I am pleased to present to our readers our special annual TRB issue of ITRE Directions. There is much to celebrate this year. First, the number of papers and presentations that our staff and students have been involved in has reached an all-time high of twenty-six. For a staff of our size this is a considerable achievement, and I am very proud of all our program areas for their effort to have their group represented at TRB.

While the sheer number of presentations is impressive, what is more rewarding is the recognition that we are receiving based on the quality of work presented. In this issue, we dedicate an article to the winners of the 2010 TRB Grant Mickle Award, we recognize a second place best poster award by one of our graduate students, and our CTE student of the year. Space limitations prevent us from recognizing another best paper award given by TRB’s Work Zone Traffic Control Committee to Schroeder and Rouphail for their 2010 paper entitled “Estimating Operational Impacts of Freeway Work Zones on Extended Facilities.”

Last but not least, ITRE was delighted to resume our annual TRB reception in Washington, DC this past January, one that was extremely well attended by our faculty, students, staff and friends from all over the country and the globe. Thanks to our many sponsors who made this reception happen. We hope we can continue to make good strides on both our technical as well as our social activities in future TRB’s. For more details on this year’s TRB events, please visit our website at http://itre.ncsu.edu/ITRE/news/2011/TRB-Annual-Meeting.html

Nagui M. Rouphail

ITRE Authors Win TRB D. Grant Mickle Award

Dr. Nagui M. Rouphail and Dr. Bastian J. Schroeder, both of the Institute for Transportation Research and Education (ITRE) at North Carolina State University, were announced as the recipients of the D. Grant Mickle Award by the Transportation Research Board (TRB) for their 2010 paper titled “Mixed-Priority Pedestrian Delay Models at Single-Lane Roundabouts.”

The award is presented annually to the authors of the best national paper submitted to TRB in the area of operation, safety, and maintenance. The award was established in 1976 in honor of D. Grant Mickle, the Board’s fifth executive director who was later appointed a member of the Board’s Executive Committee and became its 33rd chairman.

“The paper is about methods to estimate pedestrian delay at roundabouts,” Dr. Schroeder said. “What’s different with this paper than what’s been done before is that it accounts for the fact that some drivers may yield for pedestrians but others do not. In previous analyses, the researchers either assume that everyone stops or that nobody stops; this paper presents what we call a mixed priority situation, with some drivers yielding and others not. The focus of the data collection was for participants who were blind, as the acoustic environment associated with the circulating traffic in roundabouts makes it very challenging for them to safely cross. However, the uniqueness of our approach is that it can be applied to any pedestrian population, including sighted pedestrians since it is based on a set of fundamental behavioral parameters that can be varied from one population to another.”

Rouphail and Schroeder were recognized at the TRB Awards Ceremony during the TRB 90th Annual Meeting on January 24, 2011, in Washington, DC. Additional information about the paper may be found at http://pubsindex.trb.org/view.aspx?id=909685.
ITRE/NCSU Graduate Brings Home “2nd Place” Award

The Southeastern Transportation Center (STC)’s 2nd place award for “Best Research Poster” went to NC State University Civil Engineering and ITRE graduate student Hassan Swidan for the study, Simulation-Based Methodology for Assessing Environmental Impacts of V2V Communications. The poster won in a field of graduate students from the entire region. Mr. Swidan, who also gave the poster presentation for the paper, teamed with ITRE’s Dr. Nagui Rouchail, Dr. Hyejung Hu and Dr. Chris Frey.

The growing sophistication of wireless communications technologies offers an opportunity to improve network mobility and environmental performance as well.

Mansfield Selected as 2010 CTE Student of the Year

ITRE graduate research assistant Theodore Mansfield was named CTE Student of the Year for 2010. He is working towards master’s degrees in city and regional planning and environmental engineering at the University of North Carolina at Chapel Hill.

Mr. Mansfield works closely with Leigh Lane, James Martin, and Ann Hartell at the Center for Transportation and the Environment. Theodore has contributed to NCHRP 25-25 Task 69: Identification of Tools and Techniques to Define Community Context as Part of the Transportation Project Planning and Development Process and is currently helping the North Carolina Department of Transportation develop an innovative sustainability plan.

Theodore is interested in improving the integration of transportation and land use planning in order to create highly accessible, livable, and dynamic urban spaces. His research has included an investigation of the causal linkages between urban form and local air quality and an analysis of the ability of decentralized stormwater management to mitigate combined sewer overflows in highly urbanized areas.

Mr. Mansfield earned a B.S. in Civil Engineering from New Mexico State University in 2008 and plans to graduate from the University of North Carolina in May 2012. For further information, contact Theodore at tjmansfi@ncsu.edu.

VAMS Director Conducts TRB Workshop on Visualization Research Needs

Dr. Ron Hughes, Program Director for ITRE's Visual Analytics Modeling and Simulation (VAMS) research group, conducted an all day workshop at the 2011 Annual meeting of the Transportation Research Board (TRB) on Visualization Research Needs in transportation. The workshop provided an overview of the 14 different TRB Research Need Statements (RNS) that address various aspects of visualization. Special emphasis was placed on those RNSs submitted from outside the standing committee on visualization, ABJ95. Presentations were made by other TRB committee representatives on visualization needs in access management, statewide data and information systems, design and construction, GIS applications, landscape and environmental design, and planning.

Dr. Hughes personally addressed the growing need for more emphasis on ‘data visualization,’ pointing to work in the area of freight data visualization as representing a ‘pivotal’ shift in focus for ABJ95. Richard Long, former Director of the Florida DOT Research Office provided participants with an in-depth presentation on the AASHTO 'process' whereby research need statements typically move from 'concept' to 'funding' and the importance of the research community ensuring that state DOT representatives and key members of AASHTO committees personally elevate these needs within the RAC and SCOR process. Participants were provided with a CD containing an extensive list of reference materials in visualization, including materials relevant to the emerging area of ‘visual analytics’ and its relevance to data visualization needs in transportation. Those interested in obtaining a copy of the CD, which includes all of the workshop presentations as well as the reference materials, should contact Dr. Ron Hughes by email at ron_hughes@ncsu.edu.

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