



STAR LAB (SMART TRANSPORTATION APPLICATIONS AND RESEARCH)

A strong ITS research program and a corresponding supporting laboratory are now in place at UW to serve the Greater Seattle area. The STAR Lab is located in More Hall 110A on the Seattle campus of the UW. Since September 2003, Professor Yin Hai Wang has presented the STAR Lab plan to many government agencies and gained broad support for the Lab. For example, the Washington State Department of Transportation (WSDOT) has decided to make the STAR Lab a remote operation center and will provide live traffic data and traffic operation software; the City of Bellevue will donate some retired control devices; and the City of Lynnwood will feed traffic control data to the STAR Lab.

Sponsors include TransNow, the CEE Department at the UW, the City of Bellevue, and WSDOT.



NEMA Control Cabinet

Major objectives of the STAR Lab include supporting advanced research in ITS fields; supporting ITS professionals; exploring effective solutions to transportation problems; providing hands-on training instruments for ITS students; and constructing a bridge between the UW and transportation agencies. The STAR Lab research will focus on the following topics: Advanced Traffic Management Systems (ATMS); Advanced Traveler Information Systems (ATIS); Vehicle Tracking Technologies; Traffic Simulation; Vehicle Detection (loop detectors, video image processors, radar detectors, etc.); Freeway Monitoring and Emergency Response; and In-Vehicle Devices (collision avoidance systems, T-box, etc.).

For further information, please contact Professor Wang, yinhai@u.washington.edu 

ENGINEERING OPEN HOUSE DEMO CONTEST WITH CASH PRIZES



TransNow joined with the Department of Civil and Environmental Engineering at UW to sponsor a contest with cash prizes for the best Civil Engineering demonstrations put on by students. The purpose of this contest was to enhance TransNow's participation in the UW College of Engineering Open House, held April 30 and May 1, 2004. There were 22 CEE exhibits, and 14 of these were entered in the contest.



Welcome Table

The Grand Prize (\$500) went to the Game Room: Highway Construction- **Steve Muench & Jianhua Li**;

First Prize for Structures (\$250) went to Timber Structure Construction Competition- **Timber Structure Team**;

First Prize (\$250) for Construction and Transportation went to (a tie) Concrete Canoe- **Natosha Norlin and Concrete Canoe Team & ALEDA** (Loop detection)- **Patikhom Cheevaranonthai**; and

First Prize (\$250) for Environmental and Water Resources went to Mountain Watershed- **Alan Hamlet**.



Game Room

NORTHWEST TRANSPORTATION CONFERENCE



The NWTC conference, held at OSU February 10-12, 2004, had the theme “Partnerships in Transportation.” Oregon Governor Ted Kulongoski was the keynote speaker at the conference, which featured sessions on outsourcing, innovative contracting, Incident/Event coordination, and other sessions that highlight Federal, state and local cooperation, coordination with natural resource agencies, and public-private partnerships. The Northwest Transportation Conference delegates are mostly engineers from the Oregon Department of Transportation, Federal Highway Administration, Oregon Counties, Oregon Cities, Oregon Universities, US Forest Service, the Institute of Transportation Engineers, Forest Service, Bureau of Land Management, and various consultants. The conference is held on the Oregon State University campus every other year; it has been held at PSU twice in recent years. Every year, attendance is approximately 400. The conference incorporates the ITS (Intelligent Transportation Systems) Oregon annual meeting. The Kiewit Center for Infrastructure and Transportation at OSU is one of 13 sponsors for this year’s conference, completing the 55th year of significant involvement for OSU.

The conference originated in 1949 as the “Roads & Streets Conference.” Registration was \$2.00 and hotel rooms ranged from \$2.50 to \$5.00 per night. 🏠

RYAN AVERY IS NAMED UTC OUTSTANDING STUDENT FOR 2003



Sam Bonasso, Deputy Administrator for UTC's Research and Special Programs Administration (RSPA) presented the 2003 Outstanding Student of the Year Award to UW student Ryan Avery.

Ryan Avery of the University of Washington (UW) was awarded the 2003 Outstanding Student of the Year Award for USDOT, Federal Region Ten, on January 10, 2004. Sam Bonasso, Department Administrator for the Research and Special Programs Administration of the USDOT (RSPA), presented the award during the Transportation Research Board Annual Meeting in Washington, DC. Ryan received his Bachelor of Science in Civil Engineering at Colorado State University in May of 2002. After beginning his studies in the fall of 2002 with a Valle Scholarship appointment, he became very interested in Intelligent Transportation Systems. He worked at the Washington State Transportation Center (TRAC) while earning his Masters. Ryan continues at the UW earning a PhD in Civil Engineering. He has been involved in ITE, and he organized and ran a graduate student conference sponsored by TransNow (Region 10 UTC). Ryan is currently working with Professor Yin Hai Wang researching a paired loop detector and video detection system, and plans to pursue computer vision-related topics for his dissertation. 🏠

THANK-YOUS FROM TRANSNOW STUDENTS

“When I joined the hoards of laid-off Boeing people at the start of 2003, I knew it could be a long stretch before I found suitable employment. Having an interest in transportation and seeing a growing local need for improvements to same, I took the opportunity to go back to school for my master’s degree. The hope was that the right job would materialize about the time I graduated. Well, the day after my last final, I interviewed with Washington State Ferries, and I start March 29 as supervisor of the Project Controls Group in the Terminal Engineering Office. The position’s connection with transportation is somewhat tangential, but it fits with my experience in project management, and if nothing else is a great ‘foot in the door’ to more involvement with transportation planning and engineering in the future.” Brian Harr, UW student and intern with WSDOT

“I am writing to thank TransNow for their \$600 award matching my Coral Sales Scholarship received earlier this year. This award will significantly assist in my education and is greatly appreciated. I am finishing my fourth year at WSU in the CE Department. I will finish my degree next spring after spending the fall studying abroad at the Technical University of Denmark. There I will have the opportunity to take courses in Transportation Engineering and experience a whole new culture. I am really looking forward to this opportunity. The TransNow award will greatly help me achieve this goal of studying abroad. Thank you once again for your generosity. I will continue to strive to do my best as I complete my education, maintaining my involvement in my University and learning all I can from summer internships.” Katie Dahlgren, WSU student

“As a recent TransNow matching scholarship recipient, I would like to express my appreciation for this award. It is a great honor to receive a scholarship of this prestige. I am so grateful that you have chosen to invest in my future. With the additional financial support this award will provide I can now focus more on school and not how to pay for school. You are helping me achieve my childhood dream of pursuing a degree in higher education. It is also a long-term goal of mine to set up a scholarship foundation, much like this one, to give back to my community and those who made it possible for me to reach my full potential. Thank you again!” Seth Williamson, OSU Student

“I just wanted to say thank you for the 60% match in funds for the Poster Competition awards that took place at the Northwest Transportation Conference. It was nice of you to take the time and effort to do that. As overworked graduate students, it is always encouraging when our efforts are appreciated (and rewarded monetarily!).” Heather Bonin, OSU Student 🏠

TRANSNOW SPONSORED STUDENTS FOR 2003-2004

Oregon State University

Matt Baldwin (MS) is a Fellowship student and hopes to complete his degree in 2005.

Ron Blacketter (MS) is a Fellowship student and is interested in ITS and road design.

Heather Bonin (PhD) is a Fellowship student and winner in the 2004 Northwest Transportation Conference Student Poster contest.

Cameron Grile (MS) is a Fellowship student.

Don Helvie (MS) is a Research Assistant for Thanit Puthongsiriporn.

Lauren Hunt (BS) is a Fellowship student.

Matt Little (MS) is a Fellowship Student and TNW/Coral Sales scholar.

Eric Muehlenkamp (MSChE) is a 2004 Northwest Transportation Conference Student Poster contest winner.

Sukanya Pankhao (MSCE) is a Research Assistant for Thanit Puthongsiriporn.

Erik Preston (MS) is a Fellowship student.

David Schweitzer (BSCE) is a TNW/Coral Sales Scholarship recipient.

Katie Walker (BSCE) is a Fellowship student.

Seth Williamson (BSCE) received a TNW/Coral Sales Scholarship.

Portland State University

Paul Bender (PhD) is interested in GIS and continues as a Fellowship student.

Andrew Byrd (BS) is a winner in the 2004 Northwest Transportation Conference Student Poster contest.

Neil Byrne (BS) is a winner in the 2004 Northwest Transportation Conference Student Poster contest.

Violet Gordon (BS) is a TNW/Coral Sales scholar and winner in the 2004 Northwest Transportation Conference Student Poster contest.

Roger Gutierrez (MS) received a TNW/Coral Sales Scholarship.

Steve Hansen (MURP) is a Fellowship student interested in travel demand modeling.

Chansung Kim (PhD) is a Research Assistant for Robert Bertini.

Ying Lin (MURP) works as a Research Assistant for Jennifer Dill.

John Mermin (MURP) is a Fellowship student interested in transportation and land use.

Linda Murphy (MURP) is a 2004 Northwest Transportation Conference Student Poster contest winner.

Chris Pangilinan (BS) is a winner of the 2004 Northwest Transportation Conference Student Poster contest.

Lynn Peterson (PhD) is a Fellowship student.

Rory Renfro (Post-Bac) is a 2004 Northwest Transportation Conference Student Poster contest winner.

John Renkens (MURP) is a Fellowship student and winner in the 2004 Northwest Transportation Conference Student Poster contest.

Michael Rose (MURP) is a winner in the 2004 Northwest Transportation Conference Student Poster contest and is a Fellowship student.

Michael Tresidder (MURP) is a Fellowship student.

Dana Visse (MURP) is a winner in the 2004 Northwest Transportation Conference Student Poster contest.

Tareth Yin (BSCE) is a winner in the 2004 Northwest Transportation Conference Student Poster contest.

University of Washington

Ryan Avery (MSCE) is the TransNow Outstanding Student for 2004, is a TNW/WTS Scholarship recipient, and is a Research Assistant for Yin Hai Wang.

Ted Bailey (MSCE) is an intern with WSDOT.

Roger Baugh (MSCE) is an intern with WSDOT and is interested in traffic roadway hydraulics.

Stephen Boyles (BSCE) is an intern with WSDOT.

Janette Carciller (BSCE) is a WSDOT intern.

Lok Man Chan (BSCE) received a TNW/WTS Scholarship.

Kevin Chang (PhD) is a Fellowship student and is interested in freight mobility and logistics.

Patikhom Cheevarunothai (MSCE) is a Research Assistant for Nancy Nihan.

Amy Elliott (MSCE) is working as an intern at CH2M Hill.

Brian Harr (MSE) is a TNW/Coral Sales Scholarship recipient.

Jennifer Helseth (BSCE) was an intern with WSDOT.

Thorsteinn Hermannsson (MSCE) is a Valle Scholar from Iceland.

Owen Kehoe (MSCE) was an intern with King County Metro.

Zahid Khan (BSCE) was an intern with WSDOT.

Joon-ki Kim (MSCE) is the Research Assistant for Nancy Nihan.

Taryn Kristof (MSCE) is the Research Assistant for Scott Rutherford and a TNW/Coral Sales Scholarship recipient.

Vannarith Ky (BSCE) is an intern with WSDOT.

Andrew McIntyre (BSCE) received a TNW/Coral Sales Scholarship.

Steve Muench (PhD) is a Research Assistant for George Turkiyyah.

Arianne Reidinger (BSCE) is an intern with WSDOT and a TNW/Coral Sales Scholarship recipient.

James Slavicek (MSCE) is an intern with WSDOT.

Whitney Trent (BSCE) is an intern with WSDOT and a TNW/WTS Scholarship recipient.

Robert Vance (MSE) works as a Research Assistant for Scott Rutherford.

Johanna Weinstock (MSCE) is an intern with Parsons, Brinckerhoff, Quade & Douglas, Inc.

Katherine Wendel (MURP) is a TNW/WTS Scholarship recipient.

Xiaoping Zhang (PhD) is a Research Assistant for Nancy Nihan.

Jianyang Zheng (MS) is a Research Assistant for Nancy Nihan and Yin Hai Wang.

Washington State University

Katie Dahlgren (BS) received a TNW/Coral Sales Scholarship.

Steve Peterson (PhD) is a Research Assistant for Eric Jessup. ☞

TRANSNOW STUDENT PROFILE: WASHINGTON STATE UNIVERSITY

Research Assistant Steve Peterson, a PhD student in the Department of Agricultural and Resource Economics at Washington State University, spent over two years working as a distribution planning analyst for Solvey Engineered Polymers, Inc., located in Mansfield, Texas, primarily developing transportation and distribution center budgets and conducting process audits to identify opportunities for increasing quality and efficiency. Arriving at WSU in the fall of 2003, Steve began working with Professor Ken Casavant and Assistant Professor Eric Jessup, discussing research topics which were relevant to the region and state, and ultimately took the lead on the TransNow Project entitled, "Estimating An Analytical Model Supporting Inter-Modal/Port Facilities." This project has significant regional and statewide appeal and application interests. ☞

TRANSNOW ADVANCED INSTITUTE AT OREGON STATE UNIVERSITY



OSU's Advanced Institute brings undergraduate and graduate students together with faculty to enhance their exposure to transportation issues as well as general issues such as improving communication skills. During 2003-04 students have been required to participate in the Northwest Transportation Conference (NWTC), held in February. They are also required to submit at least one paper to the program director (Chris Bell) as well as to make a

commitment to stay in touch with the Kiewit Center for Infrastructure and Transportation once they graduate.

Each year we have at least one student who stands out. Lauren Hunt continues to excel: after completing another internship with FHWA in Boston, Lauren headed off for Denmark to complete a year of study abroad at the Danish Technical University. She is focused on Transportation and Infrastructure studies. Lauren is hoping to attend MIT in the fall to begin graduate studies.

Heather Bonin is a graduate student in Industrial and Manufacturing Engineering working as a graduate assistant with Professors Kim and Porter on an ODOT-funded project to evaluate alternate technologies for implementation of a VMT-based road user fee. Heather took second place in the poster contest at the NWTC.

Sarah Dammen received an M.S. in Economics from Oregon State University in June 2003. Her Masters thesis, entitled "The Effects of Safety Practices, Technology Adoption, and Characteristics on Motor Carrier Safety," won the 2004 Best Student Paper Award given by the Transportation Research Forum (TRF). The award was presented on October 23, 2004, at the 45th Annual Meeting of the TRF. Sarah is now employed at the Volpe National Transportation Systems Center in Cambridge, MA.

TRANSNOW ADVANCED INSTITUTE AT PORTLAND STATE UNIVERSITY



TransNow Advanced Institute funding for 2003-2004 provides financial support for seven transportation students enrolled in graduate degree programs at Portland State University. Paul Bender is enrolled in the Urban Studies PhD program, focusing on applications of geographic information systems to transportation (GIS-T). Paul's AI award was matched by a university-sponsored graduate assistantship. He spent the academic year assigned to the Center for Urban Studies working with

Professors Robert Bertini, Kenneth Dueker, and James Strathman on evaluation of transit signal priority and ITS. Paul has a BA in Geography and plans a career in university teaching and research. Lynn Peterson, a 1993 graduate of PSU's School of Urban Studies and Planning with an MURP degree, has returned to PSU to pursue a PhD in Civil and Environmental Engineering. Her AI award was matched by a university-sponsored assistantship. She is working with Professor Bertini on the integration of NEPA and Oregon land use program requirements for major roadway projects. Lynn is the first female student at PSU to pursue a PhD in this field.

All four of the following students are pursuing Masters of Urban and Regional Planning (MURP) degrees through PSU's School of Urban Studies and Planning. Michael Tresidder, a first-year MURP, matched his AI award with a university-sponsored graduate assistantship in an appointment to the Center for Urban Studies. He is working on a project with Professor Jennifer Dill entitled "Measuring Connectivity for Bicycling and Walking." Michael has a B.S. in Chemistry. After graduation he plans to be a Transportation Planner. Michael Rose, a second-year MURP, had his AI award matched by an appointment in the Department of Civil and Environmental Engineering where he is working on an incident response evaluation with the Oregon Department of Transportation. Michael has a B.L.A. from the University of Oregon. His areas of interest include transportation planning and land use and mode choice. John Mermin, also a second-year MURP, has matching funding from the College of Urban and Public Affairs. His areas of interest include urban design transportation and land use connection. Upon graduation, he plans to be a progressive transportation land use planner with urban design emphasis. Jason Renkens is a first-year MURP with matching funding from the School of Urban Studies and Planning. He is working with Professor Jennifer Dill on NHTS analysis of bike rider behavior. Upon graduation, Jason plans to work on his PhD with career goals of research, teaching and consulting. Steve Hansen is a first-year MURP with matching funds from the Department of Civil and Environmental Engineering. Steve's interests include travel demand modeling and traffic flow. He has a degree in Operations Research and Industrial Engineering from Cornell University. 🏠

FACULTY AWARDS



Ken Casavant, WSU, was selected to present the 2004 Distinguished Faculty Address on April 7, 2004. The lecture will be entitled, "Living in a Land Grant Institution."

Dan Dailey, UW, is an officer in the IEEE ITS Council. He received an honorary faculty appointment at Beijing JiaoTong University. For more information about JiaoTong University see <http://www.njtu.edu.cn/>.

Kate Hunter-Zaworski, OSU, won the Roger Tate Award for Outstanding Contributions to Accessible Transportation Research, announced at the TRB annual meeting in Washington, DC, January 2004.

Nancy Nihan, UW, and **Yinhai Wang**, UW, were recipients of the ASCE Journal of Transportation Engineering Best Paper Award for 2003 with the paper, "Can Single-Loop Detectors do the Work of Dual-Loop Detectors?" (vol. 129, no. 2).

David Porter, OSU, was featured in the Oregon University System "Engineer" (see: <http://oregonengineer.org/faculty.html>). He is a co-investigator on the TransNow project being conducted by Thanit Puthongsiriporn, "Urban Commodity Flow Data Collection and Analysis Using Global Positioning Systems." 🏔

NEW PRINCIPAL INVESTIGATORS



Thanit Puthongsiriporn, assistant professor of the Department of Industrial Engineering at Oregon State University, is interested in the challenge of utilizing automatic identification and data collection technologies to help organizations achieve their goals. Puthongsiriporn's research projects also include work with wireless technology in the classroom environment, data mining, intelligent

database systems, and communication protocols for the Web. Thanit Puthongsiriporn received his PhD from the University of Pittsburgh in 2002. Before his graduation, he worked for FedEx Ground as a development engineer. At FedEx he supervised the installation, diagnosis, and maintenance of the On Vehicle Computer network that allows FedEx trucks to transmit delivery information back to the headquarters and customers to virtually view the information in real time. Since he joined the faculty, Puthongsiriporn has developed several new courses including Mobile Computing Applications and E-Commerce Applications for Engineering. With the new courses, he helps the department expand its information system concentration and prepare for increasing student numbers. Puthongsiriporn is also the father of four young children and a fan of the Pittsburgh Steelers. 🏔



Robert Fountain has been a professor in the Department of Mathematics and Statistics at Portland State University since 1992, after receiving degrees from the University of Texas at Austin and the University of New Mexico. For three years, he served as Director of the department's Statistical Consulting Laboratory. His primary areas of research are Sampling Theory and Estimation Theory. He has

provided consulting expertise to scientific researchers in various fields, including survival analysis and probabilistic modeling in genetics, multivariate statistical analysis in marketing, sampling and experimental design in transportation studies, and national-scale sampling plans in surveys of agricultural workers. 🏔



J. David Porter, is an Assistant Professor in the Department of Industrial and Manufacturing Engineering at Oregon State University. Dr. Porter received his BS in Mechanical Engineering from the Universidad Autonoma de Nuevo Leon (Mexico) in 1991 and his MS in Manufacturing Systems from the Monterrey Institute of Technology (Mexico) in 1994. He received his MS and PhD in Industrial

Engineering from the University of Pittsburgh in 1999 and 2000, respectively. Dr. Porter's research interests include automatic identification and data capture, intelligent transportation systems, supply chain engineering, wireless communications, and manufacturing systems engineering. Prof. Porter is a member of SME and ASEE and is the current Director-Elect of the Computers & Information Systems Division of the Institute of Industrial Engineers (IIE). 🏔



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TRANSNOWS

New Online Newsletter at Portland State University:

ITS Oregon announces the first edition of its new monthly online newsletter, Project Showcase. Project Showcase will feature an Oregon project each month that demonstrates an innovative application of ITS as well as upcoming ITS-related events. In the March 2004 issue, Tri-Met's CCTV system expansion for its light rail service is profiled. Project Showcase can be found at <http://67.106.59.88/default.asp?page=newsletter>. Or visit the ITS Oregon website at <http://www.itsoregon.org>. Please send any comments or questions to mail@itsoregon.org.

Summer Workshop: The City of Portland has organized an aaSIDRA roundabout training workshop in Portland in July 2004. For more information on the (limited) spaces available, please see: http://www.aattraffic.com/SIDRA/Portland_Course_July04.htm.

Bus Tracking: Researchers at the University of Washington have developed a system to track buses on cell phones and palm pilots. See: http://seattlepi.nwsource.com/transportation/106856_buses01.shtml.

Transportation Technologies: Emeritus UW Professor Jerry Schneider shares an interesting website on emerging transportation technologies: <http://faculty.washington.edu/jbs/itrans/>.

Kate Hunter-Zaworski and Joe Zaworski, OSU, received a \$5m grant from the National Institute for Disability and Rehabilitation Research to create the nation's first research center focused on making intercity transportation more accessible — including planes, trains, and buses. This grant will lead to the creation of a new center at OSU, a collaborative project with the OSU College of Health & Human Sciences. For more information see <http://oregonstate.edu/dept/ncs/newsarch/2003/Oct03/accessible.htm>.