

# INTERNATIONAL JOURNAL OF AGRICULTURAL AND ENVIRONMENTAL INFORMATION SYSTEMS

April-June 2013, Vol. 4, No. 2

## Table of Contents

### RESEARCH ARTICLES

- 1 **Experiment to Test RTK GPS with Satellite “Internet to Tractor” for Precision Agriculture**  
*Stacey D. Lyle, Department of Computing Sciences, Texas A&M University - Corpus Christi, Corpus Christi, TX, USA*
- 14 **Estimation of the Temperatures in an Experimental Infrared Heated Greenhouse Using Neural Network Models**  
*Angeliki Kavga, Department of Greenhouse Cultivations and Floriculture, Technological Educational Institute of Messolonghi, Messolonghi, Greece*  
*Vassilis Kappatos, Department of Mechanical and Water Resources Engineering, Technological Educational Institute of Messolonghi, Messolonghi, Greece*
- 23 **A Forecasting Method for Fertilizers Consumption in Brazil**  
*Eduardo Ogasawara, CEFET-Federal Center of Technological Education Celso Suckow da Fonseca, Rio de Janeiro, Brazil*  
*Daniel de Oliveira, CEFET-Federal Center of Technological Education Celso Suckow da Fonseca, Rio de Janeiro, Brazil*  
*Fábio Paschoal Junior, CEFET-Federal Center of Technological Education Celso Suckow da Fonseca, Rio de Janeiro, Brazil*  
*Rafael Castaneda, CEFET-Federal Center of Technological Education Celso Suckow da Fonseca, Rio de Janeiro, Brazil*  
*Myrna Amorim, CEFET-Federal Center of Technological Education Celso Suckow da Fonseca, Rio de Janeiro, Brazil*  
*Renato Mauro, CEFET-Federal Center of Technological Education Celso Suckow da Fonseca, Rio de Janeiro, Brazil*  
*Jorge Soares, CEFET-Federal Center of Technological Education Celso Suckow da Fonseca, Rio de Janeiro, Brazil*  
*João Quadros, CEFET-Federal Center of Technological Education Celso Suckow da Fonseca, Rio de Janeiro, Brazil*  
*Eduardo Bezerra, CEFET-Federal Center of Technological Education Celso Suckow da Fonseca, Rio de Janeiro, Brazil*
- 37 **Domain-Specific Modeling for a Crop Model Factory**  
*Guillaume Barbier, ITK CAP Alpha, Clapiers, France*  
*Véronique Cucchi, ITK CAP Alpha, Clapiers, France*  
*François Pinet, French Institute for Agricultural and Environmental Engineering, Campus des Cézeaux, Aubière, France*  
*David R. C. Hill, ISIMA/ LIMOS, UMR CNRS 6158, Blaise Pascal University, Campus des Cézeaux, Aubière, France*
- 50 **Representations of Topological Relations Between Simple Regions in Description Logics: From Formalization to Consistency Checking**  
*Catherine Roussey, French Institute for Agricultural and Environmental Engineering, Campus des Cézeaux, Aubière, France*  
*François Pinet, French Institute for Agricultural and Environmental Engineering, Campus des Cézeaux, Aubière, France*  
*Michel Schneider, Computer Science, Blaise Pascal University, Clermont-Ferrand, France*

### Copyright

The *International Journal of Agricultural and Environmental Information Systems* (ISSN 1947-3192; eISSN 1947-3206). Copyright © 2013 IGI Global. All rights, including translation into other languages reserved by the publisher. No part of this journal may be reproduced or used in any form or by any means without written permission from the publisher, except for noncommercial, educational use including classroom teaching purposes. Product or company names used in this journal are for identification purposes only. Inclusion of the names of the products or companies does not indicate a claim of ownership by IGI Global of the trademark or registered trademark. The views expressed in this journal are those of the authors but not necessarily of IGI Global.

The *International Journal of Agricultural and Environmental Information Systems* is currently listed or indexed in: Bacon's Media Directory; Compendex (Elsevier Engineering Index); DBLP; Google Scholar; INSPEC; JournalTOCs; Library & Information Science Abstracts (LISA); MediaFinder; The Standard Periodical Directory; Ulrich's Periodicals Directory