



# UT-UTC UPDATE

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The Newsletter of The University of Toledo University Transportation Center



Director Martinko with Mayor Finkbeiner and James Tuschman, Chair of the Joint Intermodal Task Force (and Chair of the Ohio Board of Regents), speak at a press conference unveiling plans for an intermodal expansion in Toledo which was funded with stimulus monies

## Director's Message –

This is a time for action on many fronts. Our nation demands it. Your state, county, city, township, and your university demands it. In answering this call for action, one of the most important contributions a great university can make is assisting in the economic development of the region it occupies. The mission of our UTC matches perfectly with one of the major elements of our nation's action plan for economic recovery and stimulus: transportation and logistics. At the University of Toledo UTC we take this opportunity to drive our regional recovery and embrace it. We are working on many fronts including research, community outreach, economic development, and making the best use of stimulus opportunities. The months ahead will be exciting but demanding. Make your mark and step out of your comfort zone. Follow the lead of Mario Andretti who says, "If everything seems under control, you're just not going fast enough."

Richard S. Martinko, P.E.

## Martinko Plays Key Role In Intermodal Expansion

On March 26<sup>th</sup>, the announcement was made that Federal economic stimulus monies were granted to a City of Toledo intermodal project. The University of Toledo UTC played a central role in researching, developing, marketing, and providing the economic development study necessary to secure funding for the new intermodal site in Toledo, Ohio. Jim Tuschman, Chairman of the Joint Task Force on Intermodal Transportation and Logistics, stated, "Rich Martinko's contributions were critical to the successes achieved on the Task Force projects."

The intermodal site, referred to as Airline Junction,

In This Issue	Page
Director's Message	1
Martinko Plays Key Role In Intermodal Expansion	1
Sarah Schafer UT-UTC Student of the Year	2
International Symposia in Korea, India: Next Spain	3
Graduate Students Gain Experience at Symposium	3
Training on Great Lakes Data Base Scheduled	4
UT-UTC & TTA Consider Alternative Energy Projects	4
UT Solar Car Team on UT-10 News	4
Maritime Academy Students Study Environment	5
Martinko Joins High School SCM Committee	5
FOCUS ON: Researcher Alper Murat at Partner WSU	5
UT-UTC Research Final Reports	6
UT-UTC Staff	6

*Transportation for Economic Security and Development:  
Alternate Energy, Infrastructure Utilization, and Supply Chains*



# UT-UTC UPDATE

services the Norfolk Southern RR. This project will reconfigure ramp infrastructure and allow NS to increase its lift capacity from 30,000 lifts per year to 60,000 lifts per year at a cost of only \$12.7 million. Director Martinko says of the project, "We have the strongest conviction that this project can and will be the pillar of economic stimulus in our region." In a demonstration of the power of cooperative efforts, Mark L. Burton, Ph.D., Director of Transportation Economics at the Center for Transportation Research at the University of Tennessee, partnered with the UT-UTC in producing the economic stimulus numbers for this project. The results show \$28 million dollars of industrial development around the Airline Junction intermodal site and the creation of nearly 900 permanent jobs at an average salary of \$29,000 per year. It will also produce state and local tax revenues of \$2.7 million dollars as well as 300 to 500 construction jobs during the five year development process. The Center will continue to work with their partners in the region to make Airline Junction Intermodal and other opportunities come to life.

## **Sarah Schafer UT-UTC Student of the Year**

Sarah Schafer was the UT-UTC Student of the Year for 2008. She received her award at the 18<sup>th</sup> Annual Outstanding Student of the Year Awards banquet in Washington, D.C. in January.



*Sarah, far right, receiving her Student of the Year certificate from Dr. Randy Machemehl, the current President of the Council of University Transportation Centers, with former Secretary of Transportation Mineta and US DOT Administrator Paul Brubaker*

The focus of her study is maritime and intermodal transportation freight flows. She has worked in a leadership position on several Great Lakes regional

transportation projects that support the Great Lakes Maritime Information Delivery System project at the University of Toledo GISAG Center. This system is a data collection and exchange resource for public policy decision makers and regional stakeholders of maritime commerce to draw the linkage between maritime freight movements and the regional economy. Part of her function on the project team is to meet with key leaders of maritime commerce to promote the use of this system.

In addition to receiving \$1000, Sarah's registration and expenses for attending the Transportation Research Board (TRB) conference which followed the banquet were paid by the UT-UTC.



*Sarah with her husband Guy at the Awards banquet. Guy was the UT-UTC Student of the Year 2006. They are a true transportation couple.*

Sarah has an analytical business background and holds a BBA in Finance. She is a graduate student in Geography and Planning working on her Master's degree. Her husband, Guy Schafer, was the UT-UTC Student of the Year recipient in 2006. Presently he is a Senior Materials Analyst at Ohio Modular Manufacturing Company which makes the chassis for the Jeep Wrangler. He is in charge of network design for the transportation system as well as transportation cost analysis for current and potential business. He also manages the containerization for all parts.

# UT-UTC UPDATE

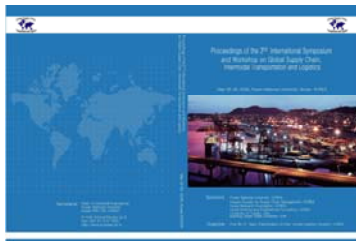
## International Supply Chain, Intermodal Transportation and Logistics Symposia in Busan, Korea and Coimbatore, India; Next Spain

The original objectives of the Network of Scholars project funded by the UT-UTC was to build a coalition of scholars and educators throughout the world who would meet to identify best practices in global supply chain management, continue to build a global network of universities to study supply chain management, and to develop education and training programs. These activities would be accomplished by faculty and student exchanges, cooperative research projects, and joint program development.

In the short time since the Network was formed, there have been three conferences to facilitate meeting these objectives. The first International Symposium and Workshop in Supply Chains, Intermodal Transportation and Logistics was held on the campus of The University of Toledo in October 2007; the second in Busan, Korea in May 2008; the third in Coimbatore, India in January 2009. A fourth is scheduled for Madrid, Spain in 2010.

The 2<sup>nd</sup> International Symposium and Workshop in Busan was attended by 100 faculty, students and transportation professionals, up from the attendance of 70 at the first conference; 30 papers were presented, 10 more than were presented in Toledo. Sponsors included Pusan National University, the Korean Society for Supply Chain Management, the Korean Research Foundation, the Korea Science and Engineering Foundation, UT-UTC partner Bowling Green State University along with The University of Toledo.

Dr. Hokey Min, program co-chair and James R. Good Chair in Global Supply Chain Strategy at partner institution Bowling Green State University, gave the welcome address.



The complete proceedings from the event have been posted on the Network of Scholars section on the UT-UTC web site including the full text of the papers presented. It can be accessed at

[http://www.utoledo.edu/research/ututc/docs/Proceedings\\_Busan\\_Symposium\\_20.pdf](http://www.utoledo.edu/research/ututc/docs/Proceedings_Busan_Symposium_20.pdf)

The 3<sup>rd</sup> International Symposium and Workshop in Coimbatore, India was sponsored by PSG Institute of Management (India); the Instituto de Empresa (Spain); the College of Business, the International Business Institute and the UT-UTC at The University of Toledo. Dr. Paul Hong, PI of the Network of Scholars UT-UTC project, gave the opening address.



*Dr. Paul Hong of UT shakes hands with Dr. Ravichandran, Professor and Director of the Indian Institute of Management, the main guest of the valedictory session*

The third conference saw real growth with the attendance reaching 200; 43 papers were presented. The meeting brought together faculty from more than twenty universities in six countries (India, Korea, Japan, Sri Lanka, Spain and the USA), to discuss research ideas, to build partnerships, and to identify specific actions which will allow participants to work together.



*The faculty and student organizers of the 3<sup>rd</sup> International Symposium and Workshop on Supply Chain, Intermodal Transportation and Logistics in Coimbatore, India*

## Graduate Students Gain Professional Experience at India Symposium

Oahn Tran and Kihuyun Park, both Ph.D. students in the College of Business Administration at UT were able to attend the Symposium and Workshop in Coimbatore. Both presented papers and were pleased with the interaction they received from other attendees which will help them improve their work. Oahn was

# UT-UTC UPDATE

exuberantly enthusiastic about the experience saying, "I made several friends there and plan to do co-op research with them." They also found experiencing another country valuable to their understanding of global transportation issues.

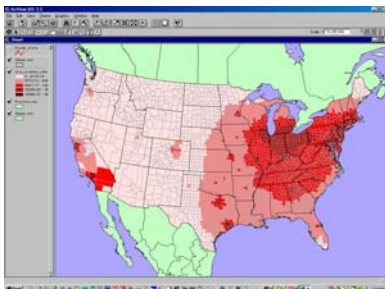


Graduate Students Oahn Tran & Kihyun Park at the International Transportation Symposium in Coimbatore, India

## Training on the Great Lakes Data Base Scheduled For This Spring



Hands-on training for the *Midwest FreightView*, part of the Great Lakes Maritime Research Information Clearinghouse, is scheduled for late this spring. The session will be held in a computer lab at the University so all participants can gain experience with the extensive data base and its capabilities during the training. A detailed announcement of the session will be released soon. To learn more about *Midwest FreightView*, see <http://www.maritime.utoledo.edu/> For information, or to make sure you are on the distribution list, contact the UT-UTC at 419-530-2391.



Screen showing the data base user a map which displays the density of wholesale trade activity in the US

## UT-UTC And TTA Consider Alternative Energy Projects



Alt Energy Team

The Alternative Energy Team at the Toledo Technology Academy, a magnet high school in Toledo, already has an impressive track record. They have completed a propane/electric hybrid Zoo-Mobile, they built and raced a Hummer go-cart running on E-85 at the

Jackson Speedway in Michigan and an all electric Hummer go-cart at a race in Adrian, Michigan. They are in the process of building a propane Indy racer and converting a 1975 Corvette to an electric-diesel hybrid. (The Corvette was donated with the stipulation it would be converted.) TTA supporters and sponsors already include the UAW, General Motors, Johnson Controls, Dana and numerous other companies.

So, how could the UT-UTC get involved with these ambitious high schoolers in their team activities while they learn about alternative energy and fuels, one of the focus areas of the Center? That was the question posed during a visit to the school director, Gary Thompson, by UT-UTC assistant director, Christine Lonsway. As the fourth year of Center funding approaches, options will be presented by the school for initial involvement by the UTC. It was agreed there are significant opportunities to work together and build a relationship among TTA, the UT-UTC and the University. More to come!

## UT Solar Car Team on UT-10 News



The UT Solar Car Team earned some good press as it works to build the organization and ultimately a car powered by solar. UT-10 News, a

presentation of the UT Department of Communication featured the Team on a recent program. The beginning funding for the Team has been provided by the UT-UTC and Center staff continue to provide office help as needed.

# UT-UTC UPDATE

## Maritime Academy Students Study the Environment



Toledo Maritime Academy students took a field trip to the Toledo Zoo to study their exhibits on environmental issues in the Great Lakes. This was the first in a series of field trips for which the transportation is funded by

the UT-UTC. Such trips are integral to the learning of these aspiring maritime professionals.

## Martinko Joins High School SCM Committee

Director Martinko joined the newly formed advisory committee to develop a program of study in supply chain management at Woodward High School, a vocational school in Toledo. At their organizational meeting, he gave a presentation on transportation and logistics job opportunities nationally and locally and how the high school can build career paths for their students in these areas.

The committee is designed to gather input from community organizations, institutions and businesses in creating the program. The course content will cover the various links in the supply chain from the beginning raw materials stage to the end-of-the-line user or consumer. Designed to prepare students for real life job opportunities, it will also cover paths students can follow if they choose to earn a college degree. The goal is to provide the Toledo Metropolitan Area with job-ready students who are eager to enter the various components of the supply chain and transportation industries.

## FOCUS ON: Researcher Alper Murat At Partner WSU



Dr. Alper Murat is an assistant professor in the department of Manufacturing and Industrial Engineering at Wayne State University, one of the partners in the UT-UTC. His project, "Value of ITS Information for Congestion Avoidance in Inter-Modal Transportation Systems" was

among the first funded by the UT-UTC. He has directed a number of research projects sponsored by the U.S. Department of Transportation, Michigan Department of Transportation, Department of Homeland Security, the University of Detroit – Mercy, The University of Toledo, Ford Motor Company, Visteon, and General Dynamics Land Systems.

Dr. Murat's past and ongoing research encompasses such areas as logistics and transportation planning and management, supply chain management, and applications of operations research methods in product development and healthcare. He has published his research in several refereed journals and has presented his work in various national and international conferences. He is a member of the Institute of Industrial Engineers, Institute for Operations Research and Management Science, Council of Logistics Management, Decision Sciences Institute, Production and Operations Management Society, Canadian Council of Professional Engineers, Engineering Society of Quebec (Ordre des Ingenieurs du Quebec), Centre de recherche sur les transports (CRT), INFORMS, CORS and Decision Sciences Institute.

Dr. Murat, with his doctoral dissertation work titled "Allocation Based Modeling and Solution Framework for Location Problems with Dense Demand" has received the 2007 UPS Bi-Annual Dissertation Finalist Award from the Society on Location Analysis of INFORMS. This competition is sponsored by UPS and aims at recognizing outstanding dissertations on location and transportation related research. He has been invited to share his transportation research work by the Canada Research Chair in Distribution Management and Healthcare work by Premier Inc., a healthcare strategic alliance entirely owned by not-for-profit hospitals and health system organizations.

He presently is working on a multi-year grant with the UT-UTC which analyzes the value of real-time information on efficient utilization of intermodal transportation networks. In this work, Dr. Murat and his team are collaborating with Ford Motor Company MP&L, UPS, C.H. Robinson, MITS Center of MDOT, Traffic.com and other partners. With the trend of increased global sourcing, reliable deliveries and reduced inventory have become critical to the success of most global supply chains. Dr. Murat's team is working on the development of models and algorithms that aim to increase delivery reliability and achieve just-in-time deliveries while increasing the efficient utilization of intermodal networks. To date, they have

# UT-UTC UPDATE

developed models for the air-road intermodal networks for air-freight and currently working on extending the concepts to other modes including rail and marine. Along with his UT-UTC project, Dr. Murat is the Co-PI on a project funded by the Michigan-Ohio UTC titled, "Enabling Congestion Avoidance and Reduction in the Michigan-Ohio Transportation Network to Improve Supply Chain Efficiency: Freight ATIS". All of these projects are supported by the USDOT through its UTC program.

Dr. Murat received his B.Sc. degree in Mechanical Engineering (1998), and a M.Sc. in Industrial Engineering (2000) from the Bogazici University in Istanbul, Turkey. In 2006, he received his Ph.D. in Operations Research and Management Science from McGill University in Montreal, Canada.

He enjoys winter sports including skiing, snowboarding and skating and would like to become involved in sky diving and rafting. An interesting thing to know about Alper Murat: "About two years ago, I was challenged by a jealous male moose while fishing, as I didn't notice the female moose which was wandering round me. I reluctantly had to leave my expensive fishing gear behind after all efforts proved futile to convince the male moose that she wasn't my type."

## UT-UTC Final Research Reports On The Web and In Libraries



The following final research reports for UT-UTC funded projects have been submitted and are posted on the web site as well as on TRB RiP. As required, hard copies are also available at the Transportation Library at Northwestern University, the Institute of Transportation Studies Library at the University of California – Berkeley, the Transportation Research

Board Library in Washington, the Volpe National Transportation Systems Center TRISNET Repository and the U.S. Department of Commerce National Technical Information Service:

- Reducing Noise and Vibration of Hydraulic Hybrid And Plug-In Hybrid Electric Vehicles
- Global Supply Chain Management/Transportation: Building a Global Network of Scholars and Educators
- Regional Freight Information Resources for Market Opportunities in the Great Lakes Maritime Transportation System
- Developing and Testing a Framework for Alternative Ownership, Tenure and Governance Strategies for the Proposed Detroit-Windsor River Crossing
- Value of ITS Information for Congestion Avoidance in Intermodal Transportation Systems (early April)

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