

# Preface

This sixth edition of the EWG-DSS Decision Support Systems published in the LNBIP series presents a selection of reviewed and revised papers from the Second International Conference on Decision Support System Technology (ICDSST 2016) held in Plymouth, UK, during May 23–25, 2016, with the main topic “Decision Support Systems Addressing Sustainability and Societal Challenges.” This event was organized by the Euro Working Group on Decision Support Systems (EWG-DSS) in collaboration with the University of Plymouth.

The EWG-DSS series of International Conference on Decision Support System Technology (ICDSST), starting with ICDSST 2015 in Belgrade, were planned to consolidate the tradition of annual events organized by the EWG-DSS in offering a platform for European and international DSS communities, comprising the academic and industrial sectors, to present state-of-the-art DSS research and developments, to discuss current challenges that surround decision-making processes, to exchange ideas about realistic and innovative solutions, and to co-develop potential business opportunities.

The scientific topic areas of ICDSST 2016 include:

- DSS for health, demographic change, and well-being
- DSS for food security, sustainable agriculture and forestry, and bio-economy
- DSS for marine, maritime, and inland water research
- DSS for secure, clean, and efficient energy
- DSS for smart, green, and integrated transport
- DSS for sustainable construction and architecture
- DSS for climate action, environment, resource efficiency, and raw materials
- DSS for inclusive, innovative, and reflective societies
- DSS for secure societies – protecting freedom and security of the world and its citizens
- DSS for business sustainability, innovation, and entrepreneurship
- DSS for lean operations, reverse logistics, and sustainable supply chain management
- DSS for green marketing management and new product/service development
- DSS for human resource/leadership management and organizational ethics
- DSS for socially responsible accounting, finance and banking management
- DSS for economics sustainability and regional/international development
- Innovative decision-making approaches/methods and technologies
- Big data analytics for solving societal decision-making issues
- Knowledge management and business intelligence
- Decision making in modern education

This wide and rich variety of topic areas allowed us, on the one hand, to present a collection of innovative solutions to real decision-making processes in a range of

domains, and, on the other hand, to highlight the main trends and research evolution in DSS. This LNBIP Springer volume edited by the EWG-DSS has considered contributions from a large number of submissions that were reviewed using a triple-blind paper evaluation method, maintaining long-established reputation and standards of high quality of the EWG-DSS. Each selected paper was reviewed by three internationally known experts from the ICDSST 2016 Program Committee comprising 79 scholars and practitioners from 28 countries. Therefore, through a rigorous two-stage, triple-blind review process, 15 out of 51 submissions were selected to be included in this volume, giving an acceptance rate of 29.41 %.

In this context, the selected papers are representative of the current and relevant DSS research and application advances. The papers have been classified into four major categories: (1) DSS applications addressing sustainability and societal challenges such as in agriculture, business ecosystem, health care, and environmental improvement; (2) DSS to support business resilience/risk management and project portfolio management; (3) DSS technologies underpinned by business intelligence and knowledge management; (4) DSS technology improving system usability and feasibility. The first category comprises five papers, the second category three papers, the third category five papers, and fourth category two papers.

We would like to thank many people who greatly helped the success of this LNBIP book. First of all, we would like to thank Springer for giving us the opportunity to guest edit the DSS book, and we especially wish to express our sincere gratitude to Ralf Gerstner and Eléonore Samklu, who have provided us with timely professional guidance and advice during the volume editing process. Secondly, we need to thank all the authors for submitting their state-of-the-art work to be considered for the LNBIP volume. All selected papers are of extremely high quality. It was a hard decision for the guest editors to select the best 15. Thirdly, we wish to express our gratitude to the reviewers, who volunteered to help with the selection and improvement of the papers.

Finally, we believe that this EWG-DSS Springer LNBIP volume has made a high-quality selection of well-balanced and interesting research papers addressing the conference main theme. We hope the readers will enjoy the publication!

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