
Editorial

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Biographical notes: Zacharoula Andreopoulou is an Associate Professor, and Director in Lab. of Forest Informatics, Department of Forestry and Natural Environment, AUTH, Greece. Her scientific interests include forest and environmental informatics, internet and information communication technologies for environmental protection, green development and regional development, green technologies, green informatics and energy sustainability. She earned her BSc in Mathematics, BSc in Forestry and Natural Environment, and PhD in Forest Informatics from AUTH and Post-doc research at University of East London and University of Napoli 'Parthenope'. She published five international books, more than 65 papers in journals, 200 papers in international conferences proceedings, and 17 book chapters. She is the Chair of Organising and Scientific Committee of international conferences, Associate Editor in *Int. Journal of Sustainable Agricultural Management and Informatics*, and Guest Editor of *Int. J. Agricultural & Environmental Information Systems*. She was awarded with the Prize of Excellence from AUTH and first prize award in International Environmental Conference.

Christiana Koliouška is a Teaching Associate from the Aristotle University of Thessaloniki. She obtained her BS in Forestry and Natural Environment, MSc in Forest Informatics, MSc in Environmental Design of Cities and Buildings and PhD in Forest Informatics from the Faculty of Agriculture, Forestry and Natural Environment, School of Forestry and Natural Environment, Aristotle University of Thessaloniki, Greece. Her scientific and research interests include ICT, web services, European Union environmental policy, sustainable development, databases, strategic planning, decision support, multiple criteria decision analysis, environmental protection. She speaks fluent English, German and Italian. She has published her work in international journals/books and she has participated in national and international conferences. She was awarded Postgraduate Research Prize in 2013. She has received postgraduate and doctoral scholarship. She is a member of Hellenic and European Scientific Societies.

Soulla Louca received her PhD in Computer Science in 1994 from the Illinois Institute of Technology in Chicago. Prior to that, she had received her BA in Computer Science and Mathematics and MSc in Computer Science from the Kalamazoo College and Western Michigan University respectively. She has participated and coordinated numerous projects including National Science Foundation (NSF, USA), Research Promotion Foundation (RPF, Cyprus) and European. She has served as a reviewer for various international conferences/journals as well as an ICT expert for the European Commission. Her research interests include socio-economic aspects of Green ICT, e-learning, social integration and digital divide, and e-business since June 2008. She is the Chair of the Domain Committee for Information Communication Technologies for the European program Co-operation for Science and Technology (COST, <http://www.cost.eu>). She is a Professor from the University of Nicosia in the Department of Management and Management Information Systems.

Information technology and sustainable agro-environmental management are achieving widespread and popular approval among scientific publications in the past years, since they offer a wide range of highly valued innovative services, applications and methodologies in the agro-environmental sector and can provide smart and up-to-date solutions, serving the needs, interests and responsibilities of the modern society. IT acts as the vital means to facilitate sustainable management in the agro-environmental sector.

This special issue aims to present cutting-edge information technology applications and techniques for sustainable management in forestry, agriculture, and environment, fostering the scientific discussion among scientists, professionals and experts working on IT sector with special focus on forestry, agriculture, environment and sustainable development.

Through the five papers found in the special issue under the title ‘Information technology and sustainable agro-environmental management’, various multi-discipline methodologies are developed regarding the employ of IT and sustainable management in agro-environment for taking into consideration the concept of sustainable development that has been discussed extensively in the theoretical literature. 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.

Paper 1 studies the role of geoinformatics as a tool for the application of energy policy. It focuses on the combination of a hydrologic simulation model and a climate reanalysis system for the estimation of a watershed’s hydrologic characteristics, mainly stream flow, which will help in small hydropower plant’s placement decision making. The foundation of the method is based on the ArcGIS system that is used for the introduction and display of spatial information. Paper 2 presents general information about food businesses in the Western Greece and the extent to which they use information systems. The findings of the study suggest that businesses having a larger size, a greater turnover and more departments use information systems to a greater extent. Paper 3 aims to give quantification of the present land use, land use change and

assessment of agricultural soil in the area surrounding Jakuševce landfill in Zagreb, Croatia. According to the results, the main land use changes included increase in industrial or commercial units and transport infrastructure, and decrease of agricultural land. Paper 4 conducts a multi-temporal change analysis of vegetation over the last 30 years, using freely available remote sensing data in three steps in Iliia Prefecture, Greece. Although some spatial changes of vegetation cover were observed during the study period, the state of biomass either improved or remained constant through time, demonstrating the high potential of Mediterranean ecosystems to recover after disturbance events. Paper 5 explores some eco-friendly methods to mitigate such problems with the acceptance and utilisation of soil bioengineering. The current curricula and enterprise work practices of the Mediterranean ecoregion have been reviewed, stakeholders have participated in an online questionnaire on soil bioengineering and three protocols and a template specialised for the ecoregion have been developed. These activities will provide the material and information specific to the ecoregion for the development and accreditation of the modular training syllabus for the Mediterranean for the next generation of soil bioengineering specialists.

We believe that this special issue will promote the scientific research in the area of environmental informatics within sustainability issues, presenting interesting case studies in the fields of forestry, agriculture and environment.