2019 I-NUF Conference Detailed Agenda

(as of 10/18/2019)

Topics

- 1. Local/last mile pickup and delivery
- 2. Trade nodes and hubs ports, airports, distribution hubs
- 3. Freight modes trucking, rail, water
- 4. Urban modeling and planning
- 5. New technology
- 6. Changing consumption, production and spatial organization
- 7. Best practices

Wednesday, October 16, 2019

7:30-8:30 AM Continental Breakfast and Check In Vista del Mar

8:30-10:00 AM Opening Plenary Session Lagunita Pavilion

Host: Genevieve Giuliano, Director, METRANS

Welcome Speakers: **Henrik Nolmark**, Director, Volvo Research and Educational Foundations; **Neeraj Sood**, Vice Dean, Sol Price School of Public Policy, USC; **Simon Kim**, Associate Vice President, Research and Sponsored Programs, CSULB; **John Keisler**, Director of Economic and Property Development, City of Long Beach; **Caitlin Hughes**, Director, Freight Management and Operations, FHWA

Introduction: Genevieve Giuliano, METRANS

Keynote Speaker: Ian Roark, Vice President, Workforce Development, Pima Community College

Title: Looking Ahead: Workforce Development for Transportation & Logistics in the 4th Industrial Revolution

10:00-10:30 AM Break – Vista del Mar

10:30 AM-Noon Concurrent Sessions

<mark>Mirador</mark>

Track 1-1 So What's With this Bicycle for Last Mile Deliveries? Session Moderator: Alison Conway, The City College of New York

The bicycle as contribution to the logistic efficiency of freight transport in the last mile Presenter: Guillermo Arcila Mena, Universidad Nacional de Colombia at Medellin *Co-authors: Carlos A. Gonzalez-Calderon and John Jairo Posada-Henao, Universidad Nacional de Colombia at Medellin*

Eco-Transfer System to Foster Sustainable Last-Leg Delivery Modes Presenter: Sofia Perez-Guzman, Rensselaer Polytechnic Institute *Co-author: Carla Wang, Rensselaer Polytechnic Institute*

Cargo bikes – A risen star in last mile pickup and delivery Presenter: Aanan Sutaria, University of Antwerp *Co-authors: Ivan Cardenas and Thierry Vanelslander, University of Antwerp*



Track 5-3 Freight Transport Technologies and Logistics Session Moderator: Peter Hall, Simon Fraser University

Automation of Chittagong port for increasing the container handling capacity and port efficiency to meet the demand of port users Presenter: Razon Chandra Saha, Bangladesh University of Professionals

Impacts of Implementing Zero Emission Container Handling Equipment on a Container Terminal

Presenter: Doug Thiessen, Moffatt & Nichol Co-authors: Kerry Simpson and Pekka Ranta, Moffatt & Nichol

A proposal for zero-emissions, electrified short-haul 'rolling highway' intermodal freight rail in the Southern California region

Presenter: Brian Yanity, Rail Propulsion Systems *Co-authors: Thomas White, VTD Rail Consulting and Jan Eriksson, FlexiwaggonAB*

<mark>Tikal</mark>

Special Session 1 Maximizing Multimodal Connections for Improved First-/Last-Mile Freight Mobility: Noteworthy Practices from the U.S. and Abroad Jointly sponsored by FHWA, TRB Urban Freight Transportation Committee, and AASHTO

Session Moderator: Tamiko Burnell, Federal Highway Administration

Panelists:

Jill Lemke, Manager of Strategic Planning & Special Projects, Maryland Port Authority Daniel Pallme, Assistant Chief of Freight and Logistics, Tennessee Department of Transportation

Scott Drumm, Director of Research and Strategic Analysis, Port of Portland

<mark>Luna Solstice</mark>

Track 4-4 Modeling and Planning Implications of Freight Patterns Session Moderator: José Holguin-Veras, Rensselaer Polytechnic Institute

Urbanization, Logistics and the Environment Presenter: Paul Larson, University of Manitoba

Characterization of Spatial Patterns in MSA Presenter: Juvena Ng, Rensselaer Polytechnic Institute *Co-authors: José Holguin-Veras, Carlos Rivera-Gonzalez, and Joshua Schmid, Re*nsselaer Polytechnic Institute

Spatial Patterns of Freight-Intensive Sectors Presenter: Carlos Rivera-Gonzalez, Rensselaer Polytechnic Institute *Co-authors: José Holguin-Veras and Oriana Calderon-Quevedo, Rensselaer Polytechnic Institute*

Noon-1:30 PM Lunch Lagunita Pavilion

Introduction: Ray Familathe, President, ILWU Local 13

Keynote Speaker: **Bernie Kotlier**, Executive Director, Labor Management Cooperation Committee and National Co-chair, Electric Vehicle Infrastructure Training Program

Keynote Title: Electrification of the Last Mile

1:30-3:00 PM Concurrent Sessions

Mirador

Track 1-2 Understanding the Impacts of Last Mile Services and Behaviors *Session Moderator: Laetitia Dablanc, IFSTTAR*

CEP services in terms of sustainability - Simulating the impact of urban last-mile delivery services in terms of CO2 emission outputs

Presenter: Marvin Auf der Landwehr, Hochschule Hannover *Co-authors: Christoph van Viebahn, Maik Trott and Jan Dünte, Hochschule Hannover*

Consumer and business characteristics of 'Instant Deliveries' in Brazil: a need for new public policies

Presenter: Leise Kelli de Oliveira, UFMG

Co-authors: Carla de Oliveira Leite Nascimento, Caio Henrique de Oliveira Lobo Cordeiro, and Pedro Henrique Caldeira Caliari, UFMG; Laetitia Dablanc, IFSSTAR/University of Paris-East

E-Commerce Impacts on Regional Travel and Energy Use: Household Shopping and Parcel Delivery Tradeoffs

Presenter: Monique Stinson, Argonne National Laboratory

Co-authors: Annesha Enam and Joshua Auld, Argonne National Laboratory; Amy Moore, Oak Ridge National Laboratory

How sustainable are home delivery concepts in an urban context? Quantifying the emission output impacts of e-grocery on different city district types Presenter: Maik Trott, Hochschule Hannover

Co-authors: Marvin Auf der Landwehr and Christoph von Viebahn, Hochschule Hannover

<mark>Cival</mark>

Track 3-2 Truck Traffic Analysis

Session Moderator: Hossein Jula, California State University, Long Beach

Characterization of Truck Traffic in Metro Manila Presenter: Riches Bacero, De La Salle University

Co-author: Alexis Fillone, De La Salle University

Traffic and Infrastructure Implications of Deploying Connected, Autonomous Drayage Trucks

Presenter: Jean-Daniel Saphores, Institute of Transportation Studies, University of California, Irvine

Co-author: Monica Ramirez Ibarra, Institute of Transportation Studies, University of California, Irvine

<mark>Tikal</mark>

Track 2-1 Distribution Network Design Innovations Session Moderator: José Holguin-Veras, Rensselaer Polytechnic Institute

A new method of network design for urban distribution: The case of gasoline distribution. Presenter: Mario Monsreal, Texas A&M Transportation Institute

Distribution Structure Design: A Study of 3 Industry Sections Presenter: Alexander Onstein, Delft University of Technology *Co-authors: Lóránt A. Tavasszy, Delft University of Technology and Dick A. Van Damme, Amsterdam University of Applied Science*

The Distribution Networks of E-commerce: Emergence of a Geography of City Logistics Presenter: Jean-Paul Rodrigue, Hofstra University

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Track 4-5 Freight Modeling Examples Around the World Session Moderator: Miguel Jaller, University of California, Davis

Robust VSL Control and Impact on Traffic with High Volume of Trucks Presenter: Faisal Alasiri, University of Southern California *Co-authors: Yihang Zhang and Petros Ioannou, University of Southern California*

A Carrier Load Pricing Model with Seasonality and Forward-/Back-Haul Pricing Differences

Presenter: Monique Stinson, Argonne National Laboratory *Co-authors: Ehsan Rahimi and Abolfazl (Kouros) Mohammadian, University of Illinois at Chicago*

Intermodal freight transportation facilities for two major cities of Bangladesh in providing maritime logistics support to cater to international trade Presenter: Razon Chandra Saha, Bangladesh University of Professionals

Effects of Urban Freight on Bridge Repair Schedule Following a Disaster Presenter: Mehrnaz Doustmohammadi, University of Alabama in Huntsville Co-authors: Eric Merschman, Abdullahi M. Salman, and Michael Anderson, University of Alabama in Huntsville

3:00-3:30 PM Break – Vista del Mar

3:30-5:00 PM Concurrent Sessions

Mirador

Track 1-3 Micro Hubs, Lockers and Collect Points Session Moderator: Caitlin Hughes, FHWA

Exploring consumers' omnichannel behaviour and the impact on last mile and sustainability

Presenter: Heleen Buldeo Rai, Vrije Universiteit Brussel *Co-authors: Koen Mommens, Sara Verlinde and Cathy Macharis, Vrije Universiteit Brussel*

Local "hives": How added-value services can make micro-hubs for urban goods distribution a success

Presenter: Ivan Dario Cardenas Barbosa, University of Antwerp *Co-authors: Roel Gevaers and Joris Becker, University of Antwerp*

Analyzing the operational and cost impacts of pick-up points on e-commerce's last mile distribution: the case of São Paulo, Brazil

Presenter: Claudio B. Cunha, University of São Paulo *Co-authors: Rhandal Masteguim, University of São Paulo and Eva Ponce, Massachusetts Institute of Technology*

The Spatial Dynamics of Amazon Lockers in Los Angeles County Presenter: Jiawen Fang, University of Southern California

<mark>Cival</mark>

Track 3-3 Container and Vehicle Scheduling Session Moderator: Matthew Roorda, University of Toronto

A distributed simulation-based load balancing method for traffic assignment in a largescale network

Presenter: Penfei Chen, University of Southern California Co-authors: Petros Ioannou and Maged Dessouky, University of Southern California

Distribution of non-alcoholic beverages in the city of Lima Presenter: Mario Chong, Universidad del Pacifico

Co-author: Juan Manuel Machuca, Universidad de Pacifico

Truck Driver Shortest Path and Scheduling Problem with Working Hours and Parking Availability Constraints

Presenter: Filipe Vital, University of Southern California *Co-author: Petros Ioannou, University of Southern California*

Solving the Empty Container Problem using Double-Container Trucks under Stochastic Demand

Presenter: Siyuan Yao, University of Southern California Co-authors: Santiago Carvajal and Maged Dessouky, University of Southern California

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Track 2-2 Urban Freight Trucking Efficiency Session Moderator: Anastasios Chassiakos, California State University, Long Beach

Dynamic Scheduling of Chassis Movements with Chassis Processing Facilities in the Loop Presenter: Timothy VanderBeek, Boeing/California State University, Long Beach *Co-authors: Hossein Jula and Anastasios Chassiakos, California State University, Long Beach*

Port container drayage: disruptions and interventions in urban context Presenter: Peter V Hall, Simon Fraser University *Co-author: Thomas O'Brien, California State University, Long Beach*

Truck Platooning from Urban Multimodal Facilities Presenter: Matthew Reiter, University of California, Berkeley

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Track 7-1 Global Solutions for Sustainable Urban Freight Session Moderator: Jee-Sun Lee, The Korea Transport Institute (KOTI)

Sustainable and efficient urban freight transport – best practices in Stockholm City Co-Presenters: Magnus Blinge, Scania CV and Robin Billsjö, City of Stockholm

Urban Freight and Logistics: Current State of Practices in India Presenter: Ankit Gupta, Indian Institute of Technology (Banaras Hindu University)

ZEV Routing and Fleet Size Minimization for Drayage Operations Presenter: Shichun Hu, University of Southern California *Co-author: Maged Dessouky, University of Southern California*

Factors associated with truck dwell times in downtown Seattle Presenter: Haena Kim, University of Washington *Co-authors: Anne Goodchild and Linda Ng Boyle, University of Washington*

5:00-7:00 PM Reception Esplanade

<mark>Thursday, October 17, 201</mark>9

7:30-8:30 AM Continental Breakfast and Check In Vista del Mar

8:30-10:00 AM Plenary Session Lagunita Pavilion

The Future of Last Touch Delivery: Balancing Industry Needs and Community Impacts

Moderator: Kevin Turner, Executive Director, Cushman & Wakefield

Panelists: Dan Floriani, President & Co-Founder, Pacific Industrial Noel Massie, U.S. Operations Manager, UPS (retired) Kim Snyder, President, West Region, Prologis Michael Maricic, International Sales Executive, FedEx

10:00-10:30 AM Break – Vista del Mar

10:30 AM-Noon Concurrent Sessions

Mirador

Track 1-4 Not So Easy Finding a Space for Loading/Unloading in Cities Session Moderator: Michael Browne, University of Gothenburg

Do commercial vehicles cruise for parking?

Presenter: Giacomo Dalla Chiara, University of Washington

Co-author: Anne Goodchild, University of Washington

A Quantitative and Qualitative Understanding of Curbside Access Challenges for Last Mile Delivery in Los Angeles

Presenter: Scott Strelecki, Southern California Association of Governments *Co-authors: Alison Linder and Annie Nam, Southern California Association of Governments*

On-Street Parking Capacity for Freight and Service Activity Presenter: Diana Ramirez-Rios, Rensselaer Polytechnic Institute *Co-authors: José Holguin-Veras and Lokesh Kalahasthi, Rensselaer Polytechnic Institute*

NYC Clear Curbs: Implications for Goods Movement – Phase II Presenter: Yaxin Zhang, The City College of New York Co-authors: Quanquan Chen, North Jersey Transportation Planning Authority; Carla Tejada and Alison Conway, The City College of New York

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Track 3-4 Urban Logistic Models Session Moderator: Seiji Steimetz, California State University, Long Beach **Factors explaining the use of cargo bikes and cars in urban logistics: results from a stated preference experiment in Germany Presenter: Johannes Gruber, DLR/German Aerospace Center** Co-authors: Lars Thomas, Humboldt University of Berlin; Felix Stecks, DLR/German Aerospace Center

Chassis: What in the World Will We Do? Presenter: Bethany Stich, University of New Orleans *Co-author: Carol Short, University of New Orleans*

Lessons learned from SCAG's external Heavy Duty Truck (HDT) model enhancement Presenter: Stephen Yoon, Southern California Association of Governments Co-author: Mana Sankapichai Southern California Association of Governments

<mark>Tikal</mark>

Track 2-3 Improving Seaport and Airport Infrastructure

Session Moderator: Genevieve Giuliano, University of Southern California

Modelling Port Elasticity

Presenter: Philip Davies, Davies Transportation Consulting, Inc.

San Pedro Bay Portwide Rail Study

Presenter: Shashank Patil, Port of Long Beach

Co-authors: Kerry Cartwright and Shozo Yoshikawa, Port of Los Angeles; Allison Yoh and Theresa Dau-Ngo, Port of Long Beach; Carlo Luzzi, AECOM

Evaluating the Role of Resilience in Reducing Economic Losses From Disasters: A Multi-Regional Analysis of A Seaport Disruption

Presenter: Dan Wei, University of Southern California Co-authors: Zhenhua Chen, The Ohio State University and Adam Rose, University of Southern California

Key Success Factors to Attract E-commerce Logistics Activities at an Airport Presenter: Wouter Dewulf, University of Antwerp *Co-authors: Ivan Cardenas and Thomas Van Assch, University of Antwerp*

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Track 7-2 Shipping in the City Session Moderator: Jeff Wojtowicz, Rensselaer Polytechnic Institute

Developing Design Guidelines for Commercial Vehicle Envelopes on Urban Streets Presenter: Edward McCormack, University of Washington *Co-author: Anne Goodchild, University of Washington*

How Do Smart Growth Cities Take On Rocket Increase of E-Commerce? Assessing Effective Strategies for California Cities

Presenter: Nico Boyd, Fehr & Peers

Co-author: Fatemeh Ranaiefar, Fehr & Peers

Cargo bikes: an alternative to improve shipments in urban centers Presenter: Carlos Andrés Granada-Muñoz, Universidad Nacional de Colombia at Medellin *Co-authors: Guillermo Arcila-Mena, Carlos A. Gonzalez-Calderon, John Jairo Posada-Henao, Universidad Nacional de Colombia at Medellin*

Recommendations and Pilot Projects to Improve Curbside Access for Last Mile Delivery in Los Angeles

Presenter: Alison Linder, Southern California Association of Governments Co-authors: Scott Strelecki and Annie Nam, Southern California Association of Governments

Noon- 1:30 PM Keynote Luncheon Lagunita Pavilion

Speaker Introductions: Thomas O'Brien, Executive Director, CITT, CSULB

Special Speaker: Jordan Marks, AGL Student, Cabrillo High School, Long Beach Unified School District

Keynote Speaker: Alison Conway, Associate Professor, Civil Engineering, City College of New York

Title: Goods Movement in a Changing Streetscape

1:30-3:00 PM Concurrent Sessions

Mirador Track 1-5 Data, Simulation, Optimization Tools for Last Miles Session Moderator: Bill Eisele, Texas A&A Transportation Institute

Cracking the Freight Data Nut: Estimating Center City Inbound and Outbound Vehicle Volumes from Cordon Counts

Presenter: Gabriela Giron-Valderrama, University of Washington *Co-author: Anne Goodchild, University of Washington*

Creation of a Database for Delivery Journeys in Urban Centres Presenter: Dominic Hofmann, Frankfurt University of Applied Sciences *Co-authors: Petra K. Schäfer and Kai-Oliver Schocke, Frankfurt University of Applied Sciences*

Express Package Delivery Optimization Using On-Foot Personnel, Cargo Tricycles and Delivery Trucks: A Case Study for Downtown Toronto Presenter: Patrick Meredith-Karan, Massachusetts Institute of Technology Co-authors: Jia Hui Jiang, Sina Bahrami, and Matthew J. Roorda, University of Toronto

Cival

Track 4-1 Understanding Stakeholders Operations and Perspectives for Policy and Planning Session Moderator: Tyler Reeb, California State University, Long Beach

Stakeholders Perceptions to Sustainable Urban Freight Policies in Emerging Economies Presenter: Johanna Amaya Leal, Iowa State University *Co-authors: Julia Arellana Ochoa and Maira Delgado Lindeman, Universidad del Norte*

Collaboration in city logistics using interactive simulation: feedbacks from two workshops (non-expert and expert participants) **Presenter: Arthur Gaudron, MINES Paris Tech** *Co-authors: Simon Tamayo and Arnaud de La Fortelle, MINES Paris Tech*

Coordinated Freight Routing with Participation Incentives for Multiple Classes of Users Presenter: Aristotelis-Angelos Papadopoulos, University of Southern California *Co-authors: Ioannis Kordonis, Maged Dessouky, and Petro Ioannou, University of Southern California*

Identifying Trucking Needs within Today's Urban Planning Presenter: Jeffrey Short, American Trucking Research Institute

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Track 5-1 Traffic Management in a Connected Environment Session Moderator: Jean-Paul Rodrigue, Hofstra University

Evaluating left turn saturation flow rate at signalized intersections by applying Floating Car Data (FCD) Technology Presenter: Nasima Bhuiyan, California State University, Long Beach and Stamford University Bangladesh

A new type of delivery jobs in large cities: on-demand instant delivery couriers in Paris Technology Evaluation Methods for Informed Decision-Making Presenter: Laetitia Dablanc, IFSTTAR/University of Paris-East Co-authors: Anne Aruilera, IFSTTAR and Alain Rallet, University of Paris-South

Technology Evaluation Methods for Informed Decision-Making Presenter: Kat Janowicz, 3COTECH, Inc.

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Track 7-3 Implementing Practices for Sustainable Urban Freight Session Moderator: Tyler Monson, Caltrans

The importance of freight networks and partnerships in fostering sustainable urban freight initiatives Presenter: Michael Browne, University of Gothenburg

Improving Reliability and Efficiency on Urban Transport Networks through Freight and **Transit Signal Priority Strategies**

Presenter: Evangelos Kaisar, Florida Atlantic University

Co-authors: Stavroula Manta, Florida Atlantic University: Shahadat Igbal and Mohammed Hadi, Florida International University

Tools to Facilitate Implementation of Effective Metropolitan Freight Transportation **Strategies**

Presenter: Mario Monsreal, Texas A&M Transportation Institute Co-authors: Bill Eisele and Shuang Guo, Texas A&M Transportation Institute; Seckin Ozkul, University of South Florida; Fatemeh Ranaiefar and Michael Kao, Fehr & Peers

It's just not boxes at the Port, the cargo comes in all shapes and sizes!! Presenter: Rajeev Seetharam, Port of Long Beach

Co-author: Matthew Lyman, Port of Long Beach

3:00-3:30 PM Break -- Vista del Mar

3:30-5:00 PM Concurrent Sessions

Mirador

Track 6-1 Planning for the Future of Freight in Urban Regions Session Moderator: Laetitia Dablanc, IFSTTAR

Mitigating the Impact of Freight in London: The City of London Transportation Strategy Presenter: Tom Parker, City of London Corporation

Cival

Track 4-2 Freight and Environmental Sustainability Session Moderator: Juvena Ng, Rensselaer Polytechnic Institute

Estimating fuel consumption and environmental pollution of freight activities from GPS data

Presenter: Trilce Encarnacion, Rensselaer Polytechnic Institute Co-authors: José Holquin-Veras and Carlos Rivera-Gonzalez, Rensselaer Polytechnic Institute

Estimation of Exposure to PM2.5 in Multi-contextual Segregation: A Case Study in Los **Angeles County** Presenter: Yougeng Lu, University of Southern California

Evaluating the economic impacts of sustainable policies on inventory and fleet decisions Presenter: Miguel Jaller, University of California, Davis Co-author: Carlos Otero-Palencia, University of California, Davis

Tikal

Track 5-2 New Modes, New Methods Session Moderator: Steve Holliday, Louisiana Department of Transportation and Development

Counting logistic vehicles in real time using deep learning Presenter: Arthur Gaudron, MINES Paris Tech

Co-authors: Simon Tamayo and Salma Benslimane, MINES Paris Tech

Exploring the potential of drones for urban deliveries in the healthcare sector Presenters: Pauline Hagerfors and Sofia Magnusson, Chalmers University of Technology *Co-authors: Ivan Sanchez-Diaz and Patrik Alexandersson, Chalmers University of Technology*

A study of autonomous delivery robots and their potential impacts on freight efficiency and travel

Presenter: Dylan Jennings, Portland State University *Co-author: Miguel Figliozzi, Portland State University*

Modeling Drone Delivery Costs and Speed-Range-Payload Tradeoffs Presenter: Miguel Figliozzi, Portland State University

Luna Solstice

Track 7-4 Strategies to Address Greenhouse Gas Emissions Session Moderator: Ed McCormack, University of Washington

The new setting and prospects of the urban freight market: the contribution of ALICE to decarbonization of European cities Presenter: Paola Cossu, FIT/ALICE

Co-authors: Charlotte Migne FM LOGISTICS/ALICE; Sergio Güerri, ITENE/ALICE; Fernando Liesa, ALICE

Urban Goods Movement and Local Climate Action Plans: Assessing strategies to reduce greenhouse gas emissions from urban freight transportation Presenter: Andrew Goetz, University of Denver

Co-author: Serena Alexander, San Jose State University

Emissions Produced by Intercity Freight Transportation Presenter: Ricardo Quintero-Giraldo, Universidad Nacional de Colombia *Co-authors: John Jairo Posada-Henao and Carlos Gonzalez-Calderon, Universidad Nacional de Colombia*

The City of Oslo's action being climate friendly. How to develop sustainable urban freight in the new context Presenter: Astrid Bjørgen, SINTEF

Friday, October 18, 2019

7:30-8:30 AM Continental Breakfast and Check In Vista del Mar

8:30-10:00 AM Plenary Session Lagunita Pavilion

Technology & Policy

Moderator: Carrie Bowen, California Highway & Roads Leader, HDR

Panelists: Edward Alegre, Senior Manager, Highway Program, ITS, LA Metro Robert Brown, Head of Public and Government Affairs, TuSimple Marlon Flournoy, Chief, Division of Planning, Caltrans Vince Mammano, Division Administrator California Division, FHWA

10:00-10:30 AM Break – Vista del Mar

Mirador

Track 6-2 Home Delivery Activity: Measuring Demands and Impacts Session Moderator: Miguel Figliozzi, Portland State University

Impact of New Grocery E-Delivery Services on Travel Patterns, Access, and Equity Presenter: Katherine Keeling, Portland State University *Co-author: Miguel Figliozzi, Portland State University*

Changing home-based shopping patterns are leading a new urban freight movements in the Seoul Metropolitan Area

Presenter: Jee-Sun Lee, The Korea Transport Institute

Co-authors: Sang Beom Seo, The Korea Transport Institute and Minyoung Park, Inha University

Characterizing Home Delivery to New York City Residents Presenter: Carla Tejada, The City College of New York *Co-authors: Quanquan Chen, North Jersey Transportation Planning Authority; Yaxin Zhang and Alison Conway, The City College of New York*

Home-Based Delivery Supply Chains: The Digitalization Paradigm Presenter: Jean-Paul Rodrigue, Hofstra University

Cival

Track 4-3 Estimating Urban Freight Demand: Freight and Service Trip Generation Session Moderator: Seckin Ozkul, University of South Florida

Service Trip Attraction and Respective Durations in Commercial Establishments Presenter: José Holguin-Veras, Rensselaer Polytechnic Institute Co-authors: Lokesh Kalahasthi and Diana Ramirez-Rios, Rensselaer Polytechnic Institute

Service Trips Generation Modeling: An Empirical Investigation

Presenter: Diana Patricia Moreno-Palacio, Universidad Nacional de Colombia at Medellin Co-authors: Carlos Gonzalez-Calderon, John Jairo Posada-Henao, Ricardo Quintero-Giraldo, and Natalia Espitia-Pereira, Universidad Nacional de Colombia at Medellin

What can property owners do for sustainable urban freight? The case of Nordstan shopping mall

Presenter: Alena Brettmo, University of Gothenburg

Co-authors: Ivan Sanchez-Diaz and Michael Browne, University of Gothenburg; Christoffer Widegren, Trafikkontoret

<mark>Tikal</mark>

Special Session 2 Hyper-local and zero-emission urban deliveries via micro hubs: a solution for the future? Session Moderator: Wouter Dewulf, University of Antwerp

Panelists: Anne Goodchild, University of Washington Alison Conway, The City College of New York Laetitia Dablanc, IFSTTAR Roel Gevaers, University of Antwerp/BD myShopi

Luna Solstice

Track 3-1 Use of Alternative Fuel Technologies in Logistics Session Moderator: Sue Dexter, University of Southern California

Electric Vehicle Heavy-duty Drayage Trucks: A Case Study on the Impacts of Range on Operational Use in Los Angeles

Presenter: Sue Dexter, University of Southern California Co-authors: Genevieve Giuliano and Jiawen Fang, University of Southern California

Energy Efficient Logistics in the Albany- New York City Corridor Presenter: José Holguin-Veras, Rensselaer Polytechnic Institute

Co-authors: Carlos Rivera-Gonzalez and Julia Amaral, Rensselaer Polytechnic Institute

The Operational Strategy of Alternative Maritime Power at YGPA's container port in South Korea

Presenter: Hyowon Kang, Andong National University Co-author: James Fawcett, University of Southern California

Local air benefits of switching a freight ferry from diesel to Liquefied Natural Gas (LNG) Presenter: Weihan Peng, University of California, Riverside

Co-authors: Jiacheng Yang, Qi Li, David Cocker III, and J. Wayne Miller, University of California, Riverside; Joel Corbin, Una Trivanovic, Prem Lobo, Stéphanie Gagné, Steven Rogak, and Patrick Kirchen

12:30-4:30 PM I-NUF TOUR BY BUS

Optional for I-NUF attendees only—limited seating; Tour of Long Beach Container Terminal and special demonstrations at Port of Los Angeles; box lunch provided