Editorial Preface

Special Issue on Decision Support Systems:
Innovative Approaches for Everyday Decisions

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In contemporary society, most individuals, and especially decision-makers and leaders, are confronted with complex decision problems on a daily basis. This special issue will try to search for and highlight ways for improving our behavior inside the society and business, through sustainable choices. In general, in order to tackle the problem of complex decision-making problems, decision-makers can rely on external sources of information to help them gain the necessary insight into the problem and collaborate more effectively to solve the problem.

Many and various information technologies and systems have been developed that can help decision-makers in their decision-making process that gather data and produce information to support them, like as instance Intelligence Systems, Big Data, or Knowledge Management Systems. These systems help decision-makers to understand the entire situation, its direct and indirect context and environment, help to evaluate any action/option in assessing the costs of the various decision-making alternatives, and can eventually enable people to improve their decision-making process as well as their final outcome.

Hence, this special issue includes innovative approaches and models to deliver decision making support, dialog management between the user and system, DMSS operations, and DMSS technology management. All the articles aim to relate DMSS technology to improvements in the process and outcomes of the decision-making process.

This special issue consists in a selection of contributions presented during the Euro Mini International Conference on Decision Support System Technologies (Em-ICDSST), hold in Madeira, Portugal, May 2019. The five presented papers in this issue are extended from the first version presented at the ICDSST.

A first paper entitled "A Conceptual Model Based on Normative Multi-Agent System for Supply Chain Integration of Brazilian Gypsum LPA" by Thárcylla Rebecca Negreiros Clemente and Aldênia Karla Barrêto Candido investigates a conceptual model based on a Normative Multi-agent System Approach that offers a dynamic view about supply chain integration for managers and others stakeholders. From this contribution, it is possible to obtain constant information flow among stakeholders and build an effective strategic context for SMEs in the Brazilian Gypsum Local Productive Arrangement (LPA).

The second paper entitled "Required Project Designers' Attributes as Perceived by Male and Female Engineers" is proposed by Aretoulis and recognizes attributes required for successful

Project Designers that are considered by male and female project engineers, while emphasizing and highlighting the variations in their views. The methodological approach steps included an SPSS database, followed by descriptive statistics analysis, independent sample t-test and correlation analysis, and the results of the research could facilitate the implementation of multi-criteria decision-making tools for creating efficient project teams.

A third paper goes on a totally different type: decision process. In their contribution entitled "A Conceptual Framework for an Integrated Information System to Enhance Urban Mobility," Sérgio-Pedro Duarte, Jorge Pinho de Sousa and Jorge Freire de Sousa deal with a conceptual framework focused on stakeholders and their decision processes. This new framework takes advantage of existing ones, such as the Zachman Framework, the Enterprise Architecture Design, and the Multilevel Service Design. This multidisciplinary approach, putting together information systems (IS) and service design concepts, has considerable potential in ensuring that the right information reaches each stakeholder at the right time.

A fourth paper entitled "Bounds in Tree-Based Approaches to Generate Project Portfolios in the Presence of Interactions" by Rudolf Vetschera and Jônatas Araújo de Almeida presents a method to represent interactions between the items included in a portfolio , and develops various bounds that can be used in the presence of interaction formulated in this way. These methods are then tested in a computational study, where we show that the bounds we propose frequently provide a good approximation of actual outcomes, and also analyze specific properties of the problem that influence the approximation quality of the proposed bounds.

The last paper entitled "Web-Based DSS for Resource Allocation in Higher Education" is proposed by Carolina Lino Martins, Pascale Zaraté, Adiel Teixeira de Almeida, Jônatas Araújo de Almeid and Danielle Costa Morais and is a MCDA/M resource allocation model, based on a project portfolio selection problem to set the percentage of the total budget that every alternative should receive.

Altogether, the selected papers demonstrate the variety and significance of issues to be dealt with in the field of decision making and innovative approaches in MCDM. We would like to thank all the authors for submitting their works to be considered for this special issue. We hope that you will enjoy and that you will find valuable information for your research and practice in this publication and it will open the door for many new pieces of research.

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