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The Transformation of Organizational Decision Making through Intelligent Decision Support

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Introduction to the special issue on “The transformation of organizational decision making through Intelligent Decision Support.”

This JDS Special Issue evolved from the EWG-DSS 8th International Conference on Decision Support System Technologies (ICDSST 2022) that was held in Thessaloniki, Greece, on May 23-25, 2022.

It contains papers presented at the conference and later submitted in an extended version for this special issue. 15 papers were submitted for this special issue and were processed following the regular review procedures of JDS thanks to a large international committee. Finally, we accepted the 7 papers collected in this special issue.

This special issue examines the recent developments in Intelligent Decision Support focusing on the transformation of organizational decision processes. The papers collected in this volume give a comprehensive overview of different areas from the richness of data for manufacturing systems, to artificial intelligence algorithms developed under human supervision.

We have grouped the papers of this special issue into three topic groups. The first group contains two papers: one analyzing literature for the hotel industry, and the other analyzing critical success factors in advanced manufacturing systems. The next group of papers focuses on artificial intelligence methods and algorithms to solve complex decision problems.

This group of three papers contains the proposal of human supervision of an AI algorithm to optimize error detection, an AI tool for knowledge sharing and finally an approach embedding network for clustering event data.

The third group in this special issue contains papers related to two application domains. The first proposes a multicriteria model for data protection compliance and the last defines a multilevel approach for road infrastructure management. The papers collected in this issue address various application areas and methods. Some of them are based on real applications in organizations and society. Together, they exemplify that technologies supporting decision-making are diversified and innovative. They propose valuable contributions in solving decision problems.

We are very happy to have joined in this JDS-Special Issue a set of interesting pieces of research, authored by researchers from different continents. Editing this Special Issue was unusually challenging for us, and we had a very rewarding experience with this edition work.

We would also like to express our gratitude to the Editorial Team of the Journal of Decision Systems for the valuable support received on this special issue edition process. Last but not least, we hope that you find the contents of this publication insightful for your current and future research projects.

The Guest Editors

Toulouse, Graz, Lisboa, Namur, September 22nd, 2023

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