

Call for Papers

Special issue on “Sustainable and Responsive Transportation and Logistics”

Guest Editors

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The International Transactions in Operational Research (ITOR), the flagship journal published by the International Federation of Operational Research Societies (IFORS), will publish a special issue dedicated to “*Concepts for Sustainable and Responsive Transportation and Logistics*”, at the occasion of the 23rd Triennial Conference of the International Federation of Operational Research Societies (IFORS 2023) to be held in Santiago, Chile from July 10 to 14th. Although we strongly encourage the submission of papers presented at the special sessions devoted to this subject at the IFORS 2023 conference, this Call for Papers is open to the entire community of academics and practitioners.

Scope:

Transport and logistics enable the movement of goods, trade, and social mobility. They are important pillars of economic growth and social development. Transport is also a major contributor – with over 15% – to global greenhouse gas emissions and has been recently subject to multiple shocks related to more extreme weather conditions, geopolitical and technological changes. Therefore, transport and logistics are very much in the focus of decision-makers of all levels, who are in search of sustainable and responsive solutions.

At the macro- and mesoscopic level, policy decision-makers are concerned with developing infrastructure, incentivizing alternative energy sources, and creating market conditions, which promote decarbonization in transport and help to reduce the effects of climate change. The social dimension remains very high in the political agenda and includes sustainable city transportation concepts, safeguarding mobility services in increasingly scarcely populated rural areas as well as enabling access to affordable transportation for developing countries. New technologies provide chances, but also disrupt the whole social systems and markets – think, for instance, about the

impact of digital ridesharing platforms on the market of taxi services. With the recent experience of the COVID-19 pandemic, devastating earthquakes, and hurricanes, including the six-day blockage of the Suez Canal with a container ship caused by hush weather conditions, the awareness and high priority for resilient and responsive transportation and logistics systems dominate the agenda.

At the company level – that of transportation and logistics companies, operators of transport gateways, hubs, and warehouses – the rethinking of business processes is a matter of survival in the highly competitive market. Companies are looking for efficient and effective ways to exploit new technologies – from sensors and data analytics to autonomously driven vehicles – in order to reach sustainability goals and adapt to changing market conditions while keeping costs low.

Logistics is also an essential, though mostly overseen part, of other industrial sectors. For instance, internal logistics accounts for 30–80% of the total manufacturing cost. Digitization and new autonomous technologies have a potential to a game changer that enables to restructure the production processes in a more agile and energy-efficient way.

This special issue aims to provide a forum for the latest developments in Operations Research towards concepts for sustainable and responsive transportation and logistics. It aims to condense essential theoretical and empirical findings and insights to support comprehensive reactive and proactive decision making at all levels. Topics of this special issue should address the aspects of sustainability and/or responsiveness in transportation and logistics and may include, but not be limited to, the use of analytical and optimization approaches as well as of empirical research to address significant theoretical and practical issues in the following areas:

- Design of sustainable and resilient transportation- and logistics-related infrastructure
- Mechanism design for markets of mobility and transportation-related services
- Public transportation
- City logistics
- Mobility concepts for rural areas
- Sustainable and/or responsive concepts for freight transportation, including decarbonization
- Intermodal and synchmodal transportation
- Collaboration in transport
- Sustainable and/or resilient operations of transportation hubs and gateways, such as ports, rail terminals, crossdocks, etc.
- Sharing economy for mobility services, including ride sharing
- People and freight-integrated transportation and logistics
- Drone-aided routing and transport
- Internal manufacturing logistics
- Dynamic, responsive (adjustable) planning approaches to transportation and logistics
- Robust and resilient planning approaches to transportation and logistics

We are particularly interested in receiving strong, innovative, and insightful studies that focus on both theoretical concepts and practical applications. These studies should make a significant contribution to the existing body of knowledge. Please note that all papers submitted for this special issue will undergo the standard peer review procedures established by ITOR.

Important Dates:

Submission start: August 1st, 2023

Deadline for submissions: December 31st, 2023

Manuscript Preparation and Submission:

Submitted papers must be original, unpublished and not currently under consideration for publication elsewhere. All submissions must fit within the domain statement of the journal and will be judged for their relevance to the special issue's scope, innovativeness, and the extent of theoretical and practical research contribution. Contributions should be prepared according to the instructions to authors that can be found on the journal homepage. Authors should submit and 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. Other inquiries should be sent directly to the Guest Editors in charge of this issue: Rosa G. González-Ramírez (rgonzalez@uandes.cl); Janny Leung (jannyleung@um.edu.mo); Alena Otto (alena.otto@uni-passau.de); Erwin Pesch (erwin.pesch@uni-siegen.de).