CIRRELT 1971 - 2021

Webinaire conjoint avec / Joint Webinar with

Chaire en Planification des systèmes intelligents de logistique et de transport / Chair on Intelligent Logistics and Transportation Systems Planning

CRI²GS Centre sur l'intelligence² en gestion de systèmes complexes — UQÀM

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Dynamic, Stochastic, and Coordinated Optimization for Synchromodal Matching Platforms

Pour participer au webinaire / To joint the Webinar: https://uqam.zoom.us/j/89667489443

Abstract: With the increasing volumes of containers in global trade, efficient global container transport planning becomes more and more important. To improve the competitiveness in global supply chains, stakeholders turn to collaborate with each other at vertical as well as horizontal level, namely synchromodal transportation. Synchromodality is the provision of efficient, effective, and sustainable transport plans for all the shipments involved in an integrated network driven by advanced information technologies. However, the decision-making processes of a global synchromodal transport system is very complex. First, time-dependent travel times caused by traffic congestion need to be considered. Second, a dynamic approach that handles real-time shipment requests in a synchromodal network is required. Third, spot requests received from spot markets are unknown in advance. Fourth, travel time uncertainty is not handled yet for global synchromodal transport networks. Fifth, distributed approaches that stimulate cooperation among multiple stakeholders involved in global container transportation are still missing. This project addresses the above-mentioned challenges with dynamic, stochastic, and coordinated methods.

Bio : Wenjing Guo is a postdoctoral researcher at UQAM and CIRRELT. She received her BSc degree in Mathematics and Applied Mathematics from Wuhan Textile University in 2013, MSc degree in Traffic and Transportation Engineering at Wuhan University of Technology in 2016, and PhD degree in Transportation Engineering at Delft University of Technology in 2020. Her research interests include operations research, synchromodal transportation, city logistics, dynamic optimization, stochastic optimization, and distributed optimization. Her main ambition is to combine advanced approaches with practical applications considering the trend towards sustainability, ecommerce, automation, and digitalization in freight transportation.

Jeudi / Thursday

25 février 2021, 10h00
February 25th, 2021, 10:00

Ouvert à tous / Open to all

Responsable / Organizer

Teodor Gabriel Crainic

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