUICE EXTRACTION
Adesoji Matthew Olaniyi
Adesoji Matthew Olaniyi, Damola Emmanuel Adeyemi, Felix Olufemi Ajala

14:55–16:30 AET: WORKSHOP
Location: ROOM 2

14:55 C-2195 FRESNEL SOLAR CONCENTRATORS FOR AGRICULTURE APPLICATIONS
Chrysovalantou Lamnatou
Chrysovalantou Lamnatou, Daniel Chemisana, Yiannis Tripanagnostopoulos

15:00 C-1556 FLAT SOLAR CONCENTRATORS FOR PHOTOVOLTAIC SYSTEMS
Vânia Reis De Souza Sant’anna
Vânia Reis De Souza Sant’anna, Delly Oliveira Filho, Adílio Flauzino Lacerda Filho, Aristides Ribeiro, Augusto César Fonseca Ferreira

15:30 C-1264 ASSESSMENT OF INFRARED HEATING BENEFITS IN A PRODUCTION GREENHOUSE
Angeliki Kavga
Angeliki Kavga, Ioannis Konstas, George Alexopoulos, Thrassos Panidis

14:55–16:30 (SPC04): ROBOTIC SOLUTIONS FOR HARVESTING CROPS
Moderator: Noboru Noguchi
Location: ROOM 4

14:55 Introduction

15:00 C-2274 ROBOT FARMING SYSTEM IN JAPAN AGRICULTURE
Noboru Noguchi
Noboru Noguchi

15:15 C-1809 OPTIMIZING FORAGE HARVESTING PROCESS WITH AN INTELLIGENT CONTROL SYSTEM
Antti Suokannas
Antti Suokannas, Antti Kunnas, Matts Nysand, Raimo Linkolehto, Lisa Pesonen, Juha Backman

15:30 C-1661 APPLE YIELD ESTIMATION DURING THE GROWTH SEASON USING IMAGE ANALYSIS
Barna Keresztes
Barna Keresztes, Olivier Laviolle, Gilbert Grenier, Pierre Vaysse

15:45 C-0258 DEVELOPMENT OF A MOVABLE STRAWBERRY-HARVESTING ROBOT USING A TRAVELLING PLATFORM
Shigehiko Hayashi
Shigehiko Hayashi, Satoshi Yamamoto, Sadafumi Saito, Yoshiji, Ochiai, Yasushi Kohno, Kazuhiro Yamamoto, Junzo Kama-ta, Mitsutaka Kurita

14:55–16:30 (SPC08)
Moderator: Antonio Torregrosa
Location: ROOM 5

14:55 Introduction

15:00 C-1105 THE CURRENT SITUATION OF THE INTERVENTION OF PRIVATE SECTOR IN AGRICULTURAL MECHANIZATION DEVELOPMENT IN AFRICAN COUNTRIES
Karim Houmy
Karim Houmy, Josef Kienzle, John Ashburner

15:15 C-0313 DEVELOPMENT OF A MANUALLY OPERATED DISC-TYPE CORN SEEDER
Rolando Javellonar Rolly
Rolando Javellonar Rolly

15:30 C-0901 A LOW COST PRECISION PNEUMATIC PLANTER FOR VEGETABLES - STUDIES AND DEVELOPMENT
Pradeep Rajan
Pradeep Rajan, Nps Sirohi
15:45 C-2313 DEVELOPMENT OF A PRIMARY TILLAGE IMPLEMENT USING SMALL PRIME MOVER
Chandra Shekhar Sahay
Chandra Shekhar Sahay, E. V. Thomas, K. K. Satapathy

15:15 C-0565 AUTOMATIC COW’S BODY CONDITION SCORING
Amos Bercovich
Amos Bercovich, Yael Edan, Victor Alchanatis, Uzi Moalem, Yisrael Parmet, Hen Honig, Ephraim Maltz, Aharon Antler, Ilan Halachmi

14:55–16:30 (ES): ASSESSMENT OF SAFETY AND RISKS
Moderator: Roberto Funes Abrahao
Location: MULTIPURPOSE IB

14:55 Introduction

15:00 C-1389 ROPS DESIGN EVOLUTION WITH RESPECT TO THE REQUIREMENTS OF THE STRENGTH TEST PROCEDURES
Valda Rondelli
Valda Rondelli, Enrico Capacci, Bruno Franceschetti, Adriano Guarnieri

15:15 C-0698 HEAVY METALS ACCUMULATION AND MALFORMATION OF GREEN MUSSEL (PERNA VIRIDIS) IN JAKARTA BAY
Muhammad Reza Cordova
Muhammad Reza Cordova, Neviaty Putri Zamani, Fredinan Yulianda

15:30 C-0726 AGRICULTURAL VEHICLES AND RURAL ROAD SAFETY: AN ENGINEERING CHALLENGE!
C.F. (Rinus) Jaarsma
C.F. (Rinus) Jaarsma, J.r. De Vries

15:45 C-1150 OUTDOOR SYSTEM FOR BEEF PRODUCTION - IDENTIFICATION OF WORK INJURY RISK DURING COLD SEASON
Qiu Qing Geng
Qiu Qing Geng, Eva Salomon, William E. Field

16:00 C-2300 INTEGRATED PRODUCTION AND SAFETY RISK MANAGEMENT ON FARMS
Jarkko Leppälä
Jarkko Leppälä

14:55–16:30 (SPC03): ANIMAL INSPECTION
Moderator: Jorge Chanona
Location: ROOM 8+9

14:55 Introduction

15:00 C-0555 MACHINE VISION GUIDED CLEANING FOR AUTONOMOUS PIG STY CLEANING
Michael Nielsen
Michael Nielsen, Andersen Petersen, Kurt Nielsen

15:30 C-0737 DETERMINATION OF CARCASS COMPOSITION OF GOATS BY VIDEO IMAGE ANALYSIS
Antonio Monteiro Cardoso
Antonio Monteiro Cardoso, Alfredo Teixeira, Jorge Azevedo, Severiano Silva

15:45 C-1034 CAPTURING 2D AND 3D BIOMETRIC DATA OF FARM ANIMALS UNDER REAL-LIFE BARN CONDITIONS
Henry Stahl
Henry Stahl, Kristina Schädler, Eberhard Hartung

16:00 CLAUSURE SPC-03
GUEST PROGRAM

VALENCIA CITY AND ALBUFERA LAKE TOUR
Date: Monday 9th July 9:00 - 16:00
Departure: Valencia Conference Center (VCC)
Only for accompanying persons

SOCIAL AND HOSTED RECEPTIONS

SUNDAY
Welcome coffee
Date: Sunday 8th July 13:00 - 14:00
Venue: ETSIAMN Hall's - UPV (Edificio 3P)

CIGR-AgEng 2012 Welcome Reception
Date: Sunday 8th July 19:00 - 21:00
Venue: Paraninfo (UPV) (Edificio 3A)

MONDAY
Coffee EurAgEng- Eastern European countries
Date: Monday 9th July 19:30 - 20:30
Venue: Valencia Conference Center (VCC)
Location: Room 4

TUESDAY
Breakfast EurAgEng ASABE
Date: Tuesday 10th July 7:00 - 8:00
Venue: Hotel Sorolla

POST CONFERENCE TOURS

THURSDAY
All visits start in the Valencia Conference Center at 8:00 am.
They meet in IVIA at 14:00 for lunch and all tours end in the
Valencia Conference Center at 16:30.
THE AVAILABLE VACANCIES WILL BE FILLED ACCORDING TO REGISTRATION ORDER.

Each tour includes: Bus, technical visit and lunch.

PT#1 Winery: VICENTE GANDÍA
Description: Technical visit to a wine producer Vicente Gandía Valencia Winery. Visit to Hoya de Cadenas Estate (http://www.hoyadecadenas.es): wine-making room and cask room with information about wine-making and ageing. Will be also visited the vineyards, with special emphasis in grape varieties and local soil and climate conditions, and irrigation system. The visit will end in the old cellars with a wine tasting.
CONTACT PERSON: Ricardo Suay

Award Ceremony
Date: Tuesday 10th July 18:30 - 20:30
Venue: Valencia Conference Centre (VCC)
Location: Auditorio 1

Conference Dinner
Date: Tuesday 10th July 20:30 - 23:30
Venue: Hotel Sorolla

WEDNESDAY
Closing Ceremony
Date: Wednesday 11th July 16:30 - 17:30
Venue: Valencia Conference Centre (VCC)
Location: Auditorio 1

Spanish Wine for Closing Ceremony
Date: Wednesday 11th July 17:30 - 18:00
Venue: Valencia Conference Center (VCC)
PT#2 Dairy Farm: GRANJA SAN RAMÓN
Description: A model dairy cattle farm in Valencia, with 2000 animal heads, Granja San Ramon http://www.gruposanramon.es. Highlights of the visit include modern installations for dairy cattle accounting for improved animal welfare systems, open naturally-ventilated housing systems, fully-automation of processes in milking and identification, and on-farm biomethanisation plant.
CONTACT PERSON: María Cambra López

PT#3 Fresh-cut: VERDIFRESH
Description: Technical tour to Verdifresh S.L. The company was established in 2000 and now is leader in the Spanish market of fresh-cut vegetables, with the distribution of more than 45% of the sales. The group has 4 production sites distributed in Spain to cover all the geography, a production area of about 25,000 m², and more than 500 employees. Their facilities present the latest technologies in the area. The company produces a wide range of Roomds and ready to cook vegetables. http://www.verdifresh.com
CONTACT PERSON: María Bernardita Pérez

PT#4 Packinghouse: FONTESTAD
Description: Technical tour to a citrus orchard and packing-house of FONTESTAD in Museros (Valencia). Fontestad is a family company for citrus fruit handling and distribution since 1950s. The packinghouse of FONTESTAD occupying premises measuring 45,000m² and is one of the most prestigious Packinghouse in Valencia. http://www.fontestad.es
CONTACT PERSON: José Blasco

PT#5 Silos and Granular Materials: ILPERSA
Description: Visit to Ilpersa facilities: metallic Silos, bucket elevators, machines of selection by colour and cold storage of the grains. This company was founded in 1918 and was initially dedicated to the aspiration and filtering market. From 1987 the company expanded its products to cereal market. Nowadays, Ilpersa is leader in the rice market. They process until the 90% of Spanish production of cereals. http://www.ilpersa.com
CONTACT PERSON: Miguel Redón

PT#6 Energy: BIOMASS GASIFICATION PLANT
Description: During this tour you will visit a biomass gasification plant placed in Játiva that produces 13,000 MWh/year of electric energy. Nowadays, the plant used around 10,000 Tn/year of residual forest biomass but other ligneous biomass like energy crops or residual agricultural biomass could be used.
CONTACT PERSON: Borja Velázquez-Martí

PT#7 GOLF TOURNAMENT
The Organizing Committee offers the possibility of participating in a golf tournament that will be celebrated on Thursday 12th July in The Parador El Saler Golf Course.

The Parador El Saler (Valencia) Golf course is considered by professionals, amateurs, institutions and the specialized press alike to have one of the best course layouts in the world.

Built in 1968 by the internationally recognized “architect of Spanish golf” Javier Arana, the course is located in the El Saler Nature Reserve, on the shores of the Mediterranean sea in the Autonomous Community of Valencia. This Community considers this course a source of pride.

The Parador El Saler Golf Course requires the affiliation of the players as well as clothing and footwear suitable for a Golf course.

To that end, the Golf Course shop offers you the possibility to acquire proper clothing and to rent the bag of golf clubs and the buggy.
At the end of the golf tournament the participants will enjoy of a great meal in the Valencia Institute of Agricultural Research (IVIA).

www.elparador.es
Schedule: 7:00 to 13h.

CANCELED
GENERAL INFORMATION

VENUES

SATURDAY
Hotel Melia Valencia
Avenida Cortes Valencianas, 52
Valencia 46015

SUNDAY
Polytechnic University of Valencia (UPV)
Camino de Vera, s/n
46022 Valencia

MONDAY TO WEDNESDAY
Valencia Conference Centre (Palacio de Congresos)
Avenida de las Cortes Valencianas, 60
46015 Valencia, Spain

REGISTRATION DESK OPENING HOURS

Sunday 8th of July: from 14.00h to 18.30h
Monday 9th of July: from 7.30h to 18.30h
Tuesday 10th of July: from 7.30h to 18.30h
Wednesday 11th of July: from 7.30h to 16.30h

NAME BADGES
We invite you to wear your name badge at all times so that we know you are a conference attendee. It will allow you access into meetings, the congress palace hall meals and functions.

PREVIEW ROOM OPENING HOURS
All speakers should check and deliver their PowerPoint presentations to the Preview Room at least 4 hours before the start of the session or the day before for early morning sessions.

Sunday 8th of July: from 14.00h to 18.30h
Monday 9th of July: from 7.30h to 18.30h
Tuesday 10th of July: from 7.30h to 18.30h
Wednesday 11th of July: from 7.30h to 16.30h

ELECTRONIC DEVICES:
As a courtesy to your colleagues, we invite you to turn off or silence all electronic devices during sessions, workshops or plenary addresses.

BUSINESS CENTRE
A Business Centre with computer facilities is available at the desk of the Auditorium 1.

WIFI
Internet access is available through WIFI connection in the Business Centre and in the cafeteria area situated on the ground floor.

LUGGAGE DEPOSIT
Luggage can be left during congress hours at the luggage deposit located besides Business Centre Desk. The Organizing Secretariat and the Conference Centre are not responsible for any item left beyond duty hours.

CATERING FACILITIES
Lunches will be served in the exhibitor area located on the ground floor, at the time specified in the programme. Coffee breaks will be also provided during the Congress.
REGISTRATION:
If you have any questions during the conference the staff at our registration desk will be glad to help you. The registration desk is located on the hall of the Valencia Conference Center.

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<th>Registration Fees</th>
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*VAT included

1 The latest day for on-line registration is July 1, 2012. Registrations received after this date will not be considered on-line and will have to be resubmitted at the Conference registration desk, from July 8, 2012.

2 The list of low income and low-middle income countries is taken from The World Bank.

3 One-day admissions will only be sold the same day at the registration desk.

THE REGISTRATION FEE FOR PARTICIPANTS INCLUDES
- Welcome Reception on July 8, 2012
- Attendance to all Scientific Sessions and Conference Documentation
- Coffee-breaks.
- Lunches on Monday, Tuesday and Wednesday
- Certificate of attendance

THE REGISTRATION FEE DOES NOT INCLUDE
Conference Dinner on Tuesday

THE REGISTRATION FEE FOR ACCOMPANYING PERSON(S) INCLUDES
- Welcome Reception on July 8, 2012
- Half-Day Valencia City Tour on July 9, 2012

THE REGISTRATION FEE FOR ACCOMPANYING PERSON(S) DOES NOT INCLUDE
Conference Dinner on Tuesday

Please note that only fully registered participants will be admitted to the scientific sessions!

THE REGISTRATION FEE FOR STUDENTS
Student registrations are only accepted with a copy of a student card. Students’ registration fees includes all benefits granted to regular participants.

ONE-DAY ADMISSIONS
One-day admissions will only be sold the same day at the Conference registration desk. Participants will benefit from all Conference activities taking place at the registered day. One-day participants will receive the complete Conference documentation.

PAYMENT
Registrations will not be processed without payment. Full payment in Euros should be received before the corresponding deadline; otherwise, the preferential rate will not be granted.

CANCELLATIONS
Cancellations of confirmed registrations will result in a 100 € cancellation fee per participant as long as it is received by June 1, 2012. Refunds by credit card or bank transfer will be made after the conference. For cancellations received after June 1, 2012, no refunds will be made.

LIABILITY AND INSURANCE
Participants are advised to make their own personal travel and health insurance arrangements. Neither the Local Organizing Committee nor the Congress Organizers assume any responsibility for damage or injury to persons or property during the congress.

CHANGES
The Local Organizing Committee reserves the right to make changes to the program as deemed necessary.

CONTACT INFORMATION
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