

## UTC Faculty Researchers Enlighten Participants at 3rd Annual SISE Symposium

The state of the nation's transportation infrastructure, insight and analysis into research that offered solutions for excessive bus idling and thoughts on planning and sustainable transportation were presentation topics delivered by three members of the UTC faculty and staff at the Summer Institute on Sustainability and Energy (SISE) held August 5-16 at UIC. The 2013 SISE brought senior undergraduate, graduate-level students and professionals working in energy and related fields together to learn through presentations and group projects.

The long-range vision is for participants to transfer knowledge gained into practical global solutions. More than 50 students and working professionals from across the nation took part in the SISE this year, the third year the event has been held at UIC. Here's a recap of presentations from the UTC faculty and staff.

**The Nation's Transportation Infrastructure and Funding Policies.** Transportation infrastructure would



receive a letter grade of "D" due to deferred maintenance practices over the past few decades. That was a key message from UTC Executive Director Steve Schlickman, who pointed out that poor maintenance has a negative impact on the entire national economy. Lack of available funding and inactivity by federal lawmakers are key factors in why upgrades to the nation's roadways, rail network, aviation system and waterways drastically need improvement.

**Saving Energy: The CTA Project.** Operating busses during peak travel times is the optimal way to maximize the vehicle's carbon footprint. But operating during non-peak hours with

few riders results in waste. Associate Research Professor P.S. Sriraj shared these conclusions and others during his presentation on public transportation and energy savings. Citing results from past UTC research for the Chicago Transit Authority, he said the agency could save up to \$14,000 annually on energy costs from bus idling through installation of auxiliary batteries and other measures.

**Planning for Sustainable Transportation.** In his presentation, Assistant Research Professor Paul Metaxatos pointed out the differences between transportation planning models based on rational, conceptual and incremental approaches. He said developing sustainable transportation plans is not a hard science, and the planners are not the ultimate decision-makers; planners provide recommendations based on research. Three components comprise a sustainable network: 1) Meets the needs of society. 2) Affordable and efficient. 3) Limits emissions and waste, and minimizes congestion.

## Student Researchers Present at APTA

Student researchers from the UTC dominated the Student Ambassador program, an initiative to showcase student projects, September 30 during the American Public Transportation Association (APTA) 2013 Annual Meeting in Chicago. These CUPPA students displayed posters during the event, held at the Chicago Hilton Hotel: Kyle Bardo, Marcella Bondie, Arnold

Kasemsarn, Jacob Rueter and Jane Wilberding.



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## Message from the Executive Director

In May of this year, the Urban Transportation Center completed projects tied to a very productive and exciting CN-sponsored three-year funding program that allowed us to do the following:

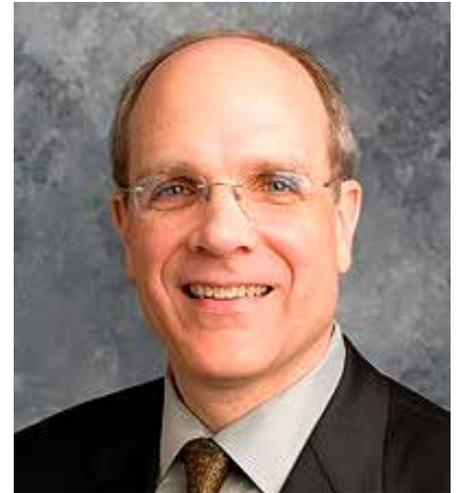
- Convene transportation decision makers for a day-long multimodal transportation systems conference.
- Offer fellowships to students within the College of Urban Planning and Public Affairs that let them conduct specialized research.
- And, provide matching dollar-for-dollar research support to launch four new freight rail-focused studies.

All this was made possible through a \$300,000 grant administered through the CN Stronger Communities Fund, a community investment initiative administered by the Class 1 Canadian railway.

On behalf of the UTC faculty, staff and students, we applaud CN for its commitment and support in helping the UTC break new ground on freight research and education. Through the Stronger Communities Fund grant, this truly diverse range of activities was carried out.

On October 12, 2011, nearly 150 industry professionals gathered at the UIC Forum to attend "Rebuilding the North American Economy Together: Driving a New Era in Canada and U.S. Relations," a conference sponsored through the CN grant and the Canadian Department of Foreign Affairs.

Three Urban Planning and Policy Master's degree candidates who are passionate about freight planning were awarded fellowships plus a tuition and fee waivers to complete their respective thesis. Kyle Bardo



*Steve Schlickman*

conducted policy research on the relationship between Amtrak and private railroads and successfully defended his thesis. Steven Manella, who earned his Master's degree from UIC in 2012, submitted and defended his thesis on "Effective Approaches to Increase Public Benefits of Freight Intermodal Terminals." And, Alexandra McNally is finalizing research on "Economic Benefits of Truck-to-Rail Mode Shift," which explores the impact large intermodal centers have on local and regional economies.

Along with the projects from Steven and Kyle, the CN grant allowed UTC researchers Dr. Paul Metaxatos and Dr. P.S. Sriraj to complete very compelling research into pedestrian and bicycle safety at railroad grade crossings and move forward on research led by Dr. Ning Ai that will help develop a "sustainable rail scorecard" in Illinois.

The UTC, its faculty and student researchers, and the entire transportation industry are better thanks to the CN Stronger Communities Fund. Thanks again, CN, for your generosity.



## Fall Diversity Lunch Speakers Address Queerness in Public Transportation, Increasing Innovation Synergy

The Fall 2013 Diversity Lunch series drew enthusiastic crowds of students, faculty and staff—and even some guests from other parts of the UIC campus—to learn and discuss the impact of diversity in our lives and within the transportation industry. Two outstanding presentations made up the fall Diversity agenda.

Insight into the diverse makeup of the LGBTQA community in Chicago and important role played by public transportation were two themes



*Liz Thomson*

addressed by Liz Thomson, Assistant Director of the UIC Gender & Sexuality Center at a presentation September 11. During the presentation, entitled “Queerness + Urban Transportation,” Thomson said a high percentage of the LGBTQA community use public transportation as their primary way to navigate the city.

A “learning inventory” exercise helped participants of the October 16 presentation, “Increase Innovation Synergy by Appreciating Diversity,” discover inherent characteristics. These traits that make us unique, said session leader Dr. Chris Barlow, can trigger ideas and help create synergy. Dr. Barlow, Clinical Assistant Professor in the UIC College of Business Administration, said that listening to those who are annoying is the essence of diversity.

## UTC Director of METSI Elected Research Associate Professor



*Dr. P.S. Sriraj*

The UTC faculty researchers, staff and students have long recognized P.S. Sriraj, PhD for his experience and leadership in transportation research and education, as well as participation as a speaker at leading industry events. Those collective contributions recently were recognized by scholars from around the globe who elected Dr. Sriraj Research Associate Professor.

During his career, Dr. Sriraj has gained

national recognition as an expert in public transportation systems, welfare-to-work, transportation asset management, GIS in transportation, socio-economic factors, and addressing systems thinking/complex problems. He also stays busy as Director of the Metropolitan Transportation Support Initiative (METSI), the ongoing transportation research initiative that’s funded through the Illinois Department of Transportation (IDOT).

Since 2000, Dr. Sriraj has served as principal investigator or a senior researcher on more than 20 funded research projects for the U.S.

Department of Transportation, IDOT, the Chicago Transit Authority and other agencies. And, he’s the author or coauthor of several journal articles and peer-reviewed publications on transportation topics that range from the development of a web-based interactive information management system and measuring success in a transit agency stakeholder involvement program, to mitigating excessive bus idling and user perceptions of bus and train safety in Chicago.

Let’s offer a round of applause for Dr. Sriraj on this tremendous professional accomplishment.

## UTC Researchers Address 2013 Rail Summit

Researchers from the Urban Transportation Center delivered presentations on recent research findings at the the 2013 Rail Summit, a forum held October 25 to promote the economic benefits of short line railroads. P.S. Sriraj, Associate Research Professor and Director of the METSI initiative, and Paul Metaxatos, Associate Director for Research Programs and Research Assistant Professor, shared insight

on a study regarding pedestrian and bicyclist safety at rail grade crossings. And, Assistant Professor Ning Ai and Graduate Research Assistant Marcella Bondie spoke on the environmental assessment of rail infrastructure in Illinois. The UTC was one of more than 20 cosponsors of the event, which drew more

than 250 to the Union League Club of Chicago. The Rail Summit was produced by MEP & Associates.



## UTC Analyst Explains How 3-D Spatial Analytics and Modeling Helps Paint Transportation Picture

In his past role with the City of Fort Worth, Texas Planning and Development Department, Havan Surat earned gold medals for his work in annual geographic information system (GIS) Day mapping contests. That experience prompted Surat, a UTC Research Transportation Planner/Analyst, to chronicle his thoughts in an article that was published in a prestigious industry magazine.

The article, “Three-Dimensional Spatial Analytics and Modeling Is Now SOP for the City of Fort Worth, Texas,” appeared in the Fall 2012 edition of Arc News, a publication of global GIS software developer

Esri, Inc. Surat, who holds the Geographic Information Systems Professional (GISP) certification, offered insight on the value of the software and how he incorporates it into his work at the UTC.

“One great benefit of GIS software is that it helps explain the full scope of urban planning project proposals to the general public,” Surat said. “Urban planning professionals certainly understand the language, ordinances and regulations that govern the development. The public can’t always understand these concepts, but they can better comprehend a proposed new development when it’s presented

in three-dimensional images.”

For UTC research, Surat noted the program allows him to, for example, illustrate the spatial density for research involving transportation sustainability or better plan transportation improvements in an urban area.

“Cities are more auto-oriented these days,” he said. “With a GIS 3D model, we can show stakeholders how new development would include streetscape, bike lanes and street furniture before work begins and provides a picture of the new proposal to the general public.”



**Peddling to Bring Awareness of Climate Change on Health.** On August 27, the UTC was pleased to host a visit by Dr. Wendy Ring, MD, a climate activist who is crossing the USA with her husband on a tandem bicycle to bring awareness to health concerns caused by climate change. “The health effects of climate change are not even across the population,” Dr. Ring said. “Some groups are affected more than others.” Dr. Ring is a founder of Climate911, an activist group based in California.



**Taking it to the Street.** Around 25 students enrolled in the CUPPA Urban Planning and Policy curriculum took to the streets—literally a space on Peoria Street just steps from the entrance to CUPPA Hall—September 20 to commemorate Park(ing) Day. It’s part of an annual worldwide event where public parking spaces are transformed into miniature parks. Special thanks to the six volunteers who organized this gathering at UIC.



**UTC Energized by Electric Bus Ride.** Representatives from Proterra, a Greenville, SC, manufacturer, visited the UTC October 1 to demonstrate a truly revolutionary transportation concept: Electric busses. In town for the American Public Transportation Association annual meeting, Proterra founder Dale Hill told a group of faculty, staff and students about the benefits of electric buses, including 24/7 operation, significant annual fuel savings over diesel, a smaller carbon footprint and diminished noise pollution. Then, the UTC group and guests enjoyed a demonstration drive past the UIC East Campus.

## CONNECTOR

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### UTC’s Mission Statement:

The Urban Transportation Center will continue its tradition of strong local research and achieve national and international prominence to advance solutions for emerging transportation challenges.