

BigDSSAgro 2017

I International Conference on Agro BigData and Decision Support Systems in Agriculture
September 27 - 29, 2017, Montevideo, Uruguay

Program

Wednesday 27	Track A held at Room 1	Track B held at Room 2
9:00 – 9:30	Registration	
09:30 – 10:30	Wed.A1 : Remote sensing I	Wed.B1 : Artificial intelligence I
10:30 – 11:00	Coffee Break	
11:00 – 11:30	Opening (Amphitheater)	
11:30 – 12:30	Plenary Talk 1 : How to support Cooperative Decision Making? - Pascale Zaraté (Amphitheater)	
12:30 – 14:30	Lunch	
14:30 – 15:30	Wed.A2 : Optimization and simulation I	Wed.B2 : Artificial intelligence II
15:30 – 16:00	Coffee Break	
16:00 – 17:00	Wed.A3 : Optimization and simulation II	Wed.B3 : Data mining and bussiness intelligence I
17:00 – 18:30	Seminar of Data Science (Session 1) - Emilio Carrizosa	

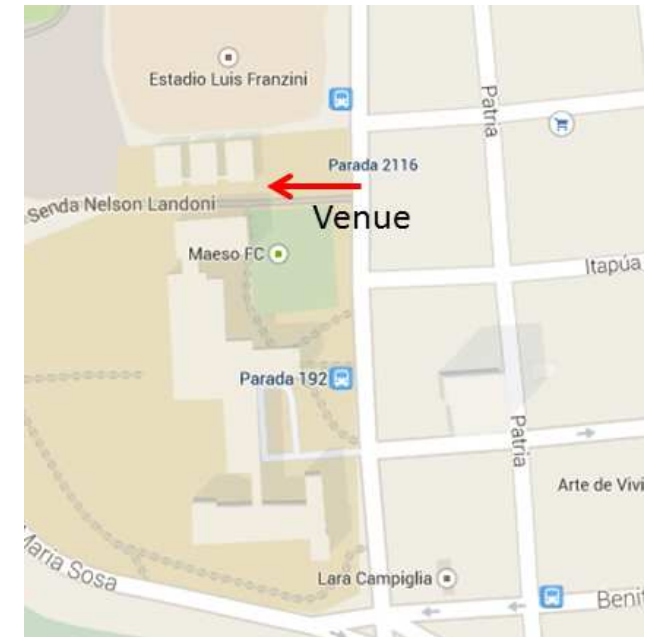
The First International Conference on Agro BigData and Decision Support Systems in Agriculture will be held at the Edificio Polifuncional "José Luis Massera"

The Registration and Information Desk is located in the module C of the building.

Address:
Senda Nelson Landoni c/ Julio Herrera y Reissig.
Montevideo, Uruguay.

Website:
<http://www.bigdssagro.udl.cat/?q=node/75&language=en>

Thursday 28	Track A held at Room 1	Track B held at Room 2
09:10 – 10:30	Thu.A1 : Remote sensing II	Thu.B1 : Decision support systems I
10:30 – 11:00	Coffee Break	
11:00 – 11:30	Poster Session	
11:30 – 12:30	Plenary Talk 2 : Model-aided learning for ecological intensification in agriculture - Walter Rossing (Amphitheater)	
12:30 - 14:30	Lunch	
14:30 - 15:30	Thu.A2 : Optimization and simulation III	Thu.B2 : Artificial intelligence III
15:30 - 16:00	Coffee Break	
16:00 - 17:00	Thu.A3 : Data envelopment and multicriteria analysis	Thu.B3 : Data mining and bussiness intelligence II
17:00 – 18:30	Seminar of Data Science (Session 2) - Emilio Carrizosa	



Friday 29	Track A held at Room 1	Track B held at Room 2
09:00 – 10:40	Fri.A1 : Descriptive mathematical models	Fri.B1 : Tecnhological developments
10:40 – 11:10	Coffee Break	
11:10 – 12:10	Fri.A2 : Optimization and simulation IV	Fri.B2 : Decision support systems II
12:10	Closure: Round table on future activities and cooperation opportunities	
	Free	
17:00 – 18:30	Seminar of Data Science (Session 3) - Emilio Carrizosa	



Wednesday 27

Wed.A1 : Remote sensing I	Wed.B1 : Artificial intelligence I	Wed.A2 : Optimization and simulation I	Wed.B2 : Artificial intelligence II
<p>Wed.A1 : 09:30 – 09:50</p> <p>Remote monitoring of physico-chemical water parameters in rural water sources</p> <p><i>Jean Betilio Mirón Acevedo, Mauricio José Grande Cóbar, Francisco Eduardo Huguet Mendez and Mauricio Pohl</i></p>	<p>Wed.B1 : 09:30 – 09:50</p> <p>Large data volume parallel clustering for computational cost reduction in Self-Organized Networks training</p> <p><i>Mariela Azul Gonzalez, Pablo Montini, Jorge Martínez Arca and Lucía Isabel Passoni</i></p>	<p>Wed.A2 : 14:30 – 14:50</p> <p>Metaheuristic algorithms for multi-objective optimization in dairy systems</p> <p><i>Gastón Notte, Héctor Cancela, Pablo Chilibroste and Martín Pedemonte</i></p>	<p>Wed.B2 : 14:30 – 14:50</p> <p>Body condition estimation on cows from 3D images using Convolutional Neural Networks</p> <p><i>Juan Rodríguez Alvarez, Mauricio Arroqui, Pablo Mangudo, Juan Toloza, Daniel Jatip, Juan Rodriguez, Alejandro Zunino, Claudio Machado and Cristian Mateos</i></p>
<p>Wed.A1 : 09:50 – 10:10</p> <p>Remote Sensing of Algal Blooms in the Uruguay River Based on Multispectral Satellite Imaging and Field Data</p> <p><i>José Lezama, Fernanda Maciel, Francisco Pedocchi and Pablo Musé</i></p>	<p>Wed.B1 : 09:50 – 10:10</p> <p>Detection of Faults in WSNs based on NMF</p> <p><i>Jimmy Ludeña-Choez, Juan José Choquehuanca-Zevallos and Efraín Mayhua-López</i></p>	<p>Wed.A2 : 14:50 – 15:10</p> <p>Simulated Annealing in the Operational Forest Planning</p> <p><i>Paulo Amaro V. H. Dos Santos, Arinei Carlos L. Da Silva and Julio Eduardo Arce</i></p>	<p>Wed.B2 : 14:50 – 15:10</p> <p>Computer vision based system for apple detection in crops</p> <p><i>Mercedes Marzoa, Gonzalo Tejera and Matias Di Martino</i></p>
<p>Wed.A1 : 10:10 – 10:30</p> <p>Sensor Data Analysis and Sensor Management for Crop Monitoring</p> <p><i>Raquel Sosa, Leonardo Steinfeld, Andres Vera, Maite Ibarburu, Javier Schandy and Fernando Silveira</i></p>	<p>Wed.B1 : 10:10 – 10:30</p> <p>Analysis and selection of areas through clustering techniques for the Agropolis formation in Santander Colombia</p> <p><i>Leonardo Talero-Sarmiento, Edwin Garavito-Hernandez, Henry Lamos-Díaz and Daniel Martínez-Quesada</i></p>	<p>Wed.A2 : 15:10 – 15:30</p> <p>Identifying trade-offs between sustainability dimensions in the supply chain of biodiesel in Colombia</p> <p><i>Orjuela-Castro Javier Arturo, Aranda-Pinilla Johan A. and Moreno-Mantilla Carlos Eduardo</i></p>	<p>Wed.B2 : 15:10 – 15:30</p> <p>Barley yield prediction under different fertilization treatments using machine learning and UAV imager data</p> <p><i>Sara Rodriguez, Manuel Jimenez, Rigoberto Vazquez and Hugo Escalante</i></p>
		Wed.A3 : Optimization and simulation II	Wed.B3 : Data mining and bussiness intelligence I
		<p>Wed.A3 : 16:00 – 16:20</p> <p>Dynamic diet formulation responsive to price changes: a feed mill perspective</p> <p><i>Adela Pagès Bernaus, Lluís Miquel Plà Aragonés, Jordi Mateo Fornes and Francesc Solsona</i></p>	<p>Wed.B3 : 16:00 – 16:20</p> <p>Analysis of decomposition parameters of green manure in the Brazilian Northeast with Association Rules Networks</p> <p><i>Dario Calçada, Solange Rezende and Mauro Teodoro</i></p>
		<p>Wed.A3 : 16:20 – 16:40</p> <p>Mathematical modeling under uncertainty for supply chain of sugar cane in Cuba</p> <p><i>Esteban López Milán and Lluís Miquel Plà Aragonés</i></p>	<p>Wed.B3 : 16:20 – 16:40</p> <p>Dealing with derivatives for water quality management</p> <p><i>Sira M. Allende Alonso, Carlos N. Bouza-Herrera and Rajesh Singh</i></p>
		<p>Wed.A3 : 16:40 – 17:00</p> <p>Planning tool for the multisite pig production system based on stochastic optimization</p> <p><i>Esteve Nadal and Lluís M. Pla</i></p>	<p>Wed.B3 : 16:40 – 17:00</p> <p>(Not established)</p>

Thursday 28

Thu.A1 : Remote sensing II	Thu.B1 : Decision support systems I
<p>Thu.A1 : 09:10 – 09:30</p> <p>A tree canopy counting method for precision forestry</p> <p><i>Juan Pablo Garella, Matias Tailanián, Gabriel Lema, Javier Regusci, Germán Fernandez Flores, Mónica Almansa, Pedro Mastrangelo and Pablo Musé</i></p>	<p>Thu.B1 : 09:10 – 09:30</p> <p>SIMAGRI: An Agro-climate Decision Support Tool</p> <p><i>Eunjin Han, Walter E. Baethgen, Julieta Souza, Mercedes Berterretche Adaime, Gonzalo Antúnez, Carmen Barreira and Flora Mer</i></p>
<p>Thu.A1 : 09:30 – 09:50</p> <p>SOC IoT data collection platform: application to oceanic temperature sensing</p> <p><i>Ariel Sabiguero and Angel Segura</i></p>	<p>Thu.B1 : 09:30 – 09:50</p> <p>A Decision Support System for Fish Farming using Particle Swarm Optimization</p> <p><i>Angel Cobo, Ignacio Llorente, Ladislao Luna and Manuel Luna</i></p>
<p>Thu.A1 : 09:50 – 10:10</p> <p>Design of a low power wireless sensor network platform for monitoring in citrus production</p> <p><i>Leonardo Steinfeld, Javier Schandy, Federico Favaro, Andrés Alcarraz, Juan Pablo Oliver and Fernando Silveira</i></p>	<p>Thu.B1 : 09:50 – 10:10</p> <p>Implementation of Robust Decision Making in Agriculture Planning Decisions using Cloud Computing</p> <p><i>Xavier Gonzalez</i></p>
<p>Thu.A1 : 10:10 – 10:30</p> <p>Development of a wireless sensor network system for the monitoring of insect pests in fruit crops</p> <p><i>Leonardo Barboni, Fernando Silveira and Alvaro Gomez</i></p>	<p>Thu.B1 : 10:10 – 10:30</p> <p>Decision support system for farmland fertilization based on linear optimization with fuzzy cost</p> <p><i>Esmelin Niquín Alayo, Edmundo Vergara Moreno and Marks Calderón Niquin</i></p>

Thu.A2 : Optimization and simulation III	Thu.B2 : Artificial intelligence III
<p>Thu.A2 : 14:30 – 14:50</p> <p>Assessing traceability system adopted by the Mango supply chain in Colombia: An analysis of the asynchrony in the inventory and food quality</p> <p><i>Milton Herrera and Javier Orjuela</i></p>	<p>Thu.B2 : 14:30 – 14:50</p> <p>Forecasting Pesticides Usage Trends Based on Evolutionary Scientific Workflows</p> <p><i>Sergio Serra, Anderson Oliveira, Fabricio Farias and Raimundo José Macário Costa</i></p>
<p>Thu.A2 : 14:50 – 15:10</p> <p>A Simulation Model to Analyze the Payback Period of a Sow Farm Using the Transient State</p> <p><i>Marco Antonio Montufar and David Fernando Munoz</i></p>	<p>Thu.B2 : 14:50 – 15:10</p> <p>Spatial variability inside a greenhouse can be modeled with machine learning</p> <p><i>Vinicius A. V. Lopes, Felipe F. Bocca and Luiz Henrique A. Rodrigues</i></p>
<p>Thu.A2 : 15:10 – 15:30</p> <p>Simulation of cattle farms with System Dynamics in a serious videogame. Case: SAMI</p> <p><i>Urbano Eliécer Gomez Prada, Oscar Gómez</i></p>	<p>Thu.B2 : 15:10 – 15:30</p> <p>Neglecting autocorrelation in development degrades performance of sugarcane yield models</p> <p><i>Matheus A. Ferraciolli, Felipe F. Bocca and Luiz Henrique A. Rodrigues</i></p>
Thu.A3 : Data envelopment and multicriteria	Thu.B3 : Data mining and bussiness intelligence II
<p>Thu.A3 : 16:00 – 16:20</p> <p>A multi-criteria model to determine the sustainability level of livestock production in the Huascarán National Park</p> <p><i>Jesús E. Espinola, Henry A. Garrido, Angel Cobo, Fernando Salmón, Edwin J. Palomino and Esmelin Niquin</i></p>	<p>Thu.B3 : 16:00 – 16:20</p> <p>Review of Data mining applications in forestry sector</p> <p><i>Diego Broz, Alejandro Olivera, Víctor Viana Céspedes and Daniel Rossit</i></p>
<p>Thu.A3 : 16:20 – 16:40</p> <p>Using a multiobjective DEA model to assess the eco-efficiency of organic blueberry orchards in the CF+DEA approach</p> <p><i>Lidia Angulo Meza, João Carlos Soares de Mello, Alfredo Iriarte, Marcela González-Araya and Ricardo Rebolledo-Leiva</i></p>	<p>Thu.B3 : 16:20 – 16:40</p> <p>Application of data mining to forest operations planning</p> <p><i>Daniel Rossit, Alejandro Olivera, Víctor Viana Céspedes and Diego Broz</i></p>
<p>Thu.A3 : 16:40 – 17:00</p> <p>Using CF+DEA method for assessing eco-efficiency of Chilean vineyards</p> <p><i>Ricardo Rebolledo-Leiva, Carlos Rodríguez-Lucero, Melany Campos-Rojas, Eduardo Pacheco-Rojas, Marcela González-Araya, Alfredo Iriarte and Lidia Angulo Meza</i></p>	<p>Thu.B3 : 16:40 – 17:00</p> <p>Business Intelligence technologies for the automation and analysis of meteorological parameters for agriculture in Ancash-Peru</p> <p><i>Rocío Rocha, Jesús E. Espinola, Angel Cobo, Rafael Figueroa and Lluís M. Plá</i></p>

Friday 29

Fri.A1 : Descriptive mathematical models	Fri.B1 : Technological developments	Fri.A2 : Optimization and simulation IV	Fri.B2 : Decision support systems II
<p>Fri.A1 : 09:00 – 09:20</p> <p>Time-dependent performance evaluation of a tire repair system in the agricultural stage of sugarcane industry</p> <p><i>Carolina Gualberto, Lasara Rodrigues and Reinaldo Morabito</i></p>	<p>We.B1 : 09:00 – 09:20</p> <p>SIGRAS App: climate, vegetation and soil information for support systems for decision making in agricultural production through smart devices</p> <p><i>Guadalupe Tiscornia, Agustín Gimenez, Adrián Cal and José Pedro Castaño</i></p>	<p>Fri.A2 : 11:10 – 11:30</p> <p>Production Planning Model for the assignment of Fermentation Tanks at Wineries</p> <p><i>Carlos Monardes, Alejandro Mac Cawley, Jorge Vera, Susan Cholette and Sergio Maturana</i></p>	<p>Fri.B2 : 11:10 – 11:30</p> <p>A Decisions Support System for Purchasing and Storing Fresh Fruit</p> <p><i>Wladimir Soto-Silva, Marcela González-Araya and Lluís Pla-Aragonés</i></p>
<p>Fri.A1 : 09:20 – 09:40</p> <p>Game theory concepts and changes in the Brazilian agriculture</p> <p><i>Fernando L. Garagorry</i></p>	<p>Fri.B1 : 09:20 – 09:40</p> <p>Number, maps and facts: Agriculture leads environmental preservation</p> <p><i>Evaristo Eduardo De Miranda, Carlos Alberto De Carvalho, Osvaldo Tadatomo Oshiro, Paulo Roberto Rodrigues Martinho and Lucíola Alves Magalhães</i></p>	<p>Fri.A2 : 11:30 – 11:50</p> <p>Integrated model of crop rotation planning and delineation of rectangular management zones</p> <p><i>Virna Ortiz-Araya, Víctor M. Albornoz and Rodrigo A. Ortega</i></p>	<p>Fri.B2 : 11:30 – 11:50</p> <p>Research Directions in Technology Development to Support Real-Time Decisions of Fresh Produce Logistics</p> <p><i>J. René Villalobos, Wladimir Soto-Silva, Marcela González-Araya and Rosa Guadalupe Gonzalez Ramirez</i></p>
<p>Fri.A1 : 09:40 – 10:00</p> <p>A Stochastic Frontier Approach in the Presence of Endogeneity for the Brazilian Agriculture</p> <p><i>Geraldo Souza and Eliane Gomes</i></p>	<p>Fri.B1 : 09:40 – 10:00</p> <p>Generating spatial data of Brazilian social vulnerability</p> <p><i>Luciola Magalhaes, Davi Custódio, Jaudete Daltio and Marcelo Fernando Fonseca</i></p>	<p>Fri.A2 : 11:50 – 12:10</p> <p>Resolution of Mixed-Integer Bilevel Problem in the supply chain in meat industry by an Branch & Bound Algorithm</p> <p><i>Camila Flores, Victor Albornoz, Sara Rodriguez and Manuel Jiménez-Lizágarra</i></p>	<p>Fri.B2 : 11:50 – 12:10</p> <p>A new cloud decision support system for tactical planning in a fruit supply chain</p> <p><i>Jordi Mateo Fornes, Wladimir Soto, Marcela Gonzalez, Adela Pagès Bernaus, Lluís Miquel Pla Aragonés and Francesc Solsona</i></p>
<p>Fri.A1 : 10:00 – 10:20</p> <p>Geostatistical study of root rot produced by the fungus <i>Rhizoctonia solani</i> Kühn in the cultivation of <i>Vigna unguiculata</i> (L.) Walp in municipality of Gibara, Cuba</p> <p><i>Vilma López Cruz, Esteban López Milán, José Quintín Cuador Gil and Ramón Candelario Núñez Tablada</i></p>	<p>Fri.B1 : 10:00 – 10:20</p> <p>IntegraGIS: A GIS system that integrates habitat modelling for vegetable species and the 3PG growth predicting model</p> <p><i>Adrián Márques, Marcelo Ortelli, Alvaro Pardo, Francisco Rodríguez, Diego Strasser, Fabian Capdevielle, Pablo Hernández, María León, Marcela Rodriguez and Daniel Valdomir</i></p>		
<p>Fri.A1 : 10:20 – 10:40</p> <p>Sugarcane Yield Estimate Analysis by using Regression Error Characteristic Curves (REC Curves)</p> <p><i>Luiz Henrique A. Rodrigues and Felipe F. Bocca</i></p>	<p>Fri.B1 : 10:20 – 10:40</p> <p>A GIS system to prevent country-wide soil erosion and support sustainable agriculture</p> <p><i>Walter Díaz, Adrián Márques, Alvaro Pardo, Javier Preciozzi, Santiago Arana and Gervasio Piñeiro</i></p>		