

# MIT Industrial Liaison Program Faculty Knowledgebase Report

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## Supply Chain Challenges

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December 1, 2020 11:00 am - 12:10  
pm

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11:00am

Welcome and Introduction

11:05am

Sustainable Logistics: How to deliver "fast" and "green" in the new digital era?

Josué C. Velázquez

Research Scientist at the MIT Center for Transportation and Logistics

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Josué C. Velázquez Martínez is a Research Scientist at the MIT Center for Transportation and Logistics specialized in Logistics and Supply Chain Management in transportation, manufacturing, and retail industries, and has over 10 years of experience in conducting applied research on logistics sustainability and small firms in emerging markets, and has been invited as guest speaker in conferences and universities in Europe, Asia, USA and Latin America. Dr. Velázquez Martínez is the founder and director of the [MIT Sustainable Logistics Initiative](#), which involves research projects on green logistics sponsored by multinational companies, with the purpose of improving fuel consumption and CO2 emissions in logistics operations. This initiative includes the [MIT GeneSys](#) project, which aims to improve the efficiency and survival of small firms in developing countries, and involves on-site research at 800+ small enterprises across Latin America in collaboration with the region's top universities.

Dr. Velázquez Martínez has published a variety of academic articles and book chapters, and he is co-editor of the book entitled "[Supply Chain Management and Logistics in Latin America: A Multi-Country Perspective](#)". Dr. Velázquez Martínez has been constantly quoted and interviewed by different international media, including [HuffPost](#), [CNN](#), [The Washington Post](#), [Bloomberg](#), [ELLE.com](#), [WFAA Chanel 8 ABC](#) and [RAI3 – Italy](#).

Dr. Velázquez Martínez also serves as the Executive Director of the [Supply Chain Management](#) Program, the #1 Ranked Master's program in SCM and Engineering in the world, and he teaches at MIT the graduate course SCM.290 Sustainable Supply Chain Management.

[View full bio](#)

Urbanization and e-commerce growth (omni-channel) have increased the need for faster and greener transportation of goods, specifically during last-mile delivery operations. The challenge many companies face is how to deliver products fast and keep high vehicle utilization, which drives low fuel consumption, and CO2 emissions. In this webinar, I will discuss the new trends in logistics sustainability, and present ideas on how to optimize CO2 emissions during last-mile operations by using geo-spatial analysis, Machine learning, and data analytics. From the consumer perspective, I will discuss some of the new findings on the "Green Button" project and how companies can significantly reduce transportation CO2 emissions in e-commerce, via driving consumer behavior with the use of understandable environmental statements at the moment of the purchase.

11:35am

An Essential Evolution: How a pandemic is accelerating the supply chain transformation

Ashfaque Chowdhury

President, Supply Chain, Americas and Asia Pacific

[XPO Logistics](#)

The COVID-19 global pandemic has clearly demonstrated the critical importance of our global supply chain. Dr. Ashfaque Chowdhury, President of XPO Logistics Supply Chain Americas and Asia Pacific, will talk about how XPO has protected its employees from COVID-19 exposure, how the pandemic is transforming the logistics industry, and why intelligent automation will shape the future of distribution centers.

12:05pm

Q&A