

CIOSTA



XXXIV CIOSTA

CIGR V CONFERENCE 2011

**EFFICIENT AND SAFE PRODUCTION
PROCESSES IN SUSTAINABLE
AGRICULTURE AND FORESTRY**

FINAL PROGRAMME

**29 June - 01 July 2011
Vienna - Austria**

CIOSTA

Vienna - Austria



XXXIV CIOSTA CIGR V Conference 2011

**Efficient and safe production processes
in sustainable agriculture and forestry**

**29 June – 01 July 2011
Vienna – Austria**

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Acknowledgements

The organizers of the XXXIV CIOSTA-CIGR V Conference express their appreciation for support given by:



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General Information

Congress Locality

Division of Agricultural Engineering – University of Natural Resources and Life Sciences, Peter Jordan Straße 82, 1190 Wien, Austria

Public transport tickets for Vienna

You get in the Vienna Transport Authority's ticket offices and at the ticket machines (underground).

Single Trip Ticket: € 1,80, € 2,20 in the means of transport: valid for one way

24hour Ticket: € 5,70: valid for all ways within 2 days

72hour Ticket: € 13,60: valid for all ways within 3 days

Travelling from Schwechat airport to conference location

Take the Airport bus from the airport to the Westbahnhof. Transfer onto the U6 subway (in the direction of Floridsdorf) to the stop "Waehringerstrasse/Volksooper." Take the 40A bus (in the direction of Doeblinger Friedhof) to the bus stop „Borkowskigasse.“ You can reach the main entrance of the Schwackhoeferhaus by crossing the parking lot towards the glass building. The conference location is on the ground floor behind the stairway. The approximate time needed is 45 minutes.

Money

Currency in Austria is EURO (€).

Registration

The registration desk is located in the Cafeteria (ground floor) of the Schwackhöferhaus. All participants must check in at their arrival there.

Method of Payment

Paying of the registration fee can be carried out only in cash at the registration desk.

Official Language

Official language of the conference is English.

Proceedings

Papers are published in the proceedings of the conference.

Oral sessions

Only power-point presentations are allowed. Please, bring your presentation on a memory stick with you. The use of personal laptops is not allowed. Each oral presentation should not exceed 20 minutes including discussion time. Each presentation must be provided to the session chair during the break.

Posters

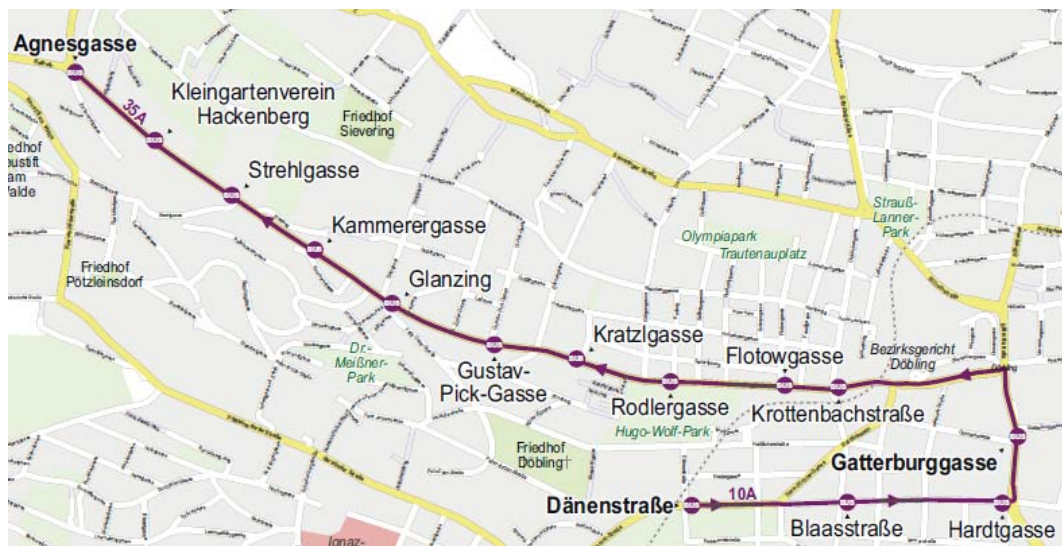
Posters should have the size of 84 cm x 119 cm (A0-format), please use the sample at the homepage (author instructions). Posters in the digital version can be send to ciosta.2011@boku.ac.at and the printing will be done at the Division of Agricultural Engineering.

Evenings - Locations

Evening 1 – public transport to s’Pfiff (of family Huber)

Participants are invited for a dinner in s’Pfiff of family Huber (Rathstrasse 4, 1190 Wien).

From **Dänenstraße** you take bus **10A** (in the direction of Heiligenstadt) to the stop **Gatterburggasse**. There you change to the bus **35 A** (in direction of Salmansdorf at the same bus stop) to the stop **Agnesgasse** (required time: 16 minutes)



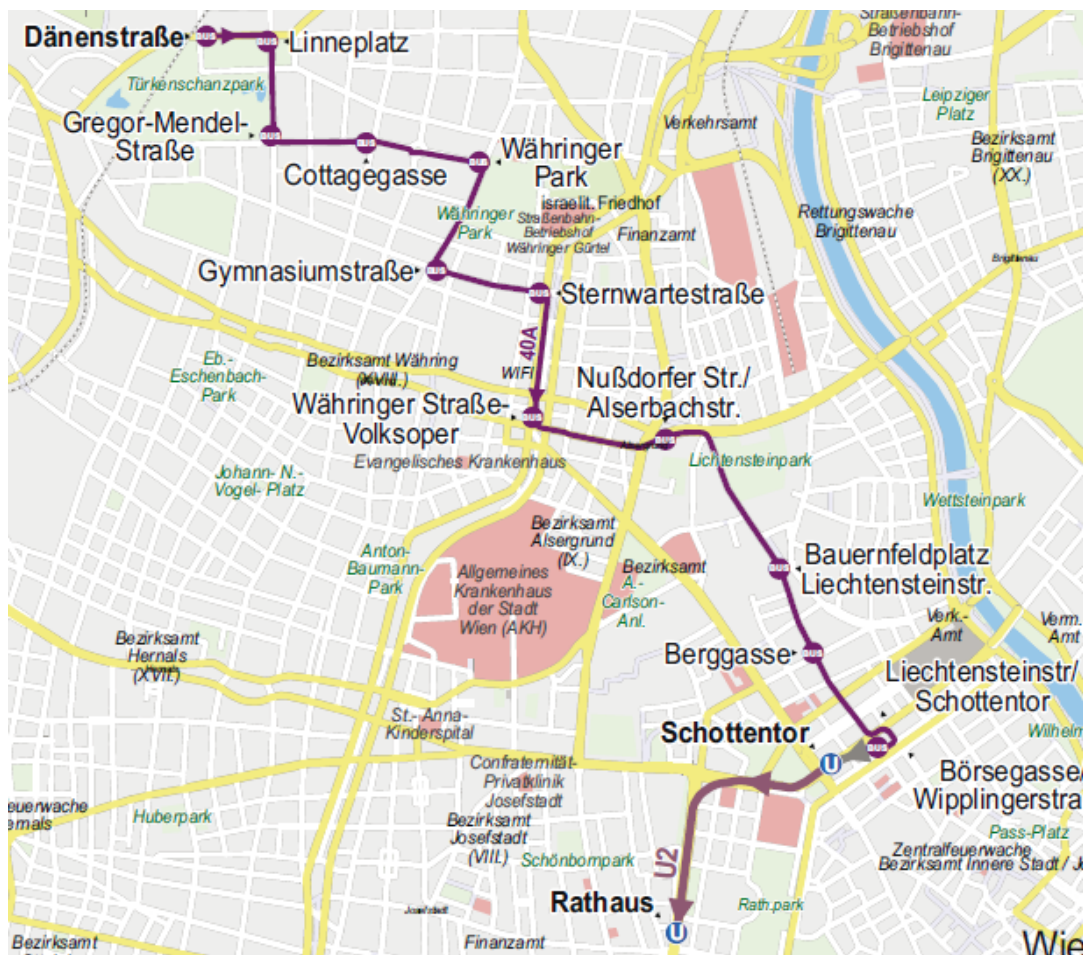
- 1: **Bus 10 A:** Dänenstrasse to Gatterburggasse
- 2: **Bus 35 A:** Gatterburggasse to Agnesgasse

Private Bus: 2 buses direct from Peter Jordan Strasse 82 (entrance of Exner house) to s’Pfiff at 18:30.

Evening 2 – public transport to Vienna city hall (Rathaus)

Participants are invited for a cocktail reception in the Vienna city (address: **Rathausplatz: Entrance: Liechtenfelsgasse 2, Feststiege 1** (=stair 1)), Stadtssenatssitzungssaal from the mayor and governor of Vienna Dr. M. Häupl.

Public: From **Dänenstraße** you take bus **40A** (in the direction of Schottentor) to the **Schottentor**. There you change to the underground **U2** (in direction of Karlsplatz) to the stop **Rathaus** (required time: 21 minutes)



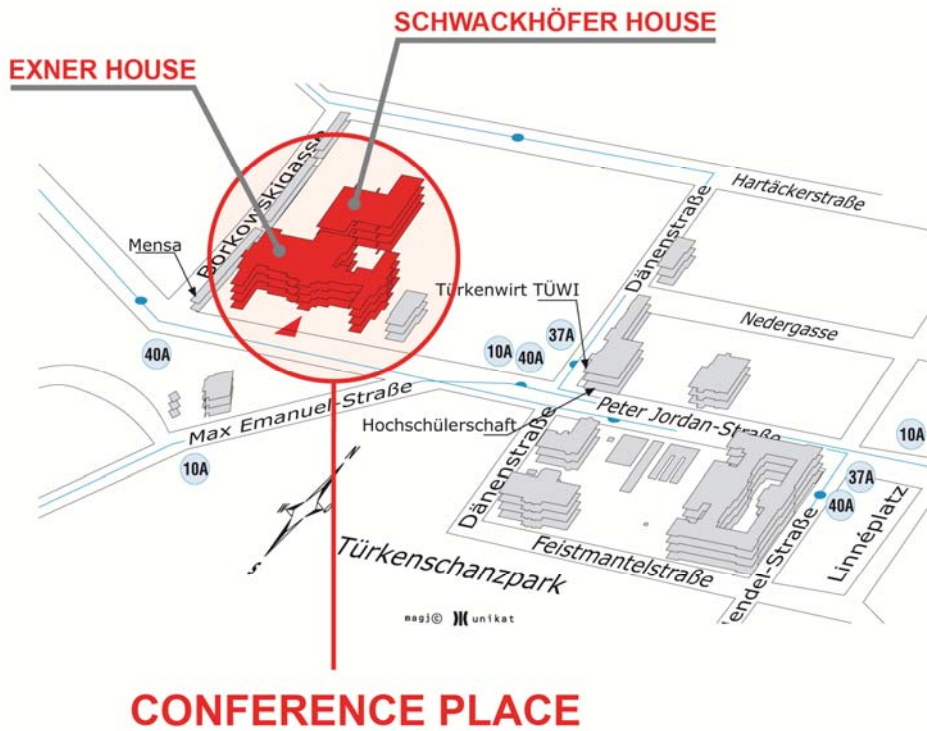
- 1: **Bus 40A:** Dänenstrasse to Schottentor **U** Hohenstaufengasse
2. **U2:** Schottentor to Rathaus

Technical Tour (1/07/2011)

**Departure/Arrival: Entrance of Exner House,
Peter Jordan Straße 82, 1190 Wien**

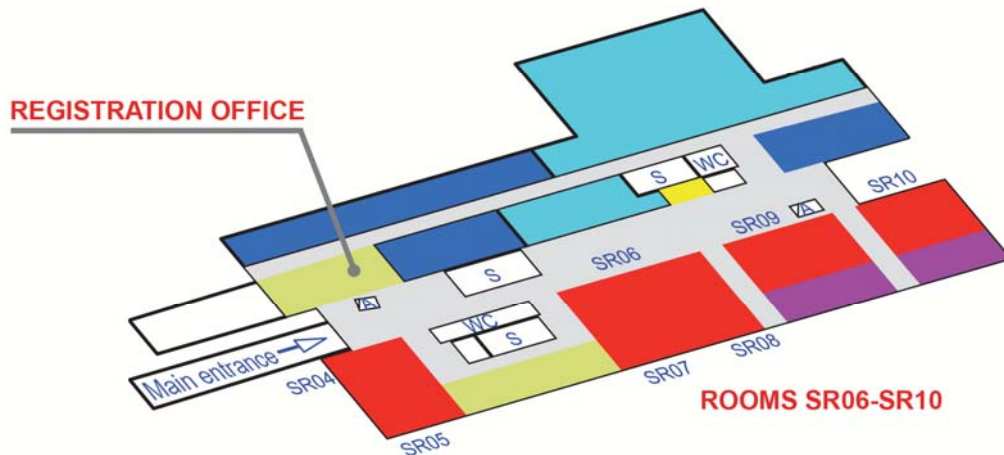
| | |
|-------------------|--|
| 7:45am - 6:30pm | T: Technical Tour |
| 8:00am | T1: 8:00: Departure at entrance of Exner House |
| 10:00am - 11:00am | T2: Visit of Schweinezentrum Gießhübl |
| 11:30am - 12:30pm | T3: Visit of BLT Wieselburg |
| 12:30pm - 2:00pm | T4: Lunch at BLT Wieselburg |
| 3:15pm - 4:15pm | T5: Visit of Stift Melk (abbey) and Wachau |
| 5:30pm | T6: Arrival at airport Vienna (Schwechat) |
| 6:30pm | T7: Arrival at BOKU |

Map of Conference Place

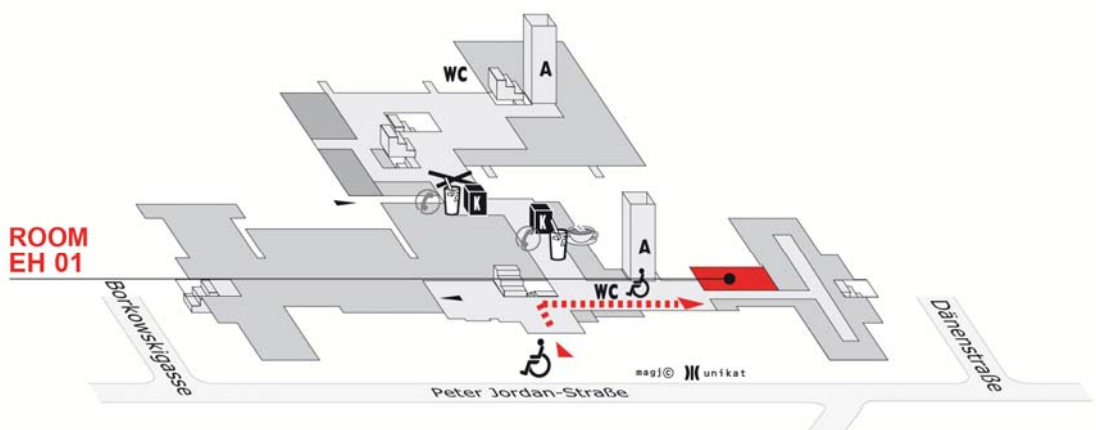


Map of Conference Place

SCHWACKHÖFER HOUSE, GROUND FLOOR



EXNER HOUSE, GROUND FLOOR



Topics of Conference

- 1. Labour, ergonomics, safety and health
- 2. System engineering, management, traceability
- 3. Field operations
- 4. Livestock management
- 5. Processing, post-harvest technology, logistics
- 6. Renewable energy and efficiency
- 7. Information systems and precision farming
- 8. Open topics

Overview Programme

Wednesday, 29/06/2011 – Sessions

| | |
|--|---|
| 8:30am - 6:00pm Room SR 06 | C1_SR06: Cafeteria |
| 10:00am - 11:00am Room EH 01 | OP1: Opening Session Session Chair: Josef Boxberger |
| 11:00am - 12:00pm EH 01 | PL1: Key Speakers Session Chair: Elisabeth Quendler |
| 12:00pm - 1:20pm Room SR 06 | L1: Lunch 1 |
| 1:20pm - 3:20pm Room EH 01 | S1_01: Livestock management Session Chair: Vladislav Borisovich Minin |
| 1:20pm - 3:20pm Room SR 04 | S1_04: Renewable energy and efficiency Session Chair: Franz Handler |
| 1:20pm - 3:20pm Room SR 07 | S1_07: Renewable energy and efficiency / Labour, ergonomics, safety and health Session Chair: Elisabeth Quendler |
| 1:20pm - 3:20pm Room SR 08 | S1_08: System engineering, management, traceability Session Chair: Andreas Gronauer |
| 1:20pm - 3:20pm Room SR 09 | S1_09: Labour, ergonomics, safety and health Session Chair: Bernhard Haidn |

| | |
|--------------------------------------|---|
| 1:20pm - 3:20pm Room SR 10 | S1_10: Labour, ergonomics, safety and health/ Processing, post harvest technology, logistics Session Chair: Joachim Sauter |
| 3:20pm - 4:00pm Room SR 06 | B1: Coffee Break 1 |
| 4:00pm - 6:00pm Room EH 01 | S2_01: Livestock management Session Chair: Barbara Amon |
| 4:00pm - 6:00pm Room SR 04 | S2_04: Renewable energy and efficiency Session Chair: Picardo Bartosik |
| 4:00pm - 6:00pm Room SR 08 | S2_08: System engineering, management, traceability Session Chair: Andreas Gronauer |
| 4:00pm - 6:00pm Room SR 09 | S2_09: Labour, ergonomics, safety and health Session Chair: Remigio Berruto |
| 4:00pm - 6:00pm Room SR 10 | S2_10: Processing, post harvest technology, logistics Session Chair: Matthias Schick |
| 6:00pm - 7:00pm Room SR 09 | S7_09: CIGR Section Board V Session Chair: Claus Aage Gron Soerensen |
| 7:15pm - 10:30pm Evening 1 | E1: Buffet at Heuriger (s'Pfiff in Neustift) - Rathstrasse 4, 1190 Wien |

Overview Programme

Thursday, 30/06/2011 – Sessions

| | |
|--|--|
| 7:45am - 6:00pm Room SR 06 | C2_SR06: Cafeteria |
| 8:00am - 10:20am Room EH 01 | S3_01: Open topics Session Chair: Katja Heitkämper |
| 8:00am - 10:20am Room SR 04 | S3_04: Field operations Session Chair: Georg Kormann |
| 8:00am - 10:20am Room SR 08 | S3_08: Information systems and precision farming Session Chair: Thiago Libório Romanelli |
| 8:00am - 10:20am Room SR 09 | S3_09: Labour, ergonomics, safety and health Session Chair: Matthias Schick |
| 8:00am - 10:20am Room SR 10 | S3_10: Processing, post harvest technology, logistics Session Chair: Herbert Weingartmann |
| 10:20am - 11:00am Room SR 06 | B2: Coffee Break 2 |
| 11:00am - 1:00pm Room EH 01 | S4_01: Open topics Session Chair: Thomas Amon |
| 11:00am - 1:00pm Room SR 04 | S4_04: Field operations Session Chair: Dionysis Bochtis |
| 11:00am - 1:00pm Room SR 08 | S4_08: Information systems and precision farming Session Chair: Claus Aage Gron Soerensen |
| 11:00am - 1:00pm Room SR 09 | S4_09: Labour, ergonomics, safety and health Session Chair: Tadeusz Juliszewski |
| 11:00am - 1:00pm Room SR 10 | S4_10: Processing, post harvest technology, logistics Session Chair: Veli-Matti Tuure |

| | |
|---|---|
| 1:00pm - 2:20pm Room SR 06 | L2: Lunch 2 |
| 2:20pm - 4:00pm Room EH01 | S5_01: Open topics Session Chair: Heinz Bernhardt |
| 2:20pm - 4:00pm Room SR 04 | S5_04: Field operations Session Chair: Remigio Berruto |
| 2:20pm - 4:00pm Room SR 08 | S5_08: Information systems and precision farming Session Chair: Pietro Piccarolo |
| 2:20pm - 4:00pm Room SR 09 | S5_09: Labour, ergonomics, safety and health Session Chair: Ladislav Nozdrovicky |
| 2:20pm - 4:00pm Room SR 10 | S5_10: Processing, post harvest technology, logistics Session Chair: Tarmo Luoma |
| 4:00pm - 4:40pm Room SR 06 | B3: Coffee Break 3 |
| 4:40pm - 5:40pm Room Basement | PO: Poster Session Session Chair: Giuseppe Zimbalatti Session Chair: Giampaolo Schillaci |
| 5:40pm - 6:00pm Room EH 01 | FS1: Final Session Session Chair: Andreas Gronauer |
| 7:45pm - 10:30pm Evening 2 | E2: Buffet at Vienner City Hall (entrance at Rathausplatz: 1010 Wien, Lichtenfelsgasse 2, Feststiege 1) |

Friday, 01/07/2011 Technical Tour: Departure/Arrival: Entrance of Exner House, Peter Jordan Strasse 82, 1190 Wien

| | |
|-----------------|--------------------------|
| 7:45am - 6:30pm | T: Technical Tour |
|-----------------|--------------------------|

Oral Programme – Wednesday

ROOM_EH01: Opening Session

Wednesday, 29/06/2011: 10:00am - 11:00am

Session Chair: **Josef Boxberger**

OP1_EH01: 1: Vice Rector, University of Natural Resources and Life Sciences
Barbara Hinterstoisser, Austria

OP1_EH01: 2: **Introduction**

Elisabeth Quendler, CIOSTA Coordinator, CIGR V member, Austria

OP1_EH01: 3 **CIOSTA and CIGR V past, present, future: challenges and opportunities**

Pietro Piccarolo, Remigio Berruto, Claus A. G. Soerensen, CIGR V members, Italy, Denmark

ROOM_EH01: Key Speakers

Wednesday, 29/06/2011: 11:00am - 12:00pm

Session Chair: **Elisabeth Quendler**

PL1_EH01: 1 **The role of human factor in ensuring the efficient production processes in sustainable agriculture**

Ladislav Nozdrovicky, Miroslav Macak

PL1_EH01: 2 **Role of human labour in relation to efficiency and effectiveness, with particular regard to small-scale farms**

Matthias Schick

S1_Room EH01: Livestock management

Wednesday, 29/06/2011: 1:20pm - 3:20pm – 20 minutes/presentation

Session Chair: **Vladislav Borisovich Minin**

S1_EH01: 1 **Emissions from animal husbandry in Austria: assessment and reporting**

Barbara Amon, Michael Anderl, Nora Mitterböck, Alfred Pöllinger

S1_EH01: 2 **Effects of different pig houses on indoor environmental parameters and growth performance of growing and finishing pigs**

Anguo Chen, Xuping Wang, Guoqi Liang, Qihua Hong, Caimei Yang

S1_EH01: 3 **Emissions of NH₃ from swine slurry during and after acidification treatment: Effect of pH, mixing and aeration**

Xiaorong Dai, Victoria Blanes-Vidal

S1_EH01: 4: **Emission behaviour of open stables**

Karl-Heinz Krause, Stefan Linke

S1_EH01: 5 **Particulate matter in a fattening pig house in Beijing, China: First indoor and outdoor measurements**

Roxana Mendoza Huaitalla, Eva Gallmann, Thomas Jungbluth, Xuejun Liu

S1_EH01: 6: **Engineering Decisions of Environmental Problems in Intensive Animal Breeding**

Vladislav Borisovich Minin, Vladimir Dmitry Popov, Dmitry Anatoly Maksimov, Alexander Iurivich Brukhanov

S1_Room SR04: Renewable energy and efficiency

Wednesday, 29/06/2011: 1:20pm - 3:20pm – 20 minutes/presentation

Session Chair: **Franz Handler**

S1_SR04: 1: **Comparison of Ethanol Fuel Productivity of Some Selected Varieties of Tropical Crops**

Babajide A. Adelekan

S1_SR04: 2: **Innovative agronomic solutions to rescue marginal soil and to produce sustainable biodiesel**

Davide Barnabè, Renzo Bucci, Ada Rispoli, Gianni Carvoli, Claudia Bianchi, Daria Boffito, Carlo Pirola, Vittorio Ragaini, Andrea Rossi

S1_SR04: 3: **Impact of new agriculture technologies for sugarcane production on the emissions of greenhouse gases** Paulo S. Graziano Magalhaes, Oscar A.

Braunbeck, Henrique C.J. Franco

S1_SR04: 4: **Compacting of herbaceous biomass particles for solid biofuel**

Mareks Smits, Edgars Repsa, Eriks Kronbergs

S1_SR04: 5: **Emission Behaviour of New Tractors with Different Vegetable Oils**

Klaus Thuneke, Peter Emberger, Thomas Gassner, Edgar Remmele

S1_SR04: 6: **Potential for biomass energy production in Friuli Venezia Giulia (Italy)**

Rino Gubiani, Sirio Rossano Secondo Cividino, Daniele Dell'Antonia, Emiliano Maroncelli, Simona Rainis, Gianfranco Pergher

S1_Room SR07: Renewable energy and efficiency / Labour, ergonomics, safety and health

Wednesday, 29/06/2011: 1:20pm - 3:20pm – 20 minutes/presentation

Session Chair: **Elisabeth Quendler**

S1_SR07: 1: **Air Heated Solar Collector for Room Heating**

Guntis Ruskis, Aivars Aboltins, Janis Palabinskis

S1_SR07: 2: **Rice Straw Fibres of Central and South America**

Alfred Wong

S1_SR07: 3: **Hand Forces Measured During Vine Shoot Cutting**

D. Camillieri, E. Romano, R. Bonsignore, V. Rapisarda, G. Schillaci

S1_SR07: 4: **WRMSDs Assessment in Greenhouse Nursery**

G. Schillaci, L. Caruso, S. Balloni, D. Camillieri, E. Romano, V. Rapisarda

S1_SR07: 5: **Perceived stress and measured forces in vineyard pruning**

Elio Romano, Davide Camillieri, Roberta Bonsignore, Giampaolo Schillaci

S1_SR07: 6: **Using ASTER and MODIS images to investigate the crop coefficient Kc in chestnut plants in southern Italy**

A. Capra, F. Catona, P. Porto

S1_Room SR08: System engineering, management, traceability

Wednesday, 29/06/2011: 1:20pm - 3:20pm – 20 minutes/presentation

Session Chair: **Andreas Gronauer**

S1_SR08: 1: **A 'Living Lab' research project for farm relief workers**

Tarmo Luoma, Janne Karttunen, Markku Lätti, Tea Elstob

S1_SR08: 2: **A farm configuration system for planning and monitoring farm activities**

Fabrizio Mazzetto, Pasqualina Sacco

S1_SR08: 3: **Item level radio frequency identification of cheese wheels**

Cristina Tortia, Paolo Barge, Paolo Gay, Valentina Merlino, Pietro Piccarolo

S1_SR08: 4: **Green-lean supply chains for improving sustainability, human development and competitiveness in Latin-American global food chains**

Fuentes-Pila, Joaquín, Zokaei Keivan, Berruto Remigio, Busato Patrizia

S1_SR08: 5: **The design of a pickup system for leafy green harvesters**

Akbar Arabhosseini, Hamed Mehravar, Mohammad Hossein Kianmehr, Hadi Samimi Akhijahani

S1_SR08: 6: **Field evaluation on a towed multi-function row straddling machine for the cultivation of goblet vineyards**

G. Schillaci, L. Caruso, G. Manetto, R. Bonsignore, S. Balloni, E. Romano

S1_Room EH09: Labour, ergonomics, safety and health

Wednesday, 29/06/2011: 1:20pm - 3:20pm – 20 minutes/presentation

Session Chair: **Bernhard Haidn**

S1_SR09: 1: **Work Time Measurement by a Real-time Location System – Accuracy of the Positioning in a Farrowing Barn**

Stefanie Beyer, Bernhard Haidn

S1_SR09: 2: **Welfare friendly housing in pigports for finishers**

Rudolf Wiedmann

S1_SR09: 3: **Working time requirement in small ruminant husbandry**

Katja Heitkämper, Kerstin Mager, Matthias Schick

S1_SR09: 4: **Determination of labour input on Bavarian dairy farms with four different organisation forms**

Juliana Mačuhová, Andrea Heinrich, Bernhard Haidn

S1_SR09: 5: **Software for calculation of labour, energy consumed and costs of biomass production for energy purposes**

Tadeusz Juliszewski

S1_SR09: 6: **Vibrations transmitted to the whole body during citrus cultivation**

Cerruto Emanuele, Emma Giuseppe, Manetto Giuseppe

**S1_Room SR10: Labour, ergonomics, safety and health/
Processing, post harvest technology, logistics**
Wednesday, 29/06/2011: 1:20pm - 2:40pm – 20 minutes/presentation

Session Chair: **Joachim Sauter**

S1_SR10: 1: **Analyzing the manual handling risk in the vine growing and wine production sectors:** Michela Vello, Sirio R.S. Cividino, Rino Gubiani, Gianfranco Pergher, Emiliano Maroncelli

S1_SR10: 2: **The manual handling risk in the forestry workers**
Michela Vello, Sirio R.S. Cividino, Rino Gubiani, Gianfranco Pergher, Nicola Zucchiatti, Emiliano Maroncelli

S1_SR10: 3: **An Historical Perspective of Operator Lifts Used on Self Propelled Agricultural Equipment**
A.M. Yoder, G.R. Deboy, W.E. Field

**S1_Room SR10: Labour, ergonomics, safety and health /
Processing, post harvest technology, logistics**
Wednesday, 29/06/2011: 2:40pm - 3:20pm – 20 minutes/presentation

Session Chair: **Joachim Sauter**

S1_SR10: 4: **Nondestructive estimation of relative contents of chicken egg by machine vision and neural network techniques**
Mohammad Hossein Raoufat, Vahid Asadi

S1_SR10: 5: **Reconditioning of overly dried soybeans with aeration**
Bartosik, Ricardo, de la Torre D., Cardoso, L., Urcola H.

S1_SR10: 6: **Studies regarding the oak log quality for veneer provided for veneer enterprises in Romania**
C. Morosanu, R. Derczeni, E. Iordache

S2_Room EH01: Livestock management

Wednesday, 29/06/2011: 4:00pm - 6:00pm – 20 minutes/presentation

Session Chair: **Barbara Amon**

S2_EH01: 1: [Simulation of temperature and humidity index for indoor microclimate of warehouse poultry located in the Brazil Northeast](#)

Ricardo Brauer Vigoderis, José Aldo Teixeira da Silva, [Ilda de Fátima Ferreira Tinôco](#), Maria Clara de Carvalho Guimarães, Heliton Pandorfi, Jalmir Pinheiro de Souza Júnior, Mônica Calixto Ribeiro de Holanda

S2_EH01: 2: [Analysis of enthalpy simulated values for indoor conditions in warehouse poultry placed in Brazil Northeast](#)

Ricardo Brauer Vigoderis, José Aldo Teixeira da Silva, [Ilda de Fátima Ferreira Tinôco](#), Cristiane Guiseline Pandorfi, Heliton Pandorfi, Maria Clara de Carvalho Guimarães

S2_EH01: 3: [Stress free technology for low and medium capacity pig farms of peasant and farm husbandries of Russia](#)

[Kaljuga Vasily](#), Kara Ivan, Nikolaev Sergey, Bazykin Valentine, Stepakin Evgeniy, Trifanov Aleksey

S2_EH01: 4: [Comparison of the procedure from a stationary and a mobile slide bar system for farm slurry removal on concrete solid floors](#)

[Stefan Sagkob](#), Josef Niedermeier, Heinz Bernhardt

S2_EH01: 5: [Heifer hotel - a new model for livestock management](#)

[Tapani Kivinen](#)

S2_EH01: 6: [Performance of lactating buffaloes as affected by varying concentrations of essential amino acids](#)

[Shahzad Muhammad Aasif](#)

S2_Room SR04: Renewable energy and efficiency

Wednesday, 29/06/2011: 4:00pm - 6:00pm – 20 minutes/presentation

Session Chair: **Ricardo Bartosik**

S2_SR04: 1: [Leveraging Renewable Small-Plot Pumping Energy with Drip Irrigation](#)

[Jack Keller](#)

S2_SR04: 2: [Comparison of useful surface of different type of solar collectors](#)

[Ivett Kocsány](#), Istvan Seres

S2_SR04: 3: **The analysis of logging residues chain for a sustainable bioenergy production: a case study in Northern Italy**

Sandro Sacchelli, Isabella De Meo, Alessandro Paletto

S2_SR04: 4: **Implementation of Material Flow Management in Akdeniz University (Turkey)**

Yaldiz Osman

S2_SR04: 5: **Strategies to improve methane yields on agrarian fields under dry climatic conditions**

Lyson Debora, Leonhartsberger Christian, Bauer Alexander, Amon Thomas

S2_SR04: 6: **Thermodynamic analysis of a 10 kWp grid connected photovoltaic array system**

Dani Rusirawan, István Farkas

S2_Room SR08: System engineering, management, traceability
Wednesday, 29/06/2011: 4:00pm - 6:00pm – 20 minutes/presentation

Session Chair: **Andreas Gronauer**

S2_SR08: 1: **Climate Change Adaptation and Mitigation Options through Strengthening Forest Management in Bangladesh**

Shahriar Rahman

S2_SR08: 2: **A new prototype machine to investigate on the malaxing phase**

Alessandro Leone, Paolo Amirante, Antonia Tamborrino

S2_SR08: 3: **Prototype of storage system for preservation of extra-virgin olive oil characteristics**

Alessandro Leone, Roberto Romaniello, Antonia Tamborrino, Giorgio Peri

S2_SR08: 4: **Algorithms to interpret the continuous measurement of slurry level in storage tanks**

Fabrizio Mazzetto, Pasqualina Sacco, Aldo Calcante

S2_SR08: 5: **Development and Laboratory Evaluation of a Roller Mechanism for Sugar Cane Residue Harvesting**

Jalil Razavi, Mohsen Hajheidary

S2_SR08: 6: **Assessment of the yield and quality of olive oil obtained with two different crushing systems**

Leone Alessandro, Tamborrino Rosanna, Zagaria Riccardo, Tamborrino Antonia

S2_Room SR09: Labour, ergonomics, safety and health
Wednesday, 29/06/2011: 1:20pm - 3:20pm – 20 minutes/presentation

Session Chair: **Remigio Berruto**

S2_SR09: 1: **Work Analysis Methods Comparing Working Methods and the Total Agricultural System**

Matthias Schick

S2_SR09: 2: **Working time requirement for the management of semi-natural habitats**

Thomas Stehle

S2_SR09: 3: **Reduction of the labour input by a livestock tracking system on alpine farms with young cattle**

Stefan Thurner, Georg Neumaier, Patrick Ole Noack, Georg Wendl

S2_SR09: 4: **Physical work load during driving agricultural vehicles**

Veli-Matti Tuure, Markku Lätti

S2_SR09: 5: **Evaluation of the safety volume to protect the driver during the rollover of small agricultural vehicles**

Valda Rondelli, Enrico Capacci

S2_SR09: 6: **Rules for safety in the equestrian sector**

A. Checchi, S. Casazza

S2_Room SR10: Processing, post harvest technology, logistics
Wednesday, 29/06/2011: 4:00pm - 6:00pm – 20 minutes/presentation

Session Chair: **Matthias Schick**

S2_SR10: 1: **New concepts for grain logistic-organizational chains from the field to the agricultural trade**

Heinz Bernhardt, Dirk Engelhardt

S2_SR10: 2: **Quality on bean seeds under different storage conditions**

Naimara Vieira do Prado, Vanderléia Schoeninger, Péterson Vinícius Pramiu,
Silvia Renata Machado Coelho

S2_SR10: 3: **Summary of Over 800 Grain Storage and Handling-related Entrapments and Suffocations Documented in the U.S. and Canada between 1970 and 2010**

S.M. Riedel, W.E. Field

S2_SR10: 4: **Comparison of five measurement methods to determine the density of grass silage**

Latsch Roy, Sauter Joachim

S2_SR10:5: **Separation whole raisin berries by physical and aerodynamic properties**

Arabhosseini Akbar, Karimi Navab, Kianmehr Mohammad Hossein, Khazaei Javad

S2_SR10:6: **Modeling Key Logistics Processes in Agri-food Supply Chain**

Dimitris Folinas

S7_Room SR09: CIGR Section Board V

Wednesday, 29/06/2011: 6:00pm - 7:00pm

S7_SR09: 1: **CIGR Section Board V Meeting**

Claus Aage Gron Soerensen

Oral Programme – Thursday

S3_Room EH01: Open Topics

Thursday, 30/06/2011: 8:00am - 10:20am – 20 minutes/presentation

Session Chair: **Katja Heitkämper**

S3_EH01: 1: **Environmental design for sustainable development and management with the use of modern digital methods in forest areas**

Vasileios Drosos, Apostolos Kantartzis

S3_EH01: 2: **Contemporary irrigation requirements of maize (grain), grown on chernozems in Bulgaria**

Veska Georgieva, Milena Moteva, Valentin Kazandjiev

S3_EH01: 3: **Effect of different herbicides applied in *Eleusine indica* under water stress**

Maria Renata Rocha Pereira, Guileherme Sasso F. Souza, Dagoberto Martins, Antônio Evaldo Klar, André Luiz Melhorança Filho

S3_EH01: 4: **SALVERE – Semi natural grassland as a source of biodiversity improvement – a Central Europe Project**

Petra Haslgrübler, Bernhard Krautzer, Wilhelm Graiss

S3_EH01: 5: **Environmental comparison by means of LCA of construction and management of Mediterranean Urban Parks**

Giovanni Russo, Alessandra Grassi

S3_EH01: 6: **Struvite precipitation from anaerobic co-digestion residues of poultry manure and maize silage**

Yilmazel Y. D., Goksel N. Demirer

S3_EH01:7: **Energy use pattern of some tuber plants cultivation over Turkey**

C. Ertekin, M. Canakci, R. Kulcu, O. Yaldiz

S3_Room SR04: Field operations

Thursday, 30/06/2011: 8:00am - 10:20am – 20 minutes/presentation

Session Chair: **Georg Kormann**

S3_SR04: 1: **Machinery efficiency effects in the energy performance of an orange production system**

Nelson Cerino Franco Junior, Thiago Libório Romanelli, Marcos Milan

S3_SR04: 2: **Implementation of industrial scheduling approaches in the collection of crop-residues for bioenergy production**

Panagiotis Ntogkoulis, Dionysis Bochtis, Theofanis Gemtos

S3_SR04: 3: **Fuel consumption, CO2-emission and energy efficiency in soil tillage systems in Austria**

Markus Schüller, Gerhard Moitzi, Herbert Weingartmann, Peter Liebhard

S3_SR04: 4: **The analysis of water-table variation using GDZ RoDrain application for some areas affected by humidity excess from western Romania**

Rares Halbac-Cotoara-Zamfir, Ioana-Alina Costescu

S3_SR04: 5: **Path planning for unloading task of autonomous head-feeding combine**

Ryohei Masuda, Naoya Tokunaga, Michihisa Iida, Masahiko Suguri

S3_SR04: 6: **Work economical analysis of the harvest of miscanthus**

Franz Handler, Emil Blumauer

S3_SR04: 7: **Field traffic planning for reduced soil compaction**

D.D. Bochtis, C.G. Sørensen, O. Green

S3_Room SR08: Information systems and precision farming

Thursday, 30/06/2011: 8:00am - 10:20am – 20 minutes/presentation

Session Chair: **Thiago Libório Romanelli**

S3_SR08: 1: **Green lean approach for improving sustainability and economic performance of vegetable supply-chain: the ZEROEMISSION case.**

Remigio Berruto, Patrizia Busato, Keivan Zokaei, Joaquim Fuentes-Pila

S3_SR08: 2: **Achieving a landscape for the rearrangement of a parcel situated on a river bank from the west side of Romania**

Luminita Livia Barliba, Cosmin Popescu, Gabriel Eles, Costel Barliba

S3_SR08: 3: **Integrated management – for farmers, advisors, vertical and horizontal chain partners**

Walter H. Mayer

S3_SR08: 4: **Tractor-based RTK-GPS system for geospatial mapping of tomato transplants**

Manuel Pérez Ruiz, David Slaughter, Chris Gliever, Shrini Upadhyaya

S3_SR08: 5: **Improving water emission uniformity using different spacings between drippers in the lateral line**

João Carlos Cury Saad, Luiz Antonio de Andrade

S3_SR08: 6: **Micro Irrigation Design Software to Evaluate Technical and Economical Aspects of MIS**

A .A. Ghaemi, A. Tabarzad

S3_SR08: 7: **Fitness for use of ISOBUS network in safety critical functions**

Ronkainen Ari Kalervo

S3_Room SR09: Labour, ergonomics, safety and health
Thursday, 30/06/2011: 8:00am - 10:20am – 20 minutes/presentation

Session Chair: **Matthias Schick**

S3_SR09: 1: **A mathematical model of a rear suspension system for an agricultural tractor and sensitivity analysis for driver comfort optimization**

Maurizio Cutini, Carlo Bisaglia, Simone A M Bertinotti

S3_SR09: 2: **The potential of quarter individual milking to reduce the work load**

Sandra Rose-Meierhöfer, Martina Jakob, Falk Liebers, Sylvia Behrendt

S3_SR09: 3: **Noise Level of Two Types of Tractor and Health Effect on Drivers**

Mehrzaad Payandeh, Mansoor Behroozilar, Zahra Khodarahmpour, Jahangir Bagheri

S3_SR09: 4: **Power installations audit for the purpose of providing with minimization of the harmful substances emission**

Tamara Yurievna Salova, Elisaveta Anatolievna Gromova

S3_SR09: 5: **Data for Analysis of Accidents with Machinery and Devices in Agriculture**

Elisabeth Quendler, Veronika Helfensdoerfer, Josef Boxberger

S3_SR09: 6: **Anthropometric Compatibility of Driver's Post on Agricultural Tractor Cabs: a Survey on Medium-High Power Tractors**

Cecchini Massimo, Monarca Danilo, Bedini Roberto, Merlo David

S3_SR09: 7: **Safety in the use of portable olive harvesters**

Aiello G., Catania P., La Scalia G., Vallone M.

S3_Room SR10: Processing, post harvest technology, logistics
Thursday, 30/06/2011: 8:00am - 10:20am – 20 minutes/presentation

Session Chair: **Herbert Weingartmann**

S3_SR10: 1: **Mathematical modelling of oxygen and carbon dioxide concentration profiles in the interstitial atmosphere of silo-bags**

Analía Gastón, Rita Abalone

S3_SR10: 2: **Rapid-method for rotten parts detection in citrus fruits using machine vision and ultraviolet fluorescence**

Gennaro Giametta, Paolo Demetrio Falzea

S3_SR10: 3: **Determining Shear Strength and Energy of Saffron Stalk as Affected by Bevel Angles and Cutting Rates**

Seyed Reza Hassan-Beygi, Mohammad Hossein Kianmehr, Hadi Vale Ghazdhi

S3_SR10: 4: **Residual Effect of Some Herbicides on Germination and Growth of Wheat**

Fathi Abdulkareem Omer, Ahmed Salih Khalaf, Nahla Mohammed Salim

S3_SR10: 5: **Drying popcorn with a natural air/low temperature in-bin drying system**

D. de la Torre, R. Bartosik, J. Rodriguez

S3_SR10: 6: **Mathematical Modelling of Thin Layer Drying of Saffron (*Crocus Sativus* L.)**

Seyed Reza Hassan-Beygi, Mohammad Hossein Kianmehr

S3_SR10: 7: **Analysis of citrus peel for non-destructive determination of fruit composition by reflectance Vis/NIR spectroscopy**

Jamshidi Bahareh, Minaei Saeed, Mohajerani Ezedin, Ghassemian Hassan

S4_Room EH01: Open Topics

Thursday, 30/06/2011: 11:00am - 1:00pm – 20 minutes/presentation

Session Chair: **Thomas Amon**

S4_EH01: 1: **Optimization of Environmental Factors in Plant Factory**

Hiroshi Shimizu, Yuta Saito, Hiroshi Nakashima, Juro Miyasaka, Katsuaki Ohdoi

S4_EH01: 2: **Effectiveness of halophytes as alternative strategies for tackling the soil salinity problem**

Medhat Mekhail Tawfik

S4_EH01: 3: **Sustainable farm building design: focus on landscape integration based on historic consistency**

Daniele Torreggiani, Enrica Dall'Ara, Stefano Benni, Patrizia Tassinari

S4_EH01: 4: **Proposing Growing Guideline Using Methane Fermentation Digested Sludge as a Liquid Fertilizer for Rice Production**

Jun Nakada

S4_EH01: 5: **American cranberry cultivation for the after-use of extracted raised bogs in Latvia: agrochemical prerequisites and ecological aspects**

Anita Osvalde, Andis Karlsons, Vilnis Nollendorfs

S4_EH01: 6: **Experimental validation of a mathematical model for the estimation of energy requirements in infrared heated greenhouses**

A. Kavga, G. Alexopoulos, V. Bontozoglou, Th. Panidis

S4_Room SR04: Field operations

Thursday, 30/06/2011: 11:00am - 1:00pm – 20 minutes/presentation

Session Chair: **Dionysis Bochtis**

S4_SR04: 1: **Harvesting residual corn stover for animal bedding**

Pierre-Luc Lizotte, Philippe Savoie

S4_SR04: 2: **Precision enclosing of a harvesting aid tool about a spined fruit**

Hipolito Ortiz-Laurel, Dietmar Rössel-Kipping

S4_SR04: 3: **Study on a crawler type vehicle for operating in deep water paddy rice field planted with water dropwort**

Hyeonjong Jun, Taegyong Kang, Chaesik Lee, Choungkeun Lee, Duckkyu Choi, Yong Choi

S4_SR04: 4: **Clearing and valuing natural woody crops with a bio-baler**

François-Simon Robert, Pierre Luc Hébert, Philippe Savoie

S4_SR04: 5: **Technology used in application control of *Leptopharsa heveae* in rubber tree**

Henrique Borges Neves Campos, Lilian Lúcia Costa, Gustavo N. Romani, Marcelo da Costa Ferreira

S4_SR04: 6: **Damage to the residual stand due to animal and tractor yarding**

Eugen Iordache, Derczeni Rudolf, Bogdan Iancu, Cristian Valu

S4_Room SR08: Information systems and precision farming
Thursday, 30/06/2011: 11:00am - 1:00pm – 20 minutes/presentation

Session Chair: **Claus Aage Gron Soerensen**

S4_SR08: 1: **A Modular Sensor Fusion Approach for Agricultural Machines**
Sebastian Blank, Georg Kormann, Karsten Berns

S4_SR08: 2: **Use of biospecke laser to evaluate water behavior at Coffee leaves**

Juliana Vilela Lourençoni Botega, Roberto Alves Braga Júnior, Mauricio Pinheiro Machado, Luis Antônio Lima, Giovanni Francisco Rabelo, Rafael Oliveira Fari²

S4_SR08: 3: **Evaluation of Seeds Trajectories in a Pneumatic Dosage System**
Gastón Bourges, Gustavo Nardón, Mabel Medina

S4_SR08: 4: **Development and first tests of a system for the automatic identification of operating machines based on RF technology**
Aldo Calcante, Fabrizio Mazzetto

S4_SR08: 5: **Optical device evaluation for early diagnosis in vineyard**
Aldo Calcante, Aira Mena, Fabrizio Mazzetto

S4_SR08: 6: **Design and Construction of a new Sensor for Measuring Soil Apparent Electrical Conductivity**
A.R. Shafizadeh, Abbas Hemmat, J. . Ghaisari, H. Shariatmadari

S4_Room SR09: Labour, ergonomics, safety and health
Thursday, 30/06/2011: 11:00am - 1:00pm – 20 minutes/presentation

Session Chair: **Tadeusz Juliszewski**

S4_SR09: 1: **Bird or manager - Who is liable on dust and ammonia in layers stables?**
Tatjana Winter

S4_SR09: 2: **Safety of Tractor PTO Drive Shafts: Survey on Maintenance on a Sample of Farms in Central Italy**
Massimo Cecchini, Danilo Monarca, Paolo Biondi, Giuseppina Menghini, Andrea Brenciaglia, Andrea Colantoni

S4_SR09: 3: **A safety assessment of the agricultural sector in Turkey**
Yusuf Dilay, Adem Ozkan, Cevat Aydin

S4_SR09: 4: **An environmental evaluation of agricultural in-field traffic and tillage practices**

Vicent Gasso-Tortajada, Claus G. Sørensen, Frank W. Oudshoorn, Dionysis Bochtis

S4_SR09: 5: **Screening of working environment in riding and trotting schools**

Qiu Qing Geng, Niklas Adolfsson

S4_SR09: 6: **Human reliability in energy equipment service**

A. Gushchinsky, M. Galchenko

S4_Room SR10: Processing, post harvest technology, logistics
Thursday, 30/06/2011: 11:00am - 1:00pm – 20 minutes/presentation

Session Chair: Veli-Matti Tuure

S4_SR10: 1: **Drying of jujube fruit: comparison of prediction from mathematical models and artificial neural network**

Ali Motevali, Ahmad Abbaszadeh, Saeid Minaei, Gholamhassan Nagafi

S4_SR10: 2: **Exergy and Energy Investigation of Microwave Assisted Thin-Layer Drying of Pomegranate Arils Using Artificial Neural Networks and Response Surface Methodology**

Ali Motevali, Saeid Minaei, Ali Mihammad Nikbakht

S4_SR10: 3: **Osmotic dehydration of Agaricus bisporus: Drying kinetics and mass transfer modelling**

Rezagah Maryam, Kashaninejad Mahdi , Mizaei, Habib, Khomeiri Morteza

S4_SR10: 4: **Modelling head rice yield prediction in a two stage rough rice drying using artificial neural network**

Morteza Sadeghi, Ehsan Nasrnia, Amin Allah Masoumi, Mojtaba Tohidi, Abbas Hemmat

S4_SR10: 5: **A New Approach for Modeling of Hot Air-microwave Thin Layer Drying of Soybean**

Dariush Zare, Mohsen Ranjbaran

S4_SR10: 6: **Kinetics of apricot thin layer drying in a mixed and indirect mode solar dryer**

Ali Zomorodian, Mojtaba Dadashzadeh, Shirin Samani

S5_Room EH01: Open Topics

Thursday, 30/06/2011: 2:20pm - 4:00pm – 20 minutes/presentation

Session Chair: **Heinz Bernhardt**

S5_EH01: 1: [Evaluation of Factors Affecting the Productivity of Agricultural Mechanization Service Enterprises in Isfahan Province, Iran](#)

Maryam Peimani, [Amir Mozafar Amini](#), Jalil Razavi

S5_EH01: 2: [Fumonisin incidence in Maize Stored in Family Farms Cribbs in the Central Region of the State of Minas Gerais, Brazil](#)

Valéria Aparecida Vieira Queiroz, Gilberto Lula Oliveira Alves, Priscila Ferreira, Renata Regina Pereira Conceição, Simone Mendes Martins, Rodrigo Veras Costa, Paulo Eduardo de Aquino Ribeiro

S5_EH01: 3: [Studies on Effective Light Quality for Growing Lettuce in Plant Factory](#)

[Yuta Saito](#), Hiroshi Shimizu, Hiroshi Nakashima, Juro Miyasaka, Katsuaki Ohdoi

S5_EH01: 4: [System Establishment of ATPS for One-Step Purification of Glutamate Decarboxylase from E. coli after Cell Disruption](#)

[Wanying Yao](#), Xiao Wu, Jun Zhu, Bo Sun, Curtis Miller

S5_EH01: 5: [Copper and Zinc in Drainage Water and Soil from Swine Wastewater applied to Oilseed Radish Crop](#)

[Pegoraro Thaisa](#), Sampaio Silvio Cesar, Ferreira Maria Herminia Tavares, Coelho Silvia Renata Machado, Palma Denise, Carneiro Leocir Jose, Fiori Marciane

S5_Room SR04: Field operations

Thursday, 30/06/2011: 2:20pm - 4:00pm – 20 minutes/presentation

Session Chair: **Remigio Berruto**

S5_SR04: 1: [Operational performance of auto-section spraying technologies](#)

[Efthymios Rodias](#), Dionysis Bochtis, Claus Sorensen, George Papadakis, Athanasios Natsis, Labrinos Grigorios

S5_SR04: 2: [Practical Experiences in the Use of Spreaders with Trailing Hoses Collected by Survey](#)

[Joachim Sauter](#), Roy Latsch, Michael Dubach

S5_SR04: 3: [An Examination of the Field Level Operations for Sugarcane in the Punjab State of India: How do these Bang upon Farming Systems?](#)

[Veena Goel](#)

S5_SR04: 4: **First results on the use of an innovative machine for soil tillage in terraces or steep sloped areas**

F. Pipitone, P. Catania, M. Vallone, G. Spartà

S5_SR04: 5: **Condition monitoring of Mechanical Subsystems of Agricultural Vehicles Based on Fusion of Vibration Features**

D. Moshou, D. Kateris, N. Sawalhi, I. Gravalos, S. Loutridis, T. Gialamas, P. Xyradakis, Z. Tsiropoulos

S5_Room SR08: Information systems and precision farming **Thursday, 30/06/2011: 2:20pm - 4:00pm – 20 minutes/presentation**

Session Chair: **Pietro Piccarolo**

S5_SR08: 1: **An economic analysis of the precision fertilization**

Maria Walczykova

S5_SR08: 2: **Design, Construction and Evaluation of an Intelligent System for Controlling Individual Dairy Cow Feed Intake**

V. Akbaridehaghi, Abbas Hemmat, A.A. Masoumi, J. Ghaisari, M. Khorvash

S5_SR08: 3: **An optimal decision support tool for the split process in Waxflowers**

Avital Bechar, Gad Vitner

S5_SR08: 4: **Automated detection of mechanically induced bruise areas in golden delicious apples using fluorescence imagery**

Chiu, Yi-Chieh; Chou, Xing-Liang; Grift, Tony E.; Chen, Mu-Te

S5_SR08: 5: **LS-SVM regression for the camera characterization of a computer vision system**

Giorgio Peri, Roberto Romaniello, Antonietta Baiano

S5_Room SR09: Labour, ergonomics, safety and health **Thursday, 30/06/2011: 2:20pm - 4:00pm – 20 minutes/presentation**

Session Chair: **Ladislav Nozdrovicky**

S5_SR09: 1: **Standardisation - one way for better protection of operators against pesticides**

Torsten Hinz

S5_SR09: 2: **Safety and Health in Logging Operations in Ondo State Afforestation Project (OSAP) South West Nigeria**

Ayodeji Oludare Omole

S5_SR09: 3: **Frequent Accident Scenarios with Vehicles, Machinery and Devices for Agricultural and Forestry Operations in Bavarian Agriculture**

Veronika Helfendörfer, Elisabeth Quendler, Josef Boxberger, Roswitha Baumung

S5_SR09: 4: **Developing bill of materials (BOM) for agricultural products to increase productivity**

Vitner Gad, Bechar Avital

S5_SR09: 5: **Vibrations transmitted to the hand-arm system by electric shakers during olive harvesting**

E. Cerruto, G. Manetto, G. Schillaci

S5_Room SR10: Processing, post harvest technology, logistics
Thursday, 30/06/2011: 2:20pm - 4:00pm – 20 minutes/presentation

Session Chair: **Tarmo Luoma**

S5_SR10: 1: **Effects of storage duration and conditions on some characteristics of kiwifruit cv. Hayward**

Reza Tabatabaeekoloor

S5_SR10: 2: **Impacts of drying air temperature and bulk depth on walnut drying rate in an indirect solar dryer**

Ali Zomorodian, Shirin Samani

S5_SR10:3: **Hermetic maize storage systems for subsistence farmers**

Bern Carl J.

S5_SR10: 4: **Sorting orange fruit by using machine vision and neural networks techniques**

Rasekhi Reza, Raoufat Mohamad Hossein

S6_Room EH01: Final Session

Thursday, 30/06/2011: 5:40pm - 6:00pm – 10 minutes/presentation

Session Chair: **Andreas Gronauer**

S6_EH01: 1: **Review and vision to the conference**

Elisabeth Quendler

S6_EH01: 2: **Presentation of the next conference place**

Claus Aage Gron Soerensen

S6_EH01: 3: **Passing over of the hammer (CIOSTA-emblem)**

Elisabeth Quendler/Claus Aage Gron Soerensen

Poster Programme

Session Chair: **Giuseppe Zimbalatti**

Session Chair: **Giampaolo Schillaci**

Basement_PO1: Labour, ergonomics, safety and health

Thursday, 30/06/2011: 4:40pm - 5:40p m

PO1: 1: Effect of biostimulant on processing tomato under conventional and organic cropping system

Grazia Disciglio, Giuseppe Gatta, Angela Libutti, Annalisa Tarantino

PO1: 2: Biotechnology options in agricultural engineering

Valeriy Dubrovin, Maksym Melnychuk

PO1: 3: Technical aspects of ecological safety farm industry

Alexander Petrovich Kartoshkin, Valery Vasilievich Belyakov

PO1: 4: Working in the Shadows of Death: The Case of Municipal Tree Managers in a Nigerian University

Ayodeji Oludare Omole

PO1: 5: Disinfection of sewage water from a livestock farm by sodium ferrate (VI)

Dmitry Yulievich Stupin, Aleksey Valerievich Vagin

PO1: 6: Personal safety control at slaughtering of cattle

Elena Ilinichna Ovchinnikova, Roman Vladimirovich Shkrabak, Vladimir Vladimirovich Shkrabak, Vladimir Stepanovich Shkrabak, Yulia Aleksandrovna Posypaeva

PO1: 7: A new approach to assess labour time requirement, work safety, work load and job satisfaction on Flemish dairy farms

Robin De Sutter, Bart Sonck

PO1: 8: Labour input in specialized young bull production in Sweden

E. Bostad, C. Swensson, S. Pinzke

PO1: 9: Occupational safety and health in logging operations at ondo state afforestation project

Omole Ayodeji Oludare

PO1: 10: Safety of agricultural machinery and its use in equestrian fields

A. Checchi, S.Casazza

PO1: 11: Application to the agricultural sector of advanced technologies for the evaluation and the control of the risks

Andrea Formato, Giampiero Scaglione, Giampio Pucillo, Antonio Abagnale

PO1: 12: Capture and produce electricity from the air

A. Quattrone, P. G. Benintende, G. Costa

PO1:13: Preliminary study about a safe automatic system for stretching plastic film used for greenhouses covering

Domenico Longo, Alba Pennisi, Luciano Caruso, Andrea Conti, Davide Camillieri, Silvio Balloni, Giampaolo Schillaci, Elio Romano

PO1:14: First Results on Ergonomics Studies of the Machine Milking of Asses

Camillieri Davide, Failla Sabina, Restuccia Andrea, Schillaci Giampaolo

PO1:15: A survey on equipment used for pesticides spraying in Mediterranean greenhouses

Luciano Caruso, Giampaolo Schillaci, Andrea Conti, Davide Camillieri

PO1:16: Environmental and operator safety during pesticide applications in greenhouses

E. Cerruto, G. Schillaci, L. Caruso, G. Emma, S. Balloni, A. Conti

PO1:17: Safety issues in greenhouse film covering operations, applicable regulations and on-field test

L. Caruso, S. Balloni, D. Longo, A. Pennisi, A. Conti, D. Camillieri, G. Schillaci

PO1:18: Olive oil mills acoustic levels during a continuous processing

A. R., Proto, L.M.M. Abenavoli, B., Bernardi, G. Zimbalatti, S. Benalia, D. Smorto

PO1:19: Operational working time assessment of an innovative system for pesticide distribution in greenhouse

G. Zimbalatti, B. Bernardi

Basement_PO2: System engineering, management, traceability
Thursday, 30/06/2011: 4:40pm - 5:40pm

PO2: 1: Energy Coefficient for Irrigated Wheat Production in the Desert Vicinity in Iran

Mansoor Behrooz Lar, Zahra Khodarahmpour

PO2: 2: Compaction behaviour of Alfalfa grinds

Davoud Ghanbarian, A. Karami

PO2: 3: Prototype of storage system for preservation of extra-virgin olive oil characteristics

A. Leone, R. Romaniello, G. Peri

PO2: 4: Development and Evaluation of a Cyclon Separator unit for Gathering the Alfalfa Shattered Leaves During Baling

Amin Allah Masoumi, Jamileh Shojaei Arani

PO2: 5: Repose angles of brown rice grains in a rotary drum

Jafar Massah

PO2: 6: Heat flux for the soil surface darkness

Jafar Massah

PO2: 7: Solutions for rehabilitation of polluted areas by mining activities in Banat region, Romania

Iacob Nemes

PO2: 8: Motor method evaluation of fuel-air mixtures created by using qualitative and quantitative methods

Jüri Olt, Villu Mikita, Risto Ilves, Arne Küüt

PO2: 9: Decomposition of organic waste into porous caps in autumn and winter

D. C. Pereira, L.A.M Costa, M.S.S.M Costa

PO2: 10: Chopped stones in forage ration – a danger to cow health, performance and fertility?

Thomas Reiter

PO2: 11: Higher energy efficiency with state of the art loader wagons

Thomas Reiter

PO2: 12: Development and Laboratory Evaluation of an Automatic Alfalfa and Crop Residue Bale Mechanism Pick Up

Samaneh Sadeghzadeh, Jalil Razavi

PO2: 13: The challenges of dairy business management: A UK case study

Federico Topolansky Barbe, Magdalena Gonzalez Triay

PO2: 14: The Strategy concerning the fruit marketing from the North East region of Romania

Cornelia Elena Tureac, Anca Gabriela Turtureanu, Florin Postolache, Alin Constantin Filip, Alexandra Maria Ivan

PO2: 15: Calculation of biomass volume of the citrus trees in base on adapted dendrometry focused on management of the plantations and energy or industrial utilization of its residual materials

Borja Velazquez-Marti, Javier Estornell, Isabel Lopez-Cortes, Jesus Marti-Gavila

PO2: 16: Simulation modelling of thermal losses in a four stroke diesel engine using fuzzy logic

Saadat Kamgar, Nejat Sadeghi

PO2: 17: Sizing Optimisation of A Subsoiler Framework Using Advanced

H. K. Celik, A. E. W. Rennie, M. Topakci, I. Akinci

PO2: 18: Particle detection system products and insecticide herbicides

A. Quattrone, P. G. Benintende, G. Costa

PO2: 19: Determination of basic design parameters of rose flower cleaner machine

G. R. Chegini, A. Heidari

PO2: 20: Study of droplet size distribution characteristics of a spray dryer-rotary atomizer using PDA method

G.R. Chegini, B. Bashiri

PO2: 21: Effect of load transfer with traction control on fuel consumption and field performance during ploughing with 2x5 and 2x7 mouldboard plough

M. Haas, M. Schüller, G. Moitzi, H. Wagentristl, H. Weingartmann, J. Boxberger

PO2: 22: Control of head of onion harvester by sensor

J. Massah, A. Lotfi and A. Arabhosseini

PO2: 23: Tree holes detecting by ultrasound

C. B. Secco, R. Gonçalves, D.G.P. Cerri, E.C. Vasques, F.A. Batista

PO2: 24: Application of hydroseeding for environmental protection in the Mediterranean area

Catania Pietro, Carrara Michele, Salvia Marco, Pipitone Valeria, Vallone Mariangela

PO2: 25: Velocity of ultrasonic waves in freshly-felled logs as a parameter for wood grading

C. Bertoldo, R. Gonçalves, M.V. Massak, F. Batista, C.B. Secco

Basement_PO3: Field operations

Thursday, 30/06/2011: 4:40pm - 5:40pm

PO3: 1: Role of nitrogen fertilizer levels and bio-inoculants in development of Canola (*Brassica napus* L.)

El Sayed Fathi El Hahhasha, Moemen Hamed Taha

PO3: 2: Study of a soil thermo-sterilizer machine

Andrea Formato, Giampio Pucillo, Antonio Abagnale

PO3: 3: The investigation of the work quality for wheat harvesting process

Hiwa Golpira

PO3: 4: Technical and economical comparison of conventional, modified and no-till seeders for direct seeding of maize

Davut Karayel, Murad Canakci, Mehmet Topakci, Ali Koc

PO3: 5: Study of Application System of Digested Slurry after Anaerobic Digestion as Liquid Fertilizer

Katsuaki Ohdoi, Chan Seok Ryu, Michihisa Iida, Hiroshi Shimizu, Hiroshi Nakashima, Juro Miyasaka

PO3: 6: Visualisation of motion of fertiliser's granules on the plane of spinning spreading disc of a disc spreader

Jüri Olt, Mati Heinloo

PO3: 7: The quality of production traits in *Salvia officinalis* L. under the influence of sowing norm

Mihai Radu Pop

PO3: 8: Design, Development and Evaluation of a Yield Monitoring System

Jalil Razavi, Hoda Kargarpour, MahmoodReza Salar, Samaneh Sadeghzadeh, Zahra Rezaee

PO3: 9: Chestnuts facilitated harvest systems in steep zones

Andrea Formato, Giampiero Scaglione, Giampio Pucillo, Antonio Abagnale

PO3: 10: The Effect of Sprinkler Irrigation on Some Soil Physical Properties and Yield of Corn for Spring and Autumn Seasons

Jasim Alzubaidy, Abdulrazzak Abdullatif, K. M. Alkazaz, M. S. Naaum, H. H. Ajiobury

PO3: 11: Observations on Wood Dust emissions during Mechanical Pre-pruning in Vineyards

Schillaci G., Caruso L., Balloni S., Bonsignore R., Romano E.

PO3: 12: Spray deposits and ground losses when using a self-propelled sprayer in greenhouse applications

E. Cerruto, A. Conti, S. Balloni, G. Emma, L. Caruso

PO3: 13: Effect of spray tips and concentration of control in Syrup Ipomeoa spp. in pre-emergence

Henrique Borges Neves Campos, Lilian Lúcia Costa, Raphael Emílio Lemos, José Fernando Jurca Grigolli, Marcelo da Costa Ferreira

PO3: 14: Associated spraying to control of Spodoptera frugiperda due spraying volume and nozzle

Henrique Borges Neves Campos, Lilian Lúcia Costa, João Emanuel Guimarães, Marcelo da Costa Ferreira, José Carlos Barbosa

Basement_PO4: Livestock management

Thursday, 30/06/2011: 4:40pm - 5:40pm

PO4: 1: Efficiency Analysis of Poultry Production Enterprises Using Data Envelopment Analysis Approach (Case of Bandr Anzali Township, Iran)

Mohammad Sadegh Allahyari

PO4: 2: Selection for Immunity improvement and Prion scrapie control in goats based on respective sperm-genetic markers polymorphism and nucleotide sequences

Elie Kamil Barbour

PO4: 3: Selection for production improvement in goats based on sperm-genetic markers polymorphism

Elie Kamil Barbour, Maya Fawzi Saade

PO4: 4: Health monitoring of sows with data from electronic sow feeder

B. Hinrichs, S. Hoy

PO4: 5: Compression Behavior of Manure in Pellet Processing

Mohammad Hossein Kianmehr, Hadi Alemi

PO4: 6: Software and Hardware Components for Sustainable Recirculatory Aquacultural Systems in Savannah Ectone Zone of Nigeria

Joshua Olanrewaju Olaoye

Basement_PO5: Processing, post harvest technology, logistics
Thursday, 30/06/2011: 4:40pm - 5:40pm

PO5: 1: Investigation of the effect of thickness and irradiation time on storability and bacterial activity in liquid egg

Saman Abdanan, Saeed Minaei, Azodin Mohajerani, Mohamad Amin Karimi Torshizi, Nima Khoramabadi, Ashraf Mobarez

PO5: 2: Thin Layer Convective Air Drying of Onion

C. Ertekin, O. Yaldiz

PO5: 3: Pressure drop and power consumption in a dense-phase suction pneumatic conveying system for corn

Hasan Ghafari, Abbas Hemmat, A li Mohammad Borghaee

PO5: 4: Modeling of drying Hypericum perforatum L.

Hossein Ahmadi Chenarbon, Saeed Minaei, Ali Reza Bassiri, Morteza Almassi, Akbar Arabhosseini

PO5: 5: Determination of Some Physical and Mechanical Properties of Cantaloupe Fruit of Semsouri Variety

Seyed Reza Hassan-Beygi, Mahmood Lotfi, Mandana Rabizadeh

PO5: 6: Terminal velocity of saffron (Crocus Sativus L.) flower and its components

Seyed Reza Hassan-Beygi, Hadi Vale Ghozhdi

PO5: 7: Determining Coefficient of Friction of Saffron (Crocus sativus L.) Flower and Its Components

Seyed Reza Hassan-Beygi, Hadi Vale Ghozhdi, Mohammad Hossein Kianmehr

PO5: 8: Determination of Compaction Energy and Some Mechanical Properties of Corn Silage

Amin Allah Masoumi, Aref Rahimifard, Abbas Hemmat

PO5: 9: A Three-Element Model for Densification of Corn Silage and The Effect of Loading Rate on Its Characteristics

Amin Allah Masoumi, Aref Rahimifard, Abbas Hemmat

PO5: 10: Simulation and Validation of Microwave-assisted Fluidized Bed Drying of Soybean

Dariush Zare, Mohsen Ranjbaran, Mehrdad Niakousari

PO5: 11: Investigating the Drying Time of Green Pea in a Microwave Assisted Fluidized Bed Dryer Using Artificial Neural Network

Ali Zomorodian, Leili Momenzade

PO5: 12: Realization of an indirect solar dryer with a plan sensor for fruits and vegetables

Kaci Ferhat, Kouider Fatma Zohra, Laabassi Karim, Etsouri Salim

PO5: 13: Effect of drying method on colour changes of Gerbera

Can Ertekin, Sibel Mansuroglu, Nursel Heybeli, Emrah Yildirim

PO5: 14: Thin Layer Convective Air Drying of Onion

C. Ertekin, O. Yaldiz

PO5: 15: Dark fermentative bio-hydrogen production from sugar-beet processing wastes

Leyla Ozkan, Tuba H. Erguder, Goksel N. Demirer

PO5: 16: Analysis of a plant for the cryo-maceration of the grapes

Andrea Formato, Giampiero Scaglione, Giampio Pucillo, Antonio Abagnale

PO5: 17: Mechanical damage to white navy beans as affected by moisture content, impact velocity and seed orientation

F. Shahbazi, A. Saffar, M. Analooei

PO5:18: Investigating a Gaseous Assisted Solar Cabinet Dryers Using CFD

Amanlou Yasaman, Fadaia Dawud, Zomorodian Ali

PO5:19: Determination of the Strenght Parameters to Design of the Carnation Sorting Machine

Deniz Yilmaz, Tuba Tuba Dilmacunal, Mehmet Emin Gökdoğan, Kamil Ekinci, Mehmet Ali Koyuncu

PO5:20: Growth and Disease Control of Welsh Onion in Continuous Cropping Fields by Application of an Aerobically Digested Swine Liquid Fertilizer

Minagawa Hideo

PO5:21: Middle Infrared Drying of Tomato

H. Kocabiyik, N.B. Tuncel, S.K. Sumer, M. B. Buyukcan, N. Yilmaz and N. Arslan

Basement_PO6: Renewable energy and efficiency

Thursday, 30/06/2011: 4:40pm - 5:40pm

PO6: 1: Renewable Energy of High Environmental Quality in the EU and Turkey Case Study from Hydrogen Energy in the Black Sea Region

Erhan Atay

PO6: 2: Field efficiency and its use for energy coefficient determination

Gholamreza Bamimohamadi, Mansoor Behroozilar, Zahra Khodarahmpour

PO6: 3: Environmental impacts from the construction of wind farm in forested areas

Vasileios Drosos, Angelos – Sarantis Liampas, Rigas Giovannopoulos

PO6: 4: Technical and investment assessment regarding short rotation coppice plantations of black locust in south Romania

Bogdan Popa, Eugen Iordache

PO6: 5: Energy use pattern of some tuber plants cultivation over Turkey

Can Ertekin

PO6: 6: Efficient energy supply for sustainable development of agriculture

Valery Nikolaevich Karpov, Zarifdzan Sharifovich Yuldashev

PO6: 7: Shear cutting of common reed and hemp stalk materials for renewable energy

Andris Kronbergs, Eriks Kronbergs, Elgars Siraks, Mareks Smits

PO6: 8: Photovoltaic pumps: tests and practical applications

Andrea Petroselli, Paolo Biondi, Leonelli Antonio, Pica Marco

PO6: 9: Comparison of vegetation growth, rice taste and brown rice yield depending on application methods and timing of anaerobic digested sludge

Chanseok Ryu, Masahiko Suguri, Michihisa Iida, Katsuaki Ohdoi, Mikio Umeda

PO6: 10: Energy Productivity of corn Production at Different Farm Land Levels in Beiza Area in Iran

Davoud Sabzvvari, Mortaza Almassi

PO6: 11: Comparison of Fuel (Energy) Consumed and Crop production of Two tillage systems

Davoud Sabzvvari, Morteza Almassi

PO6: 12: Power installations audit for the purpose of harmful substances emission minimization

Tamara Salova

PO6: 13: Alternative Energy for Nepal

Tiwari, Hari /Babu Tiwari

PO6: 14: Investigation of Effective Parameters in Operation of Hydraulic Ram Pump Fabricated from Polyethylene

Nader Sakenian Dehkordi

PO6: 15: Production of bioethanol from natural meadow biomass and herbaceous waste

Marti Tutt, Jüri Olt

PO6: 16: Development of non-row specific harvesting equipment for arboreal energy plants

Balazs Vidovics, Janos Peter Radics, Istvan J. Jori, Janos Simonovics

PO6: 17: Emissions characteristics of spark ignition engine operating on pure and high alcohol blended gasoline fuels

Panagiotis Xyradakis, Theodoros Gialamas, Ioannis Gravalos, Dimitrios Moshou, Dimitrios Kateris, Zisis Tsiropoulos, Austinos Augusti, Konstantinos Tsatsarelis

PO6: 18: The energy potential of the Albian water. Study of the exploitable potential of Algerian drillings

Etsouri Salim, Etsouri Kaddour, Kaci Ferhat

Basement_PO7: Information systems and precision farming
Thursday, 30/06/2011: 4:40pm - 5:40pm

PO7: 1: Setting out the basic network to achieve the water supply network from a rural settlement of the west side of Romania

Luminita Livia Barliba, Cosmin Popescu, Gabriel Eles, Barliba Costel

PO7: 2: Assessment of Soil Suitability for Agriculture Using GIS Spatial Analyst Model Technique

Hala Ebaid, Asia El- Falaky

PO7: 3: Comparison of conventional regression methods and artificial neural networks for potato mass modelling with dimensional attributes

D. Ghanbarian, R. Farhadi

PO7: 4: Development and evaluation of a guidance-assistant algorithm for agricultural vehicles in subsoiling operation

Saadat Kamgar, Sajad Kiani

PO7: 5: Development of a Computer Controlled System for the Evaluation of the Milking Machine Pulsator and Liner

Radu Rosca, Ioan Tenu, Petru Carlescu, Edward Rakosi

PO7: 6 Substantiation of differentiated doses of artificial fertilizers as a base of control by technological machines in precision agriculture

Victor Aleksandrovich Smelik, Nadezhda Aleksandrovna Tsyganova, Igor Zinovievich Teplinsky

PO7: 7: Inferential assessment of soil consumption: a case study for high resolution detection

Daniele Torreggiani, Stefano Benni, Patrizia Tassinari

PO7: 8: Assessment of natural ventilation systems in freestall dairy barns in Galicia (Spain). Methodology for diagnosing problems and proposing solutions for optimization

Manuel Luis Torres Labandeira, Elena Fernandez Rodriguez, Ramón Mariño Allegue

PO7: 9: Artificial Neural Networks for Evaluation of Carcass and Meat Quality

Bozkurt Yalcin, Doğan Cihan, Uzun Nazif

PO7: 10: An autonomous multifunctional electrical vehicle able to move inside greenhouses using artificial vision methodologies and low cost sensors

Longo D., Pennisi A., Muscato G., Schillaci G., Caruso L., Balloni S.

Basement_PO8: Open topics

Thursday, 30/06/2011: 4:40pm - 5:40pm

PO8: 1: Effective Factors on Success of Small and Medium Enterprises in Agriculture Sector

Mohammad Sadegh Allahyari

PO8: 2: Reliability of topographical diagrams in forest practice

Vasileios Drosos

PO8: 3: Wind energy potential estimation in Iran

Amir Gandomkar

PO8: 4: Stress-sinkage simulation under a plate sinkage test using a viscoelastic finite element soil model

Abbas Hemmat, Naser Nankali, Nahid Aghilinategh

PO8: 5: Forward Environmentally Friendly Industrial Farms in North-West Region of Russia: Problems and Perspectives

Vladislav Borisovich Minin, Harri Huhta, Valery Vasily Belyakov

PO8: 6: Assessment of the evapotranspiration demand per planning regions in Bulgaria

Milena Moteva, Valentin Kazandjiev, Veska Georgieva

PO8: 7: Pacific pomfret skin gelatin gel and rheological characterization

Fernando Alberto Osorio, Allen Flores, Sebastian Rojas, Olivier Skurtys, Javier Enrione, Silvia Matiacevich, Ruben Bustos

PO8: 8: Movement of potassium sources in soil associated with the straw of grasse and legumes consortium

D. C. Pereira

PO8: 9: Adapting to drought from sustainable dimensions in Nomads via factor explaining (Kerman Province of Iran)

Shahab Alddin Shokri, S. Mahmoud Hosseini, S. Mehdi Mirdamadi, S. Jamal Faraj-o-Lah Hosseini

PO8: 10: Assessment of economical efficiency of using the potential of production in the agricultural sector and economic argumentation of its optimal dimensions

Anca Gabriela Turtureanu, Cornelia Elena Tureac, Florin Postolache, Alexandra Maira Ivan, Alin Constantin Filip

PO8: 11: The Alternative In Socio-Economic Theory

M.V. Velichko, V.A. Efimov

PO8: 12: Study the effect of regional variation in rainfall on mineralogical composition on some selected soils from North Iraq

Aalhasan, Adel Mawlood Salih

PO8: 13: Effect of Splitting and Rate of Phosphorous Fertilization on Calcareous Soil on Growth and Yield Wheat (Triticum aestivum) Iraq

Alrashidi Salih Mohamad

PO8: 14: Pellets Markets and Industry in Romania

Iordache Eugen

PO8: 15: Evaluation of nitrogen fertilizer and plant density effects on yield and yield components of Fenugreek in rotation with Rice

Zandi Peiman, Shirani-Rad Amir Hossein, Daneshian Jahanfar, Bazrkar-Khatibani Leila

PO8: 16: Emissions of nitrous oxide (N₂O), carbon dioxide (CO₂) ethane (CH₄) from a sugarcane crop under different soil management in Sao Paulo State, Brazil

E. R. Sousa Neto, J. B. Carmo, C. Andrade, V. P. Vargas, G. C. Gava, R. Fantini, L. A. Martinelli

PO8: 17: The Effect of Harvest Labor Cost of Some Fruit on The Crop Price

G. Cicek, S. K. Sumer, S. Ozpinar, H. Kocabiyik

PO8: 18: Ability of watercress (Nasturtium officinale) and pennyroyal (Mentha pulegium) in lead biosorption under hydroponic culture

M. Khoramivafa, K. Shokri, S. Jalalihonarmand

PO8: 19: Factors negating production efficiency and sustainable use of forest resources for sustainable forestry in Nigeria

Okpo Esio Unanaonwi

PO8: 20: Effects of conventional and conservation tillage on some soil properties in southern Turkey

Z. B. Barut, I. Celik

PO8: 21: Opinions and researches about the possibility of applying controlled drainage in western Romania

R. Halbac-Cotoara-Zamfir, I. A. Costescu



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