

Editorial Preface

Decision Support Systems for Sustainable Applications

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This special issue comprises of papers presented in the EWG-DSS 2016 International Conference on Decision Support System Technology (ICDSST 2016) organized by the EURO Working Group on Decision Support Systems (EWG-DSS) in Plymouth, UK, during the period of May 23rd to May 25th, 2016. The conference theme was “Decision Support Systems Addressing Sustainability & Societal Challenges” and was hosted at the Plymouth Graduate School of Management & Plymouth Business School, Faculty of Business. The topic of this special issue is “Decision Support Systems for Sustainable Applications” and prospective authors were invited to submit their work. After a rigorous peer review procedure, four papers were selected for publication and are presented here.

Soumana Fomba, Pascale Zarate, Marc Kilgour, Guy Camilleri, Jacqueline Konate and Fana Tangara present a multicriteria based recommender system to support stakeholders during the decision-making procedure. The STROMa (SysTEM of RecOmmendation Multi-criteria) system aggregates measures of performance in a preference matrix and uses the Choquet integral of a fuzzy number in order to determine the total ordering of the alternatives. They also discuss about an integrated web platform that is under heavy development.

On the second paper, Souad Taleb Zouggar and Abdelkader Adla elaborate on partition qualities for decision trees and propose a new measurement. They compare it with other decision tree methods and use the MONITDIAB system for their experiments. They conclude that their measure is simpler, similar in performance and sometimes even better than the existing measures of tree based methods.

The third paper by Huilan Chen, Shaofeng Liu, Festus Oderanti argues that making the right decisions regarding the food supply chain can play a major role in towards achieving sustainability in agricultural businesses. They focus on knowledge sharing to achieve lean performance and define new knowledge networks and mobilisation approaches to address the network and community nature of current supply chains. They develop and test a new knowledge network and mobilisation framework for lean supply chain management and deduce that the results can have a number of practical implications.

Finally, Mattias Strand, Anna Syberfeldt and André Geertsen make an interesting case for a decision support system (DSS) to facilitate a sustainable waste collection process. The DSS is designed to be used on the operational level in the waste management organization and to support daily operations and activities. Their results show a significant improvement of the whole process compared to the existing one.

All papers accepted from ICDSST 2016 underwent a vigorous double-blind review process and were subsequently critiqued by the Guest Editors as well as Pavlos Delias, Boris Delibasic, Nikos Ploskas, Panagiotis Adamidis, and Femi Oyemomi.

The Guest Editors of this issue would like to sincerely thank the reviewers of these papers for their constructive comments, the authors for entrusting us with their works and the Editor-in Chief of IJDSST, Prof. Pascale Zarate, for the confidence and assistance in every step of this endeavor.

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Guest Editors
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Jason Papathanasiou is an Assistant Professor at the Department of Business Administration, University of Macedonia, Greece. He holds a PhD in Operational Research and Informatics and a degree in Physics from the Aristotle University of Thessaloniki. He has worked for a number of years at various institutes and has organized and participated in a number of international scientific conferences and workshops. He has published papers in international scientific peer referred journals like the Environmental Monitoring and Assessment, Regional Studies, European Journal of Operational Research, PNAS and has participated in many research projects in FP6, FP7, Interreg and COST; he served also as a member of the TDP Panel of COST and currently serves at the coordination board of the EURO Working Group of Decision Support Systems. His research interests include Decision Support Systems, Operational Research and Multicriteria Decision Making.

Festus Oluseyi Oderanti is a Senior Lecturer in Information Systems at University of Hertfordshire Business School. Prior to joining University of Hertfordshire, Festus was a Lecturer in Knowledge and Information Management and the Program Manager for MSc in Digital and Social Media Marketing at Plymouth University Business School (July 2013- June 2016). Festus' research uses digital information and communications technologies (ICTs) as well as information systems to facilitate strategic innovations and organizational transformation across different sectors and domains. In the last 15 years, he has been involved in teaching and research in the areas of decision making under uncertainty, Operations and Strategy, knowledge management as well as management and commercial sustainability of eHealth (digital-enabled Healthcare) innovations. Festus is an expert in the areas of business models development and decision making education. Dr Oderanti has been involved in a number of high profile research projects. He is a Co-Investigator (CI) on current Erasmus Plus project titled "Developing online tool to fostering entrepreneurship in the retail sector of young people under 30 years". Prior to that, Festus worked full time with the Newcastle University Business School as a Research Fellow. He is also presently a Visiting Fellow with the Computer Science Department, University of Newcastle upon Tyne. He has been an invited and keynote speaker at many international conferences and workshops including the 2016 China-UK Researcher Links Workshop on Employing Information and Communications Technologies in Homes and Cities for the Health and Well-Being of Older People, Chengdu, China, August 2016. He has recently published over 25 refereed papers in high quality international journals and conferences. Festus is a Senior Member of the Institute of Electrical and Electronics Engineers (SMIEEE), Member of British Computer Society (MBCS), Member, British Academy of Management and Member of Nigeria Computer Society (MNCS).

Uchitha Jayawickrama is a Lecturer in Information Systems at the School of Computing & Digital Technologies, Staffordshire University, United Kingdom. Uchitha's first degree is in Information Systems, followed by an MBA and then a PhD in Information Systems and Knowledge Management specialising in the field of Enterprise Resource Planning (ERP) systems. Uchitha has published his research in various renowned conferences, books and journals, and has won best paper awards in several international conferences. He is a reviewer for several journals and international conferences. He has editorial experience in various journals. His PhD research has been based on ERP implementations in the UK, requiring him to work closely with ERP client organisations and ERP implementation partners who implement SAP, Oracle and MS Dynamics ERP packages. His research interests and expertise are rooted in information systems and knowledge management, and specifically in the areas of enterprise systems, cloud ERP, decision support systems, ERP implementation, business process re-engineering, business information systems, knowledge transfer, KM lifecycle, KM systems, business intelligence and operations management. Uchitha also has undergraduate and postgraduate teaching and curriculum design experience in both the UK and abroad. Prior to his career in academia, he worked as Oracle Applications Consultant in implementing Oracle E-Business Suite (Oracle ERP) for various industry sectors, followed by the post of Manager - IBM Solutions.