

TRANSNOW

University Transportation Center for Federal Region X at the University of Washington

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Former TransNow PI Now Dean of Engineering at Arizona State

Deirdre Meldrum, a former Principal Investigator for three TransNow-funded research projects, became Dean of Engineering at Arizona State University's Ira A. Fulton School of Engineering this January.

Dean Meldrum began her engineering career as an undergraduate in the Department of Civil Engineering at the University of Washington, where she received her BSCE in 1983. How did she get interested in transportation engineering?

She says: "It was the courses I took with Joe Mahoney and Scott Rutherford as well as my work at Washington State Department of Transportation (WSDOT). I also worked 20 hours per week at WSDOT my last year of school - 40 hours/week in the summer (6/82-6/83). I learned about traffic signals and signs as well as the Transportation Systems Management Center."

Meldrum went to Rensselaer Polytechnic Institute and then to Stanford for her MS (1985) and PhD (1993) in Electrical Engineering before she returned to the UW in 1992 as an Assistant Professor of Electrical Engineering.

TransNow Director Nancy Nihan encouraged her to apply her computer and mathematical expertise to a freeway operations problem. After meeting with TransNow researchers and officials from WSDOT, Meldrum developed a proposal for a new approach to ramp metering for the Seattle area freeway system.

This led to her first TransNow/WSDOT sponsored research project, which she undertook with research assistant Cyndi Taylor. The two researchers produced a final report: "Simulation Testing of a Fuzzy Neural Ramp Metering Algorithm" (TransNow/WSDOT 1995). After receiving additional funding from TransNow and WSDOT for further research and testing, Meldrum and Taylor developed an algorithm that was implemented on the Seattle Area freeway system and which significantly improved freeway operations. The final 3-volume report on their Fuzzy Logic Ramp Metering Algorithm was published jointly by TransNow and WSDOT (2000).



Engineering faculty need funding to do research. But how do young faculty, with little research on their resumes, get the funding they need?

Meldrum credits TransNow; she says: "TransNow provided the support that enabled me to design and implement (with Cyndi Taylor) the fuzzy logic ramp metering controller that is now on all 126 ramps on the Seattle Freeway system. It provided some of my first funding and helped launch my career in research."

Meldrum's talent for interdisciplinary research earned her a Presidential Early Career Award for Scientists and Engineers in 1996 "for

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TransNow Newsletters now feature a special Region X section dedicated to regional news and issues

TransNow's 2006 Outstanding Student of the Year

TransNow graduate student Tony Woody was awarded TransNow's Outstanding Student of the Year award for 2006. The award was presented prior to the annual meeting of the Transportation Research Board in Washington DC on January 20th, 2007.

The US Department of Transportation honored Woody for his achievements and for his promise for future significant contributions to the transportation field. Woody was among an exceptional group of students selected by the nation's University Transportation Centers (UTCs) for their accomplishments in research, academic performance, professionalism and leadership.



Tony Woody

The awardees were honored at the annual banquet of the Council of University Transportation Centers at the Omni Shoreham Hotel, which gave them the opportunity to meet each other and celebrate their success. Woody felt "It was a very rewarding trip and an honor to achieve the award."

Tony received a bachelor of science from Oregon State University in 2000 and an MSCE from the University of Washington in June 2006. After receiving his B.S. he worked as a Senior Engineering Associate with PTV America, Inc. During his time with PTV America, Tony gained valuable experience in traffic engineering, transportation planning, project management, proposal writing, and public speaking. In 2005 he obtained his professional engineering (PE) license.

He is now employed with CH2M Hill, a consulting engineering firm. Transportation Northwest congratulates Woody on his success and accolade.

86th Annual Transportation Research Board Meeting

The Transportation Research Board hosted its 86th Annual Meeting from January 21-25, 2007 in Washington, DC, with events taking place at the Marriott Wardman Park, Omni Shoreham, and Hilton Washington Hotels. The theme for this year's meeting was "Transportation Institutions, Finance, and Workforce: Meeting the Needs of the 21st Century".

This year, Transportation Northwest was well represented by students, professors and staff from the University of Washington and Washington State University. The experience students gained from presenting at and

attending the TRB conference was positive and well-received. UW civil engineering student Yegor Malinovskiy said "The experience left me much more informed and motivated for my research". He called it "an enlightening opportunity".



Kathy Davis, Euneka Robinson-McCutchen and Tony Woody, UW graduate transportation students



Dock Burke, Director Texas UTC (left) and Barnie Jones, Research Director, Oregon DOT (right)

TransNow and the Civil and Environmental Engineering Department of the University of Washington also hosted a hospitality suite during the TRB annual meeting. This year's event was visited by approximately 75 attendees and included students, TransNow staff and transportation professionals.



Alaska



Idaho



Oregon



Washington

PSU Hosts Region X Meeting of UTCs and DOTs

On October 19th and 20th, 2006, Portland State University (PSU) hosted a two-day meeting of the Region X University Transportation Centers (UTCs) and their state and regional partners. The meeting brought together Pacific Northwest university researchers and educators, state DOT research directors and staff, and senior USDOT staff, including representatives from FHWA, FTA, and RITA.

The focus of this and previous coalition meetings was how UTCs can more effectively collaborate on transportation research, education, and training projects in order to solve critical national and regional priorities. Meeting participants heard reports from UTC directors and state DOT representatives on their current activities and areas of expertise and listened to presentations by USDOT senior staff about the national research priorities of FHWA, FTA, and RITA. These addresses were followed by a discussion of ways in which such research needs could be coordinated with UTC research programs and capabilities. Participants also spent some time working in smaller collaborative groups in mini-workshops generating potential collaborative projects in four prime areas of interest: simulation, freight, infrastructure, and environmental issues. A summary report of the October 2006 meeting can be found at <http://www.otrec.us/region10/report.htm>.

The PSU-hosted meeting was the fourth in a series of planned meetings and/or workshops of the Region X coalition of UTCs and their partners, which was initiated in October 2005 by

TransNow, the federal UTC for Region X. TransNow hosted the first 2 meetings in October 2005 and May 2006 and a subsequent research workshop in June, 2006. During the May 2006 meeting, faculty from each of the universities in the original TransNow university consortium signed a statement of intent to establish the Northwest University Transportation Consortium and to rededicate themselves to the principles of excellence in research, education, and technology transfer to industry and government.

(For more information on the history of the Region X coalition and its planned series of meetings and workshops to promote regional collaboration among the UTCs and their regional partners, see the March 2006 and Fall 2006 TransNow Newsletters at <http://www.transnow.org/publication/newsletters.php>)

PSU, the host of the October 2007 collaborative meeting, is the lead University for the Oregon Transportation Research and Education Consortium (OTREC), a new national UTC. With a UTC in every state of our 4-state region, the host sites of the bi-yearly collaborative meetings are scheduled to rotate from state to state with the TransNow site serving as the primary host site. The Spring 2007 meeting will be held in Moscow, ID, hosted by the National Institute for Advanced Transportation Technology (NIATT), a tier 1 UTC. The Autumn 2007 meeting is scheduled to be hosted by TransNow in Seattle. The Spring 2008 meeting will be held in Fairbanks, hosted by the Alaska University Transportation Center (AUTC), another new national UTC.

Regional News

OTREC and AUTC Issue First RFPs

The Oregon Transportation Research and Education Consortium (OTREC) and the Alaska University Transportation center, two brand new national UTCs in Region X, issued their first Request For Proposals in December and January, respectively. Proposals are currently undergoing peer-review and the first awards are expected this spring. More information can be found at: www.otrec.usfa and www.uaf.edu/ine/AUTC/AUTCindex.html.

NIATT Faculty and Staff Receive UI Awards

Two NIATT researchers received prestigious awards from the University of Idaho's College of Engineering this year. Dr. Ahmed Abdel-Rahim, Assistant Professor of Civil Engineering, received the 2006 Outstanding Young Faculty Award. Research Support Scientist Joseph Thompson, received the 2006 Outstanding Staff Award.

Dean Meldrum (continued from page 1)

recognition of innovative research using a broad set of interdisciplinary approaches to advance DNA sequencing technology." In 2001, Meldrum received a \$15 million grant for a NIH Center of Excellence in Genomics Science and used it to create the Microscale Life Sciences Center at the UW, which she co-directed with Mary Lidstrom, UW Vice Provost for Research and Professor of Chemical Engineering. Now Deirdre Meldrum has moved on to Arizona State as Dean of Engineering, and we wish her every success.

She is married with two children. Her husband, Peter Wiktor, has a PhD in mechanical engineering and owns his own business. TransNow is proud of Deirdre Meldrum and hopes to continue providing the seed money young faculty need to launch their careers.

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TransNews

A patent arising from two research projects of UW Professors Yin Hai Wang and Nancy Nihan is currently under application. It covers software developed and tested by the co-PIs during their research work on traffic detection and data collection using dual-loop and video imaging detection methods. Graduate research assistant Patikhom Cheevarunothai is also included as a co-applicant.

Kelly Pitera has won the Helene M. Overly Memorial Graduate Scholarship from the Seattle Chapter of the Women's Transportation Seminar (WTS). The \$2,500 scholarship will be supplemented with matching funds from Transportation Northwest.

The University of Washington will host the American Society of Civil Engineers' regional and national Concrete Canoe Competition from June 14 - 16, 2007. For more information visit <http://www.asce.org/inside/nccc.cfm>.

The University of Washington College of Engineering will hold its Engineering Open House on Friday, April 27 and Saturday, April 28, 2007. Open house events focus on middle-school and high-school students who may be interested in engineering careers. To learn more about the events, please visit <http://www.engr.washington.edu/openhouse/exhibits.html>.

Kelly Pitera has been accepted as a participant in the prestigious Leadership Development Conference sponsored by the Eno Transportation Foundation. This conference for promising graduate students who may embark on transportation careers is an excellent opportunity for a select group of individuals nationwide. TransNow is covering the expenses for Kelly's trip and conference participation.