A Message from the Directors

NCIT’s annual report for the FY year 2006 – 2008 reflects the activity over the past two years since re-authorization of the UTC funding under SAFETE-LU in 2005. Due to a number of technical issues DOT funding was not released to the grantees until June 2006. Following the release of funding NCIT prepared its strategic plan which was submitted on March 8, 2007 and formally accepted by DOT on June 21, 2007. Since that time we have been working expeditiously with our stakeholders and staff to identify and fund research projects consistent with our theme and the DOT strategic plan. Following the call for proposals released in late 2007 we have selected 14 projects for funding.

NCIT’s focus on improving the safety and efficiency in the nation’s intermodal transportation system is essential to ensuring our continued economic development and quality of life. Addressing the critical issues of congestion, competition, connectivity, and coordination through the promotion of a safe and efficient intermodal transportation system align NCIT’s mission with the strategic goals of DOT. Accordingly, in addition to our research efforts we are also engaged in education, outreach and technology transfer activities.

NCIT has been in the fore-front of providing timely educational technology transfer activities. Professor Eksioglu’s teaching award speaks to this focus. In addition to supporting the educational programs at our respective Universities, the Safety, Security and Mobility Workshop identified key issues and opinions of thinkers and policy makers in the field. Our Intermodal Safety & Security Workshop featured Congressman Ed Perlmutter who challenged researchers and academia to identify ways to measure the effects of security legislation and funding. A workshop on the Identification of Executive Competencies provided a roadmap for further training, education and development activities for our nation’s managers, executives and officials charged with managing the complex intermodal system.

NCIT research efforts include analyzing the impact of intermodal facilities in the design of supply chains for biorefineries, investigating the role of intermodal transportation systems in emergency management, analyzing the impact of crisis conditions on the performance of Intermodal facilities, designing distribution networks for the automotive industry, developing measures of resilience for Intermodal systems, and developing a model for location of Intermodal terminals and corridors. All of these will aide public planners, communities and transportation carriers in making decisions and using public funds. In addition, understanding the collaboration between regional governmental bodies and economic development relative to transit oriented development will also be beneficial to transportation professionals throughout the U.S. Overall, these research studies promise to contribute to improving the intermodal transportation system of the United States.

Patrick Sherry, Ph.D.  
NCIT Co-Director  
University of Denver

Burak Eksioglu, Ph.D.  
NCIT Co-Director  
Mississippi State University
NCIT Co-Director
Wins National Teaching Award

Dr. Burak Ekşioğlu received the Institute of Industrial Engineers (IIE) 2008 Award for Excellence in the Teaching of Operations Research. The award was presented to him at the international conference in Vancouver, British Columbia, Canada. Dr. Ekşioğlu has provided leadership in ISE through his dedicated service as the chair of the Operations Research and Statistics Technical Committee. The Committee is responsible for defining the content for both the undergraduate and graduate course offerings in operations research. Professor Ekşioğlu has built a reputation with both undergraduate and graduate students as an effective educator, blending the use of advanced instructional technologies with proven pedagogic methods. His instruction in the operations research arena is exemplary, and students tell us that they highly value his courses. We could not agree more with the students. Dr. Ekşioğlu is most deserving of the IIE 2008 Award for Excellence in the Teaching of Operations Research. NCIT

NCIT Research Projects

NCIT received sixteen research proposals and of these, fourteen received funding. The following research projects represent the Grant Year One and Year Two research awards:

1. A Review of Suggested Improvements to the Intermodal Transportation System
   Principal Investigators: Ted Prince Intermodal Transportation Institute, and Tom Finkbiner, Intermodal Transportation Institute.

2. A Simulation Model to Analyze the Impact of Crisis Conditions on the Performance of Port Operations
   Principal Investigators: Burak Eksioglu, Ph.D., Sandra Eksioglu, Ph.D., Albert Allen, Ph.D., and Albert Myles, Ph.D., Mississippi State University.

3. An Evaluation of Air Rail Passenger Intermodal Access at US Airports
   Principal Investigators: Andy Goetz, Ph.D., University of Denver and Tim Vowles,
Principal Investigators: Gregg Baxter, San Joaquin Valley RTD and Patrick Sherry, Ph.D., University of Denver.

5. Analyzing the Impact of Intermodal Facilities to the Design of Supply Chains for Biorefineries
Principal Investigators: Sandra Eksioglu, Ph.D and Daniel Petrolia, Ph.D., Mississippi State University.

6. Demonstration of Global Supply Chains with Intermodal Transportation and Decision Support for Small and Medium Business
Principal Investigators: Mingzhou Jin, Ph.D. and Li Zhang, Ph.D., Mississippi State University.

7. Development of a Model for Intermodal Corridor and Terminal Operation and Placement
Principal Investigators: Wilbey Whit, CSX Intermodal, Jacksonville, FL. and Patrick Sherry, Ph.D., University of Denver.

8. Evaluating Transit Oriented Development in Denver, Colorado
Principal Investigators: Andy Goetz, Ph.D., University of Denver and Keith Ratner, Ph.D., Salem State College.

9. Identification of a Competency Model for the Recruitment, Retention, & Development of Intermodal Transportation Workers

10. Intermodal Transportation Systems for Asian Goods to U.S. via Mexico: An Analysis
Principal Investigators: Burak Eksioglu, Ph.D., Mississippi State University, Ismail Capar, Ph.D., Texas A&M, Arunachalam Narayanan, Ph.D., Texas A&M.

11. Regional Collaboration in Transport Infrastructure Provision
Principal Investigators: Andy Goetz, Ph.D., University of Denver and Andrew Jonas, Ph.D., Hull University.

12. The Framework of Calculating the Measures of Resilience for Intermodal Transportation Systems
Principal Investigators: Li Zhang, Ph.D. and Mingzhou Jin, Ph.D., Mississippi State University.

13. The Health and Safety Effects of Accidents on Intermodal Transportation Workers
Principal Investigators: Karen Philbrick, Ph.D. Patrick Sherry, Ph.D., University of Denver.
14. The Role of Intermodal Transportation in Humanitarian Supply Chains

*Principal Investigators:* Lesley Strawderman, Ph.D. and Burak Eksioglu, Ph.D., Mississippi State University.

**Recent Seminars, Workshops, and Conferences**

![The Cable Center](image1)
University of Denver

![TTCI](image2)
Pueblo, Colorado

![UP Steam Locomotive](image3)
Cheyenne, Wyoming

**International Railway Safety Conference:** NCIT co-hosted a five day international conference on railway safety October 5-10 2008 in Denver, Colorado at the University of Denver's Cable Center. This event was co-hosted by the Association of American Railroads, the International Union of Railways, the Railway Association of Canada, The American Shortline and Regional Railroad Association, and the Transportation Technology Center. This conference attracted approximately 115 delegates from countries throughout the world. Attendees included senior railroad safety and operating personnel, regulators and researchers. During this week long event, participants had the opportunity to participate in two technical visits. On October 9th, the Transportation Technology Center (TTCI) in Pueblo Colorado welcomed both national and international railway professionals. This facility is a world-class transportation research and testing organization, providing emerging technology solutions for the railway industry throughout North America and the world. The second technical tour was to the Union Pacific Steam Shop in Cheyenne Wyoming. Here, conference attendees had the opportunity to view the world's largest steam locomotive. It was a pleasure to host this important conference on its first visit to North America since 1999. Past sessions of this annual conference have most recently been held in India, Ireland, South Africa, and Australia.

**National Transportation Week:** NCIT hosted its annual National Transportation Week luncheon and workshop in May of 2008. Coordinated and hosted by NCIT, this annual luncheon/workshop is a collaborative effort by the transportation and logistics organizations in Colorado, including the Women’s Transportation Seminar, the Denver Transportation Club, Delta Nu Alpha, Council of Logistics Management, and ITI. This workshop, titled “$$ Show Me the Money $$$: The Transportation Funding Crisis and Possible Solutions” garnered a great deal of media attention and excitement among transportation professionals. Russell George,
Executive Director of the Colorado Department of Transportation (CDOT), delivered the keynote address, titled “The State of Transportation in Colorado in 2008: A Report Card”. During his presentation he told attendees that he is encouraged that lawmakers, the media and Colorado residents have started talking about the massive needs facing Colorado’s roads, airports and rail services in the 21st Century. Transportation planning issues were addressed by Carla Perez, Senior Transportation Advisor to Governor Bill Ritter; Jason Longsdorf of the Denver Union Station Management Team discussed the development of Union Station and intermodal connectivity issues; NCIT Director, Professor Patrick Sherry, discussed the need to include workforce development in the infrastructure planning process, and OmniTRAX analyst Nathan Henderson discussed transportation capital, capacity, and pricing.

The luncheon culminated with the presentation of the 2008 NCIT and ITI Intermodal Outreach Award, presented to Paul E. Smith, President of Smith Railway Consulting, and Lynda Seigel, Consultant to JP Morgan Chase. These individuals were chosen for this award because of their commitment and dedication to transportation education and outreach activities.

**Transportation Seminars:** NCIT has been very active in hosting a number of additional transportation seminars, symposia, and workshops for transportation professionals. In addition to those events discussed above, information on other events can be found on our website at [www.ncit.msstate.edu](http://www.ncit.msstate.edu)