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Call for Papers

Special Issue on “Logistics Optimization for Social Good”

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The International Transactions in Operational Research (ITOR) will publish a special issue dedicated to “Logistics Optimization for Social Good”.

The world and the population are constantly changing, and these changes have been more pronounced during the last decades. High pollution, increasing aging population, frequent diseases and pandemics, depopulation of rural areas and overpopulation in cities, hunger and shortage in developing countries, are some of the main challenges affecting our current and future situation. Around these ideas there are many logistics solutions to consider on a day-to-day and strategic basis, which can bring many benefits to the societies if they are properly advanced.

Accordingly, there is a growing interest to ensure that current and future AI and Optimization research provide these logistics solutions for better crisis response, equality and inclusion, economic empowerment, hunger and shortage response, healthcare, or environmental sustainability, i.e., for social good. This will result in advances in both theoretical and practical aspects as well as technical innovations in several logistics sectors such as emergency logistics, humanitarian logistics, healthcare logistics, etc. In this context, with the aim of reflecting and reporting on the latest research and developments in the interplay between logistics for social good and optimization, we propose this special issue entitled “Logistics Optimization for Social Good”.

The main goal of this special issue is to bring and comprehensively collect cutting-edge research and recent advances in AI and Optimization to promote and foster logistics for social good. This issue will provide readers with high-quality contributions exploring and dealing with optimization problems in the field of logistics while discussing advanced methods considering social good. Examples involve the joint use of machine learning and mathematical programming, integrating information systems with optimization algorithms, theoretical or empirical studies in modern operations research, developing truly-brained systems to support logistics decisions, etc. As it can be seen, the special issue will contribute to the literature with relevant theoretical and practical works advancing the progress of operations research and artificial intelligence towards logistics for social good.

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Some of the topics covered by this special issue are the following, among others:

- Emergency logistics
- Health and social care logistics
- Humanitarian logistics and crisis management
- Multi-modal intelligent transport systems and services
- Advances in optimization models for green supply chain
- Operations research in developing countries
- Intelligent decision making under uncertainty
- Collaborative and self-organizing logistics
- Intelligent techniques for online and offline healthcare planning
- Combination of methods from Artificial intelligence and Operations Research in sustainable logistics
- Optimization approaches for food security
- Optimization and AI of logistics in non-governmental organizations
- Scheduling in non-profit organizations
- Optimization in closed-loop supply chains

This call for papers is open to the entire community of researchers and practitioners and we encourage any submissions that fit in the scope of this special issue. Authors of selected works from the 13th International Conference on Computational Logistics (ICCL 2022) will be invited to submit an extended version of their ICCL 2022 accepted papers to this special issue.

Each paper will be peer-reviewed according to the editorial policy of ITOR (<http://www3.interscience.wiley.com/journal/118505725/home>), published by the International Federation of Operational Research Societies – IFORS. Papers should be original, unpublished, and not currently under consideration for publication elsewhere. Manuscripts should be prepared according to the instructions to authors that can be found on the journal homepage. Authors should upload their contributions using the submission site <http://mc.manuscriptcentral.com/itor>, indicating in their cover letter that the paper is intended for this special issue and listing the novel contributions considering related literature.

The deadline for submissions is March 12, 2023. Other inquiries should be sent directly to any of the Guest Editors in charge of this issue: Jesica de Armas (jessica.dearmas@upf.edu), Helena Ramalinho (helena.ramalinho@upf.edu), and Stefan Voß (stefan.voss@uni-hamburg.de).