

METRANS NEWS

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METRANS RESEARCH

METRANS Deputy Director Marianne Venieris Leaves Lasting Impression on Port Industry

By Shayne Schroeder, CSULB

The international goods movement industry recently bid adieu to a leading innovator in logistics education.

Marianne Venieris, METRANS deputy director and executive director for CSULB's Center for International Trade and Transportation (CITT) since 2001, retired in December 2013. For Venieris, the job was all about bringing industry people together with the goal of making an impact on the economic well-being of the region. It was something she worked at tirelessly.

"The secret to our success is engaging and bringing together leaders of the industry we serve," Venieris said.

Back in 1995, during a trade association meeting, Venieris became aware of the need for a skilled and well-trained workforce in the goods movement industry. She engaged a small number of people from warehousing and trucking to outline the curriculum for a training program. Soon it became obvious that to address industry demands there was a need for an industry certification or designation that allowed students to understand the entire supply chain. *continued on page 2*



Marianne Venieris, Tom O'Brien and Genevieve Giuliano

METRANS RESEARCH

METRANS Receives \$6.24 Million in Research Awards to Aid Economies, Freight Movement

By Robin Heffler, USC

METRANS has received two major grants from the U.S. Department of Transportation (DOT), plus matching funding from Caltrans, to research ways to improve transportation in major metropolitan areas and how to make the movement of freight more efficient and sustainable.

According to METRANS Director Genevieve Giuliano, the first \$4.24-million grant will fund METRANS as a Tier 1 University Transportation Center (UTC) that addresses the DOT's plan of economic competitiveness.

"In the United States, metropolitan areas with populations of one million or more account for 54 percent of the total U.S. population and 64 percent of the U.S. gross domestic product, carrying almost 90 percent of all transit passengers and all freight shipment by value," Giuliano said, "so it's important to focus on improving transportation in these areas because they are so critical to the national economy."

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METRANS
Transportation Center
USC | CSULB

METRANS, a partnership of the University of Southern California and California State University, Long Beach, is a US Department of Transportation designated University Transportation Center. Its mission is to solve transportation problems of large metropolitan areas through research, education and outreach.

METRANS RESEARCH

METRANS Deputy Director Marianne Venieris Leaves Lasting Impression on Port Industry, cont'd

"This was a ground-breaking concept," Venieris said. "Back then, on-the-job-training was the norm."

It took an entire year to develop the curriculum for the Global Logistics Specialist (GLS) professional designation program. Assisting in the effort was an advisory board consisting of all transport modes and industry sectors, including the port authority, terminal operators, railroad, trucking and warehousing, customs, and freight forwarders. Next, industry leaders and experts were brought in to teach the segment of the supply chain they represented. "To have instructors who 'walk the talk' is invaluable," Venieris said.

"She had a unique vision to create a place where the best efforts of the university could serve an industry that was so vital to the local economy," said METRANS Associate Director Thomas O'Brien, who recently took over as Interim Executive Director of CITT.

Venieris credits her German heritage for her prescient insight into the needs of port-related industries.

"The vision I had was very much based on the German apprenticeship system which is a partnership between industry, government, and the national chamber of commerce. There are many who say it's the backbone of the German economy as it provides and develops a highly skilled workforce," Venieris said. "Trained as a mechanical draftsman, I was a product of that program and a strong believer. My goal was to offer comprehensive skill-focused training for the international goods movement industry with enough essential information to generate a knowledgeable and skilled workforce pool," she added.

More than 1,000 individuals have gone through the program and 900 have earned the GLS designation that has become the industry-recognized standard for professional development.

"I think that the role that CSULB has played in forging a new path forward in logistics education is a model of which our region can be proud," O'Brien said, noting that the GLS Program has provided a skilled workforce for the trade and transportation industry for more than 15 years. "I'm proud to be part of it and I'm also proud to have worked under the founder of the program, Marianne Venieris."

Credit for the success of the GLS program is given to the unprecedented industry/university partnership. The GLS has become the foundation for many other programs, such as the Marine Terminal Operations professional designation program and various customized training programs for public agencies like Caltrans and the Port of San Diego.

Equally as impressive is that industry leaders suggested that the university can do more by offering stakeholders a neutral and unbiased forum where they can jointly address issues of common concern, share expertise, and bring about solutions. This led to the establishment of the CITT in 1998, the center's Policy and Steering Committee that meets monthly, and the annual METRANS/CITT State of the Trade and Transportation Industry Town Hall Meeting.

Working closely with industry stakeholders uniquely positions CITT and METRANS to learn about transportation and goods movement issues and challenges.

"This helps us to revise and update our curricula frequently, keeping to

our promise to offer the most up-to-date information," Venieris said. "Additionally, it is invaluable for our research. Because of the relationships and friendships formed over the years, CITT and METRANS are able to secure sound and valid data, which was not accessible to many researchers prior."

Port of Long Beach Harbor Commission President Doug Drummond acknowledged Venieris' ground-breaking efforts.

"It was revolutionary to think that you could bring ports, terminal operators, long shore labor, public agencies and the community together at the same educational forum and have them meet regularly around the same table but she did it," **Tom O'Brien**

"This lady has broken more new ground than anyone I know in the academic world," he said. "Her students enrich both ports of the San Pedro Bay and stretch out around the world now. She is really a change agent."

And Venieris – whose efforts were recently recognized in proclamations from the Gateway Cities Council of Governments, California State Assembly, and the Port of Long Beach Harbor Commission – knows she couldn't have done it all alone, giving tremendous credit to her staff. "I had an amazing staff – talented and skilled individuals very committed working as an effective team," she said. "People expect you to say 'I couldn't have done it without them,' but in this case it's true. And I could not wish for a better person than Tom O'Brien to follow me. His research, teaching, publications, and speaking engagements have established him as an expert."



Alix Traver, Marianne Venieris and Tom O'Brien.



CA Assemblywoman Bonnie Lowenthal presents a proclamation to Marianne.



Long Beach Chamber President & CEO Randy Gordon presents an award to Marianne.

Partner Spotlight – Korea Transport Institute (KOTI)

By Jongwon Lee, USC MPL 2014

This article is the first in a series of articles spotlighting our research partners across the globe. The Korea Transport Institute (KOTI) is the national transport research institute for Korea. Its purpose is to conduct research in support of national and regional transport policy.

The Korea Transport Institute (KOTI) is one of three partners collaborating with METRANS in the MetroFreight Center of Excellence, which is funded by a \$3.7-million grant from the Volvo Research and Educational Foundations.

The global partnership between METRANS and KOTI was facilitated by Kee-Yeon Hwang, former president of KOTI. Hwang received his Ph.D. from the University of Southern California in 1992. Professor Genevieve Giuliano served as his advisor. The USC-KOTI relationship was formalized in January 2011 with a signed memorandum of understanding on joint research and publications activities; those efforts led to the partnership in the MetroFreight Center.

Given increasing demands for environmentally friendly transportation modes in South Korea, KOTI researchers are developing more efficient and sustainable transportation systems. To advance those efforts, the KOTI team is working on integrated software solutions to address the complexity and growth of transportation functions spurred by the rapid growth of the South Korean economy. KOTI members seek to share city logistics policies and experiences in Korea and to learn from international cooperation.

KOTI team members from the Department of Logistics Policy and Technology working on MetroFreight projects include the following:

- Dr. Sangbeom Seo, principal investigator, is in charge of logistics industry policy and study;
- Dr. Jee-Sun Lee, communications leader, conducts research on logistics, local economy, city logistics, and transportation geography; and
- Changjin Ahn, administrative leader, studies city logistics and economic geography.

“We think this is a great chance to communicate with university partners,” said Dr. Lee. “Particularly, we are looking forward to sustainable and implementable strategies for urban freight in the Los Angeles region, which has one of the largest seaports in the world.”

Seoul team members, Dr. Seo and Dr. Lee attended INUF for the first time last fall; they appreciated the diverse programing and the opportunity to share their own research during the conference. They presented a case study on the freight modes and systems employed at the Dongdaemun Fashion Cluster in Korea. The presentation focused on the urban freight

strategies and future challenges in the Central Business District (CBD) of Seoul. They also found the seminars and activities offered at the conference valuable. Dr. Seo identified the keynote speech by UPS Vice President Charles “Chuck” Holland as particularly valuable. The research titled “The Geography of Urban Freight: A City Logistics Topology,” presented by Jean-Paul Rodrigue of Hofstra University and co-author Laetitia Dablanc of IFSTTAR, was also of particular interest to Dr. Seo.



From left to right: Jongwon Lee, Changjin Ahn, Jee-Sun Lee, Hong-Seong Roh, Seung-Ju Jeong, Sangbeom Seo, and Tai-Hyeong Lee

Going forward, KOTI plans to participate more actively in various activities that METRANS hosts such as conferences and seminars. KOTI encourages experts on transport economics, big data processing, environment, and transportation systems, among other fields, to participate in the I-NUF conferences and share their knowledge and experience for future cooperative research.

Dr. Lee toured the Alameda Corridor, which was the final activity for the I-NUF conference. “The tour was very impressive,” she said. “This trip to Long Beach for the I-NUF conference was very fruitful in terms of learning what role METRANS plays, sharing interesting research ideas and knowledge, and solidifying the MetroFreight cooperative research network. I really want to pass my BIG ‘Thank You’ to all the staff who organized and arranged this conference.”



Alumni Spotlight

METRANS EDUCATION

Where are they now? Professor Jiyoung Park

by Jongwon Lee, USC MPL, 2014



Jiyoung Park, Assistant Professor,
University at Buffalo (UB)

This is the second in a series of articles spotlighting our transportation alumni. In this issue, we include two alums who are now university professors.

Dr. Jiyoung Park is assistant professor in the Department of Urban and Regional Planning, University at Buffalo. His research focuses on developing systematic planning tools to measure economic costs and resilience effects of shocks to the urban transportation and environment systems, especially those related to extreme events. He recently received the 2013 University at Buffalo (UB) Exceptional Scholar – Young Investigator Award in recognition of his outstanding record of research and publications.

Before joining UB, he was employed as a post-doctoral scholar developing applied economic models for national and regional security issues at the Center for Risk and Economic Analysis of Terrorist Events (CREATE) at the University of Southern California (USC). He was appointed to UB2020's Extreme Events Strategic Strength initiative based in no small part on his freight modeling experience acquired while working on METRANS research projects.

Dr. Park earned his Ph.D. in Urban Planning in 2007. He recalls that most of his Ph.D. life focused on developing the National Interstate Economic Model (NIEMO). That model is a spatially disaggregated operational economic model of the 50 states and the District of Columbia. Dr. Park was interested in how to update a conventional input/output model of the inter-regionally connected U.S. economy, and hoped that his model would provide a useful way to generate estimates of economic mitigation,

substitution, and resilience effects, especially when combined with more advanced econometric techniques. "I spent most of my time on campus working to create and develop a model using secondary data sources," he said.

Since 2008, Dr. Park has also formulated various spatial and temporal extensions of the economic modeling approach to investigate the magnitudes and policy implications in infrastructure services and freight transportation. These extensions required methodological innovations that addressed problems of urban freight transportation, land use, and the environment. He seeks to integrate such extensions into urban and regional planning systems that address:

- local land use modeling;
- transportation network and multi-modal freight flow systems (also called TransNIEMO);
- multi-period prediction problems that incorporate flexible substitution between industry sectors (also called FlexNIEMO);
- international trade and economic development issues, including Panama Canal expansion;
- demand price elasticity and consumer behavior modeling;
- incorporation of the Federal Emergency Management Agency's software, HAZUS;
- involving game theory and complex decision making processes; and
- environmental modeling for estimating greenhouse gas emission effects.

Dr. Park reconnected with his METRANS colleagues at the last International Urban Freight Conference (I-NUF) held in Long Beach in October 2013. There, he presented two papers: U.S. Port Investment Strategies and the Corresponding Economic Impacts Stemming from the Panama Canal Expansion, and Economic Implications of the Canada-U.S. Border Bridges:

Applying a Transportation-Combined Binational Input-Output Model for Canada and the U.S.

At I-NUF, Dr. Park interacted with nationally and internationally established scholars in the urban freight-modeling field. He found the session "Freight in Urban Modeling and Planning – Supply Chain Flows" particularly enriching. "The INUF experience was invaluable," he said. "I take great satisfaction that the nature of research I am working on parallels and contributes to the research goals of METRANS and of the global transportation community."

Dr. Park looks forward to further collaboration with METRANS scholars, especially those who specialize in forecasting urban freight movement. Such approaches include developing updated and automated systems tools to address challenges in the emerging field of sustainable freight transportation. He also seeks to develop software that provides "an economic and environmental impact tool" that academics and professional planners beyond academia can use to visualize and address future freight movement challenges.



Alumni Spotlight

METRANS EDUCATION

Where are they now? Professor Sylvia He

by Sylvia Ge, USC MSCE, 2014



*Sylvia He, Assistant Professor,
Chinese University of Hong Kong*

Dr. Sylvia He's research synthesizes transportation, urban economics, and spatial analysis. "I plan to continue to do what I am doing – being a researcher in transportation, with an increasing focus on China's motorization and transportation demand management issues," she said, noting that she is proud to serve as a founding member of the Urban Studies Program at the Chinese University of Hong Kong, which launched "about a year ago."

Dr. He traces her interest in planning to her undergraduate courses in Geographic Information Systems (GIS) at Sun Yat-sen University, China. "When I was pursuing my master's at McMaster University, Canada, I had the chance to work on my advisor's NSF [National Science Foundation] project that applied a GIS algorithm to derive the space-time prisms of travelers who engaged in shopping trips," she recalled. "The project and my research assistantship at the Centre of Spatial Analysis gave me an invaluable training in spatial thinking and database management."

While writing her master's thesis, Dr. He began searching for Ph.D. programs that focused on the planning and policy aspect of transportation. "Then I found USC," she said, adding that METRANS was the primary reason why she chose USC for doctoral studies.

"In my second year, I started to work on a METRANS project that eventually led to a co-authored publication in *Urban Studies*," Dr. He recalled. "During the first summer at USC, I was selected as a Christine Mirzayan Science and Technology Policy Graduate Fellow by the National Academy of Sciences,

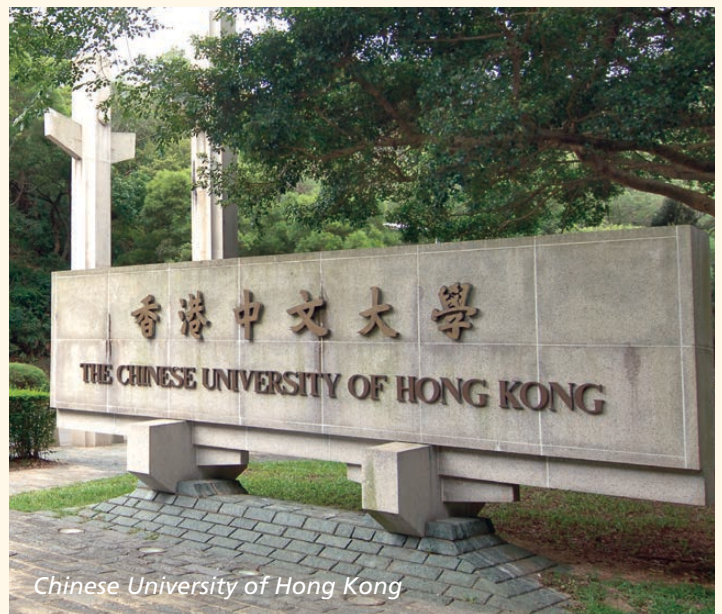
which allowed me to work at the Transportation Research Board (TRB) in Washington, D.C., during the summer. It was quite an opportunity for me to work on a number of transportation research projects and the experience deepened my interests in pursuing a career in transportation."

Working with METRANS Director Genevieve Giuliano was particularly fruitful for Dr. He. Beyond her academic achievements in transportation policy, Giuliano also specializes in travel behavior, an area of research that Dr. He that he sought to focus on for her doctoral dissertation.

Dr. He also valued the contributions of professors from outside her department, and from local practitioners she worked with while at USC. "Viterbi School of Engineering professor James Moore introduced me to the Women's Transportation Seminar (WTS) of which I later became a

member," she said. "The networking at WTS definitely connects the theory with practice and makes me realize that transportation can impact the society in significant ways."

After earning her Ph.D. in Urban Planning at USC in 2012, Dr. He secured a position as Assistant Professor in the Department of Geography and Resource Management at the Chinese University of Hong Kong. Her advice for students is simple: figure out as early as possible what career path they would like to pursue. The earlier the goal is set, the more time students have to work on it to achieve that goal. She also suggests that current students take time to enjoy their tenure as a student "because working full time in academia is a very demanding job."



Chinese University of Hong Kong

METRANS RESEARCH

METRANS Tier 1 UTC Launches Research Projects 2013-2014

The following 6 projects were funded in the most recent METRANS grant process.

Area	School	PI/Co-PI	Project #	Project Title
Understanding passenger/freight interactions	USC	Marlon Boarnet	USC 1-1a	Urban Spatial Structure, Employment Sub-Centers, and Passenger and Freight Travel
Understanding passenger/freight interactions	USC	Genevieve Giuliano	USC 1-1b	The Freight Landscape: Using Secondary Data Sources to Describe Metropolitan Freight Flows
Achieving system efficiencies	USC	Maged Dessouky	USC 2-1a	Efficiencies in Freight and Passenger Routing and Scheduling
Achieving system efficiencies	USC	Petros Ioannou	USC 2-1b	Design and Evaluation of Impact of Traffic Light for Tracks on Traffic Flows
Understanding passenger/freight interactions	CSULB	Shui Lam	CSULB 1-3a	Tracking Truck Flows with Programmable Mobile Devices for Drayage Efficiency Analysis
Understanding passenger/freight interactions	CSULB	Thomas O'Brien	CSULB 2-2	Mitigating Urban Freight Through Effective Management of Truck Chassis

Details on these projects are available at www.metrans.org/tier1utc/research.html.

METRANS RESEARCH

Seminar Series | Spring 2014

The Spring seminar schedule included the following presentations.

Wednesday, March 12

Speaker: Jenny Schuetz

Assistant Professor, Sol Price School of Public Policy, USC

Title: Does Rail Transit Investment Encourage Neighborhood Retail Activity?

Thursday, March 13

Jointly Sponsored with Price Center for Social Innovation and USC Lusk Center for Real Estate

Speaker: Robert Sampson

Henry Ford II Professor of the Social Sciences, Harvard University

Title: Great American City: Chicago and the Enduring Neighborhood Effect

Wednesday, March 26 (RGL 209)

Student Transportation Research Showcase

Speakers: Mohja Rhoads and Xize Wang

Title: Rhoads: The UN-fixed Workplace: Interactions between the Workplace and Space-Time Constraints

Title: Wang: Does LRP Reduce Personal Vehicle Carbon Emissions? A Before-After, Experimental-Control Evaluation of Los Angeles' Expo Light Rail Line

Wednesday, April 9

Speaker: Heather Stephens

Assistant Professor, Department of Economics, California State University Long Beach

Title: How Do Pollution and Other Environmental Disamenities Affect Business Location?

Wednesday, April 23

Student Transportation Research Showcase

Speakers: Andy Hong and Yuting Hou

Title: Hou: Traffic congestion, polycentricity and intermetropolitan firm location choices – a study of the Los Angeles region

Title: Hong: Can new light rail promote neighborhood physical activity?

Monday, April 28

Speaker: Dan Gardner

Trade Facilitators, Inc.

Title: "Making Hay: The Future of U.S. Competitiveness in the Age of Globalization"

Additional information about these seminars is available at www.metrans.org under the Outreach tab.

METRANS RESEARCH

METRANS Receives \$6.24 Million in Research Awards to Aid Economies, Freight Movement, cont'd

The second \$1-million grant, which Caltrans will match, dovetails with the Center's specialty in urban freight research. METRANS is a partner in the National Center for Sustainable Transportation led by University of California, Davis.

"We will look at specific aspects of freight, such as how to more effectively route alternative-fuel vehicles and how warehousing and distribution locations affect freight flows within metropolitan areas," Giuliano said. Overall, the grants help to expand transportation research and engage more faculty and students, she added. The grants will also enable METRANS to further expand its education and award-winning outreach programs.

"One of the big goals of a center like this is to train the next generation of both the professional workforce and the academic workforce," she said. "We have funded more than 100 researchers over the years. At the same time, we see increasing numbers of USC graduate students who are choosing transportation concentrations in both the Viterbi School and the Price School."

Maged Dessouky, professor of industrial and systems engineering, is one

of the Viterbi School's leading contributors to METRANS research. His work focuses on the scheduling and routing of rail and trucking operations in the U.S., as well as the impact of trucks' use of compressed natural gas – which is more sustainable but less available than gasoline – on truck scheduling and routing.

"METRANS allows people to get together to address urban congestion from different disciplines," Dessouky said. "Transportation requires both engineers and policy people. Without grants like the two we just received, we'd all be operating on an island by ourselves. At the same time, the grants will allow both the Price and Viterbi Schools to make transportation one of its major thrusts."

Giuliano noted that the center's research takes a systems approach. "All types of transportation interact and depend on each other," she explained. "People and packages interact because they share the same infrastructure and services. We need to think about the transportation system as a whole and how we can make it better."

"One of the biggest goals of a center like this is to train the next generation of both the professional workforce and the academic workforce." **Genevieve Giuliano**

METRANS RESEARCH

New Faces at METRANS



Steve Lantz

Steve Lantz and Catherine Showalter recently joined METRANS as project managers, but their new titles only tell part of the story. Both bring decades of real-world experience to ongoing research, engagement, and education initiatives.

Lantz has taken on a variety of responsibilities at METRANS, including assisting with research for the California Freight Mobility Plan, the Caltrans California International Border Approach Study, and an upcoming MetroFreight transportation research project. Based at CSULB, Lantz brings years of project management and subject matter expertise to transportation fields that include public transportation and transit, capital program policy, public sector community relations, and grant development. He has held executive positions at the Century City Chamber of Commerce, Los Angeles County Transportation Commission, L.A. Metro, and Metrolink. He is currently a transportation consultant for the South Bay Cities Council of Governments where he manages a \$1.5 billion program of transportation improvement projects.



Catherine Showalter

As a member of the METRANS MetroFreight Center of Excellence, Showalter facilitates communication and research efforts with project partners in New York, Paris, France, and Seoul, Korea. The Center conducts research to increase the sustainability of freight within metropolitan areas. She also oversees the METRANS Archived Data Management System (ADMS) research project. ADMS is an archive of transportation system data makes it possible for researchers to develop new methods for management and planning, and for transportation professionals to apply these methods. Based at USC, Showalter is facilitating collection of additional data sources for both ADMS and MetroFreight. Showalter has directed and managed a range of public policy and educational organizations, including South Coast Air Quality Management District, RIDES for Bay Area Commuters, Inc., the Osher Lifelong Learning Institute, UCLA Extension, and the South Bay Cities Council of Governments.



Join us at I-NUF, the **International** Urban Freight Conference, to explore all aspects of goods movement in the world's metropolitan areas. For abstract submission, sponsorship, registration, and conference information, see www.metrans.org or call (562) 985-2876.

Save The Date

6th METRANS

International Urban Freight Conference

2015 I-NUF

October 21-23, 2015

The Westin Long Beach Hotel
Long Beach, California



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More information on transportation research, publications, education, training and technology transfer can be found at www.METRANS.org