Lecture Series of the
Research Institute for Supply Chain Management

Monday, May 03, 2021. Beginning 5:30 pm

JAN FABIAN EHMKE:
DESIGN OF ROBOT-BASED DELIVERY SYSTEMS IN URBAN LOGISTICS

Urban logistics faces enormous challenges. While customers expect a high service quality, e.g. delivery in tight time windows, the “last mile” is the costliest part of the supply chain. Technical innovations such as delivery robots can help to reduce costs and improve service quality. In this talk, we focus on the following two questions. First, how many delivery robots are needed where, and how does a robot-based system compare to the cost of conventional delivery system? Second, how does stop-and-go traffic interfere with Robot-based deliveries? For the latter, especially in dense areas, we model robot travel times stochastically to find paths that avoid stop-and-go traffic.

Jan Fabian Ehmke is a Professor Business Analytics at the University of Vienna. He graduated at the University of Braunschweig in 2011. Jan’s research interests are the analysis of large amounts of transportation data and their usage in the optimization of dynamic and stochastic transportation problems. Current research deals with making home deliveries more profitable and reliable, improving multi-modal travel planning, and developing smart trip management policies for future autonomous transportation and mobility system

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