

Supply Chain/Logistics

Session co-chairs: Cristiana Lara, Amazon, and Lisa Melander, Chalmers University

Supply chains are highly complex global systems, and the Covid-19 pandemic exposed its vulnerabilities. The pandemic drastically increased online shopping, and the perduring labor shortage further increases the pressure to automate logistic systems and increase their resilience. Another topic of growing concern is the environmental and social impact of supply chains, where consumers, industrial buyers and governments are increasingly demanding more sustainable practices and technologies. This session will cover the operations research and engineering logistics elements of supply chain management, starting with pressing issues of resilience and sustainability, and ending with the upcoming challenges of electrified transport and digital transformation.

First, Professor Tina Comes from TU Delft will start our session with insights about resilient supply chains during and after the Covid-19 pandemic. She will also discuss supply chain disruptions, what impacts they have and how they can be managed.

Then, Professor Veronica Villena from Arizona State University will present her work on sustainable supply chains, and the challenges of cascading sustainability requirements from economic, environmental and social perspectives in multi-tier supply chains.

Following is Spyros Ntemiris from Business Region Gothenburg, who will present how multiple actors, both public and private, collaborate for future sustainable transport initiatives in the Gothenburg region, including the development and testing of electrified and autonomous vehicles as well as implications from the rapid growth of charging infrastructure.

Finally, Dr. Carlos Florensa from Covariant.AI will talk about the latest technological advances in warehouse automation. He will present how the Covariant Brain is built, bridging academic research and industry needs to provide a universal AI that enables fully automated solutions from depalletizing to apparel induction.

Speakers

Topic: Resilient Supply Chains: Lessons from the Covid-19 Pandemic

Tina Comes, Professor, TU Delft

Bio URL: <https://www.tudelft.nl/tbm/over-de-faculteit/afdelingen/engineering-systems-and-services/people/full-professors/profdr-tc-tina-comes>

Topic: Managing Sustainability in Supply Networks

Veronica H. Villena, Associate Professor, Arizona State University

Bio URL:

- <https://iresearch.asu.edu/profile/1566928>
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Topic: A Systematic Approach to Electrification of the Transport System in Gothenburg

Municipality: The Case of Heavy-duty Vehicles

Spyros Ntemiris, Business Region Göteborg

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Topic: Behind-the-scenes Look: How to Deliver AI Robotics at Scale

Carlos Florensa, Covariant.AI

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- <https://sites.google.com/view/carlosflorensa>
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