Editorial for the special issue: 2nd International Symposium and 24th National Conference on Operational Research

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The Hellenic Operational Research Society (HELORS) was established in 1963 with the goal to promote the tools and methodologies of operational research (OR) and management science for the benefit of the Greek economy and society, in terms of making rational and substantiated decisions for both businesses and the public sector.

HELORS initially traversed a period (1963–1980) where the majority of its effort laid in the dissemination and advancement of the methods and techniques of OR to relevant organizations and staff of the private and public sector. Since the 1980s, HELORS entered a creative and fruitful period in parallel with socio-economical, technological, and political changes at the international level. These changes influenced significantly the Greek economy, which in turn enhanced its productivity and competitiveness.

Today, under the economic and financial crisis, with the restructuring of the public sector along with the efficient redesigning of the private sector, HELORS is again present. In this new environment, HELORS aims to substantially contribute to the creation of a new vision for the modernization and development of the Greek economy.

One of the main new initiatives taken by HELORS is the organization of an international symposium on OR, which is organized on an annually basis together with the national conference of the Society.

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On the occasion of its 50th anniversary, HELORS organized the 2nd International Symposium and 24th National Conference on Operational Research, which was held in Athens, Greece during September 26–28, 2013. The event was co-organized by the National Technical University of Athens, the Technical University of Crete, and the University of Piraeus. It included more than 100 presentations from Greek and international OR researchers.

On the occasion of this event, this special issue was prepared with papers presented at the Conference. The papers accepted after the standard review process cover different aspects of OR and its applications in fields like supply chain management, finance, transportation, the environment, and agriculture.

The first paper by Kontorinaki et al. provides an overview of nonlinear programming methods for calibrating macroscopic traffic flow models. The specification of the parameters of such models for modelling in an accurate way the real traffic conditions on motorway networks, requires the solution of complex optimization problems. The overview covers traditional and new techniques and an example application is presented for two popular macroscopic traffic flow models.

In the next paper, Ponis et al. introduce a reference model for supply chain management, which copes with the demand variability issue. The model is based on a thorough analysis of existing models from the literature and its structure is formulated using the analytic hierarchy process. The resulting model constitutes an integrated modeling approach that can support business entities in the establishment of a supply chain management decision support structure.

The third paper, by Spanoudakis and Pendaraki presents a decision support methodology for portfolio management. The methodology is based on an argumentation approach, which allows the definition of different investment policy scenarios and supports the investor/portfolio manager in composing investment portfolios that meet her/his profile. The methodology is applied to data from the Greek mutual fund market. The obtained results indicate that that argumentation-based approach outperforms traditional techniques.

In the next paper, Valiakos and Siskos present the application of a multicriteria decision aid (MCDA) methodology to the development of an evaluation tool that supports decisions related to providing financial aid in the agricultural sector. The methodology is built on the principles of robust ordinal regression and uses the UTASTAR method to construct an additive decision model that can guide the specification of the financial aid that should be granted to agricultural units.

The special issue closes with the paper of Andreopoulou et al. The authors propose the use of an MCDA technique to assess the quality of internet technology adoption by Greek national forest parks. The evaluation process covers a range of different criteria that relate to the content and information value provided by the parks' websites. The obtained evaluation results lead to a number of policy recommendations.

Closing this short editorial, we should express our sincere thanks to all authors whose contributions have been essential in completing this special issue. We should also acknowledge the support of all reviewers who devoted considerable time to provide critical evaluations, insightful comments, and constructive suggestions for the submitted papers.