



Simulation-based Optimization Model for Supply Chains with Disruptions in Transportation

Brown Bag Lecture Series



**Monday,
September 29th
UTSA Mexico Center
Monterey Building,
Room 2.260
UTSA Downtown
Campus From
1:00pm – 2:30pm**

Free and Open to the Public
Free Parking Available at
UTSA Lot D3 (Under IH35)

Dr. Castillo and Hernan Chavez will present a novel Simulation-based Multi-Objective Optimization (SimMOpt) model for minimizing transportation time and cost of agriculture products traded across the U.S.-Mexico border in order to build a resilient supply chain. The proposed SimMOpt stochastic model considers realistic continuous distributions for the service times (inspection times) and availability of inspection servers (lanes) in selected entry ports while optimizing multiple objectives. The presentation will include the discussion of the results of a case study in order to evaluate the performance of the simulation-based optimization approach.



Dr. Krystel Castillo is currently Assistant Professor of the Mechanical Engineering Department and co-Director of the Manufacturing Systems and Automation Laboratory at UTSA. She received her Ph.D. in Systems and Engineering Management from Texas Tech University and a Ph.D. in Industrial Engineering from Monterrey Tech (ITESM).



Hernan Chavez is currently a Ph.D. student in the Mechanical Engineering Department and member of the Manufacturing Systems and Automation Laboratory at UTSA. He received his M.Sc. in Mechanical Engineering with concentration in Manufacturing Systems from Lancaster University.

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