Call for Papers—Special Issue of the *Journal of Operations Management*

Operations Management under the Goal of Carbon Neutrality

Background and Objectives:

Climate change, possibly caused by anthropogenic carbon emissions, is a vital peril to human society. With the establishment of the United Nations Sustainable Development Goals (SDG 7) to contain the global warming within 2°C above the pre-industrial level, the Intergovernmental Panel on Climate Change (IPCC) underscored the significance of attaining carbon neutrality by the middle of the 21st century. More than 120 countries, including China, EU, UK, Japan, South Korea, and Canada, have pledged to achieve carbon neutrality, also referred to as net-zero emissions, by 2050-2060. Operations and supply chain management have a critical role in achieving these ambitious goals. To do so, we as a scholarly community must identify opportunities to adjust operations so as to support carbon neutrality, provide needed tools and insights, develop strategic approaches, and explore how the management of operations and value chains must evolve when net-zero carbon emission is prioritized.

The carbon neutrality target denotes net-zero carbon-dioxide emissions, encompasses all facets of human society and ecosystems, and requires the actions of all firms around the globe. Given worldwide calls for carbon neutrality, in-depth research is urgently needed to identify challenges, barriers, solutions, and pathways to achieve carbon neutrality. In previous research, low-carbon supply chains and operations have received growing attention (Atasu et al., 2020; Gopalakrishnan et al., 2020). For example, to reduce carbon emissions, firms need to improve energy efficiency and transition from fossil-fuel-derived sources of energy to renewable sources (Atasu et al., 2020). However, mere reduction of carbon emissions is not sufficient to achieve the long-term temperature target. Offsetting carbon emissions (e.g., reforestation and negative emissions technologies) is also needed to reach carbon neutrality. Thus, as firms develop strategies and adapt operations for decarbonization or carbon neutrality, technological solutions, expanded partnerships, and innovative practices must be identified and implemented. In doing so, firms also need to consider costs and benefits, tradeoffs, tensions, synergies, cooperation, risks, and implications for multiple stakeholders and firm competitiveness.

The goal of this *JOM* special issue is to stimulate research in operations and strategies for providing environmental and societal benefits through achieving carbon neutrality. This special issue invites papers with a clear grounding in operations and supply chain management that provide managerial, strategic, technical, operational, social, and political insights into carbon neutrality by illustrating how firms and their supply chains might attain carbon neutrality.

Topics of Interest:

The special issue is open to any empirical methodologies within the scope of *JOM* including, but not limited to case studies, large-scale surveys, laboratory and field experiments, and other approaches. Please refer to the editorial policy of *JOM* for specific details (Browning & de Treville, 2018). Potential research topics include, but are not limited to, the following:

- Operations and supply-chain network design for attaining carbon neutrality
- Carbon-neutrality initiatives and innovative business models that reduce Scope 1, 2 or 3 carbon emissions
- Policy, regulations, and governance to facilitate firms to achieve carbon neutrality related to their operations
- Implementation of process-based technological solutions or digital applications to achieve carbon neutrality
- Tradeoffs, tensions, interdependence, synergies, and collaborations among stakeholders in operations and supply chains for carbon neutrality
- Organizational, technological, and geographical barriers and enablers to implement carbon neutrality practices in operations and supply chains
- Sustainable strategies and tactics by balancing carbon emission reduction, capture, and offsets in operations and supply chains for achieving carbon neutrality
- Ethical, social, political, and cultural considerations in operations and supply chains for carbon neutrality
- Design and implementation of carbon capture and storage processes for carbon neutrality
- Approaches that consider the unique operational challenges facing small and medium-sized enterprises for carbon neutrality
- Developing and managing disruptive or innovative technologies for reducing or offsetting carbon emissions
- Performance evaluation and implications of carbon neutrality practices in processes, services and products, and supply chains
- Energy consumption behavior changes in operations and supply chains for carbon neutrality
- Uncertainty and risk management of managing carbon neutrality operational practices
- Collaboration among firms, non-traditional supply chain partners, and other stakeholders to implement carbon neutrality practices and technologies

All submissions should be well grounded in the operations management (OM) literature and theory, and they should contribute to both the theory and practice of OM.

Tentative Deadlines:

Manuscript submissions:	May 31, 2022
First-round decisions:	August 31, 2022
Revisions due:	November 30, 2022
Final decisions:	February 28, 2023

Manuscripts should conform to the instructions given in the Guide for Authors for *JOM*.

Guest Editors:

Dr. Qingyu Zhang is a Distinguished Professor of Operations Management in Shenzhen University. His research focuses on sustainable operations, social responsibility, and supply

chain collaboration. His research has appeared in *JOM, European Journal of Operational Research, Omega, Journal of Business Ethics, International Journal of Operations and Production Management, International Journal of Production Research, International Journal of Production Economics, Journal of Purchasing and Supply Management, Journal of Cleaner Production, Computers & Industrial Engineering, Computers & Operations Research,* and *IEEE Transactions on Cybernetics*, among others, and has been recognized with *JOM*'s Jack Meredith Best Paper Award. He is an Editorial Review Board member for *JOM* and *Transportation Research Part E.*

Dr. Christina W.Y. Wong is a Professor in the Hong Kong Polytechnic University. Her research focuses on environmental and sustainability issues in supply chain operations and integration and circular economy. Her research has appeared in *JOM*, *Production and Operations Management*, *Journal of Business Ethics, International Journal of Production Economics*, *Resources, Conservation and Recycling*, *Journal of Cleaner Production*, and *Environmental Pollution*, among others. She serves as an Associate Editor for *JOM* and as the regional editor of *International Journal of Operations and Production Management*.

Dr. Robert Klassen is a Professor of Operations Management, and holds the Magna International Inc. Chair in Business Administration at the Ivey Business School, Western University, Canada. He also is currently serving as the Interim Director of Ivey's Centre for Building Sustainable Value. Professor Klassen's research explores the multi-faceted linkages between the natural environment, social issues and operations performance, termed the triple bottom line, with a particular focus on the pivotal role of supply chains. He has over 50 refereed publications, including widely cited articles in such journals as *JOM, Management Science, Academy of Management Journal, Production and Operations Management, Manufacturing and Service Operations Management*, and *International Journal of Operations and Production Management*, among others. He is also a former Department Editor for *JOM* and also serves in that role at *Production and Operations Management*.

References:

Atasu, A., Corbett, C., Huang, X., and Toktay, L. (2020). Sustainable Operations Management through the Perspective of *Manufacturing & Service Operations Management*. *Manufacturing & Service Operations Management*, 22(1), 146-157.

Browning, T.R. and de Treville, S. (2018). Editorial: New Developments at the *Journal of Operations Management*, *Journal of Operations Management*, 64(1), 1-6.

Gopalakrishnan, S., Granot, D., Granot, F., Sošić, G., and Cui, H. (2020). Incentives and Emission Responsibility Allocation in Supply Chains, *Management Science*, Articles in Advance, 1-19.