Transportation Research

Wednesday, November 17, 2021

15h, classroom **B1-005, North Campus** UPC-Barcelona**Tech**
(Jordi Girona 1-3, Plaça Camins, Campus Nord UPC – 08034 Barcelona)

Dr. Michele **SIMONI**

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Last-mile logistics:

Modeling, optimization and policy implications

Abstract:

The urban population growth, the rise of e-commerce, and the increased need for economically and environmentally sustainable solutions are critical challenges to tackle the externalities of City Logistics. During the last decade, technology improvements in wireless communication and computational and sensing technologies have paved the way to a series of mobility and transportation options (e.g., shared mobility services, driverless vehicles) that could transform the landscape of last-mile delivery.

This talk focuses on novel approaches for modeling and optimization of freight movements and operations in urban settings. The applications include the evaluation of off-peak strategies, crowdsourced services, and automated last-mile solutions. Advanced algorithms for traffic simulation and novel optimization heuristics are the primarily adopted methodologies to investigate these problems. Thanks to their accuracy and favorable computational features, it is possible to quantitatively evaluate alternative policy solutions' potential congestion and pollution impacts from a network perspective.

Bio Dr. Simoni:

Dr. Michele D. Simoni holds a B.Sc. in Civil Engineering (2011) from the Polytechnic University of Milan, a M.Sc. degree at Delft University of Technology (2013), and Ph.D. in Civil Engineering with a specialization in Transportation at the University of Texas at Austin (2019). He was a Postdoctoral Associate at the Center for Transportation and Logistics (Massachusetts Institute of Technology), and joined KTH as an Assistant Professor in August 2020. Dr. Simoni's main research activity is currently focused on modeling and optimization of advanced transportation solutions based on the most recent communication and automation technologies. His research interests include modeling and optimization of last mile freight transportation, analysis of transportation policies, and traffic flow simulation.