



Leaders honored at CTS annual awards luncheon

CTS presented the following awards at its Annual Meeting and Awards Luncheon on April 24 in Minneapolis. **Robert Johns**, CTS director, began the event with a report of CTS accomplishments and plans, and then moderated the first four award presentations.

Richard P. Braun Distinguished Service Award: Former CTS director **Richard Braun** presented the award to **Randy Halvorson**, senior associate with Cambridge Systematics and former division director for program management at Mn/DOT. Braun said Halvorson was an “original-idea person” and a champion for Mn/DOT research programs. Halvorson credited his success to a four-step process he

learned from Braun: Understand the importance of research, support research financing even in hard times, give staff the freedom to innovate, and nurture the department’s relationship with the University.

Ray L. Lappegaard Distinguished Service Award: In her introduction, CTS Executive Committee member **Mary Hill Smith** called recipient **Connie Kozlak** the “quintessential professional leader in her field and a friend to anyone who knows her.” Kozlak is the systems planning and programming manager for the Metropolitan Council and chair of the CTS Transportation Planning and the Environment

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Robert Johns, Randy Halvorson, and Richard Braun



Johns, Connie Kozlak, and Mary Hill Smith

Bridge project wins Research Partnership Award

A system for constructing bridges more quickly and with less impact on the environment garnered this year’s CTS Research Partnership Award. **Linda Preisen**, research administration director at CTS, presented the award at the CTS Annual Meeting and Awards Luncheon held April 24.

Civil engineering professor **Catherine French** and grad student **Matt Smith** accepted on behalf of the team. The project—“Full-Depth Precast Concrete Bridge Deck System”—was sponsored by the National Cooperative Highway Research Program.

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Charles Bell, Paul Kivisto, Kevin Western, Kevin Hagen, Keith Molnau, Matthew Smith, Don Hall, Erik Wolhowe, Catherine French, Alan Rindels, and Linda Preisen

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New director named for HumanFIRST

Michael Manser has been named the new director of the HumanFIRST (Human Factors Interdisciplinary Research in Simulation and Transportation) Program. HumanFIRST is a program of the ITS Institute, which is housed at CTS and directed by Professor **Max Donath**.



Mike Manser

Since receiving his doctorate in kinesiology from the University of Minnesota in 1997, Manser has worked on a variety of research topics related to human factors and driving safety. His primary research interests include human perception, driver distraction, driver education and training, and the design of simulator systems. He joined the HumanFIRST Program several years ago as a research associate.

Manser served as interim director since **Nic Ward**, the founding director of HumanFIRST, accepted a faculty position at Montana State University last fall. Ward will continue to collaborate with the HumanFIRST Program as a visiting researcher.

Ward was responsible for the planning and supervision of

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Council, and she has been a long-time mentor for the Master's in Urban Planning Program at the Humphrey Institute of Public Affairs. Kozlak said that while she enjoys her discussions with researchers, she especially enjoys her work with students. "It's what's needed," she said. "We're all going to retire some day."



Johns, Cathy Petersen, and Richard Murphy

William K. Smith Distinguished Service Award: **Richard Murphy Jr.**, chair of the CTS Executive Committee, presented the award to a "most-deserving candidate," **Cathy Petersen**. Petersen is the principal for CJ Petersen & Associates, a research, training, and consulting firm, and is the author of three books on international trade. She was a founding co-chair of the CTS Logistics Task Force and continues her work with CTS through the annual freight and logistics symposium. "We began bringing people together and had great success," she said.



Johns, Fred Corrigan, and Coleen Landkamer

Distinguished Public Leadership Award: Previous recipient **Colleen Landkamer** presented the award to **Fred Corrigan**, executive director of the Aggregate & Ready Mix Association of Minnesota.

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The typical sequence for building bridge superstructures in the United States is to erect the precast concrete beams, steel beams, or continuously reinforced slab span formwork; place either temporary formwork or stay-in-place formwork such as steel or concrete panels; place

"Fred is a community builder and works tirelessly to get things done," Landkamer said. "Whether in Minnesota or internationally, Fred makes a difference." Corrigan said he is proud to chair the CTS Executive Committee, adding that CTS and the University "play a critical neutral role in these years of partisanship."

Gina Baas, CTS communications and outreach director, then presented the education awards.



David Levinson, Nebiyou Tilahun, and Gina Baas



Mihai Marasteanu, Raul Velasquez, and Baas

Matthew J. Huber Award for Excellence in Transportation Research and Education: Two students received awards—**Nebiyou Tilahun** and **Raul Velasquez**. Tilahun is in the final year of his civil engineering Ph.D. program and has done "much innovative work," said **David Levinson**, his advisor. Tilahun's work on the value of different features of bicycle facilities, which made up his master's thesis, was incorporated into National Cooperative Highway Research Program (NCHRP) report 552: *Guidelines for Analysis of Investments in Bicycle Facilities*. Tilahun said the Huber award encourages him to continue his work in the field.

deck reinforcement; cast deck concrete; and remove formwork if necessary. This project focused on systems that eliminate the need to place and remove formwork, thus accelerating on-site construction and improving safety.

The project germinated from an idea by

The other winner this year is **Raul Velasquez**, who is also working toward his Ph.D. in civil engineering, under advisor **Mihai Marasteanu**. Velasquez has worked as a research assistant on many projects related to pavement engineering and pavement design and was a teaching assistant in civil engineering classes. "Raul is an excellent student, and I am lucky to have a student like him." In turn, Velasquez said he had "won the lottery" by having Marasteanu as his advisor.



Mike Manser, Mick Rakauskas, and Baas

ITS Institute Student of the Year Award: The U.S. Department of Transportation's Research and Innovative Technology Administration presents an outstanding student of the year award to each of its University Transportation Centers (UTCs). The recipient of the 2007 award at the Intelligent Transportation Systems (ITS) Institute, a UTC housed at CTS, is **Michael "Mick" Rakauskas**. He received the award at the annual Transportation Research Board meeting in Washington, D.C., in January and was also recognized at the April ceremony. Rakauskas is a research fellow with the HumanFIRST Program and a Ph.D. candidate in the psychology department's cognitive and biological program. He was nominated by **Mike Manser**, director of the HumanFIRST Program. "I expect Mick to have a significant impact in the research world in the next few years," Manser said.

Baas also announced that three students completed their graduate certificate in transportation studies this spring: **Jose Fischer**, **HunWen Tao**, and **Andrew Schlack**. **CTS**

Mn/DOT bridge engineer **Dan Dorgan** following his participation in a 2004 international scanning tour, French said. The tour, led by the American Association of State Highway and Transportation Officials, identified systems to acceler-

Citizens' transportation opinions shift with information

Citizen viewpoints on transportation priorities and funding shifted significantly following a day of deliberation held as part of a Deliberative Polling® initiative led by Metropolitan State University. **Robert Johns**, CTS director, moderated the deliberation.

The Deliberative Polling project began in February with a survey of more than 1,000 metro-area residents addressing transportation priorities and funding. Approximately 65 respondents accepted Metropolitan State's invitation to attend a follow-up "Deliberation Day," at which they discussed the issues in small groups and posed questions to a politically balanced panel of experts and policymakers. At the end of the day, participants retook the initial survey to determine the effects of information and deliberation on their views. Results of the second survey were compared to those of the first.

The greatest change came when respondents were asked whether or not they supported a sales tax on gasoline to deal with growing transportation maintenance and expansion demands. During the first survey in February, 47 percent said "yes." During the second survey, 67 percent said "yes." Other comparisons between the first

and second surveys included the following:

- Respondents' knowledge that property taxes pay for the greatest share of road and highway costs increased from 9.4 to 60.4 percent.
- Knowledge that about 30 percent of transit operating costs were covered by riders' fares increased from 54.7 to 83.9 percent.
- Participants reported greater support for increases in certain user-based transportation funding sources after learning more about the issues. Support for adding a sales tax to gasoline rose from 47 to 67 percent, support for increasing the gasoline tax by 5 to 10 cents a gallon rose from 58 to 76 percent, and support for increasing vehicle registration fees rose from 66 to 84 percent.
- Support for an additional half-cent sales tax dedicated to transportation increased from 59 to 68 percent.
- The percentage of respondents concerned that increasing transportation taxes would damage the state's economy declined from 33 to 16 percent.

Both surveys showed strong support for replacing deteriorating bridges, providing incentives to employers for encouraging carpools, increasing transit service both

inside and outside the I-694/I-494 beltway, charging truckers additional fees for wear and tear on the roadways, adding lanes to congested highways and concentrating on road maintenance rather than expansion.

Metropolitan State's Deliberative Polling process was modeled on the work of Professor James Fishkin at Stanford University, who pioneered Deliberative Polling to demonstrate changes in citizen input after citizens become more informed about an issue. The Metropolitan State initiative was led by **Frank Schweigert**, professor of public and nonprofit administration in Metropolitan State's College of Management, and **Susan Shumer**, director of community outreach and civic engagement and the Center for Community-Based Learning, with sponsorship from the American Association of State Colleges and Universities. Funding was provided by the F.R. Bigelow Foundation, the Saint Paul Foundation, the Minneapolis Foundation, and Metropolitan State University President's Special Initiative Fund.

Copies of the executive summary or the full report can be obtained from **Aretha Hicks** at aretha.hicks@metrostate.edu or Schweigert at francis.schweigert@metrostate.edu. **CTS**

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ate bridge construction. The focus of the Minnesota project was to adapt one of these systems—France's Poutre Dalle—for use in Minnesota and develop specifications, guidelines, and examples.

The Poutre Dalle system is made of inverted-T precast members placed adjacent to one another and then topped with cast-in-place (CIP) concrete. Mn/DOT developed needed design specifications with help from project partners such as County Materials, while the University's role was to investigate the system's durability and performance over time. For the research, the University team instrumented and monitored a newly constructed bridge in Center City and an existing bridge in Beltrami County. They also constructed and tested a two-span test bridge in the Structures Laboratory at the University of Minnesota.

The testing confirmed the system's durability and verified the slab span design, Smith reported. "It's a rapid, economical construction alternative to cast-in-place

bridge construction," he said. Time saved varies depending on the size of the job, but typically several weeks of saved construction time can be expected. What's more, because the construction is not open to the channel below, it prevents debris from falling into the water and thus is more environmentally friendly.

This research partnership resulted in a new system that Mn/DOT can use in place of traditional CIP slab superstructures. Thanks to the project, five more of these bridges have been constructed in Minnesota, and 11 are in the planning stage, Preisen noted. In addition, Mn/DOT has presented the lessons learned from the project at workshops and to the Federal Highway Administration, and the Wisconsin DOT is building a bridge using the method. **CTS**

Project Partners:

Mn/DOT Bridge Office: **Dan Dorgan, Kevin Western, Erik Wolhowe, Paul Kivisto, Keith Molnau, Steve Ellis, Joe**



Fishbein, Kevin Hagen (now with *Earth Tech*), **Jeff Erickson** (now with *Minnesota DNR*)

Mn/DOT Construction: **Steve Kordosky, Jennifer Read**

Mn/DOT Research Services: **Alan Rindels**

FHWA: **Romeo Garcia**

County Materials: **Don Hall, Don Lowe**

Lunda Construction: **Dennis Behnke**

University of Minnesota Department of Civil Engineering: **Carol Shield, Cathy French, Matthew Smith, Charles Bell II** (now with *Opus*)

WTS presents scholarships and awards

The Minnesota chapter of the Women's Transportation Seminar held its Annual Scholarships and Recognitions Luncheon on April 15.

Grace Gathaara of the University of Minnesota-Twin Cities received the undergraduate scholarship. Gathaara, an aerospace engineering major, was an intern for CTS during the past year.

Katie Roth, also from the Twin Cities campus, received the graduate scholarship. She is a candidate in the Humphrey Institute's Master of Urban and Regional Planning program and president of the University's Interdisciplinary Transportation Student

Organization (ITSO).

Cassie Wilson of the University of Minnesota-Crookston received the Katherine F. Turnbull Leadership Award.

In addition, **Colleen Landkamer**, Blue Earth County Commissioner and a member of the CTS Executive Committee, was named Woman of the Year.

Biz Colburn, a member of the CTS Transportation Planning and Environment Committee, presented the award. **CTS**



Biz Colburn and Colleen Landkamer



Grace Gathaara



Cassie Wilson



Katie Roth

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numerous innovative human factors research projects during his years at Minnesota. He led the development of the program's advanced immersive driving simulator and was involved in studies investigating driver distraction and impairment, lane-assist systems for emergency and commercial vehicles, haptic feedback systems, and the design of electronic signage for advanced driver-information systems.

For more about HumanFIRST, see www.its.umn.edu/ProgramsLabs/HumanFIRST. **CTS**

High school students get inside look at transportation technology

Twelve students and two teachers from the Blaine High School Center for Engineering, Math, and Science visited CTS

and the Intelligent Transportation Systems (ITS) Institute on April 23. The Center for Engineering, Math, and Science is

a specialty program within Blaine High School offering an integrated and rigorous, in-depth program in mathematics, science, and engineering.

The purpose of the visit was to give students a perspective on transportation engineering and transportation careers. Students spent time learning about the uninhabited aerial

vehicle in the Department of Aerospace Engineering, traffic monitoring and simulation research in the Minnesota Traffic Observatory, and earthquakes and structures in the civil engineering department.

Shawn Haag, program coordinator for CTS, said the students' reactions were enthusiastic. "The visit really opened their eyes," he said, referring to the variety of work and research in transportation. When asked if they would consider transportation as a potential career, more than half the students raised their hands.

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Blaine high school students touring the U of M's transportation-related research facilities

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.

Oct. 1–2 Fall Maintenance Expo, St. Cloud, Minn. Contact **Kathy Warren**, 651-351-7432, kwarren@usinternet.com.

Oct. 7–8 Toward Zero Deaths Conference, Rochester, Minn. Contact **Shirley Mueffelman**, 612-624-4754, cceconf2@umn.edu.

Oct. 14–15 2008 AirTAP Fall Forum, Breezy Point, Minn. **CTS**