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**Date:** Friday, Nov., 22, 2024

**Time:** 1 - 1:50 pm

**Location:** D2 Lect2

**Zoom Meeting ID:** 970 7656 5407

**Passcode:** 477211

## Resource Exchange Platforms: from warehouses to nonprofits

**Abstract:** Underutilized resources exist all around us. Examples include the empty seats and cargo spaces in the vehicles around you and the distribution centers that are a mismatch for businesses' seasonal and fluctuating space and throughput requirements. To harness these underutilized resources, organizations need to think differently how resources are acquired, managed, and allocated. In this talk, we review the design of resource exchange platforms to harness underutilized resources. By accessing resources with lower costs, supplemental resources can be deployed when and where they are needed. Promising use cases include new network design models that incorporate on-demand warehousing options, as well as new crowdsourced order-fulfillment policies that deploys in-store customers to pick items for online orders while completing their own personal shopping. With applications to crowdsourced delivery, ride sharing, and volunteer management, we will explore our work to support platforms to offer each supplier a menu of requests to choose from. Finally, we will explore the design and operations of SWAP, a platform that enables resource sharing among nonprofits.

**Short Bio:** Jen Pazour is a Professor and the PhD Coordinator in the ISE department at RPI in Troy, NY. Her research focuses on the development mathematical models to guide decision making for logistics and supply chain challenges. Jen is a recipient of a NSF CAREER Award, a J. & Johnson Women in STEM<sup>2</sup>D Scholars Award, a National Academies of Science Gulf Research Program Early-Career Fellowship, and a Young Investigator Award from ONR. She was awarded the Rensselaer Alumni Teaching Award, the IISE Logistics and Supply Chain Division Teaching Award, and the IISE Dr. Hamed K. Eldin Outstanding Early Career IE in Academia Award. She is an Associate Editor of *IISE Transactions*, *OMEGA*, and *Transportation Science*. She is the president elect of INFORMS TSL society and was previously on the IISE Logistics and Supply Chain board. She proudly holds three degrees in IE (a B.S. from South Dakota School of Mines and Technology, and a M.S. and Ph.D. from U. Arkansas). More information can be found at: <http://jenpazour.wordpress.com/>