



CTS to host new online academic journal

Several academic journals touch on the interaction of transport and land use—but only peripherally. A new venue developed by **David Levinson** and **Kevin J. Krizek** and hosted by CTS puts transport and land use front and center.



David Levinson



Kevin Krizek

The goal for the Web-based *Journal of Transport and Land Use* (JTLU) is to be the leading outlet for research at the interdisciplinary intersection of these two domains, including work from the fields of engineering, planning, modeling, behavior, economics, geography, regional science, sociology, architecture and design, network science, and complex systems.

Levinson and Krizek are the editors of the journal. Levinson holds the **Richard**

P. Braun/CTS Chair in Transportation Engineering and directs the Networks, Economics, and Urban Systems (Nexus) Research Group. Krizek is associate professor of planning, design, and civil engineering and director of the Active

Communities / Transportation (ACT) Research Group at the University of Colorado. He was formerly an associate professor in the Hubert H. Humphrey Institute of Public Affairs at the University of Minnesota, where he still serves as a CTS Faculty Scholar.

The peer-reviewed *Journal of Transport and Land Use* will follow an open-content, subscription-free process; contributions are also free of charge. All of this is enabled by sup-

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Leading researchers to speak at second Access to Destinations conference

Experts in the fields of transportation management, public policy, and urban planning will be among the leading researchers coming to the University of Minnesota in August for the second Access to Destinations Conference.

The conference, to be held August 23 and 24, 2007, will feature a half-day of presentations and discussions open to the public, followed by a day-and-a-half of presentations and discussions with approximately 75 invited-only participants and researchers. The conference will be hosted by CTS.

Conference organizers **David Levinson** and **Kevin Krizek** will present their research at the event. Levinson is the **Richard P. Braun/CTS Chair** in Transportation Engineering, and Krizek is an associate professor in planning, design, and civil engineering at the University of Colorado (formerly with the Humphrey Institute of Public Affairs).

General session topics will include:

- “Sprawl and Accessibility,” **Robert Bruegmann**, Professor, Art History, Architecture, and Urban Planning, University of Illinois at Chicago
- “Accessibility: Long-Term Perspectives,” **Kay Axhausen**, Professor, Institute for Transport Planning and Systems, Swiss Federal Institute of Technology
- “On the Provision of Sustainable Public Transit Services: The Case of Hong Kong,” **Hong K. Lo**, Professor, Department of Civil Engineering, Hong Kong University of Science and Technology

This academic conference builds on the success of the first Access to Destinations conference, held in November 2004. The event attracted a wide range of national and international attendees and resulted in the publication of a conference proceedings as well as the book

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Cheri Marti leaves CTS

Cheri Marti, CTS associate director for education and outreach, has accepted a position with the Minnesota



Cheri Marti

Department of Public Safety (DPS). While this is a loss of a critical leader for CTS, we are excited for Cheri in her new state leadership role.

Marti began work at DPS on July 9 as director of the Office of Traffic Safety. In this role, she will collaborate and further partnerships with local, state, and federal agencies to improve traffic safety for Minnesotans. She will build on the impressive record of leadership by the previous director, **Kathy Swanson**. A key role will be working closely with Mn/DOT and CTS on the state’s Toward Zero Deaths program.

Marti joined CTS in 1992 to develop and lead the Minnesota Local Technical Assistance Program (LTAP). After building one of the premier LTAP centers in the country, she worked with Mn/DOT to create an Airport Technical Assistance Program (AirTAP), a program that continues to be unique in the country.

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New Minnesota Traffic Observatory to shine light on traffic issues

Researchers' ability to study the complex dynamics of traffic flow throughout the Twin Cities region took a big step forward with the opening of the Minnesota Traffic Observatory (MTO), a joint effort of CTS's ITS Institute and the Department of Civil Engineering. The observatory combines the ability to capture real-time traffic data with state-of-the-art simulation systems, giving researchers and engineers the ability to analyze existing conditions and compare real-world observations with the results of simulated conditions.

"Instead of looking at just one or two locations, the observatory offers the ability to look at large systems where many different parts interact," says MTO director **John Hourdos**.

The MTO builds on the successes of the ITS Institute's Intelligent Transportation Systems Laboratory, says ITS Institute director **Max Donath**. ITS Lab manager **Ted Morris** and senior software engineer **Chen-Fu Liao** have joined Hourdos at the MTO, bringing with them years of experience in traffic observation and simulation.

The power of an observatory lies in what it can see, and researchers in the MTO will have access to a wide array of data on the Twin Cities traffic system.

In addition to data from thousands of pavement-embedded vehicle detectors throughout the freeway network, video feeds flow into the observatory from an extensive network of traffic cameras. The observatory is connected by fiber-optic lines to the Minnesota Department of Transportation's traffic operations center,



John Hourdos

allowing it to capture live feeds from up to 16 of the more than 300 cameras the agency uses to monitor the metropolitan freeway system.

The availability of a wealth of high-quality video data is ideal for the use of machine-vision systems to monitor and categorize vehicle movements. Computer image-processing algorithms developed by University of Minnesota researchers enable the observatory to track and analyze complex traffic patterns at intersections, on freeway interchanges, and in other areas that are difficult to study using other data sources.

Another key component of the MTO is a virtual traffic control center and simulation lab. Interfacing traffic signal control hardware with realistic traffic network models creates a powerful tool for examining system performance under a variety of conditions.

Given the complexity of the traffic issues that the observatory is designed to study, robust visualization tools are critical. In addition to a large projection wall, two innovative pieces of equipment provide researchers with powerful interactive visualization capabilities.

The GIS/MAP table, built by Hourdos and the observatory staff, combines the large horizontal working surface of a traditional drafting table with the interactive capabilities of Geographic Information Systems technology. Two ceiling-mounted digital projectors create a seamless image covering the entire conference-table-sized surface, which can be manipulated using a tabletop pointing device to pan and zoom



The GIS/MAP table in the Minnesota Traffic Observatory

in on specific areas. In contrast to traditional ways of viewing digital maps and models on a desktop monitor, the table allows users to comfortably survey the entirety of a large traffic system and quickly focus in on areas of interest.

The Digital Environment, or DEN, takes a different approach—putting viewers in the center of the action via 3-D immersive graphics. Three sides of the cubical structure are made up of large rear-projection screens made of a polarized material that transmits two slightly different images; a user wearing specially polarized glasses sees a different image with each eye, producing a realistic sense of three-dimensional space. A tracking system mounted in the DEN's ceiling monitors the position of the user's head and adjusts each projector to provide accurate perspective.

Hourdos said he looks forward to establishing partnerships with researchers in many different fields—including traffic engineering, urban planning, and others—in order to get the most out of the observatory's powerful capabilities.

For more information about the MTO, visit www.its.umn.edu/ProgramsLabs/MNTrafficObservatory. **CTS**

Papers win awards

A paper coauthored by **Rajesh Rajamani** on tire-road friction estimation was selected for the 2007 **O. Hugo Schuck** Award. This prestigious award in the controls systems community is given to the best paper presented at the American Control Conference. The award will be presented during



Rajesh Rajamani

the 2007 conference awards luncheon this month in New York City. Rajamani, an associate professor in mechanical engineering, is a CTS Faculty Scholar and has conducted many projects funded by the ITS Institute.

Xinkai Wu, a student advised by civil engineering assistant professor **Henry Liu**, won the 2007 Institute of Transportation Engineers (ITE) Midwestern District's Student Paper Award. His paper previously won the North Central ITE student

paper award and now is being submitted to International ITE for consideration. The paper is titled "Improving Queue Size Estimation for Minnesota's Stratified Zone Metering Strategy," and the work is based on a recently completed research project supported by Mn/DOT. Liu and Professor **Panos Michalopoulos** are co-investigators of the project and coauthors of the paper.

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Transportation research, education to support new U of M-founded community

The University of Minnesota vision is to develop a unique, intellectually and culturally rich, sustainable community at its UMore Park property in Dakota County. Transportation is the focus of one of six academic mission task forces that are charged with identifying ways that University research, education, and public engagement will add value to the community and the broader region.

The transportation task force is co-chaired by **Robert Johns**, director of CTS, and **Lee Munnich**, director of the State and Local Policy Program (SLPP) at the Humphrey Institute of Public Affairs.

UMore Park is a 12-square-mile site 25 miles southeast of the Twin Cities near the City of Rosemount. At 7,686 acres, it is the largest contiguous property in the United States that is owned by a land-grant university.

The Board of Regents unanimously affirmed the goal of developing the new community in December 2006, follow-

ing completion of a strategic planning phase and a recommendation report (see *Creating the Vision: The Future of UMore Park* at www.umorepark.umn.edu). The development of a University-founded community supports the University's goal of becoming among the top three public research institutions in the world. The Regents called for the preparation of a concept master plan for developing the sustainable new community over the next 25 to 30 years.

The transportation task force is charged with proposing creative approaches to ensure that transportation is incorporated into the core identity of the new community in ways that support faculty research, student learning, and quality of life for citizens in the community and the region. The transportation task force report will be completed in November 2007 and integrated into a comprehensive academic mission report.

In addition to the academic mission

focus, the UMore Park management team is pursuing comprehensive planning under the Metropolitan Council and assessments of gravel deposits and other physical resources on the property.

University members of the transportation task force are **Bob Baker** of Parking and Transportation Services; **Lance Neckar** and **Bob Sykes** of Landscape Architecture; **David Levinson** and **Henry Liu** of Civil Engineering; **Carissa Schively** and **Steve Kelley** of the Humphrey Institute; **David Kittelson** and **Max Donath** of Mechanical Engineering; **Kathleen Harder** of the Center for Sustainable Building Design; and **Myron Orfield** of the Law School. In addition, **Ferrol Robinson** of SRF Consulting Group and **Mark Hoisser** of Dakota Area Resources and Transportation for Seniors (DARTS) are serving on the task force. **Greg Cuomo** is the UMore Park management team liaison, assisted by **Emily Swanson**. **CTS**

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Access to Destinations (Elsevier, 2005), containing selected scholarly papers. The book is available from the publisher or from major online booksellers.

The second conference will be launched by a set of commissioned papers from international researchers addressing issues

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port from CTS, where the journal will be housed. The new journal and new process offer several advantages:

- With a rigorous peer-review process, the journal will publish only high-quality papers that meet scientific standards.
- By being Web-based (and Web-only), costs are much lower and turnaround time faster than paper publication. A Web-based format also allows the inclusion of full-color graphics, multimedia content, and datasets.
- By being open-content, papers published in JTLU can be freely distributed (with attribution), increasing the value of the papers and their likelihood of being used in course readers and read by the public.

related to accessibility, land use, and transportation. A number of paper abstracts have also been selected for presentation.

For more information about the conference, visit the Access to Destinations Web site at www.cts.umn.edu/access-study. **CTS**

- By being subscription-free, the journal avoids the fundamental problem of today's expensive journals published by for-profit publishers, which many libraries can no longer afford.
- By being free-to-contribute, JTLU overcomes the burden of the open-content journals that charge authors to publish their papers.

Levinson and Krizek are now soliciting papers. Details about the journal, its editorial process, and paper submission are on the journal's Web site: www.jtlu.org. If you are interested in organizing a special issue, please e-mail Levinson at dlevinson@umn.edu. **CTS**

Researcher featured in local news

Pat Cavanaugh, a doctoral candidate in political science, shared her insight into the history of a notorious Twin Cities bottleneck in a June 1 news segment on KARE-11, the local NBC affiliate.

Cavanaugh described how the Crosstown Commons, the merged area of Interstate 35W and Highway 62 in Minneapolis and Richfield, developed in the mid-1950s to reduce congestion on neighborhood streets. The three original plans did not combine the two highways, but merging them was deemed more acceptable and affordable by the local governments involved. A multiyear reconstruction of the area is now under way.

Cavanaugh is the author of *Politics and Freeways*, a 2006 report that examines the political history of Twin Cities freeway construction. It is available from the CTS Web site at www.cts.umn.edu/Publications/ResearchReports. **CTS**

TZD Conference brochure enclosed

The 2007 Toward Zero Deaths Conference will be held September 17 and 18 in Duluth. The conference provides a venue to share best practices in the areas of engineering, enforcement, education, and emergency services, as well as to chart the course for a future with fewer traffic fatalities and life-changing injuries.

Sponsors are the Minnesota Departments of Public Safety and Transportation and the Minnesota Toward Zero Deaths Program. The conference is being hosted by CTS and facilitated by the College of Continuing Education at the University of Minnesota.

A brochure with a detailed program schedule and registration materials is enclosed. For more information, visit www.tzd.state.mn.us or contact **Shirley Mueffelman**, 612-624-4754, conferences2@cce.umn.edu.

Summaries of the previous three conferences, published by CTS, are available for download at www.cts.umn.edu/publications. **CTS**

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In recent years she has led large organizational-change efforts involving research implementation, stakeholder participation, process change, and the development of training programs. These efforts include the development of utility coordination policies and the implementation of research findings on cost estimation practices in Mn/DOT.

Marti also has been a critical leader within CTS, joining director **Robert Johns** and associate director **Laurie McGinnis** in charting the strategic directions for CTS and in leading a growing staff over the past 15 years. We all will miss her tremendous people skills and her dedicated focus on quality.

We look forward to continuing to work with Marti as a partner, given the extensive safety research and outreach programs we help coordinate in the University. CTS will not be filling her position as it is currently described, but will hire and reassign staff to support her current projects. **Gina Baas** and **Jim Grothaus** are key CTS leaders who will work with Johns and McGinnis to manage this transition. **CTS**

New online resource: TRR Journal

CTS is now providing University of Minnesota faculty, students, and staff online access to the *Transportation Research Record: Journal of the Transportation Research Board* (TRR Journal). The database includes papers from 1996 to the present. Access is by IP recognition, so if you need assistance when off campus, please contact CTS Library Services at 612-626-1077. Access to the TRR Journal Online is available on the CTS Library Services Web page: www.cts.umn.edu/LibraryServices. **CTS**

Mark your calendars:

Oberstar Forum

October 8, 2007
 Minneapolis

CTS 20th Anniversary

October 23, 2007
 McNamara Alumni Center, Minneapolis
 east bank campus

Upcoming events

To publicize your event, call CTS at 612-626-1077, fax 612-625-6381, or e-mail snopl001@cts.umn.edu. Visit the CTS Web site—www.cts.umn.edu—for more comprehensive event information.

Aug. 23–24	Second Access to Destinations Conference, Minneapolis. Contact Shirley Mueffelman , 612-624-4754, conferences2@cce.umn.edu .	Oct. 16–17	AirTAP Fall Forum, Breezy Point. Contact Mindy Carlson at 612-625-1813, carlson@cts.umn.edu .	Nov. 14–16	Minnesota Public Works Association Fall Conference, Brooklyn Center. Contact Heather Dorr , conferences3@cce.umn.edu or visit minnesota.apwa.net .
Sept. 17–18	Toward Zero Deaths Conference, Duluth. Contact Shirley Mueffelman , 612-624-4754, conferences2@cce.umn.edu .	Oct. 23	CTS 20th Anniversary, Minneapolis. Contact Paula Fenstad , 612-624-3708, conferences5@cce.umn.edu .	Dec. 6	57th Annual Concrete Conference, St. Paul. Contact Kristi Fischer , 612-625-4265, conferences4@cce.umn.edu .
Oct. 3–4	Minnesota Fall Maintenance Expo, St. Cloud. Contact Kathy Warren , 651-351-7432, kwarren@usinternet.com .	Oct. 23–24	Annual Water Resources Conference, Brooklyn Center. Contact Paula Fenstad , 612-624-3708, conferences5@cce.umn.edu .	Apr. 15–16	Minnesota Spring Maintenance Training Expo, St. Cloud. Contact Shirley Mueffelman , 612-624-4754, conferences2@cce.umn.edu . CTS
Oct. 8	Sixth James L. Oberstar Forum on Transportation Policy and Technology, Minneapolis. Contact Paula Fenstad , 612-624-3708, conferences5@cce.umn.edu .	Nov. 1–2	3rd Annual Asphalt Shingle Recycling Forum, Chicago. Call 630-585-7530 or visit www.shinglerecycling.org .		