APRIL 2022 NEWSLETTER

HIGHLIGHTS

PacTrans Participates in 2023 National Mobility Summit of UTCs
In mid-March, the Mobility21 National University Transportation Center, led by Carnegie Mellon University, hosted the fourth Annual National Mobility Summit of the US Department of Transportation University Transportation Centers. This annual event provides an opportunity for policymakers, public agencies, private industry, non-profit organizations, and UTCs focused on mobility, to come together for a day-long summit to explore the current state of many aspects of the transportation industry, current and emerging research needs, and opportunities for collaboration and partnership.

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PacTrans PI Wins UI Excellence in Teaching Award
PacTrans' PI, and Associate Professor of Civil and Environmental Engineering from the University of Idaho, Kevin Chang, was recently awarded the 2022-2023 Excellence in Teaching Award which is one of the accolades given as part of the University of Idaho’s University Excellence Awards. This is the first time a College of Engineering faculty has won this award in 13 years.

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**PacTrans Spinoff wins 2022 U.S. Department of Transportation Small Business Innovation Research Award**
PacTrans' recent spinoff company, AIWaysion, was a recent recipient of the 2022 U.S. Department of Transportation Small Business Innovation Research (SBIR) Award. The project, titled, Edge Server-Based AI Application for Dilemma Zone and Traffic Conflict, falls under the SBIR topic of, “AI Video Analysis of Dilemma Zone and Other Conflicts at Signal Controlled Intersections (22-FH2).” The SBIR program is highly competitive and provides contracts to U.S. small businesses to pursue research on and develop innovative solutions to our nation’s transportation challenges.

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**PacTrans Director Receives 2023 Francis C. Turner Award**

This year, PacTrans Director, Yinhai Wang, was the recipient of the 2023 Francis C. Turner Award. With the award he joins the ranks of many other industry giants such as Chris T. Hendrickson, Kumares C. Sinha, and Michael Walton. The award is based on the nominee’s contributions to the advancement of the knowledge and practice of transportation engineering. The winner may be invited to deliver a “Francis C. Turner Lecture” at an appropriate Society function, and the names of these nominees are conveyed to the Honors and Awards Program office. Society members of any grade or members of T&DI are eligible. Candidates must be members in good standing at the time of nomination.

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**PacTrans Out in Force at 2023 TRB Annual Meeting**
As usual, PacTrans had a very strong showing this year at the 2023 Transportation Research Board (TRB) Annual Meeting. This annual conference typically consists of more than 13,000 transportation professionals from around the world hosting more than 5,000 presentations in nearly 800 sessions and workshops in what always amounts to a jam packed week in frigid Washington D.C. This year, with COVID-19 mostly behind us, the conference felt as close to status quo as it has since 2020. This year’s spotlight theme played to that fact, Rejuvenation out of Disruption: Envisioning a Transportation System for a Dynamic Future.

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PacTrans Co-Organizes Workshop Series on AI in Transportation
The transportation industry is currently facing an unprecedented workforce challenge, especially in the emerging technology areas. Artificial Intelligence (AI) has demonstrated to be effective in a variety of transportation applications, from autonomous driving to transportation system operations, to asset management and maintenance. However, there is a shortage of professionals with the requisite knowledge and capability to bring AI into the transportation fold.

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UI Clean Snowmobile Team has Another Podium Finish
In its 11th national competition podium finish, the University of Idaho College of Engineering’s Idaho Clean Snowmobile Challenge Team took second overall in the Spark-Ignition category of the 2023 Society of Automotive Engineers (SAE) Clean Snowmobile Challenge.

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PacTrans Director named one of this year’s ASCE Distinguished Members
Distinguished Membership is the highest honor the American Society of Civil Engineers can bestow. It is reserved for civil engineers who are either ASCE Members or Fellows. One class of recipients is formally inducted annually. This year that class consisted of ten new members, including PacTrans Director, Yinhai Wang.

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PacTrans Student Research Highlights as one this year’s 10 bright New Faces of Civil Engineering

Each year, ASCE features 10 inspiring young people in its New Faces of Civil Engineering. This year, one of those featured was Peter Yu, an undergraduate researcher from the University of Washington.

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WSU Construction Management Students Teams win Two Golds at Recent Competitions
Two Washington State University student teams finished atop the podium in recent competitions. The first was the Northwest Construction Consumer Council (NWCCC) Annual Student Bid Competition. The NWCCC is a student competition for construction management programs in the Pacific Northwest. The competition is held as the main event for the NWCCC meeting in January every year. The Second was the Associated Schools of Construction student competition, the largest construction management competition in the U.S.

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**WSU’s CyberCougs Student Team Prevailed at Regional Competition**
A team of five Washington State University computer science students earned gold in the Spokane Mayor’s Cup, a regional cybersecurity competition that aims to foster emerging cybersecurity talent to meet the growing demands of a developing technological landscape.

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RECENTLY COMPLETED RESEARCH

PacTrans researchers from our consortium member institutions have recently completed the following projects in the four mobility sub topics of: accessibility, reliability, efficiency, and safety. To learn more about each specific project, please click on the title to access the research profile page on our PacTrans Website.
Project Title: The Long-Term Effect of Earthquakes: Using Geospatial Solutions to Evaluate Heightened Rockfall Activity on Critical Lifelines
PI(s): Margaret Darrow (UAF), Ben Leshchinsky (OSU), Michael Olsen (OSU), Joseph Wartman (UW)
Project Number: 2020-M-UAF-2

Project Title: Evaluation of the Idaho (Bicycle) Stop Laws in the Pacific Northwest
PI(s): David Hurwitz (OSU), Kevin Chang (UI), Rhonda Young (GU)
Project Number: 2020-M-OSU-4

Project Title: Pavement Winter Operations in Cold Regions
PI(s): Emad Kassem (UI)
Project Number: 2020-S-UI-2

Project Title: Optimal Charging Infrastructure Design for Battery Electric Buses
PI(s): Jeff Ban (UW)
Project Number: 2020-S-UW-1

Project Title: Developing a Proactive Fuzzy-Logic Model for Optimizing Winter Road Maintenance Measure in Cold Urban Areas Using Real-Time Data
PI(s): Tommy Tafazzoli (WSU)
Project Number: 2020-S-WSU-3

Project Title: Assessing the Feasibility of Utilizing UAS-based Point Cloud in Pavement
The Pacific Northwest Transportation Consortium (PacTrans) is the Region 10 University Transportation Center (UTC) established in January 2012 with funding from the US Department of Transportation (USDOT).

PacTrans is a combined effort of transportation professionals and educators from the University of Washington (UW), Oregon State University (OSU), the University of Alaska Fairbanks (UAF), the University of Idaho (UI), Washington State University (WSU), Boise State University (BSU), and Gonzaga University (GU). With two active centers focusing on both Safety and Mobility, PacTrans serves as an engine and showcase for research, education, and workforce development in the Pacific Northwest.

The goal of PacTrans is to create an environment where consortium universities and transportation agencies within Region 10 work together synergistically. The PacTrans program focuses on the USDOT-identified priority of Improving the Mobility of People and Goods. This priority includes the following nonexclusive topic areas:

- Increase access to opportunities that promote equity in connecting regions and communities, including urban and rural communities;
- Smart cities;
- Innovations to improve multimodal connections, system integration, and security;
- Assistive technologies for those with physical or cognitive disabilities;
- Data modeling and analytical tools to optimize passenger and freight movements;
- Innovations in multi-modal planning and modeling for high growth regions;
- Novel (non-traditional or alternative) modes of transport and shared use of infrastructure; and
- Regional planning and setting of transportation priorities.

The Pacific Northwest offers a unique blend of opportunities to examine a variety of transportation issues, including those related to urban centers, rural communities, diverse geographic features (e.g., coastal plains, mountain ranges), and a growing population of pedestrians and bicyclists. This diversity makes the Pacific Northwest a natural laboratory in which to investigate transportation solutions that are applicable both locally and nationally.

PacTrans is dedicated to collaborating with transportation agencies, companies, and research institutions to jointly develop safe and sustainable solutions for the diverse transportation needs of the Pacific Northwest.