

Guest Editorial Preface

Special Issue on “Agro-Environment, Informatics and Sustainable Development” – Part 1

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Agricultural and Environmental Information Systems are gaining increasing popularity among scientific publications in the past years. They provide an extensive variety of highly valued pioneering services, applications and methodologies in the agricultural and environmental sector and can offer solutions, serving the needs of the societies in the modern era.

This special issue aims to present innovative Information Systems applications and techniques in Forestry, Agriculture, and Environment, bringing together scientists, professionals and experts working on ICT sector with special focus on agriculture, environment and sustainable development.

The papers presented in the special issue under the title “Agro-Environment, Informatics and Sustainable Development” aim to provide various multi-discipline methodologies related to the use of ICT in agro-environment. An important effort is undertaken to consider the “sustainable development” approach that has made headlines in the literature for the last 30 years. The papers constitute an updated and extended version of papers in the International Workshop “Information Technology, Sustainable Development, Scientific Network and Nature Protection” which took place in Edessa, Greece, 8-11 October 2017, during the 18th Panhellenic Forestry Congress. The selection of the papers appearing in this special issue was based on the relevance of their subject to the scope of the International Journal of Agricultural and Environmental Information Systems and on the evaluation score of the full papers during the double-blind peer review process. This special edition is published in two parts, in IJAEIS 9(4) and IJAEIS 10(1).

In IJAEIS 9(4), the paper entitled “Leveraging Internet of Things to Revolutionize Waste Management” analyzes the role of Internet of Things to the creation of a smart and safe powered waste management system, highlighting its benefits and possibilities of implementation and evaluation. According to the expected results, the IoT-based waste management system will deal successfully with an increasing amount of diverse types of waste and through the realization of smart green city vision will resolve numerous problems related to human health and environmental contamination. The second paper “Assessing the Hydrological Effect of Climate Change on Water Balance of a River Basin in Northern Greece” studies the impacts of climate change on the water resources in a case study from Northern Greece. Climate change scenarios and climate change models were used, and the results highlight the necessity for adequate adaptation strategies which could improve agricultural water management and reduce the impacts of climate change on agriculture. Paper “Electronic Information Systems Usage by the Consumers’ of Agro-food Products for Expressing Complaints” studies the consumer’s dissatisfaction of agro-food products. The study has identified that the electronic information systems although not popular for the time being in the area of agro-food products, they have a great possibility to be used in the future due to the intention of the consumers to intensify

their complaining behavior as an easy way to achieve strengthening of the effects of their complaints. Paper “An Iterative Approach for knowledge production in the agricultural systems and insights for IS development” explores stakeholder responses to opportunities relating to new agricultural technologies in the frame of Circular Economy and highlights how research can evolve to actively contribute to reaching sustainability goals while informing IS development.

We believe that this special issue will help promoting the scientific research in the area of Environmental Informatics within sustainability issues, presenting interesting case studies in the fields of Forestry, Agriculture and Environment.

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Zacharoula Andreopoulou is an Associate Professor, Director in Lab. of Forest Informatics, Sector of Planning and Development of Natural Resources, Dept of Forestry & Natural Environment, AUTH-ARISTOTLE UNIVERSITY OF THESSALONIKI, Greece. Her scientific interests include Forest & Environmental Informatics, Internet & Information Communication Technologies for environmental protection, green development & regional development, green technologies, green informatics and Energy sustainability. Studies. B.Sc in Mathematics (AUTH), B.Sc in Forestry & Natural Environment (AUTH), Ph.D. in Forest informatics (AUTH). Post-doc research (2004) at University of East London, UK, & (2013) at University of Napoli “Parthenope”, Italy. She has published 5 international books: a) Agricultural & Environmental Informatics, Governance & Management: Emerging research applications, by IgiGlobal, b) E-innovation for sustainable development of natural resources during global economic crisis by IgiGlobal, c) Sostenibilita dello sviluppo e dimensione territoriale by FRANCOANGELI eds, d) New media, Enterpreneurship and Sustainable Tourism Development by FRANCOANGELI Eds and e) Multicriteria and clustering, classification techniques in Agrifood and Environment by Springer. She has published more than 65 papers in journals, 200 papers in Int. Conferences proceedings, 17 book chapters, etc. Recognition-positions. Chair of Organizing (3) and Scientific (2) Committee of International Conferences. Associate Editor in Int. Journal of Sustainable Agricultural Management and Informatics, Guest Editor, Int.J. Agricultural & environmental Information systems” (2). Member of Gender and Equality Committee of AUTH. She was awarded with the Prize of Excellence from AUTH & 1st prize award in International Environmental conference.

Stefanos Tsiaras is a Teaching Associate in the Aristotle University of Thessaloniki. He holds a BS in Forestry and Natural Environment, a MSc in Forest Policy / Forest Assessment and a PhD in Forest Policy / Sustainable Development from Aristotle University of Thessaloniki, Greece (Faculty of Agriculture, Forestry and Natural Environment, School of Forestry and Natural Environment). In 2015 he completed his post-doc research in the Forest Research Institute of Thessaloniki entitled “Sustainable Development in less favoured areas- mountainous areas”. In 2018 he received a MSc in Business Administration. He has published papers in international journals, and has made presentations in international Conferences. He is a reviewer in many international journals. He was member of the Organizing and the Scientific Committee of the International Workshop “Information Technology, Sustainable Development, Scientific Network and Nature Protection” that took place in Edessa in 2017 within the 18th Hellenic Forestry Congress. His research interests include Forest Policy, Sustainable development, Sustainability Indicators, Forest Assessment, and Multiple Criteria Decision Analysis in the sector of Forestry, Agriculture and Environment.

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