The Center for Supply Chain Management and Logistics here at The University of Illinois at Chicago has an inherently international focus. Supply Chain has always been global in nature as raw materials, manufacturing plants, distribution centers, and retail centers reflect the shifting trade routes of civilizations expanding. Today, supply chains continue to be innovators in international logistics in our changing world. The activities of The Center, which was focused on shoring up its activities internally, has now moved to be more outward-facing. While members of The Center have performed international research for years, this year we specifically spent time with our global academic colleagues exchanging information and sitting at their tables. In 2012, we had members of The Center presenting research in Singapore, Taipei, Taiwan, and Seoul, South Korea. In addition, we have welcomed international scholars from South Korea to our campus. In this season’s newsletter we highlight some of the research that has been presented around the globe and locally. We also profile some of The Center's specific research areas that are having an impact both within The Center and on supply chains internationally.
Faculty Research Presentations

This past August, UIC faculty traveled to Singapore to present their research funded by the Center for Supply Chain Management and Logistics. Four different papers were presented at the 14th Annual International Conference on Electronic Commerce in Singapore. Several of the papers were presented at a special session devoted to Transport, Trade, Logistics and Technology.

The papers presented were titled:

**Economies of Agglomeration and Supply Chain Network Effects in Transportation and Logistics Clusters: The Case of the Panama Maritime Cluster**
Anthony M. Pagano, University of Illinois in Chicago, USA
Onésimo Sánchez, Panama Canal Authority, Balboa, Ancon, Panama
Ricardo Ungo, Panama Canal Authority, Balboa, Ancon, Panama

**Transaction Risk Management in China-US Trade e-Markets**
J. Christopher Westland, University of Illinois in Chicago, USA
Ye Di, Xiamen University, P. R. China

**A Behavioral Freight Transportation Modeling System: An Operational and Proposed Framework**
Zahra Pourabdollahi, University of Illinois in Chicago, USA
Abolfazl (Kourosh) Mohammadian, University of Illinois in Chicago, USA
Kazuya Kawamura, University of Illinois in Chicago, USA

**Decreasing the Cost of Metropolitan Mass Transit by Optimizing Resource Allocation Among Public and Private Providers**
Jason Coupet, University of Illinois in Chicago, USA
Darold Barnum, University of Illinois in Chicago, USA
In September 2012, Dr. Anthony Pagano, Director of the Center, presented in Taipei, Taiwan at the Annual International Association of Maritime Economics Conference in Taipei, Taiwan. The paper was entitled “Impact of Privatization on Port Efficiency and Effectiveness: Results from Panama and US Ports.” Co-authors are Grace Wang, Texas A&M University at Galveston, and Sanchez and Ungo from the Panama Canal. This paper won the Maritime Policy & Management Best Paper Award at the conference.

In March 2012, Dr. Pagano presented a paper at the 53rd Annual Meeting of the Transportation Research Forum, Tampa, Florida entitled “A Game Theoretic Approach to Understanding Port Privatization Decisions: The Case of Panama Transshipment Ports.” Co-authors are Onesimo Sanchez and Ricardo Ungo from the Panama Canal Authority. Later than month, he presented at the Trans-Pacific Maritime Conference, Long Beach, California, entitled “US Containers Through Canadian Ports and the Harbor Maintenance Tax.”

Faculty Research Award: J. Chris Westland

J. Christopher Westland has been conferred a High-Level Foreign Expert award under the Chinese government’s Thousand Talent Program, which awards grants to foreign academics and entrepreneurs over the next 10 years. Dr. Westland will receive an honorary position of Overseas Chair Professor at Beihang University, China’s premier aerospace research university, conducting research at one of the University’s laboratories. The program is part of a countrywide effort by China to build the research and capacity of higher education institutions in the science, technology, engineering, and mathematics.

Dr. Westland will use his multi-year award to focus on developing formal models for research in effective information technologies – technologies that can read and convey human emotion with machines. Dr. Westland will be collaborating with several other Chinese universities in addition to Beihang University.
South Korean Scholars Visit UIC

In January 2013, a delegation of scholars from the Hankyong National University came to the University of Illinois at Chicago to encourage research collaborations and present trends that are surfacing in South Korea.

Led by Dr. Sungjin Kim, president of Hankyong National University, this delegation of scholars also included Dr. Sang Moon and Dr. Moohong Kang. UIC’s Center for Supply Chain Management and Logistics hosted the group on-campus: showcasing the interdisciplinary research occurring at UIC, introducing them to the leadership at UIC, and hosting a reception that featured a presentation on smart logistics by Dr. Kim.

As experts in the area of logistics and technology, the scholars brought insight and trend analysis to the ever-evolving discipline of logistics and supply chain management. Dr. Pagano and Dr. Kim look forward to future research collaborations between UIC’s Center and Hankyong National University’s Smart Logistics Technology Institute.

**UIC Presentations**

Four UIC professors presented research to the visiting scholars:

- Matt Liotine presented research on “Regional Public-Private Interoperable Supply-Chain for Catastrophic Planning.”
- Aris Ouksel presented research on “Supply Chain Management: Mobile and Sensor Networks, Interoperability Issues, and Risk Management.”
- Chris Westland presented research on “The Convergence of Logistics, Information Technology and Social Networks.”
Research Team:
Alan Maltter, Managerial Studies, PI; Jane Lin, Civil and Materials Engineering, PI; Gene Fregetto, Managerial Studies, Co-PI; Houshang Darabi, Mechanical and Industrial Engineering, Co-PI; Kazuya Kawamura, Urban Planning, Co-PI; and Kouros Mohammadian, Civil and Materials Engineering, Co-PI.

The research project focuses on two stages of the supply chain as they relate to innovation and environmentally sound procedures and policies:

1. **Energy Efficiency Study for Manufacturing Production Line**

   In summary, the methodology on the green-oriented management for the production systems has been well developed in recent years. The key limitation that hinders the application in real world is the lack of the integration of the production system and other auxiliary systems in the plant, e.g., material handling system. Therefore, we plan to extend our research range from separate manufacturing systems to the integration of both manufacturing and material handling systems since both play a critical role in supply chain management in the real world plant.

2. **Economic and Environmental Analyses of Urban Logistics**

   Among new, innovative city logistics strategies, delivery cooperation has received increasing academic and practical attention mostly in Europe and Japan. The idea is to establish cooperation among the suppliers, carriers and the customers through an Urban Consolidation Center (UCC). In this study, we are quantifying what and how operational factors may make delivery consolidation more attractive than the current delivery in monetary terms, and what the social benefit is in terms of reduction in total emissions and life cycle energy consumption. The objective is to minimize the logistics cost which involves the monetary costs for activities from production to consumption.

This research is one of five areas of study sponsored by the Center for Supply Chain Management and Logistics.