Journal of Advanced Transportation

Special Issue on



Operations Research for Transportation and Sustainable Development

CALL FOR PAPERS

Sustainable development is the core principle for meeting human development goals while at the same time sustaining the ability of systems to produce, extract, process, or manufacture the natural resources and services upon which the economy and society depend.

Transportation produces water, noise, and air contamination, being a large contributor to greenhouse gas emissions. These environmental shortcomings can be mitigated by considering and integrating sustainable social, environmental, and economic goals that impact and accelerate green and supportable development. Furthermore, sustainable transportation can be viewed and integrated as an essential ingredient in sustainable development strategies. Components for evaluating transport sustainability include particular transportation means used for road, water, or air transport; the way they are organized, the source of energy, and the infrastructure used to accommodate the transport. In this context, optimization plays a relevant role. Methods from operations research have been extensively used to successfully deal with many of these challenges.

This special issue aims at examining the current progress, challenges, and approaches in transportation to achieve a sustainable development through optimization. Thus, the scope of this issue covers high-quality original research and review articles focusing on the use of operations research techniques (mathematical programming, metaheuristics, simulation based approaches, game theory, etc.) to deal with transportation for promoting a sustainable development, mitigating the negative environmental impacts, and identifying main opportunities to accelerate the transition to sustainability.

Potential topics include but are not limited to the following:

- ▶ Sustainable maritime, road, rail, air, and multimodal transportation by using operations research techniques
- ▶ Addressing resilience and disruptions in transportation systems through optimization
- ▶ Operations research for traffic flow systems and sustainable development
- ▶ Sustainable passenger transportation based on operations research
- ► Operations research for transportation management in health care and disaster response
- ► Algorithmic and decision support systems for sustainable development in transportation
- ► Mathematical modeling and optimization for sustainable development in transportation
- ► Green and environmental operations research approaches for real-world applications

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