Séminaire conjoint CRI2GS et CIRRELT

Amir M. Fathollahi-Fard
POSTDOC
Université du Québec à Montréal

The Integrated Multi-Tier Hierarchical Hub Location and Scheduled Service Network Design Problem

Abstract:
During this seminar, we embark on an in-depth discussion of the freight transportation system, emphasizing a multi-tier hierarchical hub network integrating air, rail, and highway transportation modes. This structure encompasses primary hubs, secondary hubs, and service nodes interconnected to meet time-sensitive demands. Our main focus lies in developing an optimization model for the integrated hub location and scheduled service network design problem, catering to strategic and tactical planning levels. Additionally, we introduce a novel decomposition-based metaheuristic algorithm to effectively address the complexities of this integrated system. Through this method, we aim to break down the original problem into manageable subproblems, thereby enhancing efficiency and solution quality. For each subproblem, we do exploration and exploitation phases to find near-optimal solutions. Our results this empower decision-makers to optimize hub network design and allocate capacity configurations, thereby enhancing service efficiency and ensuring cost-effectiveness.

Amir M. Fathollahi-Fard is a highly accomplished researcher and optimization expert specializing in supply chain management, production scheduling, and logistics networks. Amir earned a Ph.D. degree in Engineering from École de Technologie Supérieure, University of Quebec, Montreal, Canada. His academic excellence is reflected in his achievements, including publishing over 100 papers in reputable journals such as COR, ANOR, ASOC, CIE, JCLP, TRD, ESWA, IEEE TASE, and many other high-ranked journals.

JEUDI / THURSDAY

22 FEB / FEB 22th 2024

13h30

Salle / Room DS-3650
Pavillon des sciences de la gestion
ESG-UQAM

Ouvert à tous / Open to all

Organisatrice / Organiser

Ana María Anaya-Arenas